International Journal of Multidisciplinary Research and Publications
ISSN (Online): 2581-6187

Transformative Mentoring and Coaching on Beginning Science Teachers' Professional Resilience and Adaptive Classroom Practices

Ian Ramos Garcia
Laguna State Polytechnic University Sta. Cruz Laguna 4009 PHILIPPINES
Email address: ian.garcia001@deped.gov.ph

Abstract—*This study examines the transformative mentoring and coaching and its relationship on beginning science teachers' professional resilience and adaptive classroom practices. Specifically, it assesses the level of transformative mentoring and coaching of the school head teacher/master teacher. It also evaluates the level of the beginning science teachers' resilience as well as their adaptive classroom practices. Lastly, this study also aims to determine the relationship of transformative mentoring and coaching on the beginning science teachers' professional resilience and adaptive classroom practices.*

The study used a quantitative descriptive research design involving seventy (70) beginning science teachers from public schools under the Division of Laguna which was chosen purposively. Data were gathered using a validated survey questionnaire. Statistical tools such as weighted mean, standard deviation, and Pearson-r were used for data analysis.

Findings reveal that transformative mentoring and coaching were implemented at a very high level across all dimensions, indicating strong mentor effectiveness in supporting teacher development. In addition, beginning science teachers' professional resilience is also found to be very high with teachers demonstrating positive attitudes, confidence, and the ability to cope with challenges in the teaching profession. Moreover, adaptive classroom practices were also observed at a very high level, reflecting teachers' ability to respond to diverse learning needs through varied instructional strategies, flexible teaching approaches, and effective use of assessment and technology.

Furthermore, the findings reveal a significant relationship between transformative mentoring and coaching on both professional resilience and adaptive classroom practices, implying that effective mentoring enhances teachers' ability to address diverse classroom demands while supporting sustained professional growth.

The study concludes that transformative mentoring and coaching has an important role in enhancing beginning teachers' resilience and adaptive teaching practices. Thus, it further highlights that there is significant relationship between transformative mentoring and coaching and the beginning science teachers' professional resilience and adaptive classroom practices leading to the rejection of the research hypotheses.

The study recommends that master teachers and school heads strengthen mentoring through collaborative reflection, structured goal-setting, and active peer engagement. It also highlights the need for targeted support, such as mentoring check-ins and stress management, along with continuous training in blended learning. Beginning teachers are encouraged to actively engage with mentors through regular feedback and communication to enhance their professional growth and teaching effectiveness.

Keywords— *Adaptive Practices, Coaching, Master Teacher, Mentoring, Head Teacher, Transformative, Resilience.*

I. INTRODUCTION

Teaching science in today's dynamic educational environment is both complex and vital. Science teachers play a crucial role in shaping students' curiosity, critical thinking, and problem-solving skills, which are essential for understanding the world and addressing real-life issues. However, teaching science is not merely about transferring knowledge, it requires creating meaningful learning experiences that connect scientific concepts to everyday life.

Aidoo (2024) further stated that teachers must guide students through inquiry, experimentation, and reflection while fostering a mindset of exploration and discovery. This task becomes more challenging as science educators face rapid changes in curriculum standards, emerging technologies, diverse student needs, and the growing demand for innovative teaching approaches. To meet these challenges effectively, science teachers must be equipped not only with strong pedagogical knowledge but also with emotional strength, adaptability, and continuous professional support (Vestal, et. al., 2025).

In response to these demands, transformative mentoring and coaching have emerged as powerful approaches to teacher development. Unlike traditional mentoring that focuses mainly on skill transmission, transformative mentoring emphasizes deep reflection, collaboration, and professional growth through shared experiences. It encourages teachers to question assumptions, explore new perspectives, and build confidence in their instructional practices. (Wang, Husu and Toom, 2025). Coaching, on the other hand, defined by Bend (2024) as dynamic, goal-driven partnership. By using targeted dialogue and customized tactics, it concentrates on certain, well-defined goals to bring about changes in performance and perspective. An important outcome of transformative mentoring and coaching is the enhancement of professional resilience, which refers to a teacher's capacity to thrive in demanding situations, and the ability to manage stress, adapt to change, and remain committed to their role despite challenges (Beyond blue, 2020).

Moreover, adaptive classroom practices are a key reflection of a resilient and well-supported teacher. Adaptive teaching involves modifying strategies, assessments, and learning environments to meet the diverse needs and interests of students. Teachers who engage in transformative mentoring are better able to develop such adaptability, as they gain confidence

Ian Ramos Garcia, "Transformative Mentoring and Coaching on Beginning Science Teachers' Professional Resilience and Adaptive Classroom Practices," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 12, pp. 949-957, 2026.

in experimenting with new methods and responding flexibly to classroom dynamics.

Therefore, this study aimed to examine how transformative mentoring and coaching contribute to building professional resilience and promoting adaptive classroom practices among science teachers. By exploring these connections, the research seeks to highlight the importance of mentoring-based professional development programs that empower science educators to thrive in an ever-evolving educational landscape, fostering not only effective teaching but also meaningful, lasting transformation in the science classroom.

1.1 Statement of the Problem

Problem/s which were addressed by the research

This study aimed to determine the influence of transformative mentoring and coaching on professional resilience and adaptive classroom practices among science teachers. Specifically, it sought to answer the following questions:

1. What is the level of transformative mentoring and coaching in terms of:
   1.1 Reflective dialogue;
   1.2 Support and guidance;
   1.3 Feedback;
   1.4 Vision building;
   1.5 Empowerment; and
   1.6 Empathy?
2. What is the level of beginning science teachers' professional resilience in terms of:
   2.1 Emotional regulation;
   2.2 Self-efficacy;
   2.3 Optimism;
   2.4 Social support; and
   2.5 Professional identity?
3. What is the level of beginning science teachers' adaptive classroom practices in terms of:
   3.1 Differentiated instruction;
   3.2 Instructional flexibility;
   3.3 Technology integration; and
   3.4 Formative assessment and feedback use
4. Is there a significant relationship between transformative mentoring and coaching and the beginning science teachers' professional resilience?
5. Is there a significant relationship between transformative mentoring and coaching and the beginning science teachers' adaptive classroom practices?

II. Methodology

The researcher employed a quantitative descriptive research design, using a survey questionnaire to collect data from the respondents in this study. The respondents of this study were consisted of seventy (70) beginning science teachers currently employed in public secondary schools under the Schools Division Office of Laguna from the School Year during the School Year 2025–2026 with only one to three (1-3) years length of service. The research instrument used was a researcher-developed survey questionnaire validated by experts. To analyze the data, mean, standard deviation, and Pearson's r correlation were used as statistical treatments.

III. Results and Discussion

This chapter deals with the presentation, analysis, and interpretation of data gathered to answer the sub-problem relative to the main problem of this study. This part discusses the findings of the study based on the questions.

Level of Transformative Mentoring and Coaching

In this study, the level of Transformative Mentoring and Coaching refers to Reflective Dialogue; Support and Guidance; Feedback; Vision Building; Empowerment; and Empathy.

The level of Transformative Mentoring and Coaching is revealed in the following table, which shows the statement, mean, standard deviation, remarks, and verbal interpretation.

Table 1 shows the level of Transformative Mentoring and Coaching in terms of Reflective Dialogue. Among the indicators, the highest (M = 4.80, SD = 0.44) is observed in the mentor's support in identifying areas in teaching that require improvement or adjustment, suggesting that respondents particularly value guidance that directly enhances their instructional competence. Conversely, the lowest (M = 4.67, SD = 0.58), pertains to the provision of opportunities for sharing insights and experiences during mentoring sessions, indicating a relatively lesser though still strong perception of participatory engagement.

The data implies that mentoring is perceived as highly supportive and developmental, with a slight opportunity to further strengthen collaborative dialogue within the mentoring process.

Table 1. Level of Transformative Mentoring and Coaching in terms of Reflective Dialogue

Statement	*Mean*	*SD*	*Remarks*
Our school Head Teacher/Master teacher as my mentor or coach…			
…encourages reflection on teaching practices through guided conversations.	4.76	0.49	*Always*
…provides opportunities for me to share insights and experiences during mentoring sessions.	4.67	0.58	*Always*
…supports identification of areas in teaching that require improvement or adjustment.	4.80	0.44	*Always*
…facilitates analysis of classroom challenges and promotes open discussion.	4.76	0.46	*Always*
…assists in developing actionable plans based on insights from mentoring conversations.	4.74	0.47	*Always*
Weighted Mean		*4.75*	
SD		*0.49*	
Verbal Interpretation		*Very High*	

The findings indicate a consistently high level of effectiveness in mentoring practices, obtaining a weighted mean 4.75 interpreted as Very High.

Table 2 shows the level of Transformative Mentoring and Coaching in terms of Support and Guidance.

The results indicate that transformative mentoring and coaching in terms of support and guidance are perceived to be Very High by the respondents. Among the indicators, the

Ian Ramos Garcia, "Transformative Mentoring and Coaching on Beginning Science Teachers' Professional Resilience and Adaptive Classroom Practices," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 12, pp. 949-957, 2026.

highest (M = 4.80, SD = 0.47) is attributed to the provision of timely support in addressing classroom challenges, highlighting the importance of immediate and responsive assistance in enhancing teaching practices.

On the other hand, the lowest (M = 4.76, SD = 0.49) are observed in both supporting reflection on classroom practices and assisting in setting professional goals and priorities, although these are still rated within the always.

Table 2. Level of Transformative Mentoring and Coaching in terms of Support and Guidance

Statement *Our school Head Teacher/Master teacher as my mentor or coach…*	*Mean*	*SD*	*Remarks*
…demonstrates availability and approachability for mentoring support.	4.77	0.52	*Always*
…supports reflection on classroom practices to enhance performance.	4.76	0.49	*Always*
…provides timely support to address classroom challenges i have encountered.	4.80	0.47	*Always*
…guides me in adapting teaching methods to meet diverse student needs.	4.77	0.52	*Always*
…assists me in setting professional goals and priorities.	4.76	0.49	*Always*
Weighted Mean		*4.77*	
SD		*0.49*	
Verbal Interpretation		*Very High*	

Overall, these findings affirm the strong presence of supportive and accessible mentoring practices, reflected on the weighted mean 4.77, interpreted as Very High. This implies that while reflective practices and professional goal-setting are evident, yet further indicates that strengthening structured goal-oriented mentoring strategies may enhance the long-term professional growth of teachers.

Table 3 shows the level of Transformative Mentoring and Coaching in terms of Feedback.

The results demonstrate that transformative mentoring and coaching in terms of feedback is perceived to be very high, reflecting a strong culture of constructive and developmental evaluation among mentors.

Table 3. Level of Transformative Mentoring and Coaching in terms of Feedback

Statement *Our school Head Teacher/Master teacher as my mentor or coach…*	*Mean*	*SD*	*Remarks*
…highlights strengths and areas for development in instructional methods.	4.81	0.43	*Always*
…offers specific suggestions to improve classroom strategies.	4.79	0.45	*Always*
…provides constructive feedback on teaching practices during mentoring sessions.	4.81	0.43	*Always*
…encourages reflection on feedback received to enhance professional growth.	4.81	0.43	*Always*
…monitors progress and provides follow-up feedback on implemented strategies.	4.77	0.46	*Always*
Weighted Mean		*4.80*	
SD		*0.43*	
Verbal Interpretation		*Very High*	

The highest (M = 4.81, SD = 0.43) is shared across multiple indicators, including highlighting strengths and areas for development, providing constructive feedback, and encouraging reflection on feedback, indicating that mentors are consistently effective in delivering meaningful and growth-oriented insights. In contrast, the lowest (M = 4.77, SD = 0.46) pertains to monitoring progress and providing follow-up feedback, suggesting that while ongoing support is evident, there is slightly less emphasis on sustained tracking of implemented strategies. This implies that mentoring practices are particularly strong in delivering immediate and reflective feedback, with an opportunity to further strengthen continuity through systematic follow-up.

Overall, these results underscore the effectiveness of feedback mechanisms within mentoring processes obtaining a weighted mean 4.80, interpreted as Very High, further suggesting that enhancing continuous monitoring and iterative feedback may deepen long-term instructional improvement.

Table 4 shows the level of Transformative Mentoring and Coaching in terms of Vision Building.

The results show the highest (M= 4.80, SD= 0.44) is attributed to facilitating discussions on future classroom innovations and strategies, highlighting the emphasis on forward-thinking and continuous improvement in instructional practices. In contrast, the lowest (M= 4.70, SD= 0.57) is observed in assisting teachers in aligning personal goals with school or educational objectives, indicating a relatively less focus on integrating individual aspirations with institutional priorities.

Table 4. Level of Transformative Mentoring and Coaching in terms of Vision Building

Statement *Our school Head Teacher/Master teacher as my mentor or coach…*	*Mean*	*SD*	*Remarks*
…promotes reflection on the desired impact of teaching on student learning	4.76	0.46	*Always*
…supports me in identifying steps to achieve instructional objectives.	4.74	0.53	*Always*
…assists me in aligning personal goals with school or educational objectives.	4.70	0.57	*Always*
…encourages the development of a clear teaching vision aligned with best practices.	4.79	0.45	*Always*
…facilitates discussions on future classroom innovations and strategies.	4.80	0.44	*Always*
Weighted Mean		*4.76*	
SD		*0.49*	
Verbal Interpretation		*Very High*	

These findings affirm the effectiveness of mentoring practices in fostering purposeful and future-oriented teaching, obtaining a weighted mean 4.76, interpreted as Very High, further implying that reinforcing goal alignment strategies may enhance both individual and school-wide outcomes.

Table 5 shows the level of Transformative Mentoring and Coaching in terms of Empowerment.

The highest (M= 4.84, SD= 0.37) is attributed to supporting teachers in making informed decisions regarding instruction, indicating that mentors strongly facilitate autonomy and sound pedagogical judgment. While, the lowest (M= 4.76, SD= 0.49 and SD= 0.43) are observed in recognizing professional strengths and building confidence in implementing innovative

Ian Ramos Garcia, "Transformative Mentoring and Coaching on Beginning Science Teachers' Professional Resilience and Adaptive Classroom Practices," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 12, pp. 949-957, 2026.

teaching strategies, although these remain as a. This indicates that while affirmation and confidence-building are evident, they are slightly less emphasized compared to decision-making support and motivation for innovation.

Table 5. Level of Transformative Mentoring and Coaching in terms of Empowerment.

Statement	*Mean*	*SD*	*Remarks*
Our school Head Teacher/Master teacher as my mentor or coach…			
…recognizes and affirms my professional strengths and contributions.	4.76	0.49	*Always*
…supports me in making informed decisions regarding instruction.	4.84	0.37	*Always*
…builds confidence in implementing innovative teaching strategies.	4.76	0.43	*Always*
…encourages me to take initiative in improving classroom practices.	4.80	0.44	*Always*
…motivates me to experiment with creative and effective teaching methods.	4.83	0.38	*Always*
Weighted Mean		*4.81*	
SD		*0.40*	
Verbal Interpretation		*Very High*	

Overall, the results show the effectiveness of mentoring practices in empowering teachers to take initiative and embrace creativity, reflected on the weighted mean 4.81, interpreted as Very High further implying that enhancing recognition and confidence-building strategies may strengthen sustained teacher empowerment.

Table 6 shows the level of Transformative Mentoring and Coaching in terms of Empathy.

Table 6. Level of Transformative Mentoring and Coaching in terms of Empathy

Statement	*Mean*	*SD*	*Remarks*
Our school Head Teacher/Master teacher as my mentor or coach…			
…demonstrates understanding of my professional challenges and concerns.	4.76	0.46	*Always*
…acknowledges my emotions and experiences in the learning environment.	4.79	0.45	*Always*
…listens attentively to my perspectives during mentoring sessions.	4.80	0.44	*Always*
…responds sensitively to my needs and classroom difficulties.	4.76	0.46	*Always*
…shows patience and understanding when guiding me through challenges.	4.77	0.46	*Always*
Weighted Mean		*4.77*	
SD		*0.45*	
Verbal Interpretation		*Very High*	

The highest (M = 4.80, SD = 0.44) is attributed to listening attentively to teachers' perspectives during mentoring sessions, emphasizing the importance of active listening in fostering trust and open communication. In contrast, the lowest (M= 4.76, SD= 0.46) are observed in demonstrating understanding of professional challenges and responding sensitively to classroom difficulties, although these still fall within the always. This implies that while empathy is consistently demonstrated, there is slightly less emphasis on translating understanding into responsive actions.

The findings indicate that transformative mentoring and coaching in terms of empathy and understanding are perceived to be at a very high level, reflecting the mentor's strong capacity to build supportive and responsive professional relationships.

Overall, the results affirm the strong presence of empathetic mentoring practices, obtaining a weighted mean 4.77, interpreted as Very High further implying that enhancing responsive and context-sensitive support may deepen the effectiveness of mentoring relationships.

Level of Beginning Teachers' Professional Resilience

In this study, the level of Beginning Teachers' Professional Resilience refers to Emotional Regulation; Self-Efficacy; Optimism; Social Support; and Professional Identity.

The level of Beginning Teachers' Professional Resilience is revealed in the following table, which shows the statement, mean, standard deviation, remarks, and verbal interpretation.

Table 7 shows the level of Beginning Teachers' Professional Resilience in terms of Emotional Regulation.

Table 7. Level of Beginning Teachers' Professional Resilience in terms of Emotional Regulation

Statement	*Mean*	*SD*	*Remarks*
As a beginning science teacher my mentor/coach helps me in my emotional regulation which leads me to…			
…manage stress effectively during challenging classroom situations.	4.67	0.58	*Always*
…control emotional responses when faced with difficult students or colleagues.	4.66	0.59	*Always*
…maintain composure under pressure to ensure productive teaching.	4.69	0.55	*Always*
…apply strategies to stay calm and focused during unexpected classroom events.	4.70	0.49	*Always*
…regulate frustration and anxiety to maintain a positive learning environment.	4.64	0.78	*Always*
Weighted Mean		*4.67*	
SD		*0.60*	
Verbal Interpretation		*Very High*	

The highest mean (M = 4.70, SD = 0.49) is associated with applying strategies to remain calm and focused during unexpected classroom events, indicating that mentors effectively foster adaptive coping mechanisms in dynamic teaching situations. The lowest (M= 4.64, SD = 0.78) is observed in regulating frustration and anxiety to maintain a positive learning environment, suggesting that while emotional regulation is generally strong, managing more intense emotional responses remains comparatively challenging for some beginning teachers. This implies that mentoring practices are effective in promoting composure and situational control, with a need to further strengthen deeper emotional management skills.

The results affirm the positive influence of mentoring on emotional resilience, reflected on the weighted mean 4.67, interpreted as Very High, further indicating that targeted support in handling heightened emotional demands may enhance teachers' overall well-being and instructional effectiveness.

Table 8 shows the level of Beginning Teachers' Professional Resilience in terms of Self-Efficacy.

Results shows that applying knowledge and skills to

Ian Ramos Garcia, "Transformative Mentoring and Coaching on Beginning Science Teachers' Professional Resilience and Adaptive Classroom Practices," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 12, pp. 949-957, 2026.

successfully address classroom challenges got the highest (M=4.74, SD=0.53), reflecting that mentors effectively cultivate teachers' problem-solving abilities in real teaching situations.

Meanwhile, both exhibiting belief in their ability to positively impact student learning outcomes and demonstrating confidence in implementing effective teaching strategies got the lowest (M=4.70, SD=0.55 and SD=0.49). This implies that while teachers' self-belief and instructional confidence are strong, there is slightly more emphasis on the practical application of skills in handling challenges.

Table 8. Level of Beginning Teachers' Professional Resilience in terms of Self-Efficacy

Statement	*Mean*	*SD*	*Remarks*
As a beginning science teacher my mentor/coach helps me improve my self-efficacy which leads me to…			
…exhibit belief in the ability to positively impact student learning outcomes.	4.70	0.55	*Always*
…demonstrate confidence in implementing effective teaching strategies.	4.70	0.49	*Always*
…apply knowledge and skills to solve classroom challenges successfully.	4.74	0.53	*Always*
…adapt teaching methods to meet diverse student needs with confidence.	4.71	0.49	*Always*
…take initiative in improving instructional practices and professional skills.	4.73	0.48	*Always*
Weighted Mean		*4.72*	
SD		*0.50*	
Verbal Interpretation		*Very High*	

Overall, the results demonstrate that mentoring significantly enhances teachers' sense of efficacy and initiative, reflected on the weighted mean 4.72, interpreted as Very High, further highlighting that reinforcing confidence-building strategies may contribute to more sustained professional growth and instructional effectiveness.

Table 9 shows the level of Beginning Teachers' Professional Resilience in terms of Optimism.

Table 9. Level of Beginning Teachers' Professional Resilience in terms of Optimism

Statement	*Mean*	*SD*	*Remarks*
As a beginning science teacher my mentor/coach helps me improve my optimism so I can…			
…maintain a positive outlook when facing classroom challenges.	4.77	0.46	*Always*
…promote a hopeful and motivating learning environment for students.	4.77	0.46	*Always*
…encourage solutions-focused thinking during difficult teaching situations.	4.73	0.54	*Always*
…approach professional obstacles with confidence and perseverance.	4.77	0.46	*Always*
…inspire resilience by focusing on opportunities rather than setbacks.	4.73	0.48	*Always*
Weighted Mean		*4.75*	
SD		*0.47*	
Verbal Interpretation		*Very High*	

Findings present that maintaining a positive outlook when facing classroom challenges, promoting a hopeful learning environment, and approaching professional obstacles with confidence and perseverance obtain a highest (M=4.77, SD=0.46), indicating that mentors effectively nurture teachers' capacity to remain motivated and solution-focused. While, encouraging solutions-focused thinking during difficult teaching situations and inspiring resilience by focusing on opportunities rather than setbacks obtain lowest (M=4.73, SD=0.54 and SD=0.48).

Overall, the results demonstrate that mentoring significantly strengthens teachers' professional optimism, reflected on the weighted mean 4.75, interpreted as Very High, further implying that reinforcing strategies for solutions-focused thinking may enhance sustained resilience and effectiveness in the classroom.

Table 10 shows the level of Beginning Teachers' Professional Resilience in terms of Social Support.

Table 10. Level of Beginning Teachers' Professional Resilience in terms of Social Support

Statement	*Mean*	*SD*	*Remarks*
As a beginning science teacher my mentor/coach helps me in terms of social support so I can…			
…seek guidance from colleagues or mentors when facing professional challenges.	4.73	0.51	*Always*
…rely on support from school leadership to implement teaching initiatives.	4.67	0.56	*Always*
engage in discussions with colleagues to …address classroom difficulties.	4.63	0.54	*Always*
collaborate with peers to share strategies and best practices.	4.77	0.49	*Always*
…utilize available professional networks for advice and encouragement.	4.76	0.49	*Always*
Weighted Mean		*4.71*	
SD		*0.52*	
Verbal Interpretation		*Very High*	

The findings reveal that collaborating with peers to share strategies and best practices are remarks as Always by the respondents (M=4.77, SD=0.49) while closely followed by utilizing available professional networks for advice and encouragement (M=4.76, SD=0.49), indicating that mentors effectively encourage teachers to engage with supportive professional communities. While, engaging in discussions with colleagues to address classroom difficulties got the lowest (M=4.63, SD=0.54) implying that while social support is generally strong, some beginning teachers may still experience challenges in actively seeking peer input for problem-solving.

Overall, the results demonstrate that mentoring significantly strengthens teachers' capacity to access and rely on social support, obtaining a weighted mean 4.71, interpreted as Very High, further implying that reinforcing peer collaboration and networking strategies may enhance teachers' resilience and professional effectiveness.

Table 11 shows the level of Beginning Teachers' Professional Resilience in terms of Professional Identity.

The findings reveal that aligning teaching practices with personal and institutional educational values is remarks as always by the respondents (M=4.79, SD=0.48) indicating that mentors effectively guide beginning teachers in developing a strong professional identity. Meanwhile, demonstrating commitment to the teaching profession through consistent effort received the lowest score, suggesting that while

Ian Ramos Garcia, "Transformative Mentoring and Coaching on Beginning Science Teachers' Professional Resilience and Adaptive Classroom Practices," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 12, pp. 949-957, 2026.

professional identity is generally well-established, some beginning teachers may still need guidance in sustaining consistent professional engagement (M=4.70, SD=0.55).

Table 11. Level of Beginning Teachers' Professional Resilience in terms of Professional Identity

Statement	*Mean*	*SD*	*Remarks*
As a beginning science teacher my mentor/coach helps me to foster my professional identity which leads me to…			
…uphold professional standards and ethical practices in the classroom.	4.76	0.49	*Always*
…represent the teaching profession positively within the school community.	4.74	0.50	*Always*
…demonstrate commitment to the teaching profession through consistent effort.	4.70	0.55	*Always*
…align teaching practices with personal and institutional educational values.	4.79	0.48	*Always*
…reflect on professional growth and development to strengthen identity.	4.76	0.49	*Always*
Weighted Mean		*4.75*	
SD		*0.50*	
Verbal Interpretation		*Very High*	

Overall, these results show that mentoring significantly supports the development of professional identity reflected on the weighted mean 4.75, interpreted as Very High. This implies that mentors play an important role in shaping teachers' ethical standards, professional conduct, and reflective practices, while emphasizing the need to provide continued support for fostering sustained commitment and long-term engagement in the teaching profession.

Level of Beginning Teachers' Adaptive Classroom Practices

In this study, the level of Beginning Teachers' Adaptive Classroom Practices in terms of Differentiated Instruction, Instructional Flexibility, Technology Integration, Formative Assessment and Feedback Use.

The level of Beginning Teachers' Adaptive Classroom Practices is revealed in the following table, which shows the statement, mean, standard deviation, remarks, and verbal interpretation.

In addition, the table includes remarks and verbal interpretations to clearly describe the extent to which these adaptive practices are demonstrated. This allows for a more comprehensive understanding of how beginning teachers adjust their instructional methods, classroom management, and learning activities to meet the diverse needs of students. Overall, the presentation of these data offers a detailed view of the adaptability and responsiveness of beginning teachers in real classroom settings.

Table 12 shows the level of Beginning Teachers' Adaptive Classroom Practices in terms of Differentiated Instruction.

The findings reveal that providing individualized support to students who require additional assistance is remarks with always by the respondents indicating that mentors effectively guide beginning teachers in implementing differentiated instruction (M=4.77, SD=0.49). Meanwhile, designing tasks that challenge students at different proficiency levels received the lowest score, suggesting that while differentiated practices are generally well-practiced, some beginning teachers may need additional guidance in creating appropriately challenging activities for all learners (M=4.63, SD=0.54).

Table 12. Level of Beginning Teachers' Adaptive Classroom Practices in terms of Differentiated Instruction

Statement	*Mean*	*SD*	*Remarks*
My mentor/coach helps me to improve differentiate instruction, so as a beginning science teacher, I can…			
…incorporate multiple teaching methods to address varying learning styles.	4.73	0.51	*Always*
…adjust instructional strategies to meet the diverse learning needs of students.	4.67	0.53	*Always*
…modify lesson content and activities based on students' abilities and interests.	4.76	0.49	*Always*
…provide individualized support to students who require additional assistance.	4.77	0.49	*Always*
…design tasks that challenge students at different proficiency levels.	4.63	0.54	*Always*
Weighted Mean		*4.71*	
SD		*0.51*	
Verbal Interpretation		*Very High*	

These results demonstrate that mentoring significantly enhances teachers' ability to adapt instruction to diverse student needs, (WM=4.71, SD=0.51), interpreted as Very High. This implies that continued support and modeling from mentors in designing and implementing varied instructional strategies may further strengthen beginning teachers' capacity to meet the full range of student learning needs.

Table 13 shows the level of Beginning Teachers' Adaptive Classroom Practices in terms of Instructional Flexibility.

The findings reveal that modifying teaching strategies when encountering unexpected classroom situations and incorporating alternative activities when original plans are ineffective are remarks with always by the respondents (M=4.71, SD=0.59; M=4.71, SD=0.51), implying that mentors effectively support beginning teachers in applying instructional flexibility to address real-time classroom challenges.

Table 13. Level of Beginning Teachers' Adaptive Classroom Practices in terms of Instructional Flexibility

Statement	*Mean*	*SD*	*Remarks*
My mentor/coach helps me to improve instructional flexibility, so as a beginning science teacher, I can…			
…respond effectively to diverse student questions and learning styles.	4.60	0.55	*Always*
…adjust lesson plans spontaneously to address students' learning needs.	4.63	0.54	*Always*
modify teaching strategies when …encountering unexpected classroom situations.	4.71	0.59	*Always*
…incorporate alternative activities when original plans are ineffective.	4.71	0.51	*Always*
…implement creative solutions to overcome classroom challenges.	4.63	0.54	*Always*
Weighted Mean		*4.66*	
SD		*0.55*	
Verbal Interpretation		*Very High*	

Meanwhile, responding effectively to diverse student questions and learning styles received the lowest score, suggesting that while flexibility is generally demonstrated, some beginning teachers may still face challenges in adapting

Ian Ramos Garcia, "Transformative Mentoring and Coaching on Beginning Science Teachers' Professional Resilience and Adaptive Classroom Practices," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 12, pp. 949-957, 2026.

spontaneously to varied student needs (M=4.60, SD=0.55). The results show that mentoring significantly enhances teachers' capacity to adjust instruction creatively and responsively, reflected on the weighted mean 4.66, interpreted as Very High. This implies that continuous modeling and guidance from mentors in flexible lesson delivery and adaptive strategies may further strengthen beginning teachers' ability to meet diverse classroom demands effectively.

Table 14 shows the level of Beginning Teachers' Adaptive Classroom Practices in terms of Technology Integration.

Table 14. Level of Beginning Teachers' Adaptive Classroom Practices in terms of Technology Integration

Statement	*Mean*	*SD*	*Remarks*
My mentor/coach helps me to improve technology integration, so as a beginning science teacher, I can…			
…stay updated on new technological innovations to improve instructional practices.	4.69	0.53	*Always*
…integrate digital tools and resources to enhance student learning.	4.70	0.52	*Always*
…incorporate educational software and applications to support diverse learning needs.	4.67	0.53	*Always*
…utilize multimedia presentations to clarify complex concepts.	4.70	0.52	*Always*
…design activities that combine traditional instruction with digital platforms.	4.61	0.55	*Always*
Weighted Mean	*4.67*		
SD	*0.53*		
Verbal Interpretation	*Very High*		

The findings reveal that integrating digital tools and resources to enhance student learning and utilizing multimedia presentations to clarify complex concepts (M=4.70, SD=0.52) are remarks with always by the respondents, indicating that mentors effectively guide beginning teachers in applying technology to support instruction. Meanwhile, designing activities that combine traditional instruction with digital platforms received the lowest score, suggesting that while technology integration is generally practiced, some beginning teachers may still need support in creating blended learning experiences that fully leverage digital tools (M=4.61, SD=0.55).

Overall, these results demonstrate that mentoring significantly strengthens teachers' capacity to integrate technology into instruction, obtaining a weighted mean 4.67, interpreted as Very High. This implies that ongoing mentoring and modeling of innovative digital strategies may further enhance beginning teachers' confidence and competence in effectively combining technology with traditional teaching approaches.

Table 15 shows the level of Beginning Teachers' Adaptive Classroom Practices in terms of Formative Assessment and Feedback Use.

The findings reveal that providing timely and constructive feedback to students based on assessment outcomes (M=4.71, SD=0.51) is remarks as always, indicating that mentors effectively guide beginning teachers in using formative assessment to enhance learning. Meanwhile, adjusting teaching strategies according to students' learning progress received the lowest (M=4.67, SD=0.53) suggesting that while formative assessment practices are generally implemented, some beginning teachers may still need support in translating assessment results into responsive instructional adjustments.

Table 15. Level of Beginning Teachers' Adaptive Classroom Practices in terms of Formative Assessment and Feedback Use

Statement	*Mean*	*SD*	*Remarks*
My mentor/coach helps me to improve in formative assessment and feedback use, so as a beginning science teacher, I can…			
…track student progress to identify areas requiring additional support.	4.69	0.53	*Always*
…apply a variety of assessment methods to address different learning styles.	4.69	0.53	*Always*
…provide timely and constructive feedback to students based on assessment outcomes.	4.71	0.51	*Always*
…incorporate self-assessment and peer-assessment strategies in lessons.	4.70	0.52	*Always*
…adjust teaching strategies according to students' learning progress.	4.67	0.53	*Always*
Weighted Mean	*4.69*		
SD	*0.53*		
Verbal Interpretation	*Very High*		

Overall, these results demonstrate that mentoring significantly strengthens teachers' capacity to use assessment and feedback to inform instruction, as reflected in the weighted mean 4.69, interpreted as Very High. This implies that continued mentoring in diverse assessment strategies and responsive feedback practices may further enhance beginning teachers' instructional effectiveness and ability to support varied student learning needs.

Significant Relationship between Ttransformative Mentoring and Coaching to the Beginning Teachers' Professional Resilience

In this study, the level of Transformative Mentoring and Coaching refers to Reflective Dialogue; Support and Guidance; Feedback; Vision Building; Empowerment; and Empathy while the Beginning Teachers' Professional Resilience refers to Emotional Regulation; Self-Efficacy; Optimism; Social Support; and Professional Identity.

The Significant Relationship between Transformative Mentoring and Coaching to the Beginning Teachers' Professional Resilience is revealed in the following table, which shows the Multiple Regression Analysis using Pearson Product Moment Correlation Coefficient or Pearson-r, p-value, and number of observation or respondents.

Table 16 shows the Significant Relationship between transformative Mentoring and Coaching to the Beginning Teachers' Professional Resilience.

The results show significant positive correlations between all dimensions of transformative mentoring and coaching and beginning teachers' professional resilience. All p-values are below 0.05, indicating that the observed relationships are statistically significant.

Ian Ramos Garcia, "Transformative Mentoring and Coaching on Beginning Science Teachers' Professional Resilience and Adaptive Classroom Practices," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 12, pp. 949-957, 2026.

Table 16. Significant Relationship between Transformative Mentoring and Coaching to the Beginning Teachers' Professional Resilience

Transformative Mentoring and Coaching		*Beginning Teachers' Professional Resilience*				
		Emotional Regulation;	Self-Efficacy	Optimism	Social Support	Professional Identity
Reflective Dialogue	Pearson Correlation	0.556*	0.479*	0.434*	0.548*	0.345*
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.003
	N	70	70	70	70	70
Support and Guidance	Pearson Correlation	0.333*	0.449*	0.352*	0.612*	0.367*
	Sig. (2-tailed)	0.005	0.000	0.003	0.000	0.002
	N	70	70	70	70	70
Feedback	Pearson Correlation	0.422*	0.524*	0.437*	0.684*	0.488*
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000
	N	70	70	70	70	70
Vision Building	Pearson Correlation	0.437*	0.500*	0.349*	0.628*	0.422*
	Sig. (2-tailed)	0.000	0.000	0.003	0.000	0.000
	N	70	70	70	70	70
Empower-ment	Pearson Correlation	0.381*	0.401*	0.453*	0.523*	0.395*
	Sig. (2-tailed)	0.001	0.001	0.000	0.000	0.001
	N	70	70	70	70	70
Empathy	Pearson Correlation	0.401*	0.471*	0.573*	0.627*	0.516*
	Sig. (2-tailed)	0.001	0.000	0.000	0.000	0.000
	N	70	70	70	70	70

Among the mentoring dimensions, feedback and empathy show the strongest associations with resilience components such as social support (r=0.684, p=0.000) and optimism (r=0.573, p=0.000), suggesting that mentors who provide constructive feedback and demonstrate understanding greatly enhance teachers' adaptive capacities. Reflective dialogue and vision building also exhibit moderate to strong correlations across resilience indicators, highlighting the importance of guided reflection and forward-looking planning in fostering emotional regulation, self-efficacy, optimism, social support, and professional identity.

Overall, these findings imply that transformative mentoring and coaching play an important role in strengthening beginning teachers' professional resilience.

This implies that mentoring and coaching programs should go beyond instructional feedback and include emotional and social support systems.

Significant Relationship between Transformative Mentoring and Coaching to the Beginning Teachers' Adaptive Classroom Practices

In this study, the level of Transformative Mentoring and Coaching refers to Reflective Dialogue; Support and Guidance; Feedback; Vision Building; Empowerment; and Empathy while Beginning Teachers' Adaptive Classroom Practices in terms of Differentiated Instruction, Instructional Flexibility, Technology Integration, Formative Assessment and Feedback Use.

The Significant Relationship between Transformative Mentoring and Coaching to the Beginning Teachers' Adaptive Classroom Practices is revealed in the following table, which shows the Multiple Regression Analysis using Pearson Product Moment Correlation Coefficient or Pearson-r, p-value, and number of observation or respondents.

Table 17 presents the relationship between Transformative Mentoring and Coaching and Beginning Teachers' Adaptive Classroom Practices across four domains: differentiated instruction, instructional flexibility, technology integration, and formative assessment and feedback use.

The results reveal that all components of transformative mentoring and coaching show positive and statistically significant relationships with the adaptive classroom practices of beginning teachers, as evidenced by p-values less than 0.05.

Table 17. Significant Relationship between Transformative Mentoring and Coaching to the Beginning Teachers' Adaptive Classroom Practices

Transformative Mentoring and Coaching		*Beginning Teachers' Adaptive Classroom Practices*			
		Differentiated Instruction	Instructional Flexibility	Technology Integration,	Formative Assessment and Feedback
Reflective Dialogue	Pearson Correlation	0.443*	0.506*	0.259*	0.311*
	Sig. (2-tailed)	0.000	0.000	0.031	0.009
	N	70	70	70	70
Support and Guidance	Pearson Correlation	0.456*	0.634*	0.470*	0.696*
	Sig. (2-tailed)	0.000	0.000	0.000	0.000
	N	70	70	70	70
Feedback	Pearson Correlation	0.504*	0.668*	0.490*	0.684*
	Sig. (2-tailed)	0.000	0.000	0.000	0.000
	N	70	70	70	70
Vision Building	Pearson Correlation	0.529*	0.579*	0.425*	0.443*
	Sig. (2-tailed)	0.000	0.000	0.000	0.000
	N	70	70	70	70
Empower-ment	Pearson Correlation	0.629*	0.555*	0.551*	0.469*
	Sig. (2-tailed)	0.000	0.000	0.000	0.000
	N	70	70	70	70
Empathy	Pearson Correlation	0.693*	0.498*	0.607*	0.531*
	Sig. (2-tailed)	0.000	0.000	0.000	0.000
	N	70	70	70	70

Specifically, reflective dialogue demonstrates significant moderate correlations with all four practices, indicating that engaging teachers in meaningful conversations about their teaching enhances their ability to adapt instruction, utilize technology, and provide effective feedback. Similarly, support and guidance show strong positive correlations, particularly with instructional flexibility (r = 0.634) and formative

Ian Ramos Garcia, "Transformative Mentoring and Coaching on Beginning Science Teachers' Professional Resilience and Adaptive Classroom Practices," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 12, pp. 949-957, 2026.

assessment and feedback use (r = 0.696), indicating that consistent mentoring support plays a crucial role in helping teachers adjust their teaching strategies and respond to students' needs.

Moreover, feedback yields strong and significant relationships across all domains, with the highest correlation observed in instructional flexibility (r = 0.668) and formative assessment (r = 0.684). This implies that constructive and timely feedback enables beginning teachers to refine their practices and become more responsive in their instruction. Vision building also shows moderate positive correlations, indicating that aligning teachers with clear goals and shared educational purposes contributes to improved adaptive practices.

In addition, empowerment and empathy exhibit significant and relatively strong relationships with all aspects of adaptive classroom practices. Notably, empathy shows the highest correlation with differentiated instruction (r = 0.693), suggesting that understanding students' needs and perspectives greatly enhances teachers' ability to tailor instruction effectively. Empowerment also strengthens teachers' confidence and autonomy, enabling them to implement flexible and innovative teaching strategies.

Overall, the findings indicate that transformative mentoring and coaching significantly influence beginning teachers' adaptive classroom practices. The consistent positive correlations across all variables highlight the importance of mentoring approaches that foster reflection, provide support, offer constructive feedback, build shared vision, and promote empowerment and empathy. These elements collectively contribute to the development of more responsive, flexible, and effective teaching practices among beginning educators.

These emphasized that supportive, reflective, and collaborative mentoring practices strengthen teachers' resilience, instructional flexibility, and responsiveness to learners' needs. It also confirms that mentoring approaches grounded in empathy, guidance, and shared problem-solving contribute to the development of adaptive and inclusive classroom practices among beginning teachers.

IV. Conclusion and Recommendations

Based on the findings of the study, it can be concluded that the transformative mentoring and coaching can influence the professional resilience and adaptive classroom practices of the beginning science teachers.

Thus, it further indicates that there is a significant relationship between transformative mentoring and coaching and beginning science teachers' professional resilience. Implying that sustained support and guided reflection help strengthen teachers' adaptability and capacity challenges in their early careers.

Additionally, the finding also asserted that there is a significant relationship between transformative mentoring and coaching and beginning teachers' adaptive classroom practices. This implies that mentoring and coaching play a vital role in enhancing teachers' ability to adjust and respond effectively to diverse classroom situations.

The results further implies that the null hypotheses of this research were both rejected.

Based on the drawn conclusions resulted to the following recommendations: Schools may strengthen opportunities for teachers to actively share insights and experiences during mentoring sessions and reinforce structured goal-setting strategies, ensuring that reflective dialogue becomes more collaborative and aligned with teachers' professional growth needs.

School may focus on targeted interventions such as mentoring check-ins, stress management workshops, and reflective coaching sessions may be implemented to help beginning teachers better manage frustration and anxiety while sustaining confidence in their ability to impact student learning.

School head teachers and master teachers may encourage more frequent peer discussions, collaborative problem-solving activities, and professional learning communities to enhance teachers' engagement in seeking support and applying solution-oriented approaches in challenging situations.

School administration may provide a continuous training and mentoring to help teachers design and implement meaningful blended learning experiences that integrate digital tools with traditional instruction, maximizing student engagement and learning outcomes.

Beginning teachers may become more proactive in engaging with their mentors or coaches by regularly seeking guidance, sharing challenges, and requesting feedback, as this continuous interaction can further enhance their professional resilience, instructional practices, and overall teaching effectiveness.

Reference

[1]. Aidoo, B. (2024). A reflective study on adopting inquiry-based science teaching methods. Disciplinary and Interdisciplinary Science Education Research, *6*(1). https://doi.org/10.1186/s43031-024-00119-3

[2]. Beyond blue (2020). Seven ways to build professional resilience - Be You. https://beyou.edu.au/about/be-you-stories/implementation-support/seven-ways-to-build-professional-resilience

[3]. Wang, X., Husu, J., and Toom, A. (2024). What makes a good mentor of in-service teacher education? —A systematic review of mentoring competence from a transformative learning perspective. Teaching and Teacher Education, 153, 104822. https://doi.org/10.1016/j.tate.2024.104822

[4]. Vestal, S., Burke, R., Browing, L., Hasselquist, L., Hales, P., Miller, M., Nepal, M., and White, T. (2025). Building Resilience in Rural STEM Teachers Through a Noyce Professional Learning Community. https://doi.org/10.3390/educsci15010085

Ian Ramos Garcia, "Transformative Mentoring and Coaching on Beginning Science Teachers' Professional Resilience and Adaptive Classroom Practices," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 12, pp. 949-957, 2026.