



# INNOVATIVE TEACHING PRACTICES AND TEACHERS' EFFECTIVENESS IN PANABO CITY DIVISION

**Ismael A. Ucol**

*Master of Arts in Educational Management, Rizal Memorial Colleges, Inc.*

Article DOI: <https://doi.org/10.36713/epra23427>

DOI No: 10.36713/epra23427

## ABSTRACT

*This study examined the influence of innovative teaching practices on teachers' effectiveness among selected educators in the Division of Panabo City. Using a descriptive-correlational research design, the study involved 116 teacher respondents who answered validated and pilot-tested research instruments. Statistical tools used included Weighted Mean, Pearson Product Moment Correlation, and Regression Analysis. Results revealed that both innovative teaching practices and teachers' effectiveness were at an extensive level, suggesting that these elements were oftentimes evident in the teaching process. A significant relationship was found between innovative teaching practices comprising critical thinking, creativity, social skills, and information communication and technology skills, and teachers' effectiveness. Regression analysis showed that all four domains of innovative teaching practices significantly predicted teachers' effectiveness, with critical thinking having the greatest impact. The coefficient of determination indicated that 50.70% of the variance in teachers' effectiveness could be explained by these innovative domains. The findings affirm the predictive power of innovative teaching in enhancing teacher performance and align with learning theories such as constructivism, social learning theory, cognitive load theory, experiential learning, and connectivism. The study recommends strengthening teacher training programs and policy support to further institutionalize innovation in teaching.*

**KEYWORDS:** *Innovative Teaching Practices; Teacher Effectiveness; Critical Thinking; ICT Skills; Regression Analysis; Constructivist Theory; Panabo City.*

## INTRODUCTION

The educational landscape has significantly evolved in recent years due to technological advancements, globalization, and the shifting demands of 21st-century learners. These changes have emphasized the need for innovative teaching practices that enhance student engagement and teacher effectiveness. Innovative teaching involves the integration of creativity, critical thinking, problem-solving, and technology to support active learning and address diverse student needs.

Globally, the COVID-19 pandemic accelerated digital learning, highlighting the importance of technological integration in education. Reports, such as from the World Economic Forum (2020), underscored how over 1.2 billion students were affected by school closures, prompting a shift to online platforms and reinforcing the need for digital literacy among teachers.

Innovative teaching strategies—including flipped classrooms, project-based learning, and the use of ICT tools—not only make learning more interactive but also foster inclusivity, collaboration, and lifelong learning. In the Philippines, challenges such as limited resources, large class sizes, and lack of professional development hinder the widespread adoption of such practices. In response, the Department of Education launched initiatives like *Sulong EduKalidad* to address these issues through curriculum reform and teacher upskilling.

At the local level, Panabo City Division, a predominantly rural area in Davao del Norte, faces constraints including outdated materials and limited technological infrastructure. Despite these barriers, there is increasing awareness of the role innovative practices play in enhancing teacher effectiveness. Research (e.g., Jerusalem, 2020; Akram, 2018) confirms that teachers using modern strategies are more likely to engage students and improve learning outcomes.

This study aims to examine the extent to which teachers in Panabo City employ innovative teaching practices and how these relate to their effectiveness. The findings will offer insights for improving educational quality in rural settings and may guide future investments in teacher training and infrastructure. Ultimately, enhancing innovative practices is key to equipping educators and learners in underserved areas for success in a rapidly changing world.



## REVIEW OF SIGNIFICANT LITERATURE

This study investigates the relationship between teachers' innovative teaching practices and teacher effectiveness, guided by key literature emphasizing the importance of 21st-century competencies in education. The independent variable, innovative teaching practices, includes critical thinking, creativity, social skills, and information communication and technology (ICT) skills (Jerusalem, 2020). The dependent variable, teacher effectiveness, is evaluated based on subject matter knowledge, instructional planning, assessment, learning environment, and communication skills (Akram, 2018).

### Teachers' Innovative Teaching Practices

Innovative teaching integrates pedagogical strategies that foster creativity, collaboration, critical thinking, and digital competence. It is particularly relevant in today's educational climate, shaped by technological advances and global shifts in learning modalities. Studies highlight the effectiveness of project-based learning, flipped classrooms, and ICT integration in promoting engagement and deeper learning (Hattie, 2022; Barron & Darling-Hammond, 2020). However, implementation remains inconsistent in regions like Panabo City due to limited infrastructure and professional development opportunities (Salazar, 2020; Ferrer & Medina, 2021).

### Critical Thinking

Critical thinking enables learners to analyze information, assess arguments, and make rational decisions. Dewey (1933) and Ennis (2021) emphasized its value in reflective teaching and learning. In the classroom, it is encouraged through inquiry-based learning, problem-solving tasks, and decision-making activities, which help students become independent, analytical thinkers (Ruggiero, 2022).

### Creativity

Creativity is a core 21st-century skill involving originality, innovation, and risk-taking. Theories by Sternberg and Lubart (1999) and frameworks like the Four Ps (Rhodes) and Four Cs (Kaufman & Beghetto, 2009) highlight how creativity manifests in education. Classroom strategies that stimulate creativity include open-ended projects, interdisciplinary teaching, and exploration-based learning (Craft, 2019; Cropley, 2019).

### Social Skills

Social skills refer to the ability to interact effectively with others, build relationships, and work collaboratively. These are fostered through cooperative learning, peer-to-peer discussions, and inclusive classroom environments (Dinh, 2019; Yusuf, 2018). Strong social skills among students enhance classroom harmony, leadership potential, and overall academic achievement (Kotluk & Kocakaya, 2018).

### ICT Skills

ICT skills are increasingly essential in modern teaching. Effective use of digital tools enables personalized instruction, real-time assessment, and interactive learning (Christmann & Badgett, 2019; Garrison & Anderson, 2020). In the Philippines, while challenges in access and training exist, the integration of ICT remains a priority in enhancing teaching quality and learner outcomes (Kaware & Sain, 2019; DepEd, 2020).

## STATEMENT OF THE PROBLEM

This study determined the relationship between the teacher's innovative teaching practices and teacher effectiveness. More specifically, it sought to answer the following questions:

1. What is the extent of teacher's innovative teaching practices in terms of:
  - 1.1. Critical Thinking,
  - 1.2. Creativity,
  - 1.3. Social Skills, and
  - 1.4. Information Communication and Technology Skills
2. What is the extent of teacher effectiveness in terms of:
  - 2.1. Subject Matter Knowledge,
  - 2.2. Instructional Planning and Strategies,
  - 2.3. Assessment,
  - 2.4. Learning Environment, and
  - 2.5. Effective Communication
3. Is there a significant relationship between the teacher's innovative teaching practices and teacher effectiveness?
4. Which of the domains of the teacher's innovative teaching practices significantly influence teacher effectiveness?

## METHODOLOGY

This chapter introduces the methodological aspect of the study. This covers the research design, research respondents, research instruments, data gathering procedure, and data analysis employed in this investigation.



### **Research Design**

This study employs a quantitative research approach, specifically utilizing a descriptive correlational design. Quantitative research is centered on gathering numerical data and using statistical analysis to understand patterns, relationships, or phenomena. According to Apuke (2019), quantitative methods allow for structured data collection that leads to objective conclusions based on statistical tools. A descriptive correlational design is particularly effective for examining how variables naturally relate to one another without manipulating them (Davis, 2021). This design allows the researcher to observe existing conditions and describe the relationship between the variables, focusing on understanding how innovative teaching practices (independent variable) affect teacher effectiveness (dependent variable).

Descriptive research provides an in-depth look at the characteristics of the variables, without altering the study environment, which helps the researcher to present an accurate picture of the current conditions. As noted by Korrapati (2019), descriptive research serves to map out the features of a phenomenon or problem while staying neutral and non-intrusive. On the other hand, correlational research is used to determine whether and how two variables are related. Kabir (2018) explains that correlational research seeks to understand the degree to which changes in one variable are associated with changes in another, making this method appropriate for studying the connection between teachers' innovative practices and their overall effectiveness.

By adopting a descriptive correlational design, this study aims to measure the strength and direction of the relationship between the independent and dependent variables, without influencing any variables directly. This design is valuable because it allows researchers to observe and describe real-world interactions between teachers' instructional methods and their effectiveness, as outlined by Creswell & Creswell (2019). Through this approach, the study will contribute to understanding how innovative teaching practices influence teacher effectiveness, providing useful insights for educational leaders and policymakers.

### **Research Respondents**

In this study, the respondents consist of 116 teachers selected using systematic sampling to ensure a representative and diverse group. The selection process includes teachers from various public and private schools in Panabo City, representing different educational levels and subject specializations. Systematic sampling ensures that the respondents reflect the broader teaching population, enabling a more accurate analysis of innovative teaching practices and their relationship with teacher effectiveness. Systematic sampling methods, as noted by Creswell and Creswell (2019), allow for generalizable findings because of their organized and structured approach, eliminating bias in the selection process. The focus is on gathering a balanced sample of teachers who have varied teaching experiences and backgrounds to provide comprehensive insights.

A sample size of 116 respondents is appropriate for this study's correlational design, as it ensures that the data collected is sufficient for statistical analysis while maintaining validity and reliability in the findings. A sample size of this magnitude allows for the identification of relationships between innovative teaching practices and teacher effectiveness, as recommended by Apuke (2019), who highlights that larger sample sizes in quantitative research contribute to more robust and generalizable results. The chosen sample size also enables the study to detect significant correlations between the variables, ensuring that the research provides meaningful and actionable conclusions.

This group of respondents will provide critical data for the study, contributing valuable perspectives on the application of innovative teaching practices. Their feedback will help identify the strategies that are most effective in enhancing teacher performance and student outcomes. The diversity of the sample will ensure that the findings are applicable across various educational contexts, thereby making the results relevant to policymakers, school administrators, and educators. This relevance is further supported by Davis (2021), who notes that diverse respondent groups in educational research are crucial for drawing conclusions that are widely applicable.

### **Research Instruments**

The primary instrument for data collection was a structured, adapted questionnaire designed to measure both **teachers' innovative teaching practices** and **teacher effectiveness**. It utilized closed-ended, Likert-scale items to quantify participants' perceptions.

#### **Teacher's Innovative Teaching Practices**

Adapted from Jerusalem (2020), the instrument contained **40 items** across four indicators:

- **Critical thinking (Items 1–11)**
- **Creativity (Items 12–23)**
- **Social skills (Items 24–32)**
- **ICT skills (Items 33–40)**

Pilot testing yielded a **Cronbach's alpha of 0.94**, indicating high internal consistency. This suggests that the instrument reliably measures the targeted competencies.

**Interpretation Scale** for innovative teaching practices:

- **4.20–5.00** – Very Extensive: Always evident
- **3.40–4.19** – Extensive: Oftentimes evident
- **2.60–3.39** – Moderately Extensive: Occasionally evident
- **1.80–2.59** – Less Extensive: Seldom evident
- **1.00–1.79** – Not Extensive: Never evident

**Teacher Effectiveness**

Adapted from Akram (2018), the instrument consisted of **26 items** covering five indicators:

- **Subject matter knowledge (Items 1–6)**
- **Instructional planning and strategies (Items 7–12)**
- **Assessment (Items 13–17)**
- **Learning environment (Items 18–23)**
- **Effective communication (Items 24–26)**

Pilot testing produced a **Cronbach's alpha of 0.85**, confirming strong reliability and internal consistency.

**Interpretation Scale** for teacher effectiveness:

- **4.20–5.00** – Very Extensive: Always evident
- **3.40–4.19** – Extensive: Oftentimes evident
- **2.60–3.39** – Moderately Extensive: Occasionally evident
- **1.80–2.59** – Less Extensive: Seldom evident
- **1.00–1.79** – Not Extensive: Never evident

The instruments were contextualized and refined based on feedback from the research adviser, panel members, and expert validators to ensure clarity and construct validity.

## RESULTS AND DISCUSSIONS

This chapter presents the results of the study. These are the findings of the problems in the previous chapter. These are presented both in textual and tabular form.

*The Extent of Innovative Teaching Practices of Teachers*

*This study assessed the extent of innovative teaching practices of teachers in terms of critical thinking, creativity, social skills, and information communication and technology (ICT) skills. Findings reveal that all indicators were rated at an extensive level, with an overall mean of 4.07. Among the domains, ICT skills ranked highest (M=4.11), followed by creativity (M=4.08), critical thinking (M=4.06), and social skills (M=4.04).*

*Critical Thinking*

*Teachers frequently employed strategies that encouraged higher-order thinking, including training students in metacognition (M=4.18), adapting teaching to classroom realities (M=4.15), and focusing on teaching objectives (M=4.14). These findings affirm the integration of reflective and analytical teaching approaches that align with Jerusalem (2020), Dewey and Ennis (2021), and Ruggiero (2022), who emphasized critical thinking as essential in modern education.*

*Creativity*

*Innovative teaching in terms of creativity was evident through differentiated instruction (M=4.13), assuming diverse teaching roles (M=4.16), and promoting love for learning (M=4.14). The findings support Craft's (2019) concept of "little-c creativity," Florida's (2020) innovation perspective, and Sternberg's (2019) investment theory of creativity, which highlights risk-taking and flexibility as essential in teaching.*

*Social Skills*

*Social-emotional learning was found to be extensively practiced, with teachers showing empathy to diverse learners (M=4.10), providing opportunities for student expression (M=4.08), and promoting teamwork (M=4.07). These results are consistent with the works of Dinh (2019), Yusuf (2018), and Sriyanto et al. (2019) on the role of communication and self-regulation in student development.*

*Information Communication and Technology (ICT) Skills*

*Teachers effectively utilized ICT to organize classroom activities (M=4.17), provoke deeper learning (M=4.16), and engage students (M=4.15). These findings align with Christmann & Badgett (2019), Kaware & Sain (2019), and Trilling & Fadel (2022), who emphasized ICT's role in enhancing student engagement and digital competence.*

*Summary and Implications*

*The study confirms that teachers in the division exhibit extensive use of innovative teaching practices across all domains, aligning with UNESCO's (2019) call for transformative pedagogy. It supports the findings of Ghavifekr et al. (2019) on the critical role of technology in education and resonates with DepEd (2021) goals under the K–12 curriculum.*



*Despite these positive results, challenges such as limited access to professional development and technological resources persist, as noted by Salazar (2020) and Zhu (2020). However, the adaptability demonstrated by teachers, particularly in resource-limited settings like Panabo City Division, reflects resilience and commitment to innovation, echoing the findings of Ferrer & Medina (2021) and Kline (2020).*

*Ultimately, the study underscores the importance of continuous teacher support, training, and encouragement to foster innovative, student-centered teaching practices that prepare learners for the demands of the 21st century.*

## CONCLUSION AND RECOMMENDATIONS

Presented in this chapter are the findings based on the results of the data, the conclusions drawn from the findings, and the recommendations for consideration.

The main focus of the study was to determine the significance of the relationship between innovative teaching practices and teachers' effectiveness. The study was conducted with the selected teachers from the Division of Panabo City. There were two hundred (116) teachers who participated in this study. A descriptive correlational method of research was used in utilizing adopted research instruments. The said instruments were validated by the panel of experts and subjected to pilot testing before it was made ready for administration. Weighted Mean, Pearson Product Moment Correlation, and Regression Analysis were statistical tools used in analyzing the data. The hypotheses in this study were tested at a 0.05 level of significance.

The major findings of the study were the following: the extent of the innovative teaching practices of the teachers is extensive. Meanwhile, the extent of the teachers' effectiveness of the teachers is also extensive. It was found that there is a significant relationship between innovative teaching practices and the teachers' effectiveness. The hypotheses of no significant relationship between innovative teaching practices and teachers' effectiveness and none of the domains of innovative teaching practices significantly influence the teachers' effectiveness were rejected.

### Conclusions

Based on the findings of this study, the following conclusions were offered:

The extent of innovative teaching practices is extensive, which implies that it is oftentimes evident. All dimensions of innovative teaching practices are at an extensive level, which means it is oftentimes evident. Meanwhile, the extent of teachers' effectiveness is also extensive, which means that it is oftentimes evident. All dimensions of teachers' effectiveness are oftentimes evident. Both variables call for all school members to work hand in hand to strengthen the existing status of the innovative teaching practices and teachers' effectiveness.

Based on the findings, innovative teaching practices, and teachers' effectiveness are correlated. Also, innovative teaching practices significantly influences teachers' effectiveness. All domains of innovative teaching practices, namely, critical thinking, creativity, social skills, and information communication and technology skills significantly influence teachers' effectiveness by registering a p-value of .000 which is less than .05 in the level of significance. This leads to the rejection of the null hypotheses. Further, the result indicates that for every unit increase in the four domains of innovative teaching practices, teachers' effectiveness also increases.

### Recommendations

The following suggestions were offered based on the conclusions of the study:

For Teachers, it is imperative to continuously cultivate and integrate innovative teaching practices in their instructional delivery. Since the study showed that critical thinking, creativity, social skills, and information communication and technology skills significantly influence teacher effectiveness, educators should regularly engage in professional development programs that enhance these domains. Teachers are encouraged to embrace reflective teaching, experiment with new methodologies, incorporate digital tools into their lessons, and foster collaborative learning environments that stimulate both cognitive and social development. By doing so, they not only become more effective in delivering the curriculum but also more responsive to the evolving needs of 21st-century learners.

For Higher Officials in the Department of Education, the findings highlight the importance of policy support in promoting innovation at the classroom level. It is recommended that national and regional offices allocate more resources and support systems for continuous teacher training specifically focused on innovative pedagogies. Furthermore, the integration of innovation-based performance metrics into teacher evaluation and school accreditation systems may incentivize sustained efforts toward teaching effectiveness. Education officials must also consider embedding innovation-related competencies in teacher qualification standards, as these are proven predictors of professional growth and student success.

For School Principals, their role as instructional leaders becomes even more critical in fostering a culture of innovation. School heads should encourage and model best practices in teaching innovation and provide enabling environments that support experimentation, collaboration, and the use of ICT in instruction. They should also organize learning action cells



or professional learning communities where teachers can share and co-develop innovative strategies that align with the school's goals. By building a supportive ecosystem, principals ensure that the momentum for innovation and effectiveness becomes part of the school's culture and vision.

For Future Researchers, this study opens pathways for more focused investigations on how each domain of innovative teaching impacts specific areas of teacher performance or student outcomes. It is recommended that future studies explore longitudinal designs to trace the long-term effects of sustained innovation in teaching. Moreover, expanding the research to include diverse educational settings and levels, such as early childhood or tertiary education, may yield broader insights. Future researchers can also consider exploring moderating variables such as teacher motivation, school leadership style, or student demographics to further contextualize the impact of innovative teaching practices. By recognizing the significance of the interconnectedness of innovative teaching practices and teacher effectiveness in education, all stakeholders can contribute to creating dynamic learning environments that foster professional excellence and improved learner outcomes.

## REFERENCES

1. *Abi-El-Mona, I., & Abd-El-Khalick, F. (2019). Argumentation in science education: A critical review of the literature. International Journal of Science Education.*
2. *Ackerman, D. J., Gross, S. J., & Votruba-Drzal, E. (2009). Teacher effectiveness and student achievement: A review of the research. Early Childhood Research Quarterly, 24(1), 1–13.*
3. *Akram, M. (2018). Teacher Effectiveness and Classroom Management: A Guide to Improving Teacher Effectiveness. Journal of Educational Leadership.*
4. *Akram, M., & Zepeda, S. J. (2019). Teachers' performance evaluation in Pakistani public schools: Are teachers' perceptions in sync with the policy? Educational Management Administration & Leadership, 47(2), 265–286.*
5. *American Psychological Association. (2020). Publication manual of the American Psychological Association (7th ed.). American Psychological Association.*
6. *Amineh, R. J., & Asl, H. D. (2015). Review of Constructivism and Social Constructivism. Journal of Social Sciences, 1(1), 9-16.*
7. *Anderson, T., & Dron, J. (2011). Three generations of distance education pedagogy. The International Review of Research in Open and Distributed Learning, 12(3), 80–97.*
8. *Apuke, O. D. (2019). Quantitative research methods: A synopsis approach. Arabian Journal of Business and Management Review*
9. *Averill, J. R., Chon, K. K., & Hahn, D. W. (2019). Emotional Creativity: Toward "Emotional Creativity". Journal of Creative Behavior, 35(3), 177-195.*
10. *Azam, M., & Kingdon, G. (2019). Assessing teacher quality in India: A value-added approach.*
11. *Bandura, A. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice Hall.*
12. *Barron, B., & Darling-Hammond, L. (2020). Project-based learning: Preparing students for tomorrow, today. Harvard Education Press.*
13. *Bartos, S., & Lederman, N. (2019). Teachers' subject matter knowledge and the impact on teaching. Journal of Science Teacher Education.*
14. *Beauchamp, T. L., & Childress, J. F. (2019). Principles of biomedical ethics (8th ed.). Oxford University Press.*
15. *Beetham, H., & Sharpe, R. (2019). Rethinking pedagogy for a digital age: Designing for 21st century learning. Routledge.*
16. *Biggs, J. (2019). "Teaching for Quality Learning at University."*
17. *Black, P., & Wiliam, D. (2020). "Classroom Assessment and the Role of Formative Feedback."*
18. *Blömeke, S., Kaiser, G., & Lehmann, R. (2020). Effects of teacher subject knowledge on student achievement in mathematics and science: Evidence from international assessments. Educational Research and Evaluation.*
19. *Bolarinwa, O. A. (2019). Principles and Practice of Instrument Development in Health Research. Health and Quality of Life Outcomes, 13(1), 1-10. Link*
20. *Bond, N., & Peterson, J. (2019). "The Role of Instructional Planning in Classroom Management."*
21. *Chapman, O. (2019). Preservice teacher development in mathematics. Journal of Mathematics Teacher Education.*
22. *Chen, B., Seow, P. S., & Huang, H. (2020). Teaching innovation in higher education: A critical review and research agenda. Educational Technology Research and Development, 68(2), 727-749.*
23. *Chetty, R., Friedman, J. N., & Rockoff, J. E. (2019). Measuring the impacts of teachers II: Teacher value-added and student outcomes in adulthood. American Economic Review.*
24. *Christmann, E., & Badgett, J. (2019). The Impact of Technology on Student Learning.*
25. *Cobb, P. (2019). Constructivism in the classroom: A teacher and researcher collaboration. Learning and Instruction.*
26. *Conant, J. B. (2019). The education of American teachers. Journal of Education. Craft, A. (2019). Creativity in Schools: Tensions and Dilemmas. Routledge.*
27. *Creswell, J. W., & Creswell, J. D. (2019). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.*
28. *Cronbach, L., & Meehl, P. (2020). Psychological testing and constructs. Journal of Educational Psychology.*
29. *Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2020). Effective teacher professional development. Learning Policy Institute.*
30. *Dascalu, M., et al. (2020). Influence of learning environments on academic success.*



33. *Computer Applications in Engineering Education.*
34. Davis, K. (2021). *Descriptive and correlational studies: An overview.* ResearchGate.
35. Retrieved from <https://www.researchgate.net/publication/331722221>
36. Davis, T. (2021). *Descriptive correlational research design.* Sage Encyclopedia of Educational Research, Measurement, and Evaluation.
37. DepEd. (2021). *Philippine K-12 Education Program.* Department of Education.
38. DeVellis, R. F. (2021). *Scale Development: Theory and Applications (4th ed.).* SAGE Publications.
39. Driver, R., Newton, P., & Osborne, J. (2020). *Establishing the norms of scientific argumentation in classrooms.* *Science Education*, 84(3), 287–312.
40. Dinh, T. (2019). *The Importance of Social Skills in Educational and Personal Development.*
41. Earl, L. M. (2023). "Assessment as Learning: Using Classroom Assessment to Maximize Student Learning."
42. Elassy, N. (2020). *The concepts of quality, quality assurance and quality enhancement.*
43. *Quality Assurance in Education*, 28(3), 257-264.
44. Ennis, R. H. (2021). *Critical thinking: Reflection and perspective – Part I. Inquiry: Critical Thinking Across the Disciplines*, 26(1), 4-18.
45. Erden, M., & Altun, S. (2021). *Learning styles and classroom environment.* *Educational Research and Reviews.*
46. Ferguson, R. F. (2012). *Can student surveys measure teaching quality?* *Phi Delta Kappan*, 94(3), 24–28.
47. Ferrer, K., & Medina, R. (2021). *The challenge of teacher innovation in rural areas: A Philippine case study.* *Journal of Educational Innovation.*
48. Florida, R. (2020). *The Rise of the Creative Class.* Basic Books.
49. Gajda, A., Karwowski, M., & Beghetto, R. A. (2018). *Creativity and Academic Achievement: A Meta-Analysis.* *Journal of Educational Psychology*, 109(2), 269- 299.
50. Garrison, D. R. (2020). "E-Learning in the 21st Century: A Framework for Research and Practice."
51. Ghavifekr, S., & Rosdy, W. (2019). *Teaching and learning with technology: Effectiveness of ICT integration in schools.* *International Journal of Education and Development.*
52. Gilavand, A. (2022). *The impact of environmental factors on learning.* *International Journal of Pediatrics.*
53. Goleman, D. (2020). *Emotional Intelligence: Why It Can Matter More Than IQ.* Bantam Books.
54. Hague, C., & Payton, S. (2021). *Digital Literacy Across the Curriculum: An Overview for Educators.*
55. Hannon, V. (2020). *Future schooling: Learning to thrive in a transforming world.*
56. Routledge.
57. Hargie, O. (2021). *Skilled Interpersonal Communication: Research, Theory and Practice.*
58. Routledge.
59. Harrison, C., et al. (2021). "Alternative Assessments in Education."
60. Hasbahuddin, H. (2018). *The Role of Social Intelligence in Academic Achievement.*
61. Hattie, J. (2022). "Visible Learning for Teachers: Maximizing Impact on Learning." Henningsen, M., & Stein, M. K. (2018). *Mathematical tasks and student cognition:*
62. *Classroom-based factors that support and inhibit high-level mathematical thinking and reasoning.* *Journal for Research in Mathematics Education.*
63. Hill, H. C., & Ball, D. L. (2021). *Learning mathematics for teaching: Results from California's mathematics professional development institutes.* *Journal for Research in Mathematics Education.*
64. Hoehsmann, M., & DeWaard, H. (2019). *Mapping Digital Literacy Policy and Practice in the Canadian Education Landscape.*
65. Jerusalem, R. (2020). *Innovative Teaching Practices for 21st Century Learners.*
66. *International Journal of Educational Research.*
67. Kabir, S. M. S. (2018). *Basic guidelines for research: An introductory approach for all disciplines.* Book Zone Publication.
68. Kaware, S. S., & Sain, S. K. (2019). *ICT Application in Education: An Overview.*
69. Kerwin, J. T., & Thornton, R. L. (2020). *Making the grade: Understanding what works for teacher effectiveness in Uganda.*
70. Killion, J. (2020). *Assessing Impact: Evaluating Staff Development.* Corwin Press.
71. Kinchin, I., Hay, D., & Adams, A. (2020). *How a teacher's subject knowledge structures influence classroom practice.* *International Journal of Science Education.*
72. Kolb, D. A. (2014). *Experiential Learning: Experience as the Source of Learning and Development.* FT Press.
73. Korrapati, R. (2019). *Research paradigms: Descriptive, correlational, and experimental.*
74. *International Journal of Education and Research.*
75. Kotluk, N., & Kocakaya, S. (2018). *Enhancing Social Skills through Collaborative Learning in the Classroom.*
76. Kyriacou, C., & Kunc, R. (2023). *Teacher resilience in the face of challenging classrooms: A review of international research on teacher effectiveness.*
77. Lai, K.-W., & Bower, M. (2020). *Technology Integration in Education: New Roles for Teachers and Learners.* Springer.
78. Lemov, D. (2019). "Teach Like a Champion 2.0."
79. Leung, L. (2020). *Effects of Internet Connectedness and ICT Literacy on Quality of Life.* McBer, H. (2020). *Research into teacher effectiveness: A model of teacher effectiveness.*
80. Department for Education and Employment (DfEE), UK.
81. Millwood, R., Davis, N., & Salmon, G. (2018). *Creating effective virtual learning environments through design.* *Journal of Digital Learning*, 12(4), 205–217.
82. Murugan, M., & Rajoo, M. (2023). *Learning environment and academic achievement.*
83. *Journal of Educational Research.*



84. Ng, W. (2021). *Improving teaching through subject knowledge*. Routledge.
85. Nunnally, J. C., & Bernstein, I. H. (2021). *Psychometric Theory (3rd ed.)*. McGraw-Hill. OECD (2021). *Teaching in Focus: Innovative Pedagogies for the Future of Learning*. Ormrod, J. E. (2016). *Human learning (7th ed.)*. Pearson.
86. Pitjeng, T. M. (2024). *Linking teachers' content knowledge with learner performance: A quantitative study*. *South African Journal of Education*, 44(1), 1–14.
87. Raccoon Gang.(2018).*Creating effective learning environments in schools*.  
<https://raccoongang.com/blog/importance-learning-environment-education/>.
88. Ruggiero, V. R. (2022). *The art of thinking: A guide to critical and creative thought (10th ed.)*. Pearson.
89. Salazar, M. (2020). *Barriers to innovative teaching practices in the Philippines*. *Philippine Educational Review*.
90. Schunk, D. H. (2020). *Learning theories: An educational perspective (8th ed.)*. Pearson. Shulman, L. S. (2018). *Those who understand: Knowledge growth in teaching*.
91. *Educational Researcher*, 15(2), 4–14.
92. Siemens, G. (2005). *Connectivism: A Learning Theory for the Digital Age*. *International Journal of Instructional Technology and Distance Learning*, 2(1), 3-10.
93. Smith, A. (2020). *The role of communication in fostering employee engagement*. *Journal of Business Communication*.
94. Spronken-Smith, R., et al. (2021). "Inquiry-Based Learning: A Conceptual Framework." Sriyanto, A., Febrianta, A., & Yuwono, S. (2019). *Social Skills in Elementary Schools: A Focus on Group Activities and Peer Interaction*.
95. Sternberg, R. J. (2019). *The Nature of Creativity*. *Creativity Research Journal*, 18(1), 87- 98.
97. Stronge, J. H. (2018). *Qualities of effective teachers (3rd ed.)*. ASCD.
98. Stronge, J. H., & Tucker, P. D. (2018). *Teacher evaluation and student achievement*.
99. Sung, R. (2018). *Planning instruction for learning: The role of lesson design in academic success*. *Educational Leadership*, 40(2), 14–18.
100. Sutcliff, J. (2021). *Measuring teaching effectiveness: Student feedback and beyond*.
101. Education Policy Institute.
102. Sweller, J. (2020). *Cognitive Load Theory and Educational Technology*. Springer. Talance, E. (2019). *Measuring teacher effectiveness in low-resource settings*.
103. *International Journal of Education Policy and Leadership*, 14(3), 21–35.
104. Tavakol, M., & Dennick, R. (2021). *Making sense of Cronbach's alpha*. *International Journal of Medical Education*, 2, 53-55.
105. Trilling, B., & Fadel, C. (2022). *21st Century Skills: Learning for Life in Our Times*. UNESCO. (2019). *Reimagining education for a globalized world*. UNESCO Publishing.
106. Van der Sandt, S., & Nieuwoudt, H. (2018). *Teachers' subject matter knowledge: Its nature and impact*. *South African Journal of Education*, 38(4), 1–10.
107. Wiliam, D. (2019). *Embedded formative assessment (2nd ed.)*. Solution Tree Press. World Economic Forum (2020). *The COVID-19 Pandemic's Impact on Education*
108. Systems. Retrieved from <https://www.weforum.org/reports>.
109. Wright, S. P., Horn, S. P., & Sanders, W. L. (2018). *Teacher and classroom context effects on student achievement: Implications for teacher evaluation*. *Journal of Personnel Evaluation in Education*, 11(1), 57–67.