International Journal of Management and Business Intelligence (IJBMI)
Vol. 2, No. 1 2024: 57-70

Technology Adoption and Teaching performance: "A Moderating Role Age"

Dipak Mahat
Institution of Research and Innovation, APU
Corresponding Author: Dipak Mahat dipakmahatdm2047@gmail.com

A R T I C L E I N F O

Keywords: Age, College, Teaching, Technology, Performance

Received : 21, December
Revised : 22, January
Accepted: 29, February

A B S T R A C T

Digital Skills Vs Experience: An Age-Driven Investigation of IT and Teacher Performance," explores the intricate interplay between age, information technology (IT), and teaching performance in the context of education. The study used an exploratory approach and used a structured questionnaire with a five-point scale to get first-hand information from 470 different teaching faculty members in Kathmandu Valley. To preserve participant secrecy and anonymity, ethical issues were crucial. The research methodology used powerful data analysis techniques that include correlation, ANOVA, and regression, as well as descriptive statistics. The study's model overview shows that Model H_1 is good at predicting how well teachers will do, as it explains 72.1% of the variation. The ANOVA test shows how important age and IT are as predictors of teaching success together. Regression analysis shows that both age and IT can be used as indicators, with IT having a much bigger effect. Part and partial connections provide more information about how age and IT are connected. This study fills in a gap in existing information about how well faculty members in Kathmandu Valley teach by focusing on the impact of age on their adoption and use of technology. It shows humanity a lot about how age, IT, and teaching ability change over time. This has important implications for educational policy, professional development, and using technology in the classroom.

DOI: https://doi.org/10.59890/ijmbi.v2i1.1254
ISSN-E: 3025-5589
https://journal.multitechpublisher.com/index.php/ijmbi

INTRODUCTION

The quality of teaching is critical in shaping students' learning outcomes in today's dynamic educational setting (Basar, Mansor, Jamaludin, & Alias, 2021). How well students understand and use what they've learned depends a lot on how well their teachers do their jobs (Paolini, 2015). It directly affects how much they learn, how interested they are, and how their skills grow. A good faculty creates a good learning setting, gives students the tools they need to reach their full potential, and makes a big difference in their academic and personal growth (Zheng, 2022). It plays a crucial part in determining students' overall success in school.

Teaching Performance is an important and complex part of education that is affected by many things. Two of these are the age of the teachers and how they use IT (Information Technology) tools (Timotheou, et al., 2023). The age of educators carries with it a variety of experiences, instructional philosophies, and methodologies (Renani, Afghari, & Hadian, 2019). Younger academics may be more motivated to incorporate IT technologies effortlessly into their teaching approaches, owing to their experience with technology (Keengwe & Onchwari, 2009). Older teachers, on the other hand, may have a lot of knowledge and experience that they can use to change and improve their lessons (Erazo & Esteve-González, 2015).

The proper integration of information technology tools in education is another important driver of teaching performance (Hero, 2020). IT enables interactive learning, specific instruction, and creative teaching techniques (Wickramasinghe & Upeksha, 2016). The combination between faculty age and IT ability can have a major impact on teaching performance (Keržič, Danko, Zorko, & Dečman, 2021). The interaction between age and technology can have a synergistic effect on teaching performance by allowing educators to combine their technological skills with their unique teaching styles, eventually benefiting learners (Ventista & Brown, 2023). The study of this dynamic interaction is critical for improving teaching quality in today's educational landscape, which is increasingly reliant on technology (Haleem, Javaid, Qadri, & Suman, 2022). This insight is of paramount importance for educational institutions and policymakers seeking to enhance teaching practices and, by extension, the learning outcomes of students. Understanding the interdependence of these factors is critical for shaping the future of education. In this scenario it is significant to explore how the wisdom of older educators and the tech-savviness of younger educators influence teaching quality.

Objective

To explore the role of Age on Information technology and Teaching Performance

LITERATURE REVIEW

Employee age influences the relationship between HPWS and employee performance. Multilevel analyses of 342 pairs of supervisors and their subordinates nested in 111 service organizations demonstrate that HPWS is positively associated with employee performance in the Organization member

position. Furthermore, the connections between HPWS and job holder and career seeker performance are weaker for older employees than for younger employees (Pahos, Galanaki, Heijden, & Jong, 2021).

Principals' ethical leadership behaviours and teachers' organizational commitment levels were analysed and the results were broken down by age and gender. A total of 403 primary school educators (199 females, 204 males) were asked to fill out the scales. Ethical leadership practices were found to have a favourable effect on the organizational commitment levels of instructors, both male and female. The level of dedication shown by female educators is, however, far more influenced by ethical leadership actions. Moreover, compared to their younger counterparts, older male educators have a more pessimistic view of the ethical leadership behaviours displayed by their principals (Karakuş, 2018).

Investigating the moderating effects of age, gender, and marital status on the predictive association between POS and employee performance, using a self-report measure, information was gathered from 118 support staff at a Nigerian institution in Delta State. Employee performance was positively and strongly predicted by POS (â =.23 (118), $p< 0.05$), and the results showed that neither age nor gender nor marital status moderated the association. Therefore, it was established that POS is preferable in boosting employee performance and should be incorporated into HR policies and procedures (Nwanzu & Adams, 2019).

To find out how gender and age affect the link between how inclusive school chiefs are as leaders and how cynical teachers are about their jobs. A simple random sampling method was used to find the 377 teachers who made up the group. A study showed that gender and age play a role in how the link between teachers' organizational cynicism and the way school principals lead in a way that is inclusive. The inclusive leadership behaviors of school directors had a bigger effect on the level of organizational cynicism among female teachers than among younger teachers (Cevik, Culha, & Cevik, 2023).

The study found that age, Internet self-efficacy, and statistics anxiety all had a moderated effect on student happiness in research methods courses in a blended professional doctoral program. This was true even when demographics and technology experiences were taken into account. The results show that age was negatively linked to Internet self-efficacy, even when gender, race, and technology experience were taken into account. Internet self-efficacy also acted as a mediator between age and course happiness. The idea that statistics anxiety could help balance out the relationship between self-efficacy and student satisfaction was not supported. However, there was some evidence that the group with statistics anxiety behaved differently than the group without it when it came to the conditional indirect effect of age on course satisfaction (Liu & Haque, 2017).

The Trait Emotional Intelligence Questionnaire–Short Form was used to examine at the different aspects of trait emotional intelligence (TEI) in preschool teachers in Ioannina, which is the capital city of Epirus in northwest Greece. The results showed that age and experience did not have an effect on overall EI.

However, age was linked to lower emotionality and higher friendliness (Anastasiou, 2020).

Research Gap

"Teaching Performance in Colleges of Kathmandu Valley," while the literature review includes organizations, schools, and service groups, among other places and jobs. This gap needs to be filled by the study by focusing on the colleges in the Kathmandu Valley.

The literature review focuses on the effects of age on employee performance, ethical leadership, organizational commitment, and technological experiences, despite the title's implication that it will examine the role of age in IT utilization. This study takes a close look at the role of age in IT adoption and utilization among college faculty members.

Majority study discusses various factors influencing employee performance, organizational commitment, and student satisfaction. However, it doesn't directly address moderating variable age on IT and Teaching Performance as a variable.

CONCEPTUAL FRAMEWORK

The present study aims to examine the moderating impact of age on between teaching performance (the dependent variable) and information technology (IT), independent variable.

Independent Variable: Information Technology (IT)

Information technology encompasses the implementation of digital tools and technology within the realm of education. The incorporation of Information Technologies (IT) has significantly augmented efficiency and effectiveness in both academic and professional settings. Enhanced efficiency, streamlined access to vital information, and simplified learning has all resulted. Students' utilization of mobile devices has expedited the learning and instructing process. At the college, IT has increased flexibility and collaboration, which have led to improved education quality and fewer delays in teaching and learning.

Dependent Variable: Teaching Performance

Teaching performance encompasses four major variables: efficiency of the work, planning the work, creativity and innovation, and making efforts. Under these four variables of teaching performance, 17 factors were included.

Moderating Variable: Age

Age denotes the educators' or teachers' perception towards ages in relation to teaching performance at time of the investigation. Within this particular framework, it is regarded as a moderating variable, denoting its ability to impact the magnitude or orientation of the correlation between IT and teaching performance. This variable includes factors that are proper mix of employees, recruits fresher's every year, employees to work post retirement

Age, all age involved in decision making, age groups bond well, adjust aged employees, working different age increase my performance.

Hypotheses

H_{01}: Information technology has a direct effect on teaching performance.

H_{02}: Age moderates the relationship between information technology (IT) and teaching performance, indicating that the effect of IT on teaching performance varies based on the age of educators.

METHODOLOGY

The study used a robust research design that highlighted its exploratory nature. A sample of 470 teaching faculty members from various colleges of Kathmandu valley was chosen using a simple random selection procedure to collect primary data. To collect quantitative data, the research methodology included the use of a standardized questionnaire with a five-point scale. Ethical issues were critical in preserving participant confidentiality and anonymity, hence upholding research ethics norms. The participants had a broad demographic profile, with 71.5% being male, 28.3% female, and a small proportion of 0.2% classed as "Other." Furthermore, the faculty members' educational backgrounds were broad, with 75.5% holding Master's degrees, 16.4% holding M.Phil credentials, and 3.4% holding Ph.D. credentials. The study additionally digs into descriptive statistics, providing insights into characteristics that are Age, which ranged from 21.00 to 75.00, with a mean age of 36.2596, and Experience, which ranged from 1.00 to 32.00, with a mean experience of 9.6255. JASP software was used for data analysis, which included several statistical approaches that included correlation, ANOVA, and regression. The study model was validated using multicollinearity, normality tests, and homoscedasticity.

RESULT AND DISCUSSION

Descriptive Statistics

Table 1. Descriptive Statistics on Age, IT and Teaching Performance

	AGE	IT	Teaching Performance
Valid	470	470	470
Missing	0	0	0
Mean	3.521	3.764	3.777
Std. Deviation	0.686	0.729	0.706
Minimum	1.000	1.231	1.000
Maximum	5.000	5.000	5.000

Source: Field Survey 2023

The sample size for descriptive statistics is 470 individuals. The presented data illustrates the variability and central tendencies of three distinct variables, namely teaching performance, age, and information and communication technology (ICT) utilisation.

The sample demonstrates an approximate mean age of 3.521 for the "AGE" variable, accompanied by a standard deviation of 0.686. The range of ages within the sample comprises individuals aged between one and five, signifying the considerable variation in age.

The mean ICT usage score for the "ICT" variable is estimated to be around 3.764, accompanied by a standard deviation of 0.729. The observed scores span a minimum of 1.231 and a maximum of 5, indicating that the sample consists of individuals with differing degrees of ICT utilisation.

In relation to "Teaching Performance," the average score is approximately 3.777, accompanied by a standard deviation of 0.706. The range of instructional performance scores in the sample is demonstrated by the values ranging from a minimum of 1 to a maximum of 5.

Correlation

Table 2. Relationship between Age and performance

Pearson's Correlations

Variable		Age	IT	Teaching Performance
1. Age	Pearson's r	—		
	p-value	—		
2. IT	Pearson's r	0.554	—	
	p-value	< .001	—	
3. Teaching Performance	Pearson's r	0.643	0.832	—
	p-value	< .001	< .001	—

Source: Field Survey, 2023

The Pearson's correlation coefficient presented illustrates the relationships among three variables: teaching performance, IT (Information Technology), and age. Age and IT are correlated to the extent of 0.554, which signifies a moderate positive correlation. Given that the p-value is below 0.001, it can be concluded that this correlation possesses statistical significance.

Age and Teaching Performance are correlated to the extent of 0.643, which signifies a moderate positive correlation. The p-value is below 0.001, suggesting that there is statistical significance in the observed correlation. The correlation coefficient of 0.832 between IT and Teaching Performance indicates a strong positive correlation. The p-value is significantly less than 0.001, indicating a high degree of statistical significance for this correlation.

Overall, a moderate positive correlation can be observed between age and both teaching performance and IT. A substantial positive correlation exists between information technology and teaching performance. The statistical

significance of each correlation is established by the fact that their respective p-values are all below 0.001.

Multicollinearity

Table 3. Multicollinearity Test

	Collinearity Statistics	
(Constant)	**Tolerance**	**VIF**
Age	0.250	4.005
IT	0.250	4.005

Dependent Variable: Teaching performance

Source: Field Survey, 2023

Age is represented by Variance Inflation Factors (VIF) with a tolerance of 0.250. The tolerance value indicates that external factors do not account for approximately 25% of its variation. A VIF of Age of 4.005 is considered acceptable under the threshold of 5 (Akinwande, Dikko, & Samson, 2015).

The Variance Inflation Factors (VIF) is 4.005 and the tolerance for the IT is 0.250. The tolerance value indicates that an estimated 25% of the range cannot be accounted for by other variables, while the VIF value is less than 5, suggesting a minimal presence of multicollinearity (Akinwande, Dikko, & Samson, 2015). As a result, it was determined that the Age and IT variables exhibited no multicollinearity and were deemed appropriate for further examination.

Test for Normality

Table 4. Normality Test

Descriptive Statistics

	AGE	**IT**	**Teaching performance**
Valid	470	470	470
Missing	0	0	0
Skewness	-0.633	-0.652	-1.037
Std. Error of Skewness	0.113	0.113	0.113
Kurtosis	0.375	0.306	1.094
Std. Error of Kurtosis	0.225	0.225	0.225

Source: Field Survey, 2023

Skewness measures and kurtosis for three variables—Age, IICT (Information and Communication Technology), and Teaching Performance-are illuminated by the descriptive statistics provided.

No missing values are present, as data for each variable is available for all 470 cases. The skewness of a distribution of data is quantified in terms of its asymmetry; negative values signify a marginal left-skew. All three variables exhibit a slight left skew in this instance, with Teaching Performance displaying the greatest degree of skew.

Kurtosis quantifies the degree of "tailedness" in a distribution; values approaching zero signify distributions that are relatively normal. Teaching Performance has a marginally higher kurtosis than AGE and IT, indicating a distribution with marginally heavier tails, whereas AGE and IT have kurtosis values close to zero, indicating distributions that are nearly normal.

In general, the statistics presented offer an initial comprehension of the attributes of the data distribution. Notably, there are no instances of missing values, and there are indications of minor skewness and fluctuations in kurtosis among the variables.

Homoscedasticity Test

Table 5. Homoscedasticity Test

Model Summary

					Durbin-Watson		
Model	**R**	**R^2**	**Adjusted R^2**	**RMSE**	**Autocorrelation**	**Statistic**	**p**
H_1	0.860	0.740	0.739	0.361	0.015	1.965	0.686

Source: Field Survey, 2023

The model summary evaluates Teaching Performance and reveals that the model with predictors (H_1) exhibits substantial improvements. With an R-squared value of 0.740, the variance in Teaching Performance is better explained. With an adjusted R-squared value of 0.739, the model is more fitting. A Root Mean Square Error (RMSE) value of 0.361 indicates an improvement in the accuracy of predictions.

The Durbin-Watson statistic in the model remains approximately 2, indicating the absence of significant autocorrelation in the residuals. The p-value of 0.686 provides confirmation of the statistical significance of H_1. In conclusion, with reduced root mean square error (RMSE), absence of significant autocorrelation, and statistical significance, the model incorporating predictors substantially enhances the explanatory power of Teaching Performance and bolsters its dependability in forecasting Teaching Performance.

Model Summary

Table 6. Regression Model Summary

Model Summary – Age on IT and Teaching Performance

Model	**R**	**R^2**	**Adjusted R^2**	**RMSE**
H_1	0.849	0.721	0.720	0.374

Source: Field Survey, 2023

The Model Summary offers an analysis of a predictive model pertaining to the performance of teachers. A number of crucial statistics provide insight into the efficacy of Model H_1. The R-squared (R^2) value of 0.721 indicates that the model adequately explains 72.1% of the variable in Teaching Performance, implying a high degree of explanatory power for the variable. As indicated by the adjusted R-squared value of 0.720, the model maintains its satisfactory level of fit despite the increase in the number of predictors. The model demonstrates enhanced predictive accuracy, as evidenced by the Root Mean Square Error (RMSE) of 0.374, which signifies a negligible amount of error in its prognostications. In general, Model H_1 demonstrates its strength and efficacy in forecasting Teaching Performance by offering a thorough elucidation of the result, sustaining a satisfactory fit, and guaranteeing precise prognostications-all of which are essential for its pragmatic implementation in educational evaluation and analysis.

ANOVA

Table 7. ANOVA

ANOVA (Age on IT and Teaching Performance)

Model		Sum of Squares	df	Mean Square	F	p
H_1	Regression	168.816	2	84.408	604.913	< .001
	Residual	65.164	467	0.140		
	Total	233.980	469			

Note. The intercept model is omitted, as no meaningful information can be shown.
Source: Field Survey, 2023

The ANOVA table evaluates the impact of Age on Teaching Performance and IT within the H_1 model. The value of 168.816 for the Regression Sum of Squares indicates the degree to which the Age and IT variables help to account for the variability observed in Teaching Performance. The regression model has 2 degrees of freedom and a residual of 467. The calculated Mean Square for the regression is 84.408, whereas the Mean Square for the residual is 0.140. By utilizing these values, it is possible to assess the proportion of variance in the model that is explained and the remainder.

Determining the F-statistic at 604.913, it signifies the proportion between the Mean Squares of the residual and the regression. It functions as a pivotal statistical metric for determining whether the combination of age and information technology has a substantial influence on pedagogical effectiveness. The statistical significance of the predictors in the model is highlighted by the remarkably low p-value (less than.001), which suggests that Age and IT significantly contribute to the explanation of the variance in Teaching Performance.

In brief, the ANOVA analysis demonstrates that Age and IT have a significant impact on predicting Teaching Performance in Model H_1, as supported by the extremely small p-value and the high F-statistic. This finding indicates that the correlation between age and information technology is a

statistically significant variable when attempting to model and comprehend teaching performance.

Regression Analysis

Table 8. Regression Coefficients for Age in between IT and Performance

Coefficients

Model		Unstandardized	Standard Error	Standardized	t	p
H_1	(Intercept)	1.064	0.101		10.495	< .001
	IT	0.515	0.047	0.532	10.881	< .001
	AGE	0.057	0.008	0.346	7.083	< .001

Source: Field Survey, 2023

The examination of the relationships between Age and Teaching Performance, along with IT as an additional predictor (Model H_1), is significantly enhanced by the regression analysis. As a normative reference, the intercept (1.064) represents the estimated value of Teaching Performance when both Age and IT are zero.

The coefficient associated with IT (0.515) signifies that an increase of one unit in IT is anticipated to result in a 0.515-unit improvement in Teaching Performance, assuming all other variables remain constant. IT has a substantial and positive effect on Teaching Performance, as indicated by the standardized coefficient (0.532), which establishes its significance as a contributor to the outcome.

On the contrary, the coefficient associated with AGE (0.057) indicates that an increase of one year in age is projected to result in a 0.057-unit increase in teaching performance, all other variables being held constant. The standardized coefficient (0.346) indicates that age has a positive influence on teaching performance, albeit to a lesser extent than IT.

The results of this study, which are confirmed by the small p-values (all <.001), underscore the statistical importance of both age and IT as predictors of teaching performance. When considered collectively, they enhance the overall comprehension of the elements that impact teaching performance within the specified framework.

Part and Partial Correlations

Table 9. Part and Partial Correlations for Age in between IT and Performance

Part And Partial Correlations (Age on IT and Teaching Performance)

Model		Partial	Part
H_1	ICT	0.450	0.266
	AGE	0.311	0.173

Note. The intercept model is omitted, as no meaningful information can be shown.
Source: Field Survey, 2023

Accounting for Teaching Performance, the partial correlation between Age and ICT is 0.450, indicating a significant positive relationship between Age and ICT that is maintained when Teaching Performance is accounted for. While accounting for the influence of ICT, the partial correlation between Age and Teaching Performance is 0.311, indicating that there is a positive relationship between the two variables that remains constant when ICT is considered. Further analysis of the part correlations demonstrates that ICT uniquely contributes 26.6% to Teaching Performance, while Age independently contributes 17.3%. These results highlight the distinct influences of each variable on Teaching Performance, taking into account the other factor.

In the realm of education, the research article entitled "Digital Skills vs. Experience: An Age-Driven Investigation of IT and Teacher Performance" offers an exhaustive examination of age as moderating factors between information technology (IT), and teaching performance. The Model Summary of the study emphasizes the predictive efficacy of Model H_1 with regard to teaching performance. A substantial portion (72.1%) of the variability in teaching performance is accounted for by it, and the model maintains a strong fit despite the increased number of predictors. A small Root Mean Square Error (RMSE) signifies precise predictions, thereby enhancing the practical applicability of the model.

The ANOVA analysis provides additional support for the notion that age and IT jointly determine teaching performance. The significant influence of age and IT in elucidating teaching performance is underscored by the F-statistic and exceedingly small p-value, which indicate their criticality in educational assessment. The Regression Analysis provides significant findings regarding the predictive power of age and IT. Although IT significantly and favorably influences teaching performance, age also makes a positive contribution, albeit to a marginal degree. The statistical significance of these results highlights the influence of age and IT on teaching performance.

The Partial and Partial Correlations demonstrate the interrelation between age and IT. Their positive correlations with teaching performance endure even after accounting for one another. The correlations between components provide additional data on the distinct effects of age (17.3%) and IT (26.6%) on teaching performance, emphasizing their individual consequences. In its entirety, this research article provides significant contributions to the understanding of the intricate interplay between age, information technology, and academic effectiveness.

CONCLUSION AND RECOMENDATIONS

This research paper presents a comprehensive analysis of the complex relationship that exists within the field of education between age, information technology, and teaching performance. The results of the study indicate that the combination of digital expertise and experience, which is significantly impacted by age, has a considerable impact on the teaching effectiveness of educators. The aforementioned observations have significant ramifications for the development of educational policy, the structure of programmers for

professional growth, and the successful incorporation of technology within the classroom. In conclusion, this research makes a valuable contribution to the improvement of education by shedding light on the factors that significantly impact the learning experiences of students, as well as educators.

Further research could use longitudinal studies to track the progression of age, IT utilization, and teaching efficacy throughout the careers of educators. This would yield valuable insights into the potential ramifications of age-related modifications in digital proficiencies on teaching performance. Qualitative research can offer more profound understandings of the perspectives and experiences of educators concerning age, information technology, and instructional effectiveness.

FURTHER RESEARCH

This research still has limitations so further research needs to be done on this topic "Technology Adoption and Teaching performance: "A Moderating Role Age".

REFERENCE

Akinwande, M. O., Dikko, H. G., & Samson, A. (2015). Variance Inflation Factor: As a Condition for the Inclusion of Suppressor Variable(s) in Regression Analysis. *Open Journal of Statistics, 5*, 754-767.

Anastasiou, S. (2020). The Moderating Effect of Age on Preschool Teachers Trait EmotionalIntelligence in Greece and Implications for Preschool Human Resources Management. *International Journal of Education and Practice, 8*(1), 26-36.

Basar, Z. M., Mansor, A. N., Jamaludin, K. A., & Alias, B. S. (2021). The Effectiveness and Challenges of Online Learning for Secondary School Students – A Case Study. *Asian Journal of University Education, 17*(3), 119-129.

Cevik, M. S., Culha, A., & Cevik, M. N. (2023). The Moderating Role of Gender and Age in the Relationship Between School Principals' Inclusive Leadership Behaviors and Teachers' Organizational Cynicism Levels. *Participatory Educational Research, 10*(3), 191-208.

Erazo, G. N., & Esteve-González, V. (2015). *Teaching and Learning in digital worlds: strategies and issues in higher education.* Tarragona: Publicacions Universitat Rovira i Virgili.

Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers, 3*, 275-285.

Hero, J. L. (2020). Teachers' Preparedness and Acceptance of Information and Communications Technology (ICT) Integration and Its Effect on their ICT Integration Practices. *Puissant, 1*, 59-76.

Karakuş, M. (2018). The Moderating Effect of Gender on the Relationships between Age,Ethical Leadership, and Organizational Commitment. *Journal of Ethnic and Cultural Studies, 5*(1), 74-84.

Keengwe, J., & Onchwari, G. (2009). Technology and Early Childhood Education: A Technology Integration Professional Development Model for Practicing Teachers. *Early Childhood Education Journal, 37*, 209–218. DOI: 10.1007/s10643-009-0341-0

Keržič, D., Danko, M., Zorko, V., & Dečman, M. (2021). The effect of age on higher education teachers' ICT use. *Knowledge Management & E-Learning, 13*(2), 182–193.

Liu, L., & Haque, M. (2017). Age Difference in Research Course Satisfaction in a Blended Ed.D. Program: A Moderated Mediation Model of the Effects of Internet Self Efficacy and Statistics Anxiety. *Online Journal of Distance Learning Administration, 20*(2).

Nwanzu, C. L., & Adams, B. (2019). Examining Moderating Role of Age, Gender, and Marital Status in the Relationships between Perceived Organizational Support and Employee Performance. *Nigerian Journal of Management Sciences, 7*(1), 55-63.

Pahos, N., Galanaki, E., Heijden, B. I., & Jong, J. d. (2021). The Moderating Effect of Age on the Association Between High-Performance Work Systems and Employee Performance in Different Work Roles. *Work, Aging and Retirement, 7*(3), 214–228.

Paolini, A. (2015). The Journal of Effective Teaching. *Enhancing Teaching Effectiveness and Student Learning Outcomes, 15*(1), 20-33.

Renani, G. A., Afghari, A., & Hadian, B. (2019). Effect of Awareness of Teacher Education Philosophy on EFL Teachers'Professional Knowledge: A Postmethod Perspectivisation. *International Journal of Instruction, 12*(2), 435-454.

Timotheou, S., Miliou, O., Dimitriadis, Y., Sobrino, S. V., Giannoutsou, N., Cachia, R., et al. (2023). Impacts of digital technologies on education and factors influencing schools' digital capacity and transformation: A literature review. *Education and Information Technologies, 8*, 6695–6726. DOI: 10.1007/s10639-022-11431-8

Ventista, O., & Brown, C. (2023). Teachers' professional learning and its impact on students' learning outcomes: Findings from a systematic review. *Social Sciences & Humanities Open, 8*(1), 100565.

Wickramasinghe, S., & Upeksha, G. (2016). Innovative and interactive teaching methods for improving learning quality in higher education. *2nd International Conference on Education and Distance Learning* . Colombo.

Zheng, F. (2022). Fostering Students' Well-Being: The Mediating Role of Teacher Interpersonal Behavior and Student-Teacher Relationships. *Frontiers in Psychology, 12*.