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ANALYSIS OF THE IMPACT OF VISIONARY LEADERSHIP AND ICT LITERACY ON LEARNING QUALITY

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Abstracts:

The objective of this research is to generate methodologies and tactics for enhancing Organizational Citizenship Behavior (OCB) through an analysis of various factors, including transformational leadership, trust, job satisfaction, organizational commitment, and work motivation. These factors are investigated during the qualitative research phase. The research employs the path analysis method to assess the relationships between the variables under examination and to evaluate learning quality using the SITOREM method for indicator analysis. The research encompassed a population of 483 primary school teachers from public institutions holding A and B accreditations, who also held civil servant status. These teachers were distributed across 173 schools and 30 sub-districts within the South Halmahera Regency Islands area. From this population, a sample of 219 individuals was selected. The outcomes of the research, utilizing the *path analysis* method, indicate several key relationships: a direct positive correlation exists between visionary leadership and learning quality; there is a direct positive correlation between ICT literacy and learning quality; there is a direct positive correlation between visionary leadership and ICT literacy; and there is an indirect positive correlation between visionary leadership and learning capability mediated by ICT literacy.

Based on SITOREM analysis, the optimal solution is obtained on the following indicators: 1) Student motivation, 2) Learning climate, 3) Student attitude, 4) Ability to understand *hardware*, 5) Ability to use *hardware*, 6) Ability to use *softwares*, 7) Insight into the future, 8) Articulation of vision, 9) Motivation. These indicators make improvement a priority in improving the Learning Quality of Primary School Teachers in the Islands of South Halmahera Regency.

Keywords: Visionary Leadership, ICT Literacy, Learning Quality, SITOREM analysis.

Background.

The advancement of science and technology during the era of the Fourth Industrial Revolution necessitates skilled human resources to meet the demands of *Society 5.0* (Kusumawati, 2023). Quality education is essential for the production of skilled human resources (Khuroidah and Maunah, 2022). Hence, individuals need to reconsider their perceptions of education to generate outcomes capable of competing on a broader scale, particularly in developing nations (Subandowo, 2022). Education serves as one of the pivotal factors capable of altering human perspectives regarding the world and its civilization. Through education, a more refined global civilization system can be constructed for the betterment of society (Kusumawati, 2023).

Education holds paramount significance and is indivisible from an individual's life within the family, community, and nation (lSulianti et al., 2020). Bayır and AylAylaz (2020) stated that the success rate of education determines the progress of a nation, the success of a nation will be achieved if there are efforts to improve the quality of education in the country itself.

The quality of education can be discerned through the outcomes it yields. Education evolves dynamically alongside the progression of civilization, leading to the adoption of diverse instructional styles and methods tailored to real-world conditions. This ensures that students receive learning materials effectively, ultimately enhancing the overall quality of education (Dodi, 2019). The quality of learning is a factor that plays a very important role in determining the quality of an education (Ekayanti et al., 2019). The quality of learning can be seen from how effectively learning media is used by teachers to increase the intensity of student learning and can be seen from its suitability for the objectives that students must master (Hidayat et al., 2020). Indicators of learning quality can be seen in: *oral activities* such as telling stories, reading rhymes, asking questions, discussing, singing, *listening activities* such as listening to teacher explanations, lectures, briefings, *visual activities* such as reading, writing, conducting experiments and demonstrations, *motor activities such as* gymnastics, athletics, dancing, painting and writing activities such as composing, making papers, *writing* letters (McLachlan and Tippet, 2020). (LachlMcLachlan and Tippett, 2023).. The role of teachers as *agents of change* is very important and strategic in improving the quality of learning.

In addition to engaging in the learning process, individuals must also actively participate in the administration of school organizations to enhance their performance and competence (lValverde-Berrocoso et al., 2020). Numerous research reports indicate that the quality, professionalism, and comprehensiveness of teacher education, particularly in Indonesia, remain subpar. According to data from the *World Population Review* in 2021, derived from a global survey incorporating voting and perceptions and utilizing a three-point scoring system, including the assessment of a well-established education system, enthusiasm for learning, and the quality of education within a nation (United Nation, 2021). Indonesia is positioned 54th among 78 countries in the global education system ranking, showing a slight improvement from 55th place in 2020. Additionally, Indonesia holds the 4th position in Southeast Asia. Ranked higher in the region are Singapore, Malaysia, and Thailand (United Nation, 2021). Other data shows that based on the survey results in the last 5 years of Indonesia in the 2018 *Programme for International Student Assessment* (PISA) published in March 2019 by *The Organization for Economic Co-operation and Development* (*OECD*) Indonesia is ranked 74th out of 79. (United Nation, 2021).

Achieving educational equity is a key solution to enhance the quality of education, thereby positively impacting the competence, character, competitiveness, and excellence of Indonesian human resources. This, in turn, contributes to national development, benefits the surrounding environment, and fosters the establishment of a democratic and modern Indonesian society grounded in the values of Pancasila (lSulianti et al., 2020).

To keep pace with the advancements in science, enhancing teacher professionalism, which includes improving teacher education, is imperative (Banville et al., 2024). Work

experience is one of the factors that support the implementation of teaching and learning activities. The work experience possessed by a teacher determines the learning outcomes that will be achieved by students (Akmal et al., 2022). Adequate teaching experience, defined by the duration a teacher has spent fulfilling their duties, can bolster the attainment of learning outcomes (Harun, 2019). Professional teachers can yield high-quality education by fostering a conducive learning environment that motivates and stimulates student enthusiasm for learning, thereby effectively harnessing the full potential of teachers' capabilities (Darusman et al., 2020).

Teachers play a pivotal role in determining the quality of education, as they hold a strategic position. Often serving as role models, teachers are significant figures for students, influencing their self-identification (Singh et al., 2021). A teacher is required to have high professionalism that is able to provide and realise the expectations and wishes of all parties, especially the general public who have trusted schools and teachers in fostering their students. (Puspitasari et al., 2021)..

Teachers who exhibit exceptional teaching performance in their responsibilities and engage effectively with students and the broader community outside the school contribute significantly. The professional stature of teachers enhances the nation's prestige, while their role as educational facilitators contributes to the enhancement of national education quality (lSulianti et al., 2020). Teacher professionalism refers to the state, orientation, values, objectives, and caliber of expertise and authority within the realm of education and teaching, directly tied to one's occupation and livelihood (Puspitasari et al., 2021). Consequently, a professional teacher is one possessing the competencies necessary for executing educational and instructional responsibilities. From this assertion, it can be inferred that a professional teacher is an individual endowed with specific skills and expertise in the teaching domain, enabling them to fulfill their roles and functions with utmost proficiency (Goodwin et al., 2023).

At present, the endeavor to enhance the quality of education in South Halmahera Regency encounters obstacles, evident in the absence of notable achievements by students in science, sports, and arts events at the national level. This is further underscored by the relatively low Human Development Index (HDI) of the South Halmahera Regency archipelago in 2022, which stood at 65.06.

Moreover, according to data derived from the outcomes of the Teacher Competency Test for elementary schools in the South Halmahera Regency Islands region in 2019, the average score was 42.01, significantly falling short of the minimum average score of 70. Data from the National Accreditation Board for Schools/Madrassas (BAN S/M) in the South Halmahera Regency islands region shows that out of 291 elementary schools, 19 (6.52%) schools received an A accreditation score, 154 schools or (53%) received a B score, 100 (34.3%) schools received a C accreditation score and the remaining 18 (6.18%) were not accredited. (Source: BAN S/M, 2023). Furthermore, based on data obtained through a preliminary survey conducted on 2-20 May 2023, using a questionnaire, the quality of learning in 6 schools in South Halmahera Regency needs to be improved. The preliminary survey was in the form of sentence statements to be answered addressed to 30 teachers from five primary schools in South Halmahera District. The data analysis of the preliminary survey results, comprising 10 sentence statements addressed to 30 teachers, yielded the following outcomes: 42% of respondents indicated a need for improvement in teacher activity; 40% identified a need for enhancement in learning facilities; 35% highlighted the necessity for improvement in the learning climate; 35% noted areas for improvement in student attitudes; and 37% of teachers expressed a need for enhancement in student learning motivation.

If this situation persists without intervention and efforts to enhance the quality of learning are not undertaken, it is predicted that the repercussions will affect the overall quality of

education in Indonesia (LLuckyardi et al., 2022). Many factors influence the quality of learning including leadership style and ICT literacy.

Based on the background of the problems described above, the researcher is interested in examining the quality of learning associated with the factors that influence it. Based on this phenomenon, this research uses the title "Analysis of the Effect of Visionary Leadership and ICT Literacy on Learning Quality".

Theoretical Review

1. Quality of Learning (Y)

GalGalvin et al. (2023) explained that the quality of a learning process is inseparable from the teacher's ability as a planner, implementer, facilitator, and evaluator. The term "*quality*" originates from English and is equivalent to the Indonesian word "kualitas." It is often preceded or accompanied by other words, such as "export quality," "import quality," "faith quality," "intelligence quality," "qualified teachers," "qualified students," and so forth. Therefore, quality refers to the level of excellence or deficiency of something, whether in the form of objects or individuals (GalGalvin et al.), 2023).

Quality is a dynamic condition linked to products, services, individuals, processes, and environments that either meet or surpass expectations and contribute to the creation of exceptional value (Dundon & Wilkinson, 2020). Quality not only refers to the quality of the completed product or service as well as to the process of materials into goods or services but refers to the entire service (Kaizen et al., 2012). (Kaizen et al., 2012). Quality improvement is one of the prerequisites for humans to enter the era of globalisation which is full of healthy and quality competition. (Rabiah, 2019).

Quality is intricately tied to both present and future customer requirements, making innovation an indispensable component of quality; they are essentially two sides of the same coin (Poornima M. Charantimath, 2020). Enhancing the quality of human resources within schools poses a significant challenge as it directly impacts the educational issues faced by the country. Improving the standard of education inevitably requires the active involvement of Indonesian human resources with extensive knowledge of science and technology.

The quality of learning is heavily reliant on both student motivation and teacher creativity. Students who are highly motivated, coupled with teachers capable of nurturing this motivation, are more likely to achieve learning objectives successfully (Darma et al., 2021).

As leaders at the forefront of learning success, teachers are mandated to conduct high-quality learning for their students through various methods that are active, innovative, creative, effective, efficient, and enjoyable (Fathih et al., 2021). Quality learning positions learners as active participants, challenging them to construct knowledge, values, and attitudes with ease, enthusiasm, motivation, and enjoyment. The quality of learning encompasses the strength of systemic and synergistic connections among teachers, students, curriculum, learning materials, media, facilities, and learning systems, facilitating optimal learning processes and outcomes aligned with curricular requirements (Fathih et al., 2021).

There are several Indicators related to learning quality according to Patrick et al. (2019), namely: 1) *Teacher educator's behaviour*, 2) *Student teacher's* behaviour, 3) *Learning climate*, and 4) Learning materials.

Based on several expert opinions above, it can be synthesised that learning quality is the intensity of systemic and synergistic interrelationships of teachers, students, curriculum and learning materials, media, facilities, and learning systems in producing optimal learning processes and results in accordance with curricular demands, with indicators 1) Teacher activity, 2) Learning facilities, 3) Learning climate, 4) Student attitudes and 5) Student learning motivation.

2. Visionary Leadership (X1)

Obsuth et al. defined visionary principal leadership as the behaviour of principals who are oriented towards achieving a vision and can formulate a mission, think creatively, and quickly respond to the challenges faced. Visionary leaders articulate a purpose that resonates as genuine and aligns with the shared values of the people they lead. With firm belief in the vision, they adeptly guide others towards it. Visionary leadership involves perceiving changes in others and comprehending their perspectives, enabling leaders to articulate an inspiring vision. Key indicators of visionary leadership in principals include: a) Effective communication of vision, b) Creative thinking, c) Adaptive response to threats and opportunities, d) Mission formulation, and e) Insight.

According to Andreasen Widodo (2022)visionary leadership is a form of transformational leadership that offers opportunities to increase an organisation's capacity to meet the needs of its constituents. Visionary leadership can be defined as the capacity to create and communicate a clear vision, imparting significance and direction to the organization's endeavors. Visionary leaders cultivate their individual vision and subsequently integrate it into a collective vision with team members (Khoiri, 2020) There are four roles that visionary leaders must perform in leading, namely: 1) As a direction setter. This is the role where a leader conveys the vision, convinces the view or target of the organisation, must be achieved in the future, and involves people. For leadership experts, this is an essential part of leadership. As a set of directions, a leader provides a vision, communicates it, motivates employees and colleagues, and convinces people that what is being done is the right thing, and supports participation at all levels and stages of future endeavours. 2) As a change agent, plays an important role for both visionary leaders. In the context of change, the external environment is at the centre. Economic, social, technological, and political changes occur constantly, some dramatic and some slow. 3) As a spokesperson, who receives messages and speaks out.

According to Ming et al. (2021)(2021), visionary leadership is the action of a leader who can influence or encourage others to be creative and articulate in a realistic, credible, and compelling way a vision of the future that can improve the current situation. Visionary leadership consists of multiple indicators, such as: a. Setting superior standards and reflecting high ideas, b. Clarifying purpose and direction, c. Inspiring enthusiasm and maintaining commitment, d. Having good pronunciation and easy to understand. Having good pronunciation and easy to understand (effective communication), e. Reflecting the uniqueness of various organisations and competencies, and f. Ambitious has a strong determination to realise goals.

From the theories described, it can be synthesized that visionary leadership entails leaders prioritizing the articulation of a clear vision for the future and adeptly rallying their members to attain future visions, goals, and success. The indicators are: 1) Future insight, 2) Articulation of the mission, 3) Encouragement of members to achieve the future, 4) Provision of motivation, and 5) Courage to act to achieve goals.

3. Information and Communication Technology Literacy (X2)

Technological literacy refers to an individual's capability to utilize computers, computer programs, and other computer-related applications. Likewise, information and communication technology (ICT) literacy pertains to the proficiency in gathering, organizing, analyzing, and reporting information through technology. Moreover, technological literacy encompasses an individual's capacity to embrace, modify, generate, and assess technology to positively impact their life, community, and environment (lAgboola et al., 2023). AgboolAgboola et al (2023) explained that technological literacy is the ability of individuals to adopt, adapt, create, and evaluate technology to positively influence their lives, communities, and environments.
Retrieved from Kumar et al. (2024) According to Kumar et al. (2024), new technologies will encourage educational institutions to engage in deep reflection and analysis of the entire

teaching and learning process. ICT literacy in educational institutions has an important role to introduce and develop new and interesting learning concepts in the form of new ideas, such as *e-learning*, collaborative learning, learning portals, and *action learning*. There are 4 (four) social roles in the utilisation of computer technology in the creative process, namely: (1) Computer as a caregiver, i.e. the capacity of technology to facilitate the management of the creative process by providing a supportive environment and access to creative mindsets; (2) Computer as a pen pal, i.e. technology can also facilitate the act of communication and collaboration during the creative process, thus enabling learners to share viewpoints that have the potential to generate more creative insights; (3) Computers as trainers, i.e. computers as expert systems can be used to enhance student creativity by providing tutorials and exercises that advance cognitive processes, strategies, and techniques relevant to creativity; and (4) computers as co-workers, i.e. computers can work in partnership with learners in the creative process by actively contributing to idea generation, evaluation, and refinement. The benefits of technology in the value dimension include: (1) stimulating students' creativity, (2) aiding students in developing and exploring ideas, (3) enabling students to produce digital content, (4) scaffolding students' creative thinking and post-production, (5) fostering creative collaboration among students, and (6) facilitating the evaluation of students' creative outputs.

According to Abduh (2023)Technological literacy is a person's ability to work independently (independently) or in collaboration with others effectively, responsibly, and appropriately by using technological instruments that are beneficial to themselves. These abilities include: (1) Getting information; (2). Managing information; (3). Integrating information; (4) Evaluating information; (5) Creating information; and (6) Communicating information.

Technological literacy refers to an individual's capacity to function independently and collaborate effectively, responsibly, and appropriately with others using technological tools that are beneficial to them. These capabilities encompass: (1) Obtaining information; (2) Organizing information; (3) Integrating information; (4) Assessing information; (5) Generating information; and (6) Communicating information (de lVelazco et al., 2024).

In the report of the international panel on ICT literacy by *The Educational Testing Service* (ETS), it is stated that ICT literacy is the activity of using digital technology, communication equipment, and/or networks to access, organise, integrate, evaluate, and create information to gain benefits in a social setting. Furthermore, ETS also states that ICT literacy must include two fundamental things, namely (1) cognitive skills; and (2) application of technical skills and knowledge. ICT literacy can be classified into three parts, namely (1) groups related to technological knowledge; (2) groups of technology users; (3) and groups that respond to ICT developments from critical reflections on the use of technology (Jakobsen et al., 20). (Jakobsen et al., 2023)..

Drawing from the definition and explanation of technological literacy provided above, a synthesis of the conceptual definition of Information and Communication Technology Literacy (ICT) can be formulated as follows: ICT literacy is an individual's capability to acquire, comprehend, utilize, and advance the application of information and communication technology for personal requirements or organizational advancement. With the following indicators: 1) Ability to understand *hardware,* 2) Ability to understand *software,* 3) Ability to use *hardware* and 4) Ability to use software, and 5) Ability to use technology concepts.

Research Methods

This research was conducted on civil servant teachers possessing teaching certificates in public primary schools accredited at least B. The research encompassed a total of 173 schools distributed across 30 sub-districts in the Islands Region of South Halmahera Regency, North Maluku Province. The research period spanned from November 2022 to December 2023, with data collection and research report preparation undertaken from August 2023 to November

2023. This research was conducted using a survey method with a path analysis approach. The method of collecting data needed in this research is through questionnaires and tests that have been prepared in advance to assess the relationship between research variables and measure the effect of one variable on another. In this research, there are five variables to be studied, namely visionary leadership (X1), ICT Literacy (X2), and teacher creativity (Y).

According to Sugiyono (2019), research methods are scientific ways to get data with specific purposes and uses. Based on this, there are four keys that need to be considered, namely, scientific methods, data, goals, and uses. The scientific method means that research activities are based on scientific characteristics, namely rational, empirical and systematic. Rational means that the research activities are carried out in ways that make sense, so that they are affordable by human reasoning. Empirical means that the methods used can be observed by the human senses, so that others can observe and know the methods used. This research was designed to obtain information about the relationship between different variables in a population. This research examines five variables, namely four *independent variables* and one *dependent variable*.

Sugiyono (2019) explains that population is a generalisation area that includes objects / subjects that have certain qualities and characteristics and are determined by researchers to research and draw conclusions. The research population comprised public primary school teachers accredited at levels A and B, holding civil servant status and educator certification. They totaled 483 teachers, spread across 173 schools and 30 sub-districts in the Islands Region of South Halmahera Regency, North Maluku Province. *Proportional random sampling* was employed as the sampling technique, determining the sample size using the Yamane formula with a 5% margin of error, resulting in 219 teachers being selected. The measurement of the two variables was conducted through a questionnaire, utilizing a rating scale consisting of five choices for each of the 40 statement items. The options included "always," "often," "sometimes," "rarely," and "never," with corresponding scores of 5, 4, 3, 2, and 1, respectively, for positive statements. While the score for negative statements is always (score 1), often (score 2), sometimes (score 3), never (score 4), and never at all (score 5). Based on the data generated from the hypothesis and research framework, this research was conducted with a path model. In connection with that, the technique uses the data *analysis path* technique (path analysis). The method used is correlation analysis partially or together.

The relationship model between variables comprises one substructure, namely: (1) Substructure 1, which consists of one professional commitment variable (Y) as an endogenous variable and two exogenous variables serving as causal variables, namely visionary leadership (X1) and ICT literacy (X2).

Research Results

Statistical Description of Research Variables

Based on the results of the statistical descriptive analysis for the research variables, symptoms of data concentration can be identified, as listed in the following table:

Table 1. Summary of Statistical Description of Research Variables

		Kualitas Pembelajaran	Kepemimpinan Visioner	Kreativitas	Literasi TIK	Kompetensi Pedagogik
N	Valid	219	219	219	219	219
	Missing	0	0	0	0	0
Mean		4.2811	3.9571	3.8364	.4348	.2585
Std. Error of Mean		.02344	.03370	.04056	.00883	.00640
Median		4.3056	3.9429	3.8333	.4318	.2667
Mode		4.36	3.43[a]	3.64[a]	.39	.20[a]
Std. Deviation		.34689	.49871	.60019	.13061	.09472
Variance		.120	.249	.360	.017	.009
Skewness		-.154	-.104	.090	-.085	.144
Std. Error of Skewness		.164	.164	.164	.164	.164
Kurtosis		.323	-.422	-.649	.299	.540
Std. Error of Kurtosis		.327	.327	.327	.327	.327
Range		1.67	2.17	2.25	.89	.56
Minimum		3.33	2.83	2.75	.00	.04
Maximum		5.00	5.00	5.00	.89	.60
Sum		937.56	866.61	840.17	95.23	56.62

a. Multiple modes exist. The smallest value is shown

Normality Test

Table 2. Normality Test of Visionary Leadership

		Visionary Leadership
N		219
Normal Parameters[a,b]	Mean	3,9571
	Std.Deviation	0,49871
MostExtreme Differences	Absolute	0,057
	Positive	0,042
	Negative	-0,057
Test Statistic		0,057
Asymp.Sig.(2-tailed)		,086[c]

Table 3. Normality Test ICT Literacy

		ICT Literacy
N		219
Normal Parameters[a,b]	Mean	0,4348
	Std.Deviation	0,13061
MostExtreme Differences	Absolute	0,052
	Positive	0,051
	Negative	-0,052
Test Statistic		0,052
Asymp.Sig.(2-tailed)		,200[c,d]

In this research, a normality test is employed to ascertain whether the data distribution of each variable is normal. The *Kolmogorov-Smirnov* equation and the SPSS version 22.0 for Windows application were utilized to conduct the normality test. If the significance value of the data normality test results exceeds 5% (0.05), then the variation in data distribution is deemed normal. Judging from the results of the normality test analysis in the table above, it can be seen that the *Kolmogorov-Smirnov* test value of *the* X1, X2, and Y variables is greater than 0.05. So it can be concluded that the data distribution of variables X1, X2 and Y is normally distributed.

Homogeneity Test

Table 4. Summary of Data Variance Homogeneity Test

No.	Inter-variable Relationship Model	Box's *M* *(sig)*	Confidence Level	Significance Test Results
1.	Visionary Leadership (X_1) on Learning Quality (Y)	0,056	α = 0,05	Homogeneous
2.	ICT Literacy (X2) on Learning Quality (Y)	0,379		Homogeneous
3.	Visionary Leadership (X_1) on ICT Literacy (X2)	0,683		Homogeneous
Homogeneous population requirement is Box's M *(*Sig) > 0.05				

In this research, Bartlett's equation and the SPSS version 22.0 for Windows application were utilized to conduct the homogeneity test. If the significance value of the data homogeneity test results is greater than 5% (0.05), then the data distribution variation is considered normal. Judging from the results of the homogeneity test analysis in the table above, it can be seen that the *Bartlett* test value of *the* X1, X2, and Y variables is greater than 0.05. So it can be concluded that the data distribution of variables X1, X2 on Y comes from a population that has the same variance (homogeneous).

Linearity Test

Table 5. Summary of Linearity Test of Data Variance

No.	Inter-variable Relationship Model	*Deviation from Linearity (sig)*	Confidence Level	Significance Test Results
1.	Learning Quality (Y) on Visionary Leadership (X1)	0,139	α = 0,05	Linear
3.	Learning Quality (Y) on ICT Literacy (X2)	0,060		Linear
5	ICT Literacy (X2) on Visionary Leadership (X1)	0,548		Linear
Linearity requirement is *Deviation from Linearity* (Sig) > 0.05				

In this research, linearity testing was conducted using the linearity testing formula and the SPSS application version 22.0 for Windows. The linearity test assesses the linear relationship between two variables: HR management strategy and employee performance. The relationship between variables is considered linear if the significance value of the data analysis from the normality test results exceeds 5% (0.05). Judging from the results of the linear test data analysis, the significance values of X1 and X2 have a value greater than sig. 0,05. It can be concluded that variables X1 and X2 have a linear relationship with variable Y.

Statistical Mathematical Models

Based on the interplay of influences among variables, a statistical mathematical model is formulated as follows:

1) Substructural Equation 1

$\hat{y} = \beta\ y1x1 + \beta\ y2x2 + y\varepsilon$

$\hat{y} = 0.223\ X1 + 0.192\ X2 + \varepsilon_y$

Hypothesis Test

Following the analysis of the structural model, the calculation results are utilized to test the hypotheses, aiming to ascertain the direct and indirect effects between variables. The proposed hypotheses are evaluated by calculating the path coefficient value and significance for each path examined. The outcomes of the decisions regarding all proposed hypotheses can be elucidated as follows:

[1] Direct positive effect of Visionary Leadership (X1) on Learning Quality (Y)

From the calculation results obtained path coefficient value (β_{y1}) = 0.223 with tcount = 3.642 while t_{table} at the real level $\alpha = 0.05$ obtained $t_{table} = 1.96$, then tcount> t_{table} means H_o rejected and H_1 accepted. Thus there is a direct positive effect of the Visionary Leadership variable (X1) on Learning Quality (Y), meaning that the stronger the Visionary Leadership (X1) will improve Learning Quality (Y).

[2] Direct positive effect of ICT Literacy (X2) on Learning Quality (Y)

From the calculation results obtained path coefficient value (β_{y2}) = 0.192 with tcount = 3.215 while t_{tabel} at the real level $\alpha = 0.05$ obtained $t_{table} = 1.96$, then $_{tcount} < t_{table}$ means H_o rejected and H_1 accepted. Thus there is a direct positive effect of the ICT Literacy variable (X2) on Learning Quality (Y), meaning that the stronger ICT Literacy (X2) will improve Learning Quality (Y).

[3] Direct positive effect of Visionary Leadership (X1) on ICT Literacy (X2)

From the calculation results obtained path coefficient value (β_{y5}) = 0.223 with tcount = 3.248 while t_{table} at the real level $\alpha = 0.05$ obtained t_{table} =1.96 then $_{tcount} < t_{table}$ means H_o rejected and H_1 accepted. Thus there is a direct positive effect of the Visionary Leadership variable (X1) on ICT Literacy (X2), meaning that the stronger the Visionary Leadership (X1) increases ICT Literacy (X2).

[4] Indirect effect of Visionary Leadership (X1), on Learning Quality (Y) through ICT Literacy (X2)

Obtained the value of Z_{count} (3.647) < the value of Z_{table} (1.966), with a significance level of $\alpha = 5\%$. Then H_0 is rejected and H_1 is accepted, this indicates that there is an indirect effect (mediation) of Visionary Leadership (X1) on Learning Quality (Y) through ICT Literacy (X2)...

Table 6. Total effect of independent variables (X) on the dependent variable (Y)

Variables	Directly	Indirect (X2)	Influence Total
Visionary Leadership (X1)	0,223	0,813	1,198
Literacy ICT (X2)	0,192	-	0,192

Conclusion

Drawing from the outcomes of the analysis and the discussion of the tested hypotheses and research results, the following conclusions can be drawn:

1. Efforts to enhance the quality of learning involve reinforcing visionary leadership, ICT literacy, and pedagogic competence. This aligns with the outcomes of the variable analysis, outlined as follows:
   a. Visionary leadership has a direct positive impact on learning quality, represented by a path coefficient (βy1) of 0.223, suggesting that reinforcing visionary leadership can enhance the quality of learning.
   b. ICT literacy demonstrates a direct positive influence on learning quality, indicated by a path coefficient (βy3) of 0.192. Therefore, enhancing ICT literacy is associated with an improvement in learning quality.
   c. Visionary leadership exhibits a direct positive influence on ICT literacy, with a path coefficient (β41X) of 0.223. Consequently, strengthening visionary leadership can contribute to the enhancement of ICT literacy, emphasizing the interrelation between these factors.
   d. There is an indirect positive effect of visionary leadership on learning quality through ICT literacy with a path coefficient (β31y) of 0.813 so that strengthening visionary leadership can increase creativity through ICT literacy.
2. To enhance the quality of learning, the approach involves strengthening the variables of visionary leadership, creativity, ICT literacy, and pedagogical competence. This is achieved by addressing weak indicators for improvement and maintaining strong indicators. This strategy is derived from the results of the SITOREM analysis, as outlined below:
   a. Visionary leadership is strengthened by improving indicators of 1) insight into the future, 2) providing motivation, 3) encouraging future success.
   b. Strengthening ICT literacy is strengthened by improving indicators of 1) Ability to use *software*, 2) The ability to understand hardware, and 3) The ability to use hardware and maintain / develop indicators of the ability to understand software and the ability to conceptualise technology.
4. Derived from the SITOREM analysis, the optimal solution is identified as follows, outlining the prioritized sequence for addressing indicators that require improvement: 1) Student motivation, 2) Learning climate, 3) Student attitude, 4) Ability to understand *hardware*, 5) Ability to use *hardware*, 6) Ability to use *softwares*, 7) Future insight, 8) Articulation of vision, 9) Motivation.

Implications

Building upon the conclusion that visionary leadership and ICT literacy exert a positive influence on learning quality, signifying that heightened levels of visionary leadership and ICT literacy correlate with an improvement in learning quality. Consequently, the implication is that to enhance the quality of learning, it is imperative to fortify both visionary leadership and ICT literacy, as elucidated in the aforementioned conclusion.

Advice

Drawing from the aforementioned conclusions and implications, the following recommendations can be put forth:

a. For the Director General of GTK Kemendikbudristekdikti, the objective is to enhance the quality of learning by providing learning facilities and spaces to improve indicators related to learning facilities and climate. The strengthening of visionary leadership is essential and should be achieved through Kemendikbudristek programs, ensuring that principals develop a visionary perspective for the future progress of schools; strengthening creativity is done by providing opportunities to be involved in activities so that teachers are able to develop new ideas

and ideas; Strengthening ICT literacy is done by providing training related to the use of ICT literacy in learning; Strengthening pedagogical competence is done by being given training to be able to master and understand the characteristics of students.

b. For the Principal, it is expected that it is necessary to strengthen visionary leadership through improving indicators 1) insight into the future, 2) providing motivation, 3) encouraging for the achievement of future success;. Need to strengthen creativity through improving indicators 1) Exploring curiosity, 2) Combining ideas into something new, 3) Developing ideas persistently; Need to strengthen ICT literacy by improving indicators Strengthening ICT literacy is strengthened by improving indicators 1) Ability to use *software*, 2) The ability to understand hardware, and 3) The ability to use hardware and maintain/develop indicators of the ability to understand software and the ability to conceptualise technology.
c. For teachers, It is anticipated that efforts should be directed towards enhancing the quality of learning by improving indicators related to the learning climate and teacher activities in the classroom. Additionally, there is a need to fortify creativity by cultivating curiosity about contemporary issues, amalgamating ideas to form novel concepts, and persistently developing innovative ideas; need to strengthen ICT literacy by participating in various ICT-based training; need to strengthen teachers' pedagogical competence by loving their profession, participating in training activities/seminars, and reading references to be able to master the characteristics of students.

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