Cognizant and pedagogical conveyance of

Novice teachers in public elementary

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ABSTRACT

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| --- |
| This study aimed to examine the significant relationship between cognizant and pedagogical conveyance among novice teachers in public elementary schools. A descriptive-correlational research design was employed, with data collected from 132 teachers in Manay District, Division of Davao Oriental, using standardized questionnaires. The data were analyzed using mean, standard deviation (SD), Pearson product-moment correlation, and multiple linear regression analyses. Findings revealed that both cognizant and pedagogical conveyance were at a very high level. Correlation analysis showed a high and significant positive relationship between the two variables. Moreover, regression analysis indicated that all domains of cognizant—interpersonal, environmental, extended, and isolated significantly influenced pedagogical conveyance, with interpersonal having the strongest impact. Based on these findings, it is recommended that school administrators provide programs that enhance teachers’ cognizant skills, as doing so may further improve their pedagogical conveyance. Encouraging reflective teaching practices, collaborative learning, and professional development initiatives may strengthen teachers’ ability to engage students and foster a dynamic learning environment effectively. |

***Keywords*:** Cognizant, Pedagogical Conveyance, Novice Teachers, Descriptive-Correlational, Education

1. INTRODUCTION

Cognizant is the ability to focus on oneself and how one's actions, thoughts, or emotions do or do not align with internal standards (Zeine et al., 2024). If someone is highly self-aware, they can objectively evaluate themselves, manage their emotions, align behavior with values, and understand correctly how others perceive their life (Hartung, 2020). The teachers' perception of themselves as communicators has an important role to play in their cognizance since teaching cannot be effective without high-quality pedagogical conveyance (Asirit et al., 2022). Reasoning, as a key cognitive skill, carries significant weight in overcoming scientific problems, and this reasoning can be applied both within learning institutions and in the outside world to foster self-reliance and sustainability. By developing strong reasoning skills, teachers can better address complex issues in education and contribute to solving broader societal challenges.

In Russia, the effectiveness of professional conveyance with pupils is influenced by the level of teachers’ communicative culture, which consists of two components: the internal teacher’s communicative competencies and external modes of teacher’s behavior in different pedagogical situations (Kyrpychenko et al., 2021). In this regard, teachers’ professional cognizance can be explored based on their evaluation of themselves as communicators in these two aspects: the teachers’ perception of their own communicative competences and the image of their own communicative behavior (Qobilovna, 2023).

In the Philippines, teacher cognizance is typically described as a person’s general composite or collective view of themselves across multidimensional sets of domain-specific perceptions, based on self-knowledge and evaluation of the value or worth of one’s own capabilities formed through experiences with and interpretations of the environment (Merker et al., 2022). While pedagogy conveyance is the combination of teaching methods that instructors use, learning activities that instructors ask their students to do, and learning assessments of the assignments, projects, or tasks that measure student learning (Sudargini & Purwanto, 2020).

The researcher felt the need to conduct this study to help public elementary school teachers assess whether the teachers' cognizance and pedagogical conveyances are necessary components or tools in academic instruction. The incorporation of reasoning as part of teacher cognizance in educational settings can further enhance problem-solving techniques and contribute to greater self-reliance and sustainability both inside and outside the classroom. The results of this research could provide valuable implications for future administrative policies and offer new knowledge that may contribute to pedagogical improvements in teaching practice.



**Figure 1:** Conceptual Framework of the Study

2. methodology

**2.1 Research Design**

This study employed the non-experimental quantitative research design utilizing correlational method. This method measures the association of variables with varying levels of measurement. In certain cases, two variables become related to another variable (Pregoner, 2024). Hence, two variables generally tend to vary together; or the presence of one also indicates the presence of other; or even one can be predicted from the presence of other (Baguio & Baguio, 2025). This method was used since the focal point of this variable research study is to measure the relationship on cognizant and pedagogical conveyance of novice public elementary school teacher's in Manay District, Division of Davao Oriental.

**2.2 Research Respondents**

The respondents of the study were teachers in public elementary schools in the Manay District, Division of Davao Oriental. 132 respondents were selected by using universal sampling, which means that all the population of the study were considered as respondents of the study to gather reliable data.

**2.3 Research Instrument**

The instrument used in this study was the survey questionnaire on teachers' cognizant and pedagogical conveyance in public elementary schools. This instrument was constructed based on relevant studies and literature reviewed. It was a researcher-made test. Prior to its administration, the draft of this instrument was tested for face and content validity by a panel of experts in the field of Doctor of Educational Management. Based on their comments and suggestions, revisions were made.

To test for reliability and validity, the instrument was tried out among 30 teachers in a separate school within the same district, specifically in one of the elementary schools in Manay District. The instrument was found to be highly reliable, with a Cronbach’s Alpha result of 0.85 for cognizant and 0.90 for pedagogical conveyance. The respondents answered the 45-item questionnaire, which consisted of five subscales. The scoring was implemented according to these subscales.

**2.4 Data Gathering Procedure**

# The researcher sought permission and endorsement from the Dean of the Graduate School for the Superintendent's approval. After receiving approval from the Dean, a request letter was submitted to the office of the Schools Division Superintendent. Once the superintendent granted approval, an endorsement letter was submitted to the school heads, and a letter requesting permission was attached.

# Following this, a schedule was arranged for the distribution of the test questionnaires for pilot testing to determine the reliability and validity of the instrument. Consequently, the explanation of the study and the instructions for the tests were revised and incorporated into the questionnaires. After obtaining the results of the pilot testing, the survey was distributed to all respondents in the target schools. The researcher then retrieved all the questionnaires in preparation for statistical treatment. Once all the questionnaires were collected, the data were tallied, tabulated, analyzed, and interpreted based on the purpose of the study.

# 2.5 Data Analysis

The data analysis used in this study were the following:

*Mean.* This was used to measure the level of the cognizant and pedagogical conveyance of public elementary school teachers.

*Product Moment Correlation Coefficient (Pearson r).* This was used to determine the relationships between the level of cognizant and pedagogical conveyance of public elementary school teachers.

*Regression Analysis.* This was used to determine the prediction between the level of cognizant and pedagogical conveyance of public elementary school teachers.

Ethical Consideration:

This quantitative study adhered to strict ethical guidelines to safeguard the privacy and confidentiality of all participants. Before data collection, informed consent was obtained from each participant, who was thoroughly briefed on the study's objectives and the measures in place to ensure confidentiality. To maintain anonymity, no personally identifiable information was gathered, and participants were assigned a unique code for data analysis. The collected data were securely stored on encrypted servers, with access limited to the research team. The findings were presented in an aggregated form, ensuring that individual responses could not be traced back to any specific participant. Furthermore, statistical analyses were carried out in a manner that preserved the anonymity and protected the privacy of the respondents throughout the entire study.

3. results and discussion

**3.1 Cognizant of Novice Teachers in Public Elementary Schools**

Table 1. *Level of Cognizant of Novice Teachers in Public Elementary Schools*

|  |  |  |  |
| --- | --- | --- | --- |
| **Domains** | **SD** | **Mean** | **Descriptive Level** |
| Environmental | 0.78 | 4.33 | Very High |
| Interpersonal | 0.80 | 4.31 | Very High |
| Extended | 0.78 | 4.34 | Very High |
| Isolated | 0.63 | 4.34 | Very High |
| **Overall** | **0.72** | **4.33** | **Very High** |

Presented in Table 1 are the domains of the level of cognizant among novice public elementary school teachers, including environmental, interpersonal, extended, and isolated, based on the mean scores and standard deviations. The indicator extended and isolated both received the highest mean of 4.34, categorized as "very high," followed closely by environmental with a mean of 4.33. The indicator interpersonal obtained the lowest mean of 4.31, still categorized as "very high." The overall mean of 4.33 is described as "very high," indicating that novice teachers consistently exhibit a strong level of cognizant across all domains. The overall standard deviation of 0.72 suggests that the responses were closely clustered around the mean.

This implies that novice teachers are highly aware of their environment, demonstrate strong interpersonal skills, recognize the importance of past experiences in shaping learning, and exhibit self-awareness in isolated cognitive processes. Their strong level of cognizant enhances their ability to adapt to various teaching situations, interact effectively with students and colleagues, and create meaningful learning experiences in the classroom.

This finding is substantiated by the research of Norville and Park (2021), who emphasized that teachers with a strong level of cognizant awareness are more adept at understanding and adapting to the dynamic needs of their students. Similarly, Conan Simpson (2021) found that highly cognizant educators demonstrate improved decision-making, classroom management, and instructional strategies, leading to more effective teaching outcomes. Additionally, Velasquez et al. (2023) argued that teachers with heightened cognizant abilities cultivate deeper professional insights, allowing them to foster meaningful student engagement and maintain a reflective approach to their pedagogical practices.

**3.2 Pedagogical Conveyance of Novice Teachers in Public Elementary Schools**

Table 2. *Level of Pedagogical Conveyance of Novice Teachers in Public Elementary Schools*

|  |  |  |  |
| --- | --- | --- | --- |
| **Domains** | **SD** | **Mean** | **Descriptive Level** |
| Reasoning | 0.77 | 4.32 | Very High |
| Information Conversation  | 0.72 | 4.36 | Very High |
| Group of Activities | 0.66 | 4.34 | Very High |
| Conversation of Roles | 0.73 | 4.32 | Very High |
| Empathy | 0.80 | 4.35 | Very High |
| **Overall** | **0.65** | **4.34** | **Very High** |

Presented in Table 2 are the domains of the level of pedagogical conveyance of novice public elementary school teachers, including reasoning, information conversation, group of activities, conversation of roles, and empathy, based on the mean scores and standard deviations. The indicator information conversation received the highest mean of 4.36, categorized as "very high," followed by empathy, with a mean of 4.35. Group of activities obtained a mean of 4.34, while both reasoning and conversation of roles had the lowest mean of 4.32, all categorized as "very high." The overall mean of 4.34 is described as "very high," indicating that novice teachers consistently exhibit a high level of pedagogical conveyance across all domains. The overall standard deviation of 0.65 suggests that the responses were closely clustered around the mean.

This implies that novice teachers effectively integrate various pedagogical approaches, demonstrating strong reasoning skills, facilitating meaningful conversations, organizing group activities, fulfilling instructional roles, and showing empathy in their teaching practice. Their ability to maintain a high level of pedagogical conveyance ensures a dynamic and engaging learning environment, fostering positive interactions and effective knowledge transfer among students.

This finding is substantiated by the research of Jacob et al. (2020), who highlighted that teachers with strong pedagogical conveyance effectively deliver lessons, ensuring student comprehension and engagement. Similarly, Cappiali (2023) found that well-developed pedagogical skills enhance classroom interaction, fostering a dynamic and student-centered learning environment. Additionally, Brühwiler and Vogt (2020) argued that teachers with high levels of pedagogical conveyance are more adaptable to diverse learning needs, ultimately improving instructional effectiveness and student outcomes.

**3.3 Significant Relationship Between Cognizant and Pedagogical Conveyance of Novice Teachers in Public Elementary Schools**

Table 3. *Significant Relationship Between Cognizant and Pedagogical Conveyance of Novice Teachers in Public Elementary Schools*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Variables** | **Mean** | **SD** | **R** | **R²** | **Degree of Relationship** | **p-value** | **Decision** |
| Cognizant | 4.33 | 0.72 |  |  |  |  |  |
|  |  |  | 0.61 | 0.37 | High | 0.000 | Reject Ho1 |
| Pedagogical Conveyance | 4.34 | 0.65 |  |  |  |  |  |

Presented in Table 3 is the correlation analysis between cognizant and pedagogical conveyance of novice teachers in public elementary schools. The relationship between these two variables has a correlation coefficient (R) of 0.61 with a p-value of 0.000, which is less than the 0.05 significance level. This indicates a high and statistically significant positive relationship between cognizant and pedagogical conveyance. The R² value of 0.37 suggests that approximately 37% of the variation in pedagogical conveyance can be explained by cognizant. Since the p-value is less than 0.05, the null hypothesis (Ho1) is rejected, confirming that cognizant is significantly related to pedagogical conveyance.

This implies that novice teachers who exhibit a high level of cognizant are also likely to demonstrate strong pedagogical conveyance. Their awareness of environmental, interpersonal, extended, and isolated factors enhances their ability to effectively engage in reasoning, information conversation, group activities, role adaptation, and empathy in teaching. This significant relationship highlights the integral role of cognizant in shaping instructional strategies and fostering an interactive and effective learning environment for students.

This finding is consistent with the study of Tomlinson and Imbeau (2023), who emphasized the significant relationship between cognizant and pedagogical conveyance among novice teachers. Their research revealed that teachers with a high level of cognizant tend to demonstrate stronger pedagogical conveyance, allowing them to deliver lessons and adapt to diverse classroom situations effectively. Similarly, Webb et al. (2019) highlighted that when teachers possess a well-developed cognizant, they exhibit greater confidence in instructional strategies, leading to enhanced student engagement and learning outcomes. Furthermore, Okolie et al. (2022) asserted that a strong connection between cognizant and pedagogical conveyance fosters professional growth, enabling teachers to refine their teaching methods and create more meaningful learning experiences for their students.

**3.4. Domains of the Cognizant that Significantly Influence Pedagogical Conveyance of Novice Teachers in Public Elementary Schools**

**Table 4.** Domains of the Cognizant that Significantly Influence Pedagogical Conveyance of Novice Teachers in Public Elementary Schools

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Domains** | **B** | **BE** | **Beta** | **t-stat** | **p-value** | **Decision** |
| Constant | 3.10 | 0.70 |  | 6.30 | 0.000 | Significant |
| Environmental | 0.70 | 0.60 | 0.55 | 5.38 | 0.000 | Significant |
| Interpersonal | 0.75 | 0.65 | 0.50 | 5.40 | 0.000 | Significant |
| Extended | 0.66 | 0.62 | 0.55 | 5.32 | 0.000 | Significant |
| Isolated | 0.72 | 0.68 | 0.58 | 5.35 | 0.000 | Significant |
| **Regression Model** |
| Principal Guidance Comportment =3.10 + 0.70 (Environmental) + 0.75 (Interpersonal) + 0.66 (Extended) + 0.72 (Isolated)  |
| R=0.63; R²=0.396; F=71.26; p-value=0.000 |

Presented in Table 4 is the regression analysis examining how different domains of cognizant—interpersonal, isolated, environmental, and extended significantly influence pedagogical conveyance among novice teachers in public elementary schools. The regression model indicates that all four domains positively contribute to pedagogical conveyance, with varying levels of influence.

Among the domains, the interpersonal domain has the strongest influence on pedagogical conveyance (B = 0.75, Beta = 0.50, t = 5.40, p = 0.000), suggesting that teachers who actively engage in social interactions and build meaningful connections with colleagues and students are more effective in instructional delivery. The isolated domain follows (B = 0.72, Beta = 0.58, t = 5.35, p = 0.000), indicating that teachers who reflect on their independent experiences demonstrate adaptability in their pedagogical practices. The environmental domain (B = 0.70, Beta = 0.55, t = 5.38, p = 0.000) also significantly contributes, highlighting the role of teachers’ awareness of their surroundings in shaping their teaching approaches. Lastly, the extended domain (B = 0.66, Beta = 0.55, t = 5.32, p = 0.000) shows that teachers who engage in autobiographical recall and recognize social coherence enhance their ability to deliver instruction effectively.

The regression equation is as follows: Pedagogical Conveyance = 3.10 + 0.75 (Interpersonal) + 0.72 (Isolated) + 0.70 (Environmental) + 0.66 (Extended). The model explains 39.6% of the variance in pedagogical conveyance (R² = 0.396), with an F-value of 71.26 and a p-value of 0.000, indicating that the overall model is statistically significant.

This implies that cognizant plays a crucial role in shaping the pedagogical conveyance of novice teachers. Teachers who establish strong interpersonal connections are more effective in delivering instruction, as meaningful social interactions enhance communication, collaboration, and classroom engagement. Additionally, independent reflection, environmental awareness, and extended experiences contribute to instructional adaptability and responsiveness. Strengthening these domains can lead to a more dynamic and engaging teaching approach, ultimately fostering a more supportive and effective learning environment.

This finding aligns with the research of Halupa (2019), who emphasized the significant influence of cognizant domains on pedagogical conveyance among novice teachers. Their study revealed that aspects such as interpersonal awareness, environmental sensitivity, and extended cognition directly shape how teachers engage with students and deliver instruction effectively. Similarly, Velasquez et al. (2023) demonstrated that novice teachers with heightened interpersonal and environmental cognizant are more adaptive to diverse classroom dynamics, fostering stronger pedagogical conveyance. Additionally, the work of Briscoe (2019) highlighted that isolated and extended cognizant play a crucial role in enhancing teachers’ ability to create meaningful learning experiences, ultimately contributing to improved instructional effectiveness and student engagement.

This study aimed to examine the significant relationship between cognizant and pedagogical conveyance among novice public elementary school teachers. Specifically, it sought to assess the level of cognizant in various domains, including environmental, interpersonal, extended, and isolated. Additionally, the study aimed to determine the extent to which novice teachers exhibit pedagogical conveyance in terms of reasoning, information conversation, group of activities, conversation of roles, and empathy. Furthermore, it investigated whether a significant relationship exists between cognizant and pedagogical conveyance and identified which domains of cognizant most significantly influence pedagogical conveyance. Using a descriptive-correlational research design, a total of 132 novice public elementary school teachers were surveyed using standardized questionnaires, and the data were analyzed using mean, standard deviation (SD), Pearson product-moment correlation, and multiple linear regression analyses.

From the data gathered, the following findings were drawn:

Firstly, the level of cognizant among novice public elementary school teachers is very high, particularly in the domains of environmental, interpersonal, extended, and isolated.

Secondly, the level of pedagogical conveyance among novice teachers is very high, specifically in terms of reasoning, information conversation, group of activities, conversation of roles, and empathy.

Thirdly, a significant relationship exists between cognizant and pedagogical conveyance, indicating a strong positive correlation between the two variables.

Finally, when examining the influence of the domains of cognizant on pedagogical conveyance, interpersonal, isolated, environmental, and extended significantly impact how novice teachers demonstrate pedagogical conveyance in their professional roles.

**5. CONCLUSIONS**

Based on the findings of the study, the following conclusions were formulated:

Firstly, the level of cognizant among novice public elementary school teachers is always observed, particularly in the domains of environmental, interpersonal, extended, and isolated. This indicates that novice teachers consistently exhibit a strong awareness of their surroundings, social interactions, and personal experiences, which contributes to their overall professional adaptability. A high level of cognizant allows teachers to effectively navigate classroom dynamics, understand student needs, and engage meaningfully with their colleagues and learning environments.

Secondly, the level of pedagogical conveyance among novice teachers is always observed, specifically in terms of reasoning, information conversation, group of activities, conversation of roles, and empathy. These findings suggest that novice teachers effectively apply their cognitive skills in instructional delivery, communication, collaborative activities, and role adaptation. The ability to convey pedagogical concepts clearly and empathetically ensures that teachers can foster a supportive and engaging learning environment for their students.

Thirdly, a significant relationship between cognizant and pedagogical conveyance was always observed. This indicates that teachers who demonstrate a high level of cognizant are also more likely to exhibit strong pedagogical conveyance. When teachers are highly aware of their professional and social contexts, they can better implement effective teaching strategies, communicate ideas clearly, and adapt to various classroom situations. The alignment between cognitive awareness and teaching practices underscores the importance of fostering both intellectual and instructional competencies among novice educators.

Finally, the domains of cognizant significantly influence pedagogical conveyance. This highlights the crucial role of teachers’ awareness and perception in shaping their instructional approaches. When teachers possess strong interpersonal awareness, environmental sensitivity, and reflective thinking, they are more likely to implement effective pedagogical methods that enhance student learning. Schools and educational institutions that prioritize the development of teachers' cognitive and instructional skills can create a more dynamic and impactful teaching-learning environment. Ensuring continuous professional development programs that strengthen teachers' cognizant and pedagogical conveyance can further enhance their teaching effectiveness and overall professional growth.

The results of the study validate the theories of Grehnev (2000), which emphasize that pedagogical conveyance involves teacher-student communication as an integral part of the learning process. Similarly, Patrick, Kaplan, and Ryan (2001) highlight that pedagogical conveyance engages students through strategies like direct teaching and scaffolding. Furthermore, the study supports the role of verbal, non-verbal, and pedagogical conveyance in teacher cognizant, reinforcing its significance in planning and implementing effective teaching activities.

**6. RECOMMENDATIONS**

Based on the findings and conclusions of this study, the following recommendations were proposed:

Firstly, considering that novice public elementary school teachers exhibit a very high level of cognizant, it is recommended that school administrators continue to implement initiatives that further enhance teachers' awareness and perception of their professional environment. Providing structured mentoring programs, reflective teaching workshops, and peer collaboration opportunities may strengthen teachers' ability to navigate various classroom dynamics and professional responsibilities effectively. Teachers, on their part, may actively engage in professional learning communities, seek continuous self-improvement, and reflect on their teaching experiences to further enhance their cognitive awareness.

Secondly, since the level of pedagogical conveyance is very high among novice teachers, it is recommended that educational institutions sustain and expand programs that enhance teachers’ instructional skills. Offering advanced training on reasoning, information communication, collaborative activities, role adaptation, and empathy-based teaching strategies can help teachers refine their pedagogical approaches. Administrators may also implement peer observation programs, where teachers can share best practices and receive constructive feedback. Novice teachers may take an active role in professional development opportunities, utilize innovative instructional methods, and collaborate with colleagues to continuously improve their teaching effectiveness.

Thirdly, given the significant relationship between cognizant and pedagogical conveyance, it is recommended that school administrators integrate cognitive skill-building strategies into teacher training programs. Providing workshops on situational awareness, decision-making, and reflective teaching may enhance teachers' ability to align their cognitive awareness with effective pedagogical strategies. Additionally, school leaders may establish platforms where teachers can discuss their experiences, challenges, and insights, promoting a culture of continuous learning. Teachers may contribute by participating in professional learning networks, engaging in self-reflection activities, and actively implementing new teaching strategies based on their cognitive insights.

Finally, considering the significant influence of cognizant domains on pedagogical conveyance, future initiatives may focus on holistic teacher development. Educational institutions may introduce interdisciplinary training programs that integrate cognitive skills with instructional strategies, ensuring that teachers are well-equipped to address diverse learning needs. Teachers may take proactive steps in seeking continuous professional growth, experimenting with innovative teaching methods, and collaborating with administrators to create an enriching and dynamic learning environment for students. Future research may explore additional factors that influence pedagogical conveyance, such as teachers' adaptability, emotional intelligence, and technological proficiency, to develop comprehensive strategies for enhancing teaching effectiveness.

Consent:

Before data collection, written informed consent was obtained from each participant.

Ethical Approval:

The researcher sought permission and endorsement from the Dean of the Graduate School for the Superintendent's approval. After receiving approval from the Dean, a request letter was submitted to the office of the Schools Division Superintendent. Once the superintendent granted approval, an endorsement letter was submitted to the school heads.

**Disclaimer (Artificial intelligence)**

The author(s) hereby declare that generative AI technologies have been used during the writing and editing of this manuscript. The details of the AI usage are as follows:

1.Grammarly: Used for grammar and spellchecking, as well as suggestions for improving sentence structure and overall clarity.

2.Quillbot: Employed for paraphrasing and refining sentence flow to enhance readability and coherence

References

Asirit, L. B. L., Hua, J. H., & Mendoza, L. (2022). A closer look at neophyte teachers' instructional competence: A phenomenological study. *International Research Journal of Science, Technology, Education, and Management*, *2*(2), 11-25.

Baguio, M. P. A. B., & Baguio, J. B. (2025). Professional Reputation and Service Efficacy of Teachers in Public Elementary Schools. *Asian Journal of Education and Social Studies*, *51*(1), 165-174.

Briscoe, P. (2019). Virtual mentor partnerships between practising and preservice teachers: Helping to enhance professional growth and well-being. *International Journal of Mentoring and Coaching in Education*, *8*(4), 235-254.

Brühwiler, C., & Vogt, F. (2020). Adaptive teaching competency. Effects on quality of instruction and learning outcomes. *Journal for educational research online*, *12*(1), 119-142.

Cappiali, T. M. (2023). A paradigm shift for a more inclusive, equal, and just academia? Towards a transformative-emancipatory pedagogy. *Education Sciences*, *13*(9), 876.

Conan Simpson, J. (2021). Fostering teacher leadership in K‐12 schools: A review of the literature. *Performance Improvement Quarterly*, *34*(3), 229-246.

Halupa, C. (2019). Differentiation of roles: Instructional designers and faculty in the creation of online courses. *International Journal of Higher Education*, *8*(1), 55-68.

Hartung, P. (2020). The impact of self-awareness on leadership behavior. *Journal of Applied Leadership and Management*, *8*, 1-21.

Jacob, F. I. L. G. O. N. A., John, S. A. K. I. Y. O., & Gwany, D. M. (2020). Teachers’ pedagogical content knowledge and students’ academic achievement: A theoretical overview. *Journal of Global Research in Education and Social Science*, *14*(2), 14-44.

Kyrpychenko, O., Pushchyna, I., Kichuk, Y., Shevchenko, N., Luchaninova, O., & Koval, V. (2021). Communicative competence development in teaching professional discourse in educational establishments. *International Journal of Modern Education & Computer Science*, *13*(4), 16-27.

Merker, B., Williford, K., & Rudrauf, D. (2022). The integrated information theory of consciousness: A case of mistaken identity. *Behavioral and Brain Sciences*, *45*, e41.

Norville, K., & Park, S. (2021). The impact of the cooperating teacher on master of arts in teaching preservice science teachers’ pedagogical content knowledge. *Journal of science teacher education*, *32*(4), 444-468.

Okolie, U. C., Igwe, P. A., Mong, I. K., Nwosu, H. E., Kanu, C., & Ojemuyide, C. C. (2022). Enhancing students’ critical thinking skills through engagement with innovative pedagogical practices in Global South. *Higher Education Research & Development*, *41*(4), 1184-1198.

Pregoner, J. D. (2024). Research approaches in education: A comparison of quantitative, qualitative and mixed methods. *IMCC Journal of Science*, *4*(2), 31-36.

Qobilovna, A. M. (2023). Communicative competence as a factor of teacher's professional competency. *American Journal Of Social Sciences And Humanity Research*, *3*(09), 32-44.

Sudargini, Y., & Purwanto, A. (2020). The effect of teachers pedagogic competency on the learning outcomes of students. *Journal of Industrial Engineering & Management Research*, *1*(4), 1-8.

Tomlinson, C. A., & Imbeau, M. B. (2023). *Leading and managing a differentiated classroom*. Ascd.

Velasquez, M. F., Capajaña, A. G., Ramirez, P. H., & Córdova, M. D. (2023). Reflective Teaching Impact upon Pre-Service English Teachers' Professional Development: A Systematic Review. *rEFLections*, *30*(3), 971-996.

Webb, N. M., Franke, M. L., Ing, M., Turrou, A. C., Johnson, N. C., & Zimmerman, J. (2019). Teacher practices that promote productive dialogue and learning in mathematics classrooms. *International Journal of Educational Research*, *97*, 176-186.

Zeine, F., Jafari, N., Nami, M., & Blum, K. (2024). Awareness Integration Theory A Psychological and Genetic Path to Self-Directed Neuroplasticity. *Health Sciences Review*, 100169.