The Effect of Psychological Capital, Digital Literacy, and Knowledge Management on Teacher Instructional Quality through Teaching Creativity

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Abstract **– Teachers' instructional quality is essential for student, teacher, and school performance. In practice, it needs to overcome various learning problems, such as when learning output experiences a decline or when implementing a new curriculum requires instructional adjustments. Therefore, this research explores teacher instructional quality from psychological capital (PsyCap), digital literacy, and knowledge management perspective with teaching creativity mediation. As part of a quantitative method and survey procedure, 475 junior and high school teachers in Indonesia were given Likert scale questionnaires for this study. The data was analyzed using structural equation modeling (SEM). The results indicated that instructional quality is influenced by PsyCap, digital literacy, and knowledge management, both directly and indirectly, through the promotion of creativity. This discovery affirms that a novel empirical model concerning PsyCap, digital literacy, and knowledge management affects instructional quality via teaching creativity. Before being adopted or modified to enhance teacher instructional quality, the model offers practical implications and theoretical contributions that call for critical and in-depth discussion.**

Keywords **– Psychological capital, digital literacy, knowledge management, teaching creativity, instructional quality.**

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1. Introduction

The implementation of education in Indonesia is faced with two significant challenges. First, the 2022 Program for International Student Assessment (PISA) review revealed a decline in Indonesia's reading, math, and science results. Secondly, the new curriculum, "Kurikulum Merdeka" (independent curriculum), was implemented nationally in 2024. Both of these problems are closely related to instructional quality, which is defined as the activities teachers complete in the classroom to successfully promote students' learning [1]. The decline in PISA scores indicates that teachers' instructional quality is not effective enough in encouraging students to master the subject matter well, especially reading, mathematics, and science. Then, the implementation of the new curriculum clearly needs adjustments in teaching. The "Kurikulum Merdeka" (independent curriculum), which is oriented toward student-centered learning, requires instructional adjustments in practice. These adjustments are not only related to various subject matter but also to the level of education. For example, students at the primary education level have different instructional treatments than secondary school students. Therefore, it is crucial and urgent to investigate instructional qualified issues in Indonesia today, especially when empirical facts based on past research show that instructional quality contributes significantly to students, teachers, and schools.

Therefore, instructional quality has been shown to impact students' adaptability and motivational beliefs [2], [3] and drives the academic achievements [4].

Moreover, it also impacts teachers' and school's performance [5], [6]. Therefore, when teachers' instructional quality is not able to produce good and effective educational outputs, it needs to be scientifically investigated, especially when related to the factors that potentially affect it. Empirically, there is compelling evidence that psychological capital (PsyCap), digital literacy, knowledge management, and teaching creativity are related to instructional quality.

Research proves that self-efficacy, as an indicator of PsyCaps, impacts learning quality [7]. Furthermore, a recent study showed that digital literacy significantly affects learning quality [8]. Other studies show that knowledge management is related to instructional skills and creativity [9], [10]. Additionally, pedagogical and professional knowledge as proxies of knowledge management positively affect learning quality [11], [12]. Finally, a researcher demonstrated that fostering creativity in the classroom is crucial in determining creative classroom management, which is a sign of high-quality instruction [13]. Furthermore, additional empirical data indicates that PsyCap, digital literacy, and knowledge management all have an impact on teaching creativity. For instance, [14] indicated that PsyCap impacts teaching creativity. Furthermore, digital literacy affects teaching creativity [15]. Finally, [16] revealed that knowledge management influences teaching creativity.

However, beyond that, some studies showed different results. For example, research conducted by [17] indicated that teaching quality affects digital reading performance. Study by [18] demonstrated that learning materials improve students' digital literacy. [19] also found that instructional management as part of instructional quality affects knowledge management. Finally, [20] proved that instructional alignment workshops affect teacher self-efficacy as an indicator of PsyCap. These factual facts give rise to new issues in the form of research gaps that need to be filled to advance science. The main goal of this work, which intends to fill the research gap brought about by this urgency, is to develop a novel empirical model of how PsyCap, digital literacy, and knowledge management affect instructional quality through teaching creativity.

2. Literature Review

This section outlines a theoretical review of instructional quality as seen from the perspectives of psychological capital, digital literacy, knowledge management, and teaching creativity.

It serves as a basic framework for building a research conceptual framework and developing research hypotheses.

2.1. Instructional Quality

Instructional quality refers to assessing and improving teaching methods to enhance student learning results. This complex idea includes many facets of education and is especially important in the context of learning. Improving instructional quality requires thorough evaluation and thoughtful application to enrich both teaching and learning experiences [21], [22]. In practical terms, instructional activities refer to the actions teachers undertake in the classroom to facilitate and enhance students' learning [1]. These activities reflect teachers' conduct in the classroom and consistently influence both the cognitive and noncognitive outcomes of students [23].

Additionally, instructional activities encompass various aspects such as formulating effective questions, setting clear expectations, employing diverse assessment methods, enforcing rules, providing alternative explanations when students are confused, using varied instructional strategies, and motivating students [24]. Instructional quality fosters students' adaptability [2], motivational beliefs, and achievements [3], [4]. In addition, there are other aspects of instructional activities that include creating questions that are effective, establishing clear expectations, using a variety of assessment techniques, enforcing rules, offering alternative explanations to students who are confused, utilizing a variety of instructional strategies, and inspiring students [24]. High-quality instruction promotes students' motivational beliefs, accomplishments, and adaptability [2], [3], [4], enhances learning outcomes [25], and influences school performance [6]. Therefore, instructional quality holds crucial importance for students, teachers, and schools.

Numerous factors, including classroom management, student support, and cognitive activity, are used to evaluate the quality of instruction [26], [27]. Keeping the classroom orderly and enforcing regulations during class time requires effective classroom management. Assessing student learning, providing opportunities for differentiation and customisation, as well as fostering a positive learning environment are all examples of student support. The degree to which students are encouraged to engage in complex cognitive processes is measured by cognitive activation.

2.2. PsyCap and Instructional Quality

PsyCap (psychological capital) is a dynamic state that represents a healthy and normal part of personal development.

It represents a fundamental psychological feature, resource, capability, or mindset when an individual maintains a stable emotional state, is self-aware, and has confidence in his knowledge and talents [28].

PsyCap is seen as a valuable asset and a crucial component in defining future firms' competitive advantage [28]. It cannot be separated from its contribution to individual and organizational life. Empirically, PsyCap proved impact on work engagement [29], organizational commitment [30], organizational citizenship behaviour [31], innovative behavior, and performance [28], [32]. Besides, it also correlates to core competence and innovation [33], [34].

Self-efficacy refers to the belief in one's ability to complete particular activities. Keeping an optimistic view of both the present and the future is a necessary component of optimism. Hope is the conviction that there are optimal ways to get through obstacles and meet challenges. Resilience is the capacity to bounce back fast from setbacks and adjust to new circumstances [36]. Four basic psychological components make up PsyCap: self-efficacy, optimism, hope, and resilience [35].

In practice, a stronger PsyCap can enhance teachers' instructional quality. Teachers with high levels of self-efficacy, for example, are likely to perform better, use class time effectively to uphold rules, maintain order, and encourage students to use higher-order thinking skills. It is demonstrated by the strong belief in the ability to accomplish various school-related tasks. Similarly, teachers with high expectations, possessing a strong belief in the ability to attain personal and educational goals and effectively address challenges within schools, often create opportunities for customization, differentiation, and cultivate a positive learning atmosphere. Previous research has shown that self-efficacy—a PsyCap indicator—influences instructional quality [7], [37]. Thus, it can propose the following first hypothesis (H):

H_1: PsyCap affects teachers' instructional quality.

2.3. Digital Literacy and Instructional Quality

Digital literacy encompasses a broad range of skills, including navigating, searching, organizing, evaluating, analyzing, and integrating digital content, as well as acquiring new knowledge, creating multimedia presentations, and collaborating with peers in authentic settings [38], [39], [40], [41]. It represents a complex set of competencies that utilize digital tools and resources [42], [43]. Moreover, digital literacy encompasses the capacity to utilize digital tools for information generating, assessment, exploration, and communication [44].

It includes cognitive and socio-emotional abilities as well as digital problem-solving skills, going beyond technical skills [45].

It can be understood in different ways, from grasping the basics of using computers to discerning how to identify trustworthy sources online, navigating social media adeptly, or creating digital content for others [46].

More broadly, digital literacy refers to learning the necessary skills to function effectively in a society where digital tools and technologieslike social media, mobile phones, and the internetare the primary means of communication and information access [47].

Digital literacy is essential for learning, education, and society in an educational setting [48]. It can support learning in digital communication by offering guidance, contributions, and narratives related to specific educational subjects [49]. [50] state that educators have embraced new technology, innovative teaching strategies, and educational trends, highlighting the significance of improving teachers' and students' digital literacy. Practically, digital literacy affects students and teachers [50]. For this reason, in order to improve educational standards and participate in professional activities centered around digital technology, instructors must possess a firm grasp of digital literacy. This necessitates possessing the skills and competencies to integrate both established and emerging technologies into the teaching and learning process. However, the digital competence level among teachers tends to fluctuate considerably [51], necessitating ongoing enhancement efforts.

Digital literacy involves utilizing technology as the primary feature of communication patterns, encompassing both reading and writing skills [52], [53]. According to [54], there are three stages of digital literacy: digital usage, which involves applying learned skills in real-world contexts; digital competence, which entails acquiring a wide range of skills; and digital transformation, which involves applying learned skills to foster creativity and innovation. As a result, when teachers achieve a sufficient (high) degree of digital literacy—which contains proficiency, application, and modification—theability to instruct students can improve. A recent study by [8] indicated that digital literacy impacts the quality of learning. Furthermore, research results by [55] demonstrated that digital literacy affects teachers' dynamic assessment quality improvement. As a result, it may support the subsequent second hypothesis:

H_2: Digital literacy affects teachers' instructional quality.

2.4. Knowledge Management and Instructional Quality

Several scholarly works characterize knowledge management as the principal procedure for producing, sharing, transferring, and utilizing knowledge, together with additional procedures concerning knowledge procurement and application [56]. It is related to information systems and human resource management [57].

Knowledge management is recognized as advantageous for systematically identifying, generating, applying, and disseminating crucial knowledge, thereby supporting organizations' sustainability initiatives [58]. Knowledge management has therefore become a crucial strategic objective in order for firms to fully leverage knowledge-based resources and talents [59]. According to [59], in order to carry out knowledge management in an efficient manner, companies should place a high priority on creating a culture of support, making technology investments, and putting in place appropriate motivational incentives.

Knowledge management in education refers to the effective organization and sharing of knowledge with the goal of improving research findings, instructional strategies, and learning procedures [60]. [61] outlines the steps in the process, which include creating a thorough framework for knowledge management, encouraging collaboration between institutions, financing technology infrastructure, cultivating a culture of information sharing, allowing open access to research articles and instructional materials. It helps organizations become more adept at responding to external changes by setting and achieving more challenging goals [62]. Therefore, empirically, knowledge management impacts the optimization of organizational performance and competitive advantages [63], drives innovation performance [64], and contributes to sustainable and organizational performance [65], [66].

[67] states that knowledge management involves both internal and external dimensions. Internal factors pertain to utilizing an organization's internal knowledge to derive value through knowledge management processes. Meanwhile, external factors involve acquiring knowledge from outside sources to continually enhance the organization and its offerings.

Researchers have outlined ten core principles of knowledge management, emphasizing the significance of people, processes, and concepts. The aspect concerning 'people' acknowledges the importance of individuals assuming the role of organizational knowledge managers, recognizing that the utilization and sharing of knowledge aren't always straightforward or innate. It emphasizes that knowledge management requires a combination of human and technological solutions.

The 'process' component entails improving or reshaping existing knowledge on work procedures, facilitating knowledge access, and advocating for ongoing change and progress. Lastly, the 'concept' dimension regards knowledge management as a substantial undertaking that entails a knowledge agreement and a fundamental acknowledgment of intellectual property, representing a complex and challenging concept [68], [69].

If realized in practice, these principles potentially stimulate teachers' instructional quality, reflected in classroom management, student support, and cognitive activation. Previous studies also proved that knowledge management impacts instructional design skills [9] and creativity instruction [10]. In addition, other studies revealed that pedagogical and professional knowledge impact instructional quality [11], [12]. In light of this, the third hypothesis is developed:

H_3: Knowledge management affects teachers' instructional quality.

2.5. Teaching Creativity and Instructional Quality

The term "teaching creativity" describes teachers' ability to reshape new or inventive ideas concerning approaches, strategies, methods, formats, and resources for instructional activities throughout the learning process [69]. It also involves employing imaginative methods to captivate learners, while teaching for creativity refers to pedagogical methods that encourage students to cultivate creative thinking and behaviors [70].

This concept, which derives from the concept of "creativity," is frequently used synonymously with phrases such as innovation, originality, divergent thinking, and idea generating [71]. It represents a person's ability to use his mind to impromptu come up with new ideas [72]. It's a process of transformation that involves moving from ideas (imagination and ideation) to actions, producing novel and flexible results or presentations that are frequently risky [71]. It also involves establishing new connections across various domains, embracing risks, exploring unconventional data and insights, as well as conveying findings to diverse audiences [70]. It is a captivating field of study across multiple knowledge areas [73] that holds significant importance in the job market, as well as for societal progress. It gives people the confidence to create original works of art, coming up with novel solutions to problems that arise every day, creating goods and services that stand out. Furthermore, creativity plays a role in addressing real-world issues by uncovering novel solutions [73].

Successful teaching across all disciplines necessitates innovative teaching methods, which demand teachers to continually evaluate and integrate various elements of professional learning.

This means using cutting-edge techniques and providing a variety of learning opportunities for students to help develop creative abilities. Students' creative abilities can be developed by teachers who use engaging instructional strategies, domain-specific competencies, and creativity-related activities.

Therefore, professional development and teacher training programs need to emphasize creative teaching techniques [74], [75], [76].

Teaching creativity offers numerous advantages. It enables teachers to cater to the varied interests and requirements of learners while adjusting to the evolving requirements of educational systems [77]. Teaching creativity positively impacts the first year of teaching [75] and enhances student learning and understanding [74], [77]. It is possible to increase students' motivation and interest in the material being taught by encouraging creativity in the classroom [78]. In such scenarios, teaching creativity becomes a valuable tool for teachers to uphold instructional quality standards. Consequently, teachers who exhibit adeptness in fluency, adaptability, novelty, elaboration, and redefinition are more likely to meet these standards [69], [79]. Additionally, research by [13] highlighted that teaching creativity plays a pivotal role in fostering creative classroom management, serving as a key indicator of instructional quality. Therefore, it can propose the following fourth hypothesis:

H_4: Teaching creativity affects teachers' instructional quality.

2.6. PsyCap and Teaching Creativity

Empirical evidence suggests that teaching creativity is influenced by PsyCap (psychological capital). Previous studies conducted by researchers in various countries indicated a significant impact of PsyCap on teaching creativity [80], [81], [82]. It underscores the importance of PsyCap as a determinant of teaching creativity, implying that enhancing PsyCap can lead to improvements in the quality of teaching creativity. For instance, teachers with high self-efficacy levels tend to actively elaborate on and redefine the subjects being taughtto ensure alignment with current developments. Consequently, the fifth hypothesis can be framed as follows:

H_5: PsyCap affects teachers' teaching creativity.

2.7. Digital Literacy and Teaching Creativity

Teaching creativity is also impacted by digital literacy. Research conducted by [15] demonstrates that digital literacy influences teaching creativity. It indicates that digital literacy is a favorable precursor for teaching creativity.

Therefore, teachers who possess the skills and competencies to effectively utilize a variety of digital tools and leverage for creativity and innovation are likely to excel in producing fluent, flexible, and original work. Therefore, it can promote the following sixth hypothesis:

H_6: Digital literacy affects teachers' teaching creativity.

2.8. Knowledge Management and Teaching Creativity

Besides being influenced by Psycap (psychological capital) and digital literacy, knowledge management also impacts teaching creativity. Research in several fields proves that knowledge management significantly influences teaching creativity [16], [69], [83], [84]. This suggests that knowledge management serves as a facilitator for teaching creativity, implying that an enhancement in knowledge management is likely to lead to an increase in teaching creativity. For instance, teachers who actively engage in the process of knowledge transformation and facilitate access to knowledge within schools tend to readily elaborate on and redefine various outdated subject matters. Thus, the seventh hypothesis can be formulated as:

H_7: Knowledge management affects teachers' teaching creativity

2.9. Mediating Role of Teaching Creativity

Several prior studies above indicated that teaching creativity can mediate the causal releationship between PsyCap (psychological capital) , digital literacy, and knowledge management with instructional quality. It has the potential to accur because apart from affecting instructional quality [13], teaching creativity is also influenced by PsyCap [14], [80], digital literacy [15], and knowledge management [16], [69]. However, research that specifically investigates the effect of PsyCap, digital literacy, and knowledge management on instructional quality through teaching creativity still needs to be found. This condition opens up opportunities to discover new things that are important and urgent to be investigated. In light of this urgency, the following hypothesis is put out:

H_8: PsyCap affects instructional quality through teaching creativity.

H_9: Digital literacy affects instructional quality through teaching creativity.

H_{10}: Knowledge management affects instructional quality through teaching creativity.

3. Material and Methods

This section presents the methodological framework used in this research, which includes participants (samples), procedures and materials, and data analysis techniques.

3.1. Participants

This study involved 475 Indonesian junior and high school teachers from three provinces: West Java, Banten, and Jakarta. The majority of them are married (82.9%), with a bachelor's degree (76.4%), and are female (66.9%), between the age of 26 and 35 (36%), having over16 years of work experience (35.3%) as a teacher.

3.2. Procedures and Materials

This study used a quantitative methods, and an online poll was administered via the WhatsApp and email. It was created in Google Forms style and used a Likert scale questionnaire with five choices, ranging from strongly disagree/never (score = 1) to strongly agree/always (scoring = 5). The research-developed questionnaire was based on theoretical dimensions and indicators identified by experts. Self-efficacy (S-E), optimism (Opt), hope (Hop), and resiliency (Res) make up the PsyCap (psychological capital) indication [35]. Digital competency (DC), digital usage (DU), and digital transformation (DT) are the three components of digital literacy [54]. Knowledge management is comprised of people (Peo), processes (Pro), and concepts (Con) [68], [69]. Teaching creativity are redefinition (Red), elaboration (Ela), originality (Ori), fluency (Flu), and flexibility (Fle) [69], [79]. The three components of instructional quality are cognitive activation (CA), student support (SS), and classroom management (CM) [26], [27].

PsyCap consists of twelve items, nine for digital literacy, and ten for knowledge management. Meanwhile, teaching creativity has ten items, while instructional quality has twelve items. Prior to usage in the study, thirty teachers completed an assessment of the questionnaire's validity and reliability. All items for each variable have a corrected total item correlation coefficient value greater than .361. It shows the validity of the items [85]. Furthermore, the fact that alpha coefficients are greater than .70 indicates its reliability [86], [87]. It suggests that all research instruments are suitable for doing research because they are valid and reliable.

In order to determine whether employing a single source for research could result in common method bias (CMB) issues, this study also included a statistical test. Conceptually, CMB is the computed difference between the observed connection and the true correlation that is achieved via the use of the common method of variance (CMV). According to [88], CMV may exacerbate the discrepancy between actual and observed correlations. [89] offer a statistical method to minimize it. As a result, statistical techniques frequently employed to identify CMV were incorporated into this study, such as the Harman single-factor test [90] and the correlation test [91]. Each variable's correlation coefficient is less than .90 [91].

According to [92], the results of Harman's single-factor test showed a total variation of 41.646%, which is below the 50% tolerance criterion. It implies, therefore, that CMV (CMB) is not included in the study's conclusions [93]. Thus, the inferences that can be made based on the study's findings are not to be questioned.

3.3. Data Analysis

Two tools were used in the processing of 475 participants' research data. First, CMB, descriptive, correlational, and validity analyses were conducted using SPSS version 22. Second, a structural equation modeling (SEM) approach was used to test the hypothesis of a causal relationship between latent variables, with a LisRel of 8.80. When examining the connection between observable and latent variables, SEM is regarded as a more potent method or technique [86].

4. Results

This section explains in detail the quantitative findings obtained through data processing from 475 respondents, including descriptive and correlational analysis results, constructs (variables) measurement, goodness of fit, and hypothesis testing.

4.1. Descriptive and Correlational Analysis

Using the SPSS 22 version, the results of the descriptive and correlation analyses were completed. The mean values, on average, lie between 8.35 and 17.15, while the standard deviation values vary from .981 to 2.349. It offers a fair synopsis of the data and is worth further exploration. Meanwhile, the results of the correlation analysis between indicators for all constructs (variables) together are significant at $p < .01$, with a correlation coefficient value range of .11–.80. It illustrates the interdependence of every indicator with every other indicator. Nonetheless, the obtained correlation value is less than .80, suggesting that multicollinearity symptoms are not reflected in this association.

4.2. Confirmatory Factor Analysis

The measurement model estimate that confirmatory factor analysis **(**CFA) supplied is displayed in Table 1. The CFA results are useful becauseof providing values that can be used to assess the validity and reliability of measures. All indicators derived from the CFA have factor loadings between .48 and .95. Because it exceeds standards of .3, its validity is good [94]. Additionally, Cronbach alpha (CA), composite reliability (CR), and average variance extraction (AVE) are used. Values above .50 for AVE and above .70 for CA and CR are acceptable [86].

The range of values obtained for the AC and CR are .859-.889 and .737-.873, respectively; the AVE falls between .585-.698.

It indicated good reliability and acceptable convergence.

Table 1. Results of the measurement model

Construct	Indicators	Factor Loading	CA	CR	AVE
PsyCap (X_1)	S-E	.73	.864	.840	.581
	Opt	.81			
	Hop	.48			
	Res	.95			
Digital Literacy (X_2)	DC	.84	.877	.873	.698
	DU	.71			
	DT	.94			
Knowledge Management (X_3)	Peo	.77	.889	.737	.585
	Pro	.61			
	Con	.70			
Teaching Creativity (Y_1)	Flu	.73	.859	.827	.596
	Fle	.88			
	Ori	.58			
	Ela	.55			
	Red	.73			
Instructional Quality (Y_2)	CM	.81	.885	.870	.691
	SS	.78			
	CA	.90			

4.3. Goodness of Fit

Eight of the eleven criteria were found to be a good fit by the goodness of fit (GOF) statistical analysis results, whereas the remaining three criteria were found to be poorly (not fit). The following eight criteria—GFI, NNFI, AGFI, CFI, RFI, PNFI, and Normed Chi-Square—have all been satisfied. On the other hand, RMSEA, Sig. Probability, and Chi-Square were the three requirements that were not met. Regarding this, [86] noted that big samples—more than 200—such as the 475 participants in this study, are sensitive to the Chi-Square test. The majority (eight out of eleven) of the results of the GOF test can still be considered legitimate (fit), nevertheless. It shows that this research's theoretical model is suitable (fit) with the empirical model produced by this research.

4.4. Hypothesis Testing

All of the hypotheses, as illustrated visually in Figure 1 and Figure2 summarized in Table 2, were supported (significant) at α =.05 and .01.

In detail, PsyCap, digital literacy, knowledge management, and teaching creativity positively affect instructional quality with path coefficient (γ/β) and p-value (p) respectively: $\gamma = .19$, $p < .01$; $\beta = .20$, $p < .01$; $\beta = .27$, $p < .01$; and $\beta = .24$, $p < .01$. In addition, PsyCap, digital literacy, and knowledge management impact teaching creativity with path coefficient (γ) and p-value respectively: $\gamma = .22$, $p < .01$; $\gamma = .11$, $p < .05$; and $\gamma = .56$, $p < .01$. Finally, PsyCap significantly affects instructional quality through teaching creativity ($\beta = .06$, $p < .01$), digital literacy ($\beta = .03$, $p < .01$), and knowledge management ($\beta = .13$, $p < .01$).

Knowledge management has a stronger influence on teaching creativity and instructional quality than others. It indicates that knowledge management contributes more positively than PsyCap and digital literacy. Consequently, knowledge management also has a better mediating role than PsyCap and digital literacy. This empirical fact provides insight that knowledge management deserves special attention in the context of increasing teaching creativity and instructional quality.

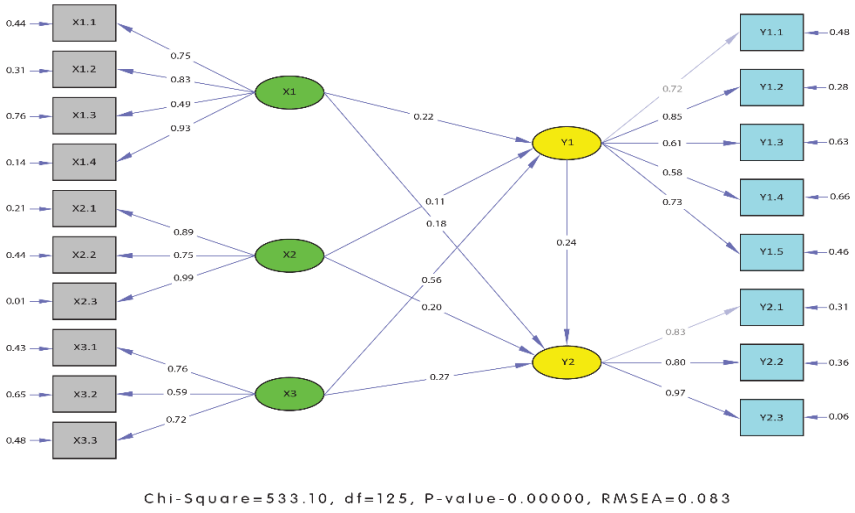

Figure 1. Standardized structural model

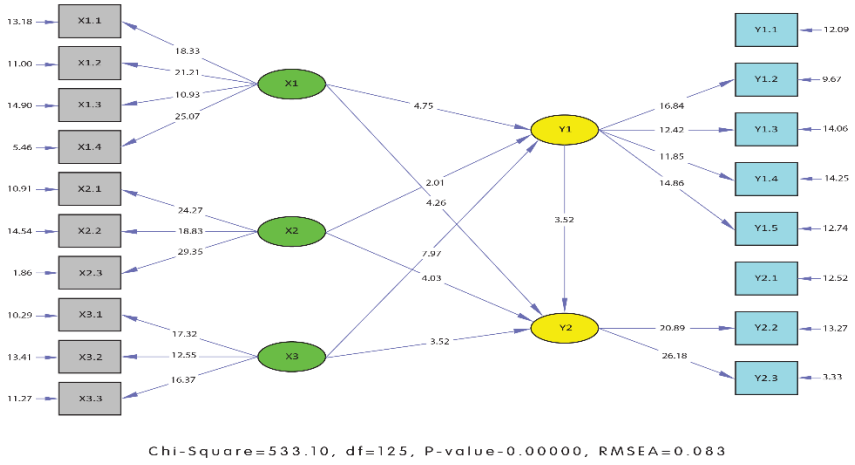

Figure 2. T-value structural model

Table 2. Hypothesis testing results

Hypothesis	γ/β	T value	Decision
H_1: PsyCap (X_1) on instructional quality (Y_2)	.19**	4.26	Supported
H_2: Digital literacy (X_2) on instructional quality (Y_2)	.20**	4.03	Supported
H_3: Knowledge management (X_3) on instructional quality (Y_2)	.27**	3.52	Supported
H_4: Teaching creativity (Y_1) on instructional quality (Y_2)	.24**	3.52	Supported
H_5: PsyCap (X_1) on teaching creativity (Y_1)	.22**	4.75	Supported
H_6: Digital literacy (X_2) on teaching creativity (Y_1)	.11*	2.01	Supported
H_7: Knowledge management (X_3) on teaching creativity (Y_1)	.56**	7.97	Supported
H_8: PsyCap (X_1) on instructional quality (Y_2) through teaching creativity (Y_1)	.06**	8.58	Supported
H_9: Digital literacy (X_2) on instructional quality (Y_2) through teaching creativity (Y_1)	.03**	10.33	Supported
H_{10}: Knowledge management (X_3) on instructional quality (Y_2) through teaching creativity (Y_1)	.13**	9.89	Supported

* $p < .05$
** $p < .01$

5. Discussion

Generally, this study found that PsyCap (psychological capital), digital literacy, and knowledge management impact instructional literacy via teaching creativity. In detail, PsyCap affects instructional quality, indicating that PsyCap is an essential predictor of instructional quality. It suggests that teachers with high and stable PsyCap can improve the instructional quality. For example, teachers with high self-efficacy will believe in the ability to manage the class well and effectively, providing students with ample opportunities to adjust to the learning program, and encouraging students to use higher-order thinking capabilities. This evidence is similar and confirms previous studies that PsyCap positively affects instructional quality [7], [37] and negated [20] claim that instructional alignment workshops affect teacher self-efficacy as an indicator of PsyCap.

This study also reveales that digital literacy positively impacts instructional quality. It indicates that digital literacy is an important determinant of instructional quality. Therefore, if teachers' digital literacy capacity is improved, it can have implications for improving the instructional quality. For example, teachers who are proficient in using digital technologies and possess strong operating skills that enable them to be creative and imaginative are often better at managing the classroom dynamically, treating students as individuals, and encouraging higher order thinking skills. This finding is consistent and affirms previous research results that digital literacy positively impacts instructional quality [8], [55] and also refutes the others study that teaching quality affects digital reading performance [17], [18].

This study also shows that knowledge management affects instructional quality. It shows the empirical fact that knowledge management is an essential predisposition for instructional quality. That means teachers' instructional quality can be improved by increasing knowledge management capacity. For example, teachers who act as knowledge agents for learners will tend to treat students according to their characteristics and potential. Again, teachers actively involved in the knowledge transformation process will easily stimulate students to reveal the metacognitive capacity. This consistent empirical fact supports previous studies that knowledge management impacts instructional quality [9], [10], [11], [12] and ignores the study by [19] that instructional management as part of instructional quality affects knowledge management.

Additionally, this study discovered that teaching creativity greatly impacts instructional quality. It suggests that fostering creativity in teachers is an essential precondition for high-quality instruction.

Therefore, teachers' instructional quality can be improved by utilizing teaching creativity. For example, teachers with high fluency, flexibility, and elaboration will easily design dynamic classes according to learning needs. Teachers with high originality also can easily encourage students to actualize their metacognitive potential. This outcome is in line with the findings of [13], which demonstrates how teaching creativity influences the caliber of education.

Another study finding is that PsyCap, digital literacy, and knowledge management significantly affect teachers' teaching creativity. This means that PsyCap, digital literacy, and knowledge management are important determinants of teachers' teaching creativity, so if the conditions are improved, it is likely to increase teachers' teaching creativity. As an illustration, teachers with high optimism tend to place students according to their individual capacity so that the learning process runs smoothly and flexibly. Similarly, teachers with the skills to use various digital devices properly and wisely are likely to produce creative and innovative works that are useful for improving the learning process. Similarly, teachers actively involved in the knowledge transformation process will also have the opportunity to discover new things that will help improve the quality of education. This outcome supports and validates the findings of other studies showing that teaching creativity is influenced by PsyCap [80], [81], digital literacy [15], and knowledge management [16], [69].

Finally, this study found that PsyCap, digital literacy, and knowledge management significantly affect teachers' instructional quality through teaching creativity. It shows teaching creativity's crucial role in connecting PsyCap, digital literacy, and knowledge management with teachers' instructional quality. This suggests that enhancing teachers' quality of instruction can be achieved through the mediating mechanism of teaching creativity in addition to directly leveraging PsyCap, digital literacy, and knowledge management.

The results support a novel empirical model of how teaching creativity mediates the effects of PsyCap, digital literacy, and knowledge management on teachers' instructional quality. Particularly in the fields of technology, psychology, and educational management, it adds theoretical insights to educational science. Furthermore, the results have practical ramifications for how education is organized, particularly in terms of enhancing the quality of instruction provided by teachers from the perspectives of PsyCap, digital literacy, knowledge management, and creative teaching.

6. Conclussion

Optimizing teacher instructional quality is needed to overcome various learning problems, such as when learning output experiences a decline or when implementing a new curriculum requires instructional adjustments. Thus, this study examines teacher instructional quality from the perspectives of knowledge management, digital literacy, and psychological capital, employing teaching creativity as a mediation mechanism. The findings demonstrate that PsyCap (psychological capital), digital literacy, and knowledge management have a major direct and indirect impact on instructional quality by fostering teaching creativity.

This evidence confirms a novel empirical model that posits teaching creativity serves as a mediating mechanism between PsyCap, digital literacy, and knowledge management, and the effects on instructional quality. These results not only support the theoretical model and hypotheses of this research, which were developed based on a number of prior investigations, but also challenge and contradict the claims of earlier research the results of which were inconsistent. As a result, before being modified or adopted as a model for enhancing teacher instructional quality through PsyCap, digital literacy, and knowledge management through the teaching creativity mediation mechanism, the new empirical model offers theoretical and practical contributions that calls for extensive discussion.

Practically, the findings of this research can inspire school management and teachers to be more concerned with efforts to increase PsyCap, digital literacy, knowledge management, and teaching creativity of teachers in order to improve the instructional quality of teachers, which is needed to overcome learning problems in dealing with cases of decreasing students' PISA scores and implementation of the Independent Curriculum. Schools can carry out this effort through training, workshops, or counseling activities by inviting experts who are projected to be able to increase teachers' PsyCap, digital literacy, knowledge management, and teaching creativity. At the same time, independent and self-taught teachers can also make extra efforts for the same goal. Additionally, the findings of this research can provide insight, inspiration, and motivation to other researchers to be more enthusiastic and intense in researching similar topics, especially to respond to several weaknesses in the results of this research.

Although this research was conducted using rigorous scientific procedures, it still has several limitations. Firstly, it only accommodates some available theoretical dimensions in an orderly manner, so future research needs to use other dimensions or synthesize them more comprehensively.

Secondly, it employs quantitative methods to conceal the details behind the causal association among variables. Consequently, using mixed methods (quantitative and qualitative) should be considered in future studies. Third, since it only uses one data source, the teacher, further study must incorporate additional data sources, such as colleagues, students, or principals.

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