
Teacher Mastery in Enhancing Critical Thinking Skills in the Schools Division of Mabalacat City in Response to PISA Results: A Basis for Critical Thinking Resource Plan

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Abstract — This study aimed to evaluate teacher mastery in enhancing critical thinking skills among Junior High School (JHS) teachers in the Schools Division of Mabalacat City, in response to the results of the Programme for International Student Assessment (PISA). It explored the relationship between teachers' professional profiles, such as length of service, highest educational attainment, and relevant trainings attended, with their level of knowledge in fostering critical thinking skills. A total of 120 teachers participated in the study, providing data on their professional background and teaching practices. The results revealed that teachers generally possess strong knowledge in areas like drawing conclusions, distinguishing assumptions from generalizations, and helping students evaluate ideas. However, areas like evaluating logical explanations and making judgments showed room for improvement. The study found that length of service and highest educational attainment significantly correlated with teachers' mastery of critical thinking skills, while relevant trainings attended did not. Based on these findings, the study proposes a Critical Thinking Resource Plan that emphasizes targeted professional development, continuous mentorship, curriculum integration, and collaboration among teachers to enhance critical thinking skills in students. The study underscores the importance of a structured approach to professional growth to address the gaps in critical thinking instruction and align with global educational standards

Keywords: Critical Thinking, PISA

I. INTRODUCTION

In the rapidly evolving landscape of the 21st century, equipping students with robust critical thinking skills is paramount for their academic success and real-world problem-solving. Educational literature strongly emphasizes that teachers play a foundational role in this development; scholars like Ennis (2015), Halpern (2015), and Paul and Elder (2019) advocate for the explicit instruction of intellectual standards, while local research by Torres (2020) underscores the necessity of continuous professional development to help educators effectively teach these skills. Despite these recognized pedagogical standards, a glaring problem persists: the 2022 Programme for International Student Assessment (PISA) results revealed that Filipino students continue to perform significantly below the global average in critical thinking-related domains. This alarming gap between theoretical educational ideals and actual student performance highlights an urgent need to examine the current pedagogical practices and competencies of local educators who are on the frontlines of this academic challenge.

To address this critical gap, this study aims to assess the knowledge level of Junior High School (JHS) teachers in the Schools Division of Mabalacat City regarding the development of critical thinking skills for the 2024-2025 school year. Specifically, it evaluates the relationship between the teachers' professional profiles—namely, length of service, educational attainment, and relevant trainings attended—and their instructional mastery. By synthesizing these theoretical frameworks with local empirical data, the study persuasively advocates for a targeted Critical Thinking Resource Plan based on its findings. Ultimately, this research serves as a vital catalyst for educational reform, seeking to empower teachers with targeted interventions to elevate students' critical-thinking competencies and ensure their readiness for a complex, globalized world.

Literature Review

The foundational theories of critical thinking in education are deeply rooted in constructivist and metacognitive paradigms. Cognitive constructivism, as explored by Brooks and Brooks (2019), posits that learners actively build their understanding through reasoning, problem-

solving, and reflection, requiring educators to facilitate experiences that challenge assumptions. This is enriched by social constructivism, where Duffy and Jonassen (2015) emphasize that knowledge is co-constructed through collaborative interactions and exposure to diverse viewpoints. Furthermore, the development of critical thinking relies heavily on metacognition—the awareness and regulation of one's own thinking processes—which Flavell (2019) and Schraw and Moshman (2015) argue can be nurtured through structured reflective practices.

Translating these theories into practice, various foreign and local studies advocate for specific instructional strategies to enhance analytical skills. Halpern (2015) and Paul and Elder (2019) argue for the explicit teaching of critical thinking and the integration of clear intellectual standards into curriculum design. Collaborative learning environments and thinking routines have also been shown to boost higher-order cognition, as demonstrated by Abrami et al. (2015) and Costa and Kallick (2016). In the Philippines, Reyes (2016) highlights the success of inquiry-based learning in stimulating curiosity and evidence-based problem-solving, while Torres (2020) emphasizes that continuous professional development is vital for equipping teachers with the pedagogical tools needed to implement these strategies effectively.

Despite the availability of these robust educational frameworks, a significant gap remains in actual student performance. The 2022 Programme for International Student Assessment (PISA) results clearly indicate that Filipino students continue to perform below the global average in critical thinking-related domains (OECD, 2022). This alarming reality underscores an urgent need for targeted educational reforms. By synthesizing these theoretical and empirical foundations, it becomes evident that assessing the current instructional practices of teachers in Mabalacat City is a critical step toward developing resources and interventions that can bridge the gap between educational theory and student achievement

II. METHODOLOGY

This study employed a descriptive-correlational research design to examine and correlate the professional profiles of Junior High School (JHS) teachers with their knowledge in developing students' critical thinking skills within the Schools Division of Mabalacat City, Pampanga, during

the school year 2024–2025. Data were gathered from a sample of 120 JHS teachers who were selected through a simple random sampling technique. The primary tool for data collection was a researcher-made questionnaire split into two parts: the first section mapped out the participants' demographic profiles—specifically their length of service, highest educational attainment, and relevant trainings attended—while the second section evaluated their specific knowledge levels in executing critical thinking strategies.

For data analysis, the study deployed specific statistical treatments to systematically process the responses. Frequency and percentage distributions were used to summarize and organize the teachers' professional profiles, while a weighted mean was calculated to establish a clear verbal description of their instructional knowledge. Finally, to test the study's core hypothesis, the Pearson r correlation coefficient was used to determine whether a statistically significant relationship exists between educators' professional backgrounds and their overall mastery of cultivating critical thinking in the classroom.

Ethical Considerations

Ethical considerations for the study on enhancing critical thinking skills among junior high school students in Mabalacat City encompassed several key principles. Firstly, ensuring voluntary participation and informed consent from all participants, including students, teachers, and school administrators, is essential. Respect for confidentiality and anonymity in data collection, storage, and dissemination were maintained to protect participants' privacy rights. Additionally, the study prioritized minimizing potential harm and maximizing benefits for participants and the educational community. This included safeguarding against undue stress or discomfort during assessments or interventions. Transparent communication of the study's objectives, methods, and potential outcomes to stakeholders is crucial for maintaining trust and fostering collaboration. Lastly, adherence to ethical guidelines set forth by institutional review boards and relevant regulatory bodies ensured the study's integrity and credibility in contributing valuable insights to educational research and practice.

III. Results and Discussion

This chapter presents the discussion of findings from the data-gathering procedure. The data-gathering procedures were based on the questions posed at the beginning of this study.

1. Professional Profile of JHS Teachers

TABLE 1.1
LENGTH OF SERVICE
N = 120

Length of Service	f	%
20 years and over	4	3
15-19 years	32	27
10-14 years	47	39
5-9 years	34	28
less than 5 years	4	3
Total	120	100

Table 1.1 presents the distribution of Junior High School (JHS) teachers based on their length of service. The majority of teachers have a significant amount of experience, with 39% (47 out of 120) having 10 to 14 years of service, followed by 27% (32 out of 120) with 15 to 19 years. Teachers with 5 to 9 years of experience account for 28% (34 out of 120), indicating a relatively young pool of educators with substantial exposure to the educational system. Only 3% of teachers have been in the profession for less than 5 years, and another 3% have been teaching for over 20 years. This distribution suggests a teaching force with a broad range of experience, which can

contribute to diverse teaching strategies and approaches to fostering critical thinking skills in students.

The relatively high proportion of teachers with 10 to 19 years of service may reflect a cohort with deep pedagogical expertise and familiarity with evolving curriculum and assessment standards, which could influence their ability to engage students in critical thinking. On the other hand, teachers with less experience may bring fresh perspectives to the classroom but may also face challenges applying critical thinking strategies effectively, potentially indicating a need for targeted professional development. Overall, the length-of-service distribution highlights an opportunity to leverage both seasoned and newer educators in fostering critical thinking, with each group bringing distinct strengths to the table.

TABLE 1.2
HIGHEST EDUCATIONAL ATTAINMENT
N = 120

Highest Educational Attainment	f	%
Doctoral degree	2	2
Earned doctoral units	36	30
Master's degree	50	42
Earned masteral units	26	22
Bachelor's degree	5	4
Total	120	100

The largest proportion of teachers, 42% (50 out of 120), have a Master's degree, followed by 30% (36 out of 120) with doctoral degrees. This suggests that a significant portion of the teaching force has pursued advanced education, which may enhance their ability to employ higher-

order thinking and problem-solving skills in the classroom—essential to fostering critical thinking among students.

Additionally, 22% (26 out of 120) of teachers have earned Master's units, but have not completed the full degree, and 2% (2 out of 120) of teachers hold a Doctoral degree. Only a small proportion, 4% (5 out of 120), hold a Bachelor's degree as their highest level of education. This indicates that the majority of the teachers in the sample are well-educated, with a strong foundation in advanced academic fields, which is critical for their role in nurturing students' critical thinking skills.

The variation in educational attainment points to a teaching staff that could bring a broad range of theoretical and practical knowledge into their classrooms. Teachers with higher degrees may possess a deeper understanding of pedagogy and educational psychology, which could enhance their ability to foster critical thinking. However, professional development for those with less formal education beyond a Bachelor's degree may be necessary to ensure that all teachers have the tools to engage students effectively in critical-thinking exercises.

TABLE 1.3
RELEVANT TRAININGS ATTENDED
N = 120

Relevant Trainings Attended	f	%
International	2	2
National	4	3
Regional	10	8
Division	37	31
Cluster/Municipal	20	17
	47	39
Total	120	100

The largest proportion of teachers, 39% (47 out of 120), have attended Cluster or Municipal-level trainings. These local-level trainings likely focus on region-specific issues or instructional strategies, including critical-thinking techniques relevant to teachers' immediate educational context.

Additionally, 31% (37 out of 120) of the teachers have participated in Division-level training, suggesting that a significant number have engaged in professional development aimed at addressing broader educational goals, possibly including strategies to enhance students' critical thinking. Only 17% (20 out of 120) attended Cluster/Municipal trainings, and a smaller proportion, 8% (10 out of 120), attended Regional-level trainings. These figures suggest that teachers' exposure to professional development beyond the division level is limited, which may indicate a need for more opportunities for advanced and specialized training on a larger scale.

Interestingly, only 3% (4 out of 120) and 2% (2 out of 120) of the teachers have attended National and International trainings, respectively. This suggests that JHS teachers' exposure to global best practices in education and critical thinking is limited, indicating a gap in opportunities to engage with cutting-edge educational research and global trends. While regional and divisional training likely provides valuable local context, there may be a need to increase access to national and international professional development, particularly to foster critical thinking skills aligned with international education standards, as reflected in PISA results.

2. Level of Teachers' Knowledge in Developing Critical Thinking Skills

TABLE 2
LEVEL OF TEACHERS' KNOWLEDGE IN DEVELOPING CRITICAL THINKING SKILLS

Statements	Mean	Verbal Description
I improve students' ability to derive a specific conclusion from assumed facts.	4.88	Excellent
I develop students' ability to distinguish between assumption and generalization.	4.76	Excellent
I help students distinguish between primary and secondary sources.	4.71	Excellent
I develop students' ability to identify and examine the problem.	4.67	Excellent
I help students distinguish between strong and weak arguments.	4.67	Excellent
I develop students' ability to make better decisions.	4.6	Excellent
I help students to identify logical and illogical explanations.	4.57	Excellent
I develop students' ability to access new information from previous information.	4.37	Excellent
I develop students' ability to evaluate ideas and accept or reject them.	4.31	Excellent

I develop students' ability to determine the purpose of the information given.	3.73	Very Good
I improve students' ability to relate their observations to their previous information.	3.56	Very Good
I develop students' ability to distinguish between scientific fact and personal opinion.	3.5	Very Good
I provide an opportunity for students to make a judgment about the information.	3.41	Very Good
I improve students' ability to derive conclusions from certain facts or phenomena.	3.30	Good
I develop students' ability to perceive the correctness or error of their conclusions in the light of the facts given.	2.77	Good
General Weighted Mean	4.12	Very Good

The data show a generally high level of proficiency, with most teachers demonstrating an "Excellent" ability to implement critical-thinking strategies in their teaching. The highest-rated statement, with a mean score of 4.88, indicates that teachers excel at improving students' ability to draw specific conclusions from assumed facts. This suggests that teachers are proficient in fostering analytical thinking by encouraging students to draw logical conclusions from information presented to them. Similarly, teachers also scored highly (4.76) in helping students distinguish between assumptions and generalizations, another key aspect of critical thinking that aids students in recognizing the difference between evidence-based reasoning and unsupported claims.

Other areas where teachers are performing well include helping students distinguish between primary and secondary sources (mean score of 4.71), developing their ability to identify and examine problems (4.67), and helping students recognize strong and weak arguments (4.67). These results indicate that the teachers are confident in their ability to promote fundamental critical

thinking skills, such as evaluating the credibility of sources and arguments, which are essential for academic success and informed decision-making. The ability to help students make better decisions (4.6) further highlights the teachers' focus on fostering practical and reflective thinking in students.

However, the table also reveals areas where teachers are relatively less confident. The lowest-rated statements include developing students' ability to perceive the correctness or error of their conclusions in the light of facts (mean score of 2.77) and deriving conclusions from facts or phenomena (3.30). These scores suggest that while teachers are proficient in developing critical thinking skills, there may be challenges in helping students fully evaluate the accuracy of their conclusions and integrate new information into their existing knowledge. Additionally, teachers are less successful in providing opportunities for students to make judgments about information (3.41) and in helping them distinguish between scientific facts and personal opinions (3.5). This indicates that more targeted strategies may be needed in these areas to enhance students' ability to apply critical thinking in real-world contexts.

Overall, the weighted mean of 4.12, categorized as "Very Good," reflects a strong level of knowledge and commitment among teachers to developing students' critical thinking skills. However, there remains room for improvement, particularly in empowering students to critically assess their conclusions and integrate new information.

3. Significant Relationship between the Professional Profile of Teachers and their Level of Knowledge in Developing Critical Thinking Skills

TABLE 3
SIGNIFICANT RELATIONSHIP BETWEEN THE PROFESSIONAL PROFILE OF TEACHERS AND THEIR LEVEL OF KNOWLEDGE IN DEVELOPING CRITICAL THINKING SKILLS

Profile	Level of Teachers' Knowledge	
Length of Service	Pearson r:	0.832
	p-value:	0.000
	Interpretation:	Significant
Highest Educational Attainment	Pearson r:	0.832
	p-value:	0.000
	Interpretation:	Significant
Relevant Trainings Attended	Pearson r:	0.249
	p-value:	0.184
	Interpretation:	Not Significant
Total	Pearson r:	0.799
	p-value:	0.000
	Interpretation:	Significant

The Pearson correlation coefficient for the length of service is 0.832 ($p = 0.000$), indicating a very strong positive relationship between the two variables. This suggests that teachers with more years of experience are better equipped to foster critical thinking skills in their students. Experienced teachers likely possess a greater understanding of pedagogical strategies, refined over time, which enables them to effectively cultivate critical thinking in the classroom. Their accumulated experience dealing with diverse learning situations may enable them to tailor their teaching methods to better engage students in critical-thinking activities.

Similarly, the highest educational attainment of teachers is significantly related to their knowledge of developing critical thinking skills, with a Pearson correlation of 0.832 and a p-value of 0.000. This finding suggests that teachers with higher educational qualifications, such as a master's or doctoral degree, tend to be more effective at developing critical thinking skills in their students. Teachers who have pursued advanced studies may have acquired a deeper understanding of critical-thinking concepts and strategies that they can apply in their teaching. This highlights the importance of continued professional development and advanced education in enhancing teachers' abilities to foster higher-order thinking skills.

On the other hand, the relevant training attended by teachers is not significantly related to their level of knowledge in developing critical thinking skills, as indicated by a Pearson correlation of 0.249 and a p-value of 0.184. This result suggests that while attending relevant training might enhance teachers' skills in some areas, it may not have as direct an impact on their ability to develop critical thinking skills as the other two factors (length of service and highest educational attainment). It is possible that the nature and quality of the training attended by the teachers may not have been sufficiently focused on developing critical thinking, or that the training needs to be more closely aligned with the specific skills required to foster critical thinking in students.

4. Proposed Critical Thinking Resource Plan

Resource/ Strategy	Description	Target Group	Implementati on Timeline	Responsible Party	Expected Outcomes	Evaluation Method
Professional Development Workshops	Regular workshops on critical thinking strategies and their application in the classroom. Focus on methods to develop logical reasoning, argumentation, and decision-making skills.	Teachers with less experience (0-5 years) and those with less advanced degrees	Quarterly	School Leadership Team, Education Experts	Teachers will gain the necessary skills to develop critical thinking in students.	Pre- and post-workshop assessments of teacher knowledge and confidence in using critical thinking strategies.
Advanced Critical Thinking Courses	Provide advanced courses for teachers with higher educational attainment to further enhance their understanding of critical thinking and its classroom implementation.	Teachers with Master's or Doctoral degrees	Annually	School Administration, Higher Education Institutions	Teachers will deepen their knowledge of critical thinking and gain advanced pedagogical strategies.	Teacher feedback on course content and application in the classroom.

Mentorship Programs	Pair less experienced teachers with those who have significant experience in developing critical thinking. Encourage peer collaboration and support.	New teachers or those with less experience	Ongoing, with regular check-ins	Experienced Teachers, Mentors	Mentors will help newer teachers develop and implement critical thinking strategies.	Observation of mentoring sessions, feedback surveys from both mentors and mentees.
Curriculum Review and Development	Revise the curriculum to include more critical thinking-focused activities, such as debates, case studies, and problem-solving tasks.	All teachers across grade levels	Annual review and adjustment	Curriculum Development Committee	A curriculum that actively promotes critical thinking through diverse activities.	Review of student performance on critical thinking tasks, teacher feedback on the integration of activities.
Collaborative Lesson Planning	Encourage teachers to collaborate in planning lessons that focus on critical thinking. Teachers will share successful strategies and adapt best practices.	All teachers	Bi-monthly	Teacher Teams, School Leadership Team	Teachers will learn new methods from peers and strengthen their critical thinking skills.	Observation of lesson plans, feedback from participating teachers on the process.

Use of Digital Tools and Resources	Provide access to online platforms and resources that support the teaching of critical thinking skills (e.g., interactive learning modules, problem-solving apps).	All teachers and students	Ongoing	IT Department, External Educational Partners	Teachers and students will have access to tools that foster critical thinking in various formats.	Usage data from digital platforms, student and teacher feedback on resource effectiveness.
Critical Thinking Resource Library	Create a physical or digital library with books, articles, and research on critical thinking strategies, teaching methods, and student development.	All teachers	By the end of the school year	School Library, Educational Resource Managers	Teachers will have access to up-to-date resources to support their teaching.	Monitoring of resource library usage, teacher feedback on resource quality.
Student Engagement and Enrichment Programs	Organize extracurricular programs such as debate clubs, problem-solving contests, and critical thinking workshops to engage students	Students of all grade levels	Quarterly	School Leadership Team, Student Clubs	Students will develop and apply critical thinking skills in non-academic settings.	Student participation rates, assessment of student progress in critical thinking during these activities.

	outside the classroom.					
Regular Evaluation and Feedback	Implement regular evaluations to assess the effectiveness of critical thinking teaching strategies and adjust as needed. Use surveys, peer reviews, and classroom observations.	All teachers and students	Bi-annual	School Leadership Team, External Evaluators	Continuous improvement of critical thinking instruction based on feedback.	Survey results from teachers and students, performance data on critical thinking tasks.

The Critical Thinking Resource Plan proposed here aims to enhance the ability of teachers to develop critical thinking skills among students, in response to the findings of the study. The plan is structured around various strategies and resources, addressing key factors that influence teachers' mastery in teaching critical thinking. These strategies target both the teachers' professional development and the students' engagement with critical thinking processes.

One of the first components of the plan is Professional Development Workshops, which will focus on developing teachers' knowledge of critical thinking strategies. These workshops will be designed to support teachers with less experience or those without advanced degrees. By providing these teachers with regular opportunities for professional growth, the workshops will ensure they are equipped with the necessary skills to foster critical thinking in the classroom. Teachers will learn techniques for promoting logical reasoning, argumentation, and problem-solving, which they can incorporate into their daily lessons.

For teachers with more advanced qualifications, Advanced Critical Thinking Courses will offer deeper insights into critical thinking and how it can be applied in a variety of educational contexts. These courses will help more experienced teachers refine their instructional methods and

ensure they stay up to date with the latest teaching approaches. The idea is to ensure that teachers across all levels of experience continue to grow professionally and are constantly adapting their practices to the evolving educational landscape. By providing differentiated support, the program aims to build a strong, comprehensive foundation for teaching critical thinking.

To encourage collaboration and support among teachers, Mentorship Programs will pair less experienced teachers with veteran educators who have demonstrated a strong ability to develop critical thinking in their students. This mentorship allows for the exchange of best practices and real-world advice. Mentors will provide guidance on lesson planning, assessment methods, and strategies for fostering a classroom environment that encourages critical thinking. This peer-to-peer support is invaluable for new teachers as they navigate their early years in the profession.

The Curriculum Review and Development component ensures that the entire school system prioritizes critical thinking. Teachers will be encouraged to develop lessons that integrate critical thinking activities such as debates, case studies, and problem-solving tasks. The curriculum will be reviewed annually to ensure that these activities are appropriately incorporated. This systemic approach ensures that critical thinking is not a standalone topic but an integral part of every subject and every lesson, promoting its continuous practice and application among students.

Furthermore, Collaborative Lesson Planning will enable teachers to work together in designing lessons that encourage critical thinking. Teachers from different subjects and grade levels will collaborate to share ideas, resources, and strategies. By working together, teachers will benefit from the collective knowledge and experiences of their peers, which will help them develop stronger lesson plans that engage students in critical thinking.

In addition to these strategies, Digital Tools and Resources will play a crucial role in supporting teachers. Access to online platforms and resources will give both teachers and students tools for developing critical thinking skills. Interactive exercises, online games, and research databases will provide students with opportunities to practice critical thinking in a variety of ways. These resources will supplement traditional teaching methods, allowing for a more dynamic and engaging learning experience.

A Critical Thinking Resource Library will be established to give teachers access to relevant materials, such as books, research articles, and case studies, which can deepen their understanding of critical thinking. The library will serve as a valuable resource for teachers to continually improve their instructional methods and stay informed about the latest research in critical thinking pedagogy.

To further engage students in critical thinking, Student Engagement and Enrichment Programs will offer extracurricular activities that foster these skills. Debate clubs, problem-solving competitions, and critical-thinking workshops will allow students to apply what they've learned in the classroom in a more informal yet challenging setting. These programs will give students opportunities to think critically about real-world issues, enhancing their skills outside the traditional academic framework.

Finally, the Regular Evaluation and Feedback component will ensure that the Critical Thinking Resource Plan is effective and responsive to the needs of both teachers and students. The plan will be regularly assessed through surveys, feedback from teachers and students, and classroom observations. This continuous evaluation process will enable necessary adjustments, ensuring the program's success and long-term sustainability.

IV. CONCLUSIONS

This chapter presents a summary of findings, conclusions, and recommendations, all based on the results of the data-gathering procedures.

1. Teachers with greater years of service and higher educational attainment demonstrated better mastery of critical thinking skills, suggesting that experience and higher education levels play a vital role in enhancing teachers' capabilities in fostering critical thinking among students.

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2. Despite the overall positive performance of teachers in developing critical thinking skills, there are areas that require improvement, such as helping students identify logical and illogical explanations and making judgments about information. These areas show room for growth in teachers' strategies.
 3. Professional development programs focused on critical thinking are essential but may not be sufficient on their own to improve teachers' mastery. The relationship between training and knowledge development was not significant, suggesting that more practical, hands-on experiences may be required in teacher training programs.

V. RECOMMENDATIONS

1. Develop specialized training programs focused on advanced critical-thinking strategies, emphasizing areas where teachers' performance was weaker, such as evaluating ideas and deciding whether to accept or reject them. These programs should also provide practical, hands-on training that enables teachers to implement strategies in real classroom settings.
2. Mentorship programs should be established to provide ongoing support for less-experienced teachers, helping them apply critical-thinking strategies effectively in the classroom. Experienced teachers can guide their peers in refining their approaches to fostering critical thinking.
3. The integration of critical thinking into the curriculum should be emphasized across all subjects, ensuring that teachers are consistently promoting these skills. Teachers should be encouraged to develop cross-curricular lessons that foster critical thinking and engage students in problem-solving activities.
4. Schools should create opportunities for teachers to collaborate and share resources and best practices for teaching critical thinking. Regular workshops and peer review sessions can help build a collaborative learning community among teachers.

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5. Implement regular evaluations of teachers' critical-thinking instructional strategies to track progress and identify areas needing improvement. Feedback from both students and teachers should be used to refine the critical thinking resource plan and ensure its effectiveness in enhancing teachers' practices.

REFERENCES

- [1.] Abrami, P. C., et al. (2015). Classroom Connections: Understanding and Promoting Collaborative Learning. Routledge.
- [2.] Brooks, J. G., & Brooks, M. G. (2019). In Search of Understanding: The Case for Constructivist Classrooms. ASCD.
- [3.] Costa, A. L., & Kallick, B. (2016). Learning and Leading with Habits of Mind: 16 Essential Characteristics for Success. ASCD.
- [4.] Duffy, T. M., & Jonassen, D. H. (Eds.). (2015). Constructivism and the Technology of Instruction: A Conversation. Lawrence Erlbaum Associates.
- [5.] Ennis, R. H. (2016). Critical Thinking: Reflection and Perspective Part I. Inquiry: Critical Thinking Across the Disciplines, 26(1), 4-18.
- [6.] Flavell, J. H. (2019). Metacognition and Cognitive Monitoring: A New Area of Cognitive-Developmental Inquiry. American Psychologist, 34(10), 906-911.
- [7.] Halpern, D. F. (2015). Thought and Knowledge: An Introduction to Critical Thinking. Psychology Press.
- [8.] OECD. (2022). PISA 2022 Results (Volume I): Insights and Interpretations. OECD Publishing.
- [9.] Paul, R., & Elder, L. (2019). The Miniature Guide to Critical Thinking Concepts and Tools. Foundation for Critical Thinking.
- [10.] Perkins, D. N. (2015). Future Wise: Educating Our Children for a Changing World. John Wiley & Sons.
- [11.] Reyes, M. (2016). Inquiry-Based Learning in Filipino Classrooms: A Catalyst for Critical Thinking. Philippine Educational Journal, 55(2), 87-102.

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- [12.] Schraw, G., & Moshman, D. (2015). Metacognitive Theories. *Educational Psychology Review*, 7(4), 351-371.
- [13.] Torres, J. (2020). Teacher Training and Critical Thinking Development in Philippine Schools. *Philippine Journal of Education*, 47(1), 22-35.