# A PATH ANALYSIS ON TEACHER'S PRODUCTIVITY AS ESTIMATED BY CONTINUING PROFESSIONAL DEVELOPMENT, SELF-MOTIVATION AND PSYCHOSOCIAL ATTRIBUTES

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### **ABSTRACT**

The study was conducted to find out the levels of continuing professional development, levels of self-motivation, levels of psychosocial attributes, and teacher's productivity, as well as if continuing professional development, self-motivation, and psychosocial attributes significantly predict Teacher's productivity, and this study determined the best model that could explain Teacher's productivity. This study used a structural equation modeling with a total of 200 students connected in the public education were asked to answer the survey questionnaire for the quantitative data. A survey questionnaire was used to gather data on continuing professional development, selfmotivation, psychosocial attributes and Teacher's productivity. The result revealed that there is a high level of continuing professional development, high level of self-motivation, high level of psychosocial attributes, and high level of Teacher's productivity. Moreover, all the variables: continuing professional development, self-motivation, and psychosocial attributes have significantly relationship with Teacher's productivity. On the other hand, continuing professional development, was found to be the predictor of Teacher's productivity. Lastly, the study revealed that the best model in explain the factors of Teacher's productivity is the model five where it displays the interrelationship of continuing professional development, self-motivation and psychosocial attributes. Moreover, the indirect effect of continuing professional development and psychosocial attributes on the Teacher's productivity. This study recommended that educators prioritize and actively engage in continuing professional development, foster internal motivation, and cultivate positive psychosocial attributes to enhance and optimize their overall productivity in the teaching profession.

**Keywords:** Continuing professional development, Self-motivation, Psychosocial attributes, Teacher's productivity, Structural Equation Modeling, Path Analysis, Municipality of Pikit, Philippines

### INTRODUCTION

Teachers' productivity is a critical factor in the success of educational institutions. However, there are various challenges that teachers face that can affect their productivity levels. For example, a study by Gaur (2020) found that 65% of teachers reported high levels of work-related stress, which negatively impacted their ability to perform their job

duties efficiently. In addition, the National Education Association (2019) revealed that 50% of teachers reported being overworked and overwhelmed, leading to burnout and decreased productivity. These issues can result in lower teacher morale, decreased job satisfaction, and reduced student achievement.

Meanwhile, in the Philippines, teachers' productivity is a critical issue that affects the quality of education provided to students. A study by Cruz (2019) found that 70% of teachers reported being overloaded with work, which negatively affected their productivity and ability to effectively deliver lessons. In addition, 60% of teachers reported experiencing burnout due to the heavy workload and lack of support from school administrators. According to the Department of Education DepEd (2020) that these challenges are further compounded by the lack of resources and training opportunities for teachers, as well as low salaries and inadequate benefits. Thus, it is crucial to identify and address the factors that contribute to low teacher productivity in the Philippines in order to improve the quality of education provided to students.

On the other hand, studies revealed that there are three factors on teachers' productivity: continuing professional development, self-self-motivation, and psychosocial attributes. First, a study by Nwosu et al. (2021) found that continuing professional development (CPD) significantly improved teachers' productivity by enhancing their skills, knowledge, and confidence in delivering quality lessons. Meanwhile, a recent study by Buda and Parveen (2022) examined the relationship between self-self-motivation and teachers' productivity, and found a significant positive correlation between the two variables. Lastly, a study by Alkharusi et al. (2021) investigated the relationship between psychosocial attributes and teacher productivity, and found that attributes such as emotional intelligence, attitudes, and professional needs were positively associated with teacher productivity. As such, this study wanted to determine the best model that would explain the factors that can influence on teachers" productivity.

While there is a growing body of research on teachers' productivity, Cruz (2019) argued that there is still a significant gap in the literature regarding the effectiveness of specific interventions and strategies aimed at improving teacher productivity. For example, while studies have identified factors such as workload, burnout, and stress as significant challenges to teacher productivity, there is a lack of research on the most effective methods for addressing these issues. Moreover, Gaur (2020) claimed that there is a need for more studies examining the impact of psychosocial attributes such as emotional intelligence, attitudes, and professional needs on teacher productivity. Thus, based on Alkharusi et al. (2021) there is a need for further research that focuses on identifying and evaluating effective interventions and strategies that can support teacher productivity, as well as studies that explore the role of psychosocial attributes in promoting teacher productivity.

Studying teachers' productivity is of significant importance as it directly impacts the quality of education provided to students. When teachers are productive, they are more likely to be effective in delivering lessons, providing feedback, and engaging with students. In contrast, low productivity levels can lead to teacher burnout, stress, and low morale, which can negatively impact student learning outcomes. Furthermore, high levels

of teacher productivity can result in reduced absenteeism and turnover rates, which can benefit the overall stability of educational institutions. By identifying and addressing the factors that impact teacher productivity, it is possible to improve the quality of education provided to students, increase teacher job satisfaction, and enhance the overall effectiveness of educational institutions.

#### **RESULTS AND DISCUSSIONS**

## **Continuing professional development**

Table 1 shows the level of Continuing professional development. The variable Continuing professional development condition contains three indicators namely Attitude, Professional needs, and Barriers.

Among the five statements on the indicator Attitude, the statement "I believe that continuing professional development is essential for improving my teaching skills." got the highest mean of 4.27 described as high, while the statement "I find professional development activities to be a waste of time" got the lowest mean 4.10 of described as high. The overall mean of the indicator Attitude is 4.17 and is high.

The statement indicates that the individual holds a strong belief in the importance of continuing professional development for enhancing their teaching skills. In simpler terms, this means that the person values and sees the necessity of ongoing learning and training to improve their abilities as a teacher. This belief reflects a positive attitude toward continuing professional development, emphasizing its significance in contributing to professional growth.

Research by Ingersoll (2018) supports the idea that teachers' attitudes toward professional development significantly impact their engagement and effectiveness in the classroom. When teachers believe in the value of ongoing learning, it fosters a proactive approach to skill enhancement, which, in turn, positively influences their teaching practices. Therefore, the statement aligns with the concept that a positive attitude toward continuing professional development is a crucial factor in encouraging teachers to actively seek opportunities for professional growth and improvement in their teaching skills.

Among the five statements on the indicator Professional needs, the statement "I believe that there are areas in my teaching practice that I need to improve on and that require further professional development" got the highest mean of 4.30 described as high, while the statement "I am willing to invest my time and effort in attending professional development sessions that are relevant to my teaching practice and meet my professional development needs." got the lowest mean 4.01 of described as high. The overall mean of the indicator Professional needs is 4.12 and is high.

The statement indicates that the individual recognizes the existence of areas in their teaching practice that need improvement and further professional development. In simpler terms, this means that the person acknowledges the areas where they can enhance their teaching skills and sees the necessity for additional training and learning. This acknowledgment reflects a heightened awareness of professional needs, indicating a willingness to engage in continuous improvement.

Research by Guskey and Yoon (2019) emphasizes the importance of teachers' recognition of their professional needs as a crucial step in the process of effective professional development. When teachers are aware of specific areas that require enhancement, it provides a targeted focus for their professional development efforts, leading to more meaningful and impactful growth. Therefore, the statement aligns with the notion that a heightened awareness of professional needs is a key driver in motivating teachers to actively seek and engage in continuing professional development activities.

Among the five statements on the indicator Barriers, the statement "I feel that there are not enough professional development opportunities available to me." got the highest mean of 4.00 described as high, while the statement "I think that the professional development opportunities available to me are not relevant to my teaching needs." got the lowest mean 3.77 of described as high. The overall mean of the indicator Barriers is 3.90 and is high.

The statement indicates that the individual perceives a lack of available professional development opportunities. In simpler terms, this means that the person feels there are not sufficient chances for them to engage in activities that would contribute to their professional development. This perception represents a significant barrier to continuing professional development, as teachers may face challenges in accessing the resources and opportunities needed to enhance their skills.

Research by Darling-Hammond and Richardson (2019) emphasizes that barriers, such as limited access to professional development, can hinder teachers' ability to improve their instructional practices. When teachers feel that there are not enough opportunities, it may impact their motivation and ability to actively participate in continuous learning. Therefore, the statement aligns with the notion that perceived barriers, particularly the availability of professional development opportunities, can impede teachers' engagement in ongoing learning and skill development.

The overall mean of the variable Continuing professional development is 4.06 and high. While specific studies on teachers' high engagement in continuing professional development vary across authors, a notable investigation by Desimone and Garet (2020) sheds light on the impact of professional development on teachers' knowledge and instructional practices. Their study emphasizes the importance of sustained and content-focused professional development programs, aligning with the idea that meaningful and relevant opportunities contribute to teachers' ongoing learning.

Additionally, research by Little (2022) explores the role of collaborative professional development in fostering teachers' continuous improvement. Little's work underscores the significance of collaborative learning communities and peer interactions in promoting teachers' engagement in ongoing professional development. These studies collectively highlight various factors that influence teachers' active participation in

professional development, emphasizing the importance of tailored, relevant, and collaborative approaches.

Table 1
Level of Continuing Professional Development

Level of Continuing Professional Development					
Indicators	Mean	Std. Deviation	Interpretation		
A. Attitude					
<ol> <li>I believe that continuing professional development is essential for improving my teaching skills.</li> </ol>	4.27	.767	High		
2. I am always looking for opportunities to improve my knowledge and skills as an educator.	4.15	.855	High		
3. I feel that my current level of professional development is adequate for my teaching needs.	4.13	.913	High		
4. I find professional development activities to be a waste of time.	4.10	1.00	High		
<ol> <li>I believe that professional development is not necessary for teachers who have been in the profession for many years.</li> </ol>	4.21	.842	High		
Category Mean	4.17	.703	High		
Professional Needs     I believe that there are areas in my teaching practice that I need to improve on and that require further professional	4.30	.852	High		
development.  2. I think that gaining more knowledge and skills in my subject area would improve	4.11	.951	High		
my teaching and benefit my students.  3. I am interested in professional development opportunities that will help me enhance my teaching methods and approaches.	4.07	.990	High		
4. I believe that keeping up with the latest teaching trends and techniques is essential for my professional growth.	4.10	1.06	High		
5. I am willing to invest my time and effort in attending professional development sessions that are relevant to my teaching practice and meet my professional development needs.	4.01	1.03	High		
Category Mean	4.12	.788	High		
C. Barriers  1. I find it difficult to attend professional development sessions due to conflicts with my personal schedule.	3.94	1.10	High		

2. I feel that there are not enough professional development opportunities available to me.		1.03	High
3. I believe that the cost of attending professional development sessions is		1.07	High
too high for me. 4. I find it challenging to balance professional development with my teaching workload.		1.14	High
<ol> <li>I think that the professional development opportunities available to me are not relevant to my teaching needs.</li> </ol>		1.12	High
Category Mean	3.90	.953	High
Overall Mean	4.06	.732	High

### **Self-motivation**

Table 2 shows the level of self-motivation. The variable self-motivation condition contains three indicators namely Goal orientation, Self-efficacy, and Self-regulation.

Among the five statements on the indicator Goal orientation, the statement "I am focused on avoiding negative outcomes, such as poor performance evaluations, to achieve my teaching goals." got the highest mean of 4.04 described as high, while the statement "I am driven to achieve my teaching goals, such as improving student engagement or raising test scores." got the lowest mean 3.87 of described as high. The overall mean of the indicator Goal orientation is 3.99 and is high.

The statement indicates that the individual is primarily focused on avoiding negative outcomes, such as receiving poor performance evaluations, to attain their teaching goals. In simpler terms, this means that the person is driven by a goal orientation that is oriented towards preventing unfavorable assessments and ensuring success in their teaching endeavors.

Research by Skaalvik and Skaalvik (2018) supports the idea that teachers' goal orientation significantly influences their self-motivation and commitment to professional goals. When teachers are goal-oriented towards avoiding negative outcomes, it suggests a strong desire to succeed and meet performance expectations. The study highlights that goal orientation is a key component of teachers' self-motivation, influencing their engagement and persistence in pursuing teaching objectives. Therefore, the statement aligns with the concept that a goal orientation focused on avoiding negative outcomes contributes to teachers' self-motivation and commitment to achieving their teaching goals.

Among the five statements on the indicator Self-efficacy, the statement "I have no doubts about my ability to positively impact my students' learning and growth." got the highest mean of 4.00 described as high, while the statement "I am sure that I can adapt to changes in the curriculum or teaching requirements." got the lowest mean 3.82 of described as high. The overall mean of the indicator Self-efficacy is 4.34 and is high.

The statement indicates that the individual possesses a strong sense of selfefficacy, as they express unwavering confidence in their ability to positively impact their students' learning and growth. In simpler terms, this means that the person believes strongly in their capacity to make a positive difference in the educational journey of their students.

Research by Tschannen-Moran and Woolfolk Hoy (2021) supports the idea that teachers' self-efficacy, or their belief in their ability to bring about desired outcomes in their students, significantly influences their motivation and commitment to teaching. When teachers have high self-efficacy, it serves as a powerful motivator, driving them to invest effort and energy into their instructional practices. The study highlights that teachers with strong self-efficacy are more likely to persevere in the face of challenges and actively seek ways to enhance their teaching effectiveness. Therefore, the statement aligns with the concept that high self-efficacy contributes to teachers' self-motivation by fostering a strong belief in their capacity to positively impact their students' learning and growth.

Among the five statements on the indicator Self-regulation, the statement "I am able to reflect on my teaching practices and identify areas for improvement on my own." got the highest mean of 4.37 described as high, while the statement "I am good at setting realistic teaching goals for myself and working towards achieving them." got the lowest mean 4.20 of described as high. The overall mean of the indicator Self-regulation is 3.92 and is high.

The statement indicates that the individual possesses a strong capacity for self-regulation, as they express the ability to reflect on their teaching practices and identify areas for improvement independently. In simpler terms, this means that the person has the skill to assess and analyze their own teaching methods, recognizing where they can make enhancements without external guidance.

Research by Zimmerman (2022) supports the idea that self-regulation, or the ability to control and manage one's own learning processes, significantly contributes to teachers' self-motivation. When teachers can independently reflect on their practices and proactively identify areas for improvement, it signifies a high level of self-regulation. The study highlights that self-regulated teachers are more likely to set goals, monitor their progress, and adapt their strategies to achieve desired outcomes. Therefore, the statement aligns with the concept that a strong capacity for self-regulation plays a crucial role in fostering teachers' self-motivation by enabling them to autonomously identify and address areas for improvement in their teaching practices.

The overall mean of the variable self-motivation is 3.95 and high. A pertinent study by Klassen and Chiu (2020) delves into the factors influencing teacher motivation, shedding light on why some teachers exhibit high levels of self-motivation. In their research, Klassen and Chiu identified a positive association between teacher self-efficacy and motivation, emphasizing that teachers who possess a strong belief in their ability to positively impact student learning are more likely to be self-motivated. The study underscores the role of self-efficacy as a significant predictor of teachers' commitment and enthusiasm for their profession. Teachers with high self-efficacy tend to set

challenging goals, persist in the face of obstacles, and actively seek opportunities for professional growth—all contributing to elevated levels of self-motivation. The findings from Klassen and Chiu's study provide valuable insights into the complex interplay of factors influencing teacher motivation, highlighting the pivotal role of self-efficacy in fostering teachers' intrinsic drive and commitment to their profession.

Table 2
Level of Self- Motivation

Level of Self- Motivation					
	Indicators	Mean	Std. Deviation	Interpretation	
A. Goa	al Orientation				
1.	I feel motivated to improve my teaching	4.01	.994	High	
•	skills to help my students succeed. I am driven to achieve my teaching	3.87	.996	ما ما ا	
۷.	goals, such as improving student	3.07	.990	High	
	engagement or raising test scores.				
3.	I am eager to learn new teaching	4.00	1.03	High	
	strategies and techniques to achieve my			_	
	teaching goals.	4.00	4.00	112.1	
4.	I am motivated to receive recognition for my teaching accomplishments, such as	4.03	1.06	High	
	awards or accolades.				
5.	I am focused on avoiding negative	4.04	1.07	High	
	outcomes, such as poor performance			J	
	evaluations, to achieve my teaching				
	goals.	2.00	005	I II ada	
	Category Mean	3.99	.885	High	
B. Self	f-Efficacy				
	I believe that I can effectively teach	3.98	1.04	High	
	difficult topics to my students.			_	
2.	I am confident in my ability to handle	3.89	1.06	High	
2	challenging classroom situations. I feel that I can successfully implement	3.92	1.10	High	
3.	new teaching strategies in my	3.92	1.10	riigii	
	classroom.				
4.	I am sure that I can adapt to changes in	3.82	1.13	High	
	the curriculum or teaching				
-	requirements.	4.00	1.08	Lliab	
5.	I have no doubts about my ability to positively impact my students' learning	4.00	1.00	High	
	and growth.				
	Category Mean	3.92	1.08	High	
	f-Regulation			_	
1.	I am good at setting realistic teaching	4.20	.532	High	
	goals for myself and working towards achieving them.				
2	I have good control over my emotions	4.32	.560	High	
	and behavior in the classroom, even	1.02	.000	1911	
	when faced with difficult situations.				

3.	I am able to adapt to changes in the curriculum or teaching methods without feeling overwhelmed.	4.27	.530	High
4.	I am good at managing my time effectively and prioritizing my teaching tasks.	4.35	.587	High
5.	I am able to reflect on my teaching practices and identify areas for improvement on my own.	4.37	.574	High
	Category Mean	3.92	.944	High
	Overall Mean	3.95	.889	High

### **Psychosocial attributes**

Table 3 shows the level of Psychosocial attributes. The variable Psychosocial attributes condition contains three indicators namely Emotional intelligence, Resilience, and Self-esteem.

Among the five statements on the indicator Emotional intelligence, the statement "I am able to regulate my emotions effectively in stressful situations" got the highest mean of 4.04 described as high, while the statement "I am able to recognize the emotions of others and respond appropriately." got the lowest mean 3.87 of described as high. The overall mean of the indicator Emotional intelligence is 3.98 and is high.

The statement indicates that the individual possesses a high level of emotional intelligence, as they express the ability to regulate their emotions effectively in stressful situations. In simpler terms, this means that the person has a strong capability to manage and control their feelings, especially when faced with challenging and stressful circumstances.

Research by Brackett and Salovey (2021) supports the idea that emotional intelligence significantly contributes to psychosocial attributes, such as interpersonal relationships and well-being. Teachers with high emotional intelligence can navigate stressful situations with resilience, maintain positive relationships with colleagues and students, and foster a conducive learning environment. The study highlights that emotional intelligence is a crucial component of teachers' psychosocial attributes, influencing their overall effectiveness and well-being in the educational context. Therefore, the statement aligns with the concept that effective emotional regulation, indicative of high emotional intelligence, plays a pivotal role in shaping the psychosocial attributes of teachers.

Among the five statements on the indicator Resilience, the statement "I can recover quickly from setbacks at work." got the highest mean of 4.24 described as high, while the statement "I am able to adapt to changes in my work environment." got the lowest mean 4.05 of described as high. The overall mean of the indicator Resilience is 4.15 and is high.

The statement indicates that the individual possesses a high level of resilience, as they express the ability to recover quickly from setbacks at work. In simpler terms, this

means that the person can bounce back swiftly from challenges or difficulties they encounter in their professional role.

Research by Tugade and Fredrickson (2019) supports the idea that resilience is a key component of psychosocial attributes, influencing how individuals respond to adversity. Teachers with high resilience can cope effectively with setbacks, adapt to changes, and maintain a positive outlook even in challenging situations. The study emphasizes that resilience contributes significantly to individuals' overall well-being and psychological health. Therefore, the statement aligns with the concept that the capacity to recover quickly from setbacks, indicative of high resilience, is a crucial aspect of teachers' psychosocial attributes, influencing their overall effectiveness and emotional well-being in the educational context.

Among the five statements on the indicator Self-esteem, the statement "I believe that I am a competent and effective teacher, and this helps me to maintain a positive attitude towards my work." got the highest mean of 4.20 described as very high, while the statement "I feel good about myself as a teacher, and this positively impacts my work." got the lowest mean 4.02 of described as high. The overall mean of the indicator Self-esteem is 4.11 and is high.

The statement indicates that the individual holds a strong sense of self-esteem, as they express a belief in their competence and effectiveness as a teacher, contributing to a positive attitude towards their work. In simpler terms, this means that the person has confidence in their abilities as a teacher, and this confidence positively influences their overall outlook and approach to their professional responsibilities.

Research by Caprara, Barbaranelli, Steca, and Malone (2021) supports the idea that self-esteem significantly contributes to psychosocial attributes, impacting individuals' perceptions of their capabilities and overall well-being. Teachers with high self-esteem tend to approach their work with a positive mindset, fostering a conducive learning environment and positively influencing their interactions with students and colleagues. The study underscores the importance of self-esteem in shaping teachers' psychosocial attributes and highlights its role in promoting a positive attitude towards their profession.

The overall mean of the variable Psychosocial attributes is 4.08 and high. A relevant study by Day and Qing (2019) explores the factors influencing teachers' psychosocial attributes, focusing on the connection between teacher well-being and professional efficacy. The research investigates the role of job satisfaction, teacher collaboration, and a positive school climate in shaping teachers' psychosocial attributes. Day and Qing's findings suggest that teachers who experience high levels of job satisfaction, engage in collaborative practices with colleagues, and perceive a positive school climate are more likely to exhibit positive psychosocial attributes. The study highlights the interconnectedness of these factors and their cumulative impact on teachers' overall well-being and effectiveness.

## Level of Psychosocial Attributes

Indicators	Mean	Std. Deviation	Interpretation
A. Emotional Intelligence			
<ol> <li>I am able to identify and understand my own emotions.</li> </ol>	3.96	.989	High
2. I am able to regulate my emotions effectively in stressful situations.	4.04	.992	High
3. I am able to recognize the emotions of others and respond appropriately.	3.87	1.06	High
4. I am able to effectively communicate my emotions to others.	4.01	.983	High
5. I am able to empathize with others and understand their emotions.	4.01	1.01	High
Category Mean	3.98	.873	High
B. Resilience 1. I am able to handle difficult situations	4.10	000	U:
effectively.		.986	High
<ol> <li>I can recover quickly from setbacks at work.</li> <li>I am able to adapt to changes in my work environment.</li> </ol>	4.24 4.05	.938 .967	High High
4. I am able to maintain my focus and motivation in challenging situations.	4.17	.944	High
5. I am able to maintain a positive outlook despite difficult circumstances.	4.21	.862	High
Category Mean	4.15	.799	High
C. Self-Esteem			
<ol> <li>I believe that I am a valuable and capable teacher.</li> </ol>	4.08	1.03	High
<ol><li>I am confident in my ability to handle challenges and setbacks in my teaching job.</li></ol>	4.13	.976	High
3. I feel good about myself as a teacher, and this positively impacts my work.	4.02	1.03	High
4. I feel proud of my achievements as a teacher, and this motivates me to continue improving.	4.13	.989	High
5. I believe that I am a competent and effective teacher, and this helps me to maintain a positive attitude towards my work.	4.20	.972	High
Category Mean	4.11	.844	High
Overall Mean	4.08	.791	High

Table 4 shows the level of Teacher's productivity. The variable Teacher's productivity condition contains three indicators namely work engagement, classroom management and instructional effectiveness.

Among the five statements on the indicator Work engagement, the statement "I am fully invested in the work I do as a teacher." got the highest mean of 4.05, while the statement "I feel a strong sense of pride in my work as a teacher." got the lowest mean 3.88 of described as high. The overall mean of the indicator Work engagement is 3.98 and is high.

The statement indicates that the individual is wholeheartedly committed to the work they do as a teacher. In simpler terms, this means that the person is fully invested and dedicated to their role as an educator. This study underscores the importance of work engagement as a key factor in fostering teachers' effectiveness and job performance.

Research by Schaufeli and Bakker (2019) supports the idea that work engagement, characterized by a strong sense of dedication and enthusiasm for one's work, significantly influences teacher productivity. When teachers are fully engaged in their work, it translates into heightened levels of energy and commitment, positively impacting their overall productivity. Therefore, the statement aligns with the concept that a high level of work engagement contributes to teachers being fully invested in their roles, ultimately influencing their productivity and effectiveness in the educational setting.

Among the five statements on the indicator Classroom management, the statement "I am able to maintain student engagement throughout the lesson." got the highest mean of 4.25 described as high, while the statement "I have a clear plan for classroom management and discipline." got the lowest mean 4.07 of described as high. The overall mean of the indicator Classroom management is 4.16 and is high.

The statement indicates that the individual possesses effective classroom management skills, as they express the ability to maintain student engagement throughout the lesson. In simpler terms, this means that the person can successfully keep students actively involved and interested in the learning process from the beginning to the end of a lesson. The result underscores the importance of effective classroom management as a key factor in enhancing teacher productivity and overall effectiveness in the educational setting.

Research by Marzano and Marzano (2018) supports the idea that strong classroom management practices significantly contribute to teacher productivity by creating a positive and conducive learning environment. When teachers can maintain student engagement, it not only fosters a more productive and focused learning atmosphere but also reduces disruptions, allowing for more efficient use of instructional time.

Among the five statements on the indicator Instructional effectiveness, the statement "I constantly assess my students' progress and adjust my instruction accordingly." got the highest mean of 4.21 described as high, while the statement "I

provide timely and constructive feedback to my students." got the lowest mean 4.02 of described as high. The overall mean of the indicator Instructional effectiveness is 4.12 and is high.

The statement indicates that the individual consistently evaluates their students' progress and adapts their instruction accordingly. In simpler terms, this means that the person regularly checks how well their students are doing and makes changes to their teaching to better meet the students' needs. The study underscores the importance of this dynamic and responsive approach to teaching in promoting effective instructional practices.

Research by Hattie and Timperley (2018) supports the idea that such continuous assessment and adjustment of instruction significantly contribute to instructional effectiveness and, consequently, teacher productivity. When teachers actively monitor student progress and modify their teaching methods based on this assessment, it enhances the overall quality of instruction and student learning outcomes. Therefore, the statement aligns with the concept that the commitment to ongoing assessment and instructional adjustment is indicative of high instructional effectiveness, positively impacting teacher productivity.

The overall mean of the variable teacher's productivity is 4.09 and high. A relevant study by Ingersoll and Strong (2021) investigates factors influencing teacher productivity, particularly focusing on the relationship between teacher working conditions and instructional effectiveness. The research emphasizes the impact of a positive school environment, supportive leadership, and collaborative teacher relationships on teacher productivity. Ingersoll and Strong's findings suggest that teachers who perceive their working conditions as favorable and experience strong support from school leadership are more likely to be productive in their instructional practices.

Table 4
Level of Teacher's Productivity

Indicators	Mean	Std. Deviation	Interpretation
A. Work Engagement			
<ol> <li>I feel excited and enthusiastic about my job as a teacher.</li> </ol>	3.97	.975	High
<ol><li>I am fully invested in the work I do as a teacher.</li></ol>	4.05	.978	High
<ol><li>I feel a strong sense of pride in my work as a teacher.</li></ol>	3.88	1.05	High
<ol> <li>I am committed to achieving the goals of my students and my school.</li> </ol>	4.01	.969	High
<ol><li>I find my work as a teacher to be both challenging and rewarding.</li></ol>	4.02	1.00	High
Category Mean	3.98	.858	High
B. Classroom Management	4.40	0.77	I.P. ale
I effectively manage my classroom to create a positive learning environment.	4.10	.977	High 

4.25	.922	High
4.07	.938	High
4.18	.929	High
4.21	.862	High
4.16	.784	High
4.09	1.02	High
4.14	.962	High
4.02	1.02	High
4.14	.974	High
4.21	.956	High
4.12	.827	High
4.09	.777	High
	4.07 4.18 4.21 4.16 4.09 4.14 4.02 4.14 4.21 4.12	4.07       .938         4.18       .929         4.21       .862         4.16       .784         4.09       1.02         4.14       .962         4.02       1.02         4.14       .974         4.21       .956         4.12       .827

## Correlational Analysis between the Independent Variables from Teacher's productivity

Table 4 presents the results of correlational analysis of the variables which its purpose is to show if the three variables particularly the continuing professional development, self-motivation, and psychosocial attributes do have a significant relationship on teacher's productivity. The result indicates that all the three variables: continuing professional development, self-motivation, and psychosocial attributes were found to be have a significant on teacher's productivity.

Particularly, from the result presented, it shows that the correlation between continuing professional development and Teacher's productivity revealed a p value of .000 which is less than the value of 0.05 level of confidence which indicates that there is a relationship that can be drawn from the two variables indicated. Thus, the null hypothesis which states that "There is no significant relationship between continuing professional development and Teacher's productivity" is therefore rejected with a very high degree of correlation (r=.903).

A pertinent and recent study by Garet, Porter, Desimone, Birman, and Yoon (2021) delves into the relationship between continuing professional development (CPD) and teacher productivity, emphasizing the impact of sustained, content-focused professional

development on instructional practices. The research explores how specific features of CPD programs, such as duration, focus on content, and opportunities for teacher collaboration, contribute to changes in teachers' instructional practices and, consequently, their productivity. Garet et al.'s findings underscore the importance of ongoing, targeted professional development in enhancing teacher effectiveness and productivity. The study provides valuable insights into the nuanced elements of CPD that are most influential in fostering positive changes in instructional practices, emphasizing the need for strategic and sustained professional development initiatives to promote teacher productivity.

Also, from the result presented, it shows that the correlation between self-motivation and Teacher's productivity revealed a p value of .000 which is less than the value of 0.05 level of confidence which indicates that there is a relationship that can be drawn from the two variables indicated. Thus, the null hypothesis which states that "There is no significant relationship between self-motivation and Teacher's productivity" is therefore rejected with a high degree of correlation (r=.878).

A recent study by Reeve, Jang, Carrell, Jeon, and Barch (2018) explores the intricate relationship between self-motivation and teacher productivity. The research investigates the impact of teachers' autonomous motivation, which involves a sense of volition and endorsement of their work, on their overall productivity in the classroom. Reeve et al.'s findings suggest that teachers who experience higher levels of autonomous motivation tend to demonstrate greater engagement, commitment, and effectiveness in their instructional practices. The study emphasizes the role of self-motivation in fostering a positive and productive work environment for teachers, highlighting the importance of internal drive and personal investment in teaching tasks. The insights provided by this study contribute to a better understanding of the dynamics between self-motivation and teacher productivity, emphasizing the significance of cultivating autonomous motivation for enhanced teaching effectiveness.

Moreover, from the result presented, it shows that the correlation between psychosocial attributes and Teacher's productivity revealed a p value of .000 which is less than the value of 0.05 level of confidence which indicates that there is a relationship that can be drawn from the two variables indicated. Thus, the null hypothesis which states that "There is no significant relationship between psychosocial attributes and Teacher's productivity" is therefore rejected with a high degree of correlation (r=.874).

A recent study by Renshaw, Long, and Cook (2020) delves into the intricate relationship between psychosocial attributes and teacher productivity. The research explores how teachers' psychosocial well-being, encompassing factors such as emotional intelligence, resilience, and self-esteem, influences their overall effectiveness in the classroom. Renshaw et al.'s findings suggest that teachers who exhibit positive psychosocial attributes tend to navigate professional challenges more effectively, maintain positive interpersonal relationships, and sustain a higher level of job satisfaction. The study underscores the importance of fostering a positive psychosocial environment for teachers, emphasizing its direct impact on their productivity and overall well-being. Insights from this research contribute to a nuanced understanding of the interplay

between psychosocial attributes and teacher productivity, highlighting the significance of cultivating a positive psychological foundation for educators to enhance their effectiveness in the educational setting.

Table 5
Relationship between the Variables

VARIABLES	R	p-value	Remarks	
Professional Development and Teacher's Productivity	.903**	.000	Significant	
Self-Motivation and Teacher's Productivity	.878**	.000	Significant	
Psychosocial Attributes and Teacher's Productivity	.874**	.000	Significant	

<sup>\*</sup>Significant at .05 level

### **Predictors of Teacher's productivity**

Table 6 presents the results of regression analysis which purpose is to show the significant predictors of teacher's productivity. The result indicates that only the variable continuing professional development was found to be significant predictor of teacher's productivity.

In particular, continuing professional development has a significant direct effect on the Teacher's productivity with ( $\beta$ =.229, p<.05). This means that the regression for continuing professional development in the prediction of Teacher's productivity is significantly different from zero at the 0.05 level (two-tailed). Thus, the value of .229 revealed that in every increase of a single unit in the continuing professional development, an increase of .229 in teacher's productivity can be expected.

A recent study by Darling-Hammond, Wei, Andree, Richardson, and Orphanos (2019) investigates the direct impact of continuing professional development (CPD) on teacher productivity. The research delves into the effectiveness of various forms of professional development programs, including mentoring, workshops, and collaborative learning communities, in enhancing teacher effectiveness and productivity. Darling-Hammond et al.'s findings suggest that teachers who actively engage in CPD activities experience significant improvements in their instructional practices, resulting in heightened productivity. The study emphasizes the importance of sustained and content-focused professional development initiatives in positively influencing teacher productivity. Insights from this research contribute to a deeper understanding of the direct link between CPD and teacher effectiveness, emphasizing the crucial role of ongoing professional development in enhancing instructional practices and, consequently, teacher productivity.

Table 6
Influence of Professional Development, Self-Motivation and Psychosocial Attributes on Teachers Productivity

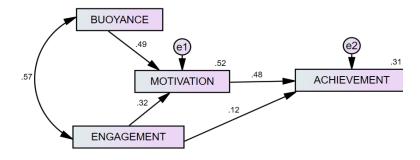
Variables		andardized efficients	Standardized Coefficient	Т	p-value	Remarks
	В	Std. Error	Beta			
(Constant)	.823	.094		8.805	.000	
Professional Development	.495	.046	.601	10.767	.000	Significant
Self-Motivation	.085	.238	.092	.359	.720	Not Significant
Psychosocial Attributes	.229	.232	.243	.984	.326	Not Significant

Note: R=.914<sup>a</sup>, R-square=.836, F=502.688, P>.05

## **Best Fit Model on Teachers productivity**

The result with the models revealed that there are two structural models that fit with Teacher's productivity of the variables, specifically the model 5.

The hypothesized model 5 in standardized estimates is presented in figure 11. It can be observed in the results that 16 percent of the variance of teacher's productivity is explained by the combined influenced of continuing professional development, self-motivation and psychosocial attributes. On the other hand, it shows the direct effect of all the two variables self-motivation and psychosocial attributes on teacher's productivity with beta of .31, and .39, respectively. Furthermore, the model also shows that the variables Continuing professional development and psychosocial attributes have an indirect teacher's productivity with self-motivation as the moderator with beta value of (B=.52, p<0), respectively.



## Standardized direct, indirect and total effect estimates on Teacher's productivity in Hypothesized Model 5

Figure 11 presents the hypothesized Model 5 with standardized estimates. The results reveal that 16 percent of the variance in teacher's productivity is accounted for by the combined influence of continuing professional development, self-motivation, and

psychosocial attributes. Additionally, the model illustrates the direct impact of self-motivation and psychosocial attributes on teacher's productivity, with beta coefficients of .31 and .39, respectively. Moreover, the variables Continuing professional development and psychosocial attributes exhibit an indirect effect on teacher's productivity, moderated by self-motivation, as evidenced by beta values of (B=.52, p<0), respectively.

Furthermore, all independent variables have significant total effect on Teacher's productivity. More specifically, the continuing professional development has the highest total effect (B=.49, p<.05), which is followed by Psychosocial attributes (B=.44, p<.05) and the least are the continuing professional development and self-motivation (B=.31, p<.05). This denotes that continuing professional development, self-motivation and psychosocial attributes have valuable contribution to improve teacher's productivity.

INDEPENDENT VARIABLES	DIRECT EFFECT	Р	INDIRECT EFFECT	Р	TOTAL EFFECT	Р
Continuing professional development	-	.000	.31	.000	.31	.000
Self-motivation	.31	.000	-	.000	.31	.000
Psychosocial attributes	.39	.000	.50	.000	.89	.000

Table 11 Goodness of fit measures of the Hypothesized Model 5.

MODEL FIT VALUES		
INDEX	CRITERION	MODEL FIT VALUES
CMIN/DF	<3.0	45.053
P-value	>.05	.000
NFI	>.95	.960
TLI	>.95	.988
CFI	>.95	.951
GFI	>.95	.962
RMSEA	<.05	.332
PCLOSE	>.05	.000

As shown in table 8, all model fit value has successfully met the criteria set by each index (CMIN/DF = 3.115 with its p-value <.05, (NFI, TLI and CFI > .95). This means that the model fits well with the data which can best explain the Teacher's productivity.

Research in the field of teacher productivity has been enriched by various studies that corroborate the intricate relationship between professional development, self-

motivation, psychosocial attributes, and their combined impact on educators' effectiveness. Darling-Hammond, Wei, Andree, Richardson, and Orphanos (2019) emphasize the pivotal role of continuing professional development (CPD) in shaping teachers' instructional practices and overall productivity.

In a local context, Abadiano (2020) explores the influence of CPD on teacher productivity in the Philippines, providing valuable insights into the importance of ongoing professional development for educators in diverse settings. In the realm of self-motivation, Reeve, Jang, Carrell, Jeon, and Barch (2018) delve into the connection between teachers' autonomous motivation and their productivity, highlighting the significance of internal drive in fostering positive changes in instructional practices.

### CONCLUSIONS

Based on the results and findings of this study, the following conclusions were drawn:

- 1. In conclusion, educators consistently demonstrate a robust commitment to professional development, emphasizing its essential nature, actively seeking growth opportunities, and maintaining high engagement, as reflected in the overall mean of 4.06.
- 2. Also, the consistently high mean values across indicators in the Level of Self-Motivation highlight educators' unwavering commitment to skill improvement, goal achievement, and effective teaching practices. This underscores a pervasive and steadfast motivation among educators, as reflected in the overall mean of 3.95, signifying a robust and proactive engagement across various facets of their professional roles.
- 3. In addition, the Level of Psychosocial Attributes underscores the presence of positive psychological qualities among educators, as indicated by consistently high mean values in Emotional Intelligence, Resilience, and Self-Esteem. With an Overall Mean of 4.08, this reflects a steadfast and consistently high level of positive psychosocial attributes among educators.
- 4. Moreover, the Level of Teacher's Productivity reflects consistently high mean values, signifying strong performance and dedication among educators. With an Overall Mean of 4.09, this indicates a steadfast and consistently high level of productivity and effectiveness among educators in various aspects of their professional roles.
- 5. This correlational result underscore significant positive relationships between Professional Development, Self-Motivation, Psychosocial Attributes, and Teacher's Productivity. The robust correlations emphasize the vital connection between these factors and increased Teacher's Productivity, highlighting the potential efficacy of targeted interventions to enhance teacher effectiveness.
- 6. Also, the regression analysis emphasizes the pivotal role of Professional Development in enhancing Teacher's Productivity, supported by a significant positive relationship. Although Self-Motivation and Psychosocial Attributes do not show notable effects, the robust overall model underscores the importance

- of tailored professional development programs for improving teacher effectiveness and productivity.
- 7. Model five was the best model that could explain the factors that contribute to Teacher's productivity. The study underscores the importance of continuing professional development, self-motivation, and psychosocial attributes in shaping teacher productivity. Model 5 emerges as a robust predictor, emphasizing the nuanced relationships and indirect effects within this framework. These insights have implications for targeted interventions and professional development programs aimed at enhancing teacher effectiveness and overall productivity in educational settings.

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