

## TEACHERS' PERSONALIZED LEARNING AS ESTIMATED BY COMPETENCIES AND PROFESSIONAL DEVELOPMENT: A CONCURRENT TRIANGULATION

LEVY ROBLES VALZADO  
JERIC IVAN PALOMAR  
RONIE E. MORALA  
ABSTRACT

The purpose of this study was to examine the teachers' personalized learning, competencies, and professional development. The design of this research study was a mixed method of concurrent triangulation in which the data from qualitative and quantitative sources was analyzed and interpreted at a 0.05 level of significance. The data was merged, connected, and confirmed based on the salient data integration. 300 participants were utilized in the study for quantitative survey questionnaires, 10 participants for an in-depth interview, and 7 participants for a focus group discussion (FGD); a total of 17 participants are utilized during the conduct of qualitative questionnaires. Of the quantitative results, it was revealed that the assessment of teachers in personalized learning, competencies, and professional development was high. It means that personalized learning helps instructors' professional growth. Teachers' professional development has long been considered a strategy to enhance classroom practices, schools, and student learning. Formal learning contexts include professional development, instructional research, and mentorship. Furthermore, the correlation analysis revealed that there was a strong relationship between teachers' personalized learning and their professional development. Furthermore, the regression analysis revealed that the best predictors of teachers' competencies were personalized learning and professional development. Also, it can be gleaned that teacher-personalized learning significantly influences teachers' competencies and professional development. Of the results revealed from the thematic analysis, there were eight themes that emerged from the lived experience of teachers pertaining to personalized learning, competencies, and professional development, namely: skill development, personalized learning, teachers' personal development, time management, work-life balance, a positive outlook, comprehensive understanding, and professional enhancement. Meanwhile, the results revealed from the quantitative and qualitative findings indicated that the data integration was confirming, merging, and connecting. Therefore, it is recommended that teachers employ flexible learning environments, enabling students to spend more time engaging with peers and presenting their work to the class. In online classrooms, students spend less time being coached and more time working alone.

**Keyword:** *Personalized Learning, Concurrent Triangulation Design, Teachers Competencies, President Roxas-North Cotabato*

### INTRODUCTION

Across the globe, personalized learning has been used to encourage students to be themselves while they are learning. However, it is hard to use in all subject areas. This study looked at a large city school system in the Midwest that used personalized learning to improve students' learning skills and teachers' professional growth. An analysis of ACT, SAT, and college remediation rates showed that only 37% of students are ready for college. There are many different kinds of students in public schools, and teachers have a duty to help all of them succeed. This means that school systems need to adopt an instructional program that lets students have a say in what they learn and makes learning more personalized (Busher, 2019).

Also, over the last ten years, personalized learning has gotten a lot of attention. Customized learning is not a new idea, but its growing popularity has brought both supporters and critics to the debate over how to define it and what it means for schools, teachers, and students. In this section, we look at how schools are putting more emphasis on personalized learning. Then, we talk about how to define customized learning and how it applies to blended learning. Last, we talk about a framework that guided our teaching strategy as well as research on how to give preservice teachers the tools they need to personalize their students' education (Gross et al., 2019).

Even though personalized learning is not dependent on educational technology, advocates for educational technology and online learning have stressed in recent years that the use of educational technologies can strongly support and enable blended learning and personalization as a teaching method. So, preservice teachers should be taught ideas and skills about how to use technology to help students learn on their own (Chatti & Muslim, 2019).

Personalized learning also gives students a more interesting place to learn because it is tailored to their specific needs and is therefore relevant to each learner. When this type of education is put into place, it makes it hard for teachers to plan their daily lessons. The article says that putting in place a customized learning paradigm "requires some fundamental changes in teaching practice." Teachers had to learn new ways to teach. Even though individualized learning has the potential to help students do better in school, it also changes the way teachers teach (Bingham et al., 2020).

But there is still a hole in the research on individualized learning as measured by teachers' ability to learn and their professional growth. In the Philippines, however, there is still a problem with giving students curriculum with higher levels of intellectual capacity that isn't always right for students in lower grades. This is why teachers suggested personalized learning so they could teach students in a way that was right for their level of skills and professional development. So, the goal of this study is to look at teachers' individualized learning as measured by learning competencies and professional development.

## **FRAMEWORK**

This study is anchored on the Goal-orientation theory (Dweck and Leggett, 1988). Students are driven by two distinct goals: mastery and performance. Mastery objectives are accomplished by a students' desire and effort toward mastery of a skill or attainment of a set degree of comprehension of a subject, which results in a students' feeling of accomplishment. Performance objectives are established in relation to an individual ability as measured in comparison to another person or group (Ames & Archer, 1987). Ames and Archer (1987) argued, based on their results and previous studies on Goal Orientation, that performance objectives might cause students to undervalue their potential, resulting in a poor self-image. Moreover, the goal orientation theory is a social-cognitive paradigm that examines the connection between student objectives and motivation. Learn about goal orientation theory, the many goals issue, educational outcomes of goals, mastery vs performance goals, and the effect of goals on student motivation and behavior.

## **METHOD**

### **Research Design**

The mixed-methods, concurrent-triangulation approach was used for this investigation. The simultaneous collection of qualitative and quantitative data in this method allows for a more thorough and accurate understanding than that obtained by using each data source alone. This technique is also used to verify, cross-validate, or corroborate previous research results. As a result, it's often used to compensate for the shortcomings of one approach by leveraging the advantages of another. In order to have a complete picture of the issue being studied, researchers often gather quantitative and qualitative data at the same time but analyze them separately (Creswell et al., 2003).

The study aimed to combine the two datasets, usually by harmonizing the interpretation of the results or reshaping the data for easier integration during analysis. The researcher in this study gathered and analyzed both quantitative and qualitative data on the same occurrence, and then converged (by comparing and contrasting) the two sets of findings as part of the interpretation process. The use of the convergent parallel technique improved the outcomes and made up for the shortcomings of the separate approaches.

As a result, we were able to see, hear, and comprehend the scenario from more than one vantage point (Creswell & Clark, 2011).

There was a descriptive and correlative focus on the numbers. Information about the present state of the phenomenon was gathered using the descriptive design so that it could be described in terms of "what exist" in terms of the variables or circumstances of the situation (Shuttleworth, 2008)

An evaluation of organizational learning, ambidexterity, and productivity will be carried out here. Co-relational design is a method for describing and quantifying the degree of connection (or relationship) between several variables or sets of ratings (Creswell, 2002). Using instructors' assessed learning abilities and professional development, we want to determine the extent to which teachers engage in personalized learning.

On the other hand, participant stories were a key element of the qualitative section, and they will be culled directly from the research participants' actual experiences. The application of convergent parallel methods improved the outcomes and compensated for the shortcomings of individual approaches. It allowed for a more nuanced and broader perspective from which to observe, hear, and comprehend the situation as it existed.

## Respondents

### Quantitative

The respondents of this study were three hundred (300) teachers from the selected schools in municipality of President Roxas North Cotabato Division through **Randomized Sampling Technique**. Random sampling is a kind of sampling strategy in which each sample is picked with an equal probability. A random sample is intended to provide an impartial reflection of the whole population.

### Qualitative

Another 17 participants from selected schools in Municipality of President Roxas North Cotabato Division. They were targeted, using the **purposive sampling technique**. This technique aims to achieve a homogeneous sample whose units share the same characteristics or traits (Creswell, 2003). To attain homogeneity, the following criteria was being set. Should be a regular teacher in the public elementary education institution, and at least have one year tenure in the service. In the qualitative aspect, a total of ten participants for an in-depth interview and another seven participants for the focus group discussions. The results of which was used to identify the emerging themes and patterns, or responses as based on their lived experiences.

Thus, the duration of this study will be conducted from October, 2022 up to May, 2023 in Philippines set up.

## **Instruments**

In the quantitative phase of the study, the researcher administered a standardized questionnaire to gather the essential data for analysis and interpretation. In addition, during the qualitative phase, the researcher created a questionnaire for interview guides. After being used to perform the investigation, the questionnaire was validated by the research committee. The first research problem sought to answer the level of Teachers' personalized learning in terms of Teachers' Ownership of Learning, Formal and Informal Assessment of Data, Develop Learning Pathways, and Utilizing Flexible Learning Environments. The researcher modified and adopted the survey questionnaire from the study of Busher, (2019). Moreover, the reliability of the questionnaire as revealed in Cronbach alpha was 0.954 or 95.4%. The second research problem sought to answer the level of Teachers' competencies in terms of Content Knowledge, Learning Environment, Curriculum Planning, and Evaluation and Reporting. The researcher modified and adopted the survey questionnaire from the study of Seidman and Houston (1999). Moreover, the reliability of the questionnaire as revealed in Cronbach alpha was 0.94 or 94%. The third research sought to answer the level of Teachers' professional development in terms of Innovative Work Performance, Professional Coursework, Technical Skills Training, and Teamwork and Interpersonal Skills. The researcher modified and adopted the survey questionnaire developed by Timperley (2002). Moreover, the reliability of the questionnaire as revealed in Cronbach alpha was 0.95 or 95%. Moreover, to determine the lived experience of teachers personalized learning as estimated by teachers' learning competencies and professional development, the researcher made an interview guide questionnaire. This questionnaire was approved and validated by the research panelists of Central Mindanao College.

## **Statistical Tools**

In qualitative phase, thematic analysis was used to analyze the responses of the respondents during the individual interviews and focus group discussions (FGD) to form a significant emerged theme. The statements came from 10 participants who undergone In-Depth Interview (IDI) and 7 participants for focus group discussions (FGD).

In quantitative phase, mean and standard deviation was used to determine the level of teachers' personalized learning, teachers' learning competencies, and professional development. Pearson Correlation Coefficient was used to determine the significant relationship between teachers' personalized learning, teachers' learning competencies, and professional development. Regression Analysis was utilized to determine the significant influence between teachers' personalized learning, teachers' learning competencies, and professional development. Furthermore, Zobel Tests' med graph, this was used to determine the significant mediating effect of the mediating variables between independent and dependent variables.

# **RESULTS AND DISCUSSIONS**

## **QUANTITATIVE STRAND**

## Teachers' Personalized Learning

Table 1 shows the level of teachers' personalized learning. The teachers' personalized learning contains four indicators namely teachers' ownership of learning, assessment of performance, develop learning pathways, and utilizing flexible learning environments. This variable obtained the overall mean score of 4.34 and standard deviation of 0.618 which reflects the consistency of the responses of the participants.

The results imply that teachers are very systematic in implementing their ownership learning. Teachers who take responsibility of their teaching have a strong feeling of self-efficacy and may participate fully in learning activities. Teachers who embrace responsibility for their own learning are passionately involved in their learning and dedicated to comprehending schoolwork.

Moreover, Netcoh (2019) emphasized that personalized learning is when the teacher and the student work together to come up with goals and results that combine the student's interests and the needs of the subject. Others disagreed and said that personalized learning is a teacher-centered, structured alternative and that students would benefit more from individualized learning through flexible routes.

The findings of the study imply that teachers are crafting carefully designed performance tests to assist teachers determine their students' current levels of comprehension, address any gaps in that understanding, and give the necessary guidance for furthering their own thinking and learning.

Prince et al. (2019), highlighted the results of his study that teachers integrate their knowledge, skills, and abilities into distinctive performance competencies that foster student learning and achievement. Increasing numbers of academic institutions have acknowledged the necessity for methods or processes to evaluate instruction. Creating a system for overseeing the intellectual resources of teachers requires an assessment of instructional efficacy.

The results indicates that teachers improve their students' learning and success by combining their knowledge, skills, and talents into unique performance capabilities. There is a growing consensus among universities that teacher assessment is essential. Analyzing classroom performance is vital to managing teachers.

Thus, the findings of the study are supported by Cook & Fine (2019). They pointed out that a learning pathway provides individuals with a structured framework for identifying and tracking their learning progress. It enables people to comprehend what is expected of them to thrive in their positions and attain progress with more clarity.

The results indicate that teachers spent more time cooperating and connecting constructively with their students. In flexible learning settings the pupils spend less time being directly instructed and working separately compared to regular classes. Enhanced learning outcomes because of evidence-based and technology-enabled instructional strategies. Thus, flexible learning provides more schedule flexibility.

In some study revealed that teachers were shown to spend much more time presenting their topic to the class and engaging with their students in flexible learning environments. There was also less time spent on direct instruction and more time spent with students working in groups (Huitt & Segars, 2021).

**Table 1**  
**Level of Teachers' Personalized Learning**

Indicators	Mean	Std. Deviation	Interpretation
Teachers Ownership of Learning	4.38	.624	High
Assessment of Performance	4.34	.643	High
Develop Learning Pathways	4.38	.480	High
Utilizing Flexible Learning Environments	4.27	.723	High
<b>Overall Mean</b>	<b>4.34</b>	<b>.618</b>	<b>High Level of Teachers' Personalized Learning</b>

### Teachers' Learning Competencies

Table 2 shows the High Level of Teachers' Learning Competencies. The variable Teachers' Learning Competencies contains four indicators namely content knowledge, learning environment, curriculum planning, and teachers' learning competencies obtained the overall mean score of 4.45 and standard deviation of .525 which reflected the consistency of the responses of the participants.

The results indicate that content knowledge influences how teacher understand the content objectives we're supposed to help pupils achieve. It influences how teachers listen to and react to our pupils' queries. It impairs our capacity to communicate properly and ask pertinent inquiries. The primary objective of content knowledge is to support teaching of the highest quality. The material provided to a learner facilitates their understanding and mastery of a skill. It is also the means through which instructors interact with pupils. Students need material to study, and educators depend on it to instruct.

A study testified that the content objectives we're supposed to help our pupils achieve are subject to our own contexts of understanding. It changes how we take in our pupils' questions and how we answer them. It will become less able to articulate our thoughts properly and to formulate insightful queries as a result (Hill, 2020).

The study's findings suggest that conducive classroom settings improve students' ability to pay attention and concentrate, provide them with more engaging learning opportunities, lead to better academic outcomes, and inspire them to hone their critical thinking abilities.

The findings of the study are supported by Biggs & Tang, (2021). Positive learning environments may contribute to increased student success. It produces kids who are at ease, confident, sociable, willing to take chances and make errors without fear. Additionally, it might assist pupils feel more comfortable with their instructor.

In the aspect of curriculum planning, statement "It develops my creativity & new ideas" got the highest mean score of 4.54 among the five statements of the indicator. Meanwhile, statement "It helps me to utilize situational analysis" and "It makes my class discipline easier"

obtained the same lowest mean score of 4.34. The overall mean of the indicator curriculum planning is 4.41 and is high.

This highlights the need of instructors engaging in curriculum preparation to guarantee that their everyday lessons contribute to a greater goal. It serves as a roadmap, detailing the desired learning outcomes and the steps to take to reach those goals.

The implication of the study is supported by Johnson (2021). An efficient curriculum is one that caters to the requirements of the target audience. There must be constant revision and improvement of educational programs and curriculum. Participation from all parties is essential when developing and revising curricula, but more so when it comes to the education of students. In this article, we'll go over why it's crucial for educators to take part in the curriculum-making process, the challenges they confront, the steps that may be taken to better prepare them, the part they play, and the overall conclusion.

The result of the study signifies that the competence of teachers is essential in the process of pupil healthy development in assuring excellent learning, particularly for vocational college students. The academic growth and abilities of students will be positively affected by instructors' competence, and teachers will be able to enhance their teaching practices as a result.

The study highlighted that teacher learning competencies are essential for educating students with the information, abilities, and attitudes they will need to manage their own learning, living, and working journeys effectively. Students use and build skills when confronted with novel or difficult circumstances (Jaramillo, 2021).

**Table 2**  
**Level of Teachers' Competencies**

Indicators	Mean	Std. Deviation	Interpretation
Content Knowledge	4.38	.494	High
Learning Environment	4.54	.957	Very High
Curriculum Planning	4.41	.679	High
Teachers' Learning Competencies	4.48	.652	High
<b>Overall Mean</b>	<b>4.45</b>	<b>.525</b>	<b>High Level of Teachers' Learning Competencies</b>
<b>Teacher's Professional Development</b>			

Table 3 shows the high level of teachers' professional development. The variable assessment of teachers' professional development contains four indicators namely Innovative Work Performance Professional Coursework, Technical Skills Training, and Teamwork and Interpersonal Skills obtained the overall mean score of 4.44 and standard deviation of .479 which reflected the consistency of the responses of the participants.

The statements of the participants imply that Innovations in the workplace facilitates the pursuit of long-term objectives, which is a significant benefit. Frequently, innovation is required for instructors to adapt to and overcome the obstacles of change. It encourages instructors' and

students' development towards attaining excellent instruction and academic achievement for all pupils.

The implication of the study is supported by Bonwell (2020). They emphasized that Innovation contributes to the development of society by resolving these types of social issues and enhancing society's ability to respond. It is responsible for addressing communal issues in a sustainable and effective manner, often via the use of modern technologies. Innovation may help you predict market shifts and possibilities more rapidly, allowing you to avoid being compelled to respond to adjustments. Additionally, it might help you stand out from the competitors.

The results indicate that through professional coursework, individuals will also become more productive. By acquiring the appropriate skills for their careers, workers will be more efficient and productive, therefore contributing to the success of their employer. Professional growth may provide workers with access to new prospects.

The study highlighted that professional education may help people feel more confident in their employment. Greater confidence may lead to improved overall work satisfaction, staff performance, productivity, and morale. The focus of these courses, among other things, is on developing skills, career progress, and self-improvement.

This means that technical abilities are based on theoretical knowledge yet need the application of actual experience to execute tasks. It is the ability of teachers to accomplish specified activities. There is a widespread need for a wide range of technical abilities in today's workforce.

The study of Moreira (2019) emphasized that many research studies have investigated how important it is to use technology in the classroom. The results of these studies have led to large-scale projects in schools around the world to integrate technology. But because technology integration changes the way teaching is done (from teacher-centered to student-centered, for example), it may also demand different ways to run a classroom.

**Table 3**  
**Level of Teacher's Professional Development**

Indicators	Mean	Std Deviation	Interpretation
Innovative Work Performance	4.47	.751	High
Professional Coursework	4.33	.505	High
Technical Skills Training	4.41	.491	High
Teamwork and Interpersonal Skills	4.55	.653	Vey High
<b>Overall Mean</b>	<b>4.44</b>	<b>.479</b>	<b>High Level of Teachers' Professional Development</b>

### Relationship Between the Variables

Table 4 presents the results of correlational analysis of the variables between Teachers' Personalized Learning and Teachers' Competencies, Teachers' Personalized Learning and Teachers' Professional Development, Teachers' Competencies and Teachers' Professional



Development. The result indicates that these variables have a significant relationship with each other.

Particularly, the reported results demonstrate that the correlation between teachers' personalized learning and teachers' competencies yielded a p value of .000, which is less than the 0.05 level of confidence, indicating that a correlation can be inferred between the two variables is high. With a moderate degree of correlation ( $r=.697$ ), the null hypothesis "There is no significant association between teachers' personalized learning and teachers' competencies" is consequently rejected.

The implication of the study is supported by Jaramillo (2021). Competencies are the abilities and knowledge necessary for a teacher's success. To enhance student learning, instructors must have knowledge in a vast variety of abilities in a particularly complicated setting where hundreds of important choices must be made daily. The competence of teachers is essential for the progress of student "healthy development" in assuring excellent learning, particularly for vocational college students. The academic growth and abilities of students will be positively affected by instructors' competence, and teachers will be able to enhance their teaching practices as a result.

Moreover, it was revealed the result of correlation analysis that the reported results demonstrated that the correlation between Teachers' Personalized Learning and Teachers' Professional Development yielded a p value of .000 which is less than the 0.05 level of confidence, indicating that a correlation can be inferred between the two variables is high. Thus, the null hypothesis which states that "*There is no significant relationship between Teachers' Personalized Learning and Teachers' Professional Development*" is therefore rejected with a high degree of correlation ( $r=.721$ ).

The findings of the study is supported by Timperley (2021). Personalized learning increases professional growth. By analyzing the requirements of each student, it is possible to concentrate on the necessary areas. This implies that familiar content may be omitted and more time can be devoted to hard themes and subjects. Consequently, teachers' professional learning has long been seen as a crucial aspect in improving classroom practice, improving schools, and enhancing student learning outcomes. Formal learning environments include professional growth programs, teaching research teams, and formal mentoring programs.

Furthermore, from the result presented, it shows that the correlation between Teachers' Competencies and Teachers' Professional Development 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 Teachers' Competencies and Teachers' Professional Development*" is therefore rejected with a moderate degree of correlation ( $r=.673$ ).

The results of the study are supported by Horn & Kane (2021). They underlined the critical role that teacher competencies play in enhancing Teachers' Professional Development. In addition to influencing teachers' beliefs, actions, communication, goals, and practices in the classroom, teachers' competencies also assist professional development and instructional research. Thus, teachers' skills to enhance the instructional process in the classroom is of critical relevance.

**Table 4**  
**Relationship between the Variables**

VARIABLES	R	p-value	Remarks
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Teachers' Personalized Learning and Teachers' Competencies	.697**	.000	Significant
Teachers' Personalized Learning and Teachers' Professional Development	.721**	.000	Significant
Teachers' Competencies and Teachers' Professional Development	.673**	.000	Significant

\*Significant at .05 level

### Predictors of Teachers' Professional Development

Table 5 revealed the results of regression analysis that teachers' competencies and teachers' personalized learning has significant influence on teachers' professional development as reinforced by the magnitude with their respective p-value which is all less than 0.05. It was revealed that teachers' competencies ( $r=.303$ ,  $p<0.05$ ) is the best predictor of teachers' professional development. Thus, it was revealed that in every increase of a single unit in teachers' professional development, an increase of .303 in teachers' competencies can be expected.

The findings of the study are corroborated by Horn & Kane (2021). They emphasized the importance of teacher competencies in promoting teachers' professional development. Teachers' skills not only influence teachers' attitudes, behaviors, communication, objectives, and practices in the classroom, but they also aid in professional development and instructional research. As a result, the dispute over teachers' abilities to improve the teaching process in the classroom is crucial.

Moreover, teachers' personalized learning ( $r= .468$ ,  $p< 0.05$ ) is also the predictor of teachers' professional development. Thus, it was revealed that in every increase of a single unit in teachers' personalized learning, an increase of .468 in teachers' professional development can be expected.

The findings of the study are supported by Ketelaar et al. (2021). They emphasized that professional development is enhanced by teachers personalized learning. This means that teachers' professional learning has been seen for a long time as an important way to improve classroom practices, schools, and how well students learn. Professional development programs, teaching research teams, and formal mentoring programs are all examples of formal learning environments.

Furthermore, the model explains that 57.6 % of the variance between the teachers' competencies and teachers' personalized learning on teachers' professional development. This shows that the remaining 42.4 % of the variance of the variables can be attributed to other factors aside from the recognized variables.

**Table 5**

### Influence of Teachers' Competencies and Teachers' Personalized Learning on Teachers' Professional Development

Variables	Unstandardized Coefficients		Standardized Coefficient	T	p-value	Remarks
	B	Std. Error	Beta			
(Constant)	1.064	.170		6.276	.000	
Teachers' Competencies	.303	.048	.332	6.295	.000	Significant
Teachers'	.468	.050	.490	9.290	.000	Significant

### Personalized Learning

Note:  $R=.759^a$ ,  $R\text{-square}=.576$ ,  $F=202.024$ ,  $P>.05$

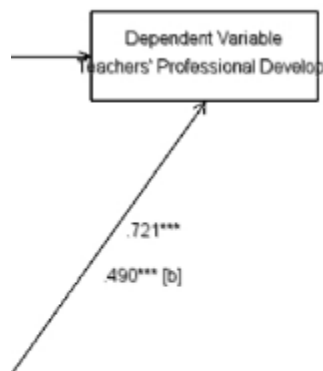
## Mediating Effect of Teachers' Personalized Learning between Teachers' Learning Competencies and Professional Development

Table 6 shows the use of Med graph involving Sobel Test provides analysis on the significance of mediation effect. Hence, it can determine whether the mediation is full or partial. As can be gleaned in figure, the direct effect of Teachers' Personalized Learning on Teachers' Learning Competencies is decreased from beta of .673 to .332 when mediator variable was placed in the relationship model. Since the direct effect of teachers' personalized learning between teachers' learning competencies is no longer significant, it would imply a partial mediation.

Meanwhile, the Sobel's test denotes that there is a significant mediation that take place in the model (5.202822  $p = < 0.000001$ ). Since it is partial mediation, it could totally claim that teachers personalized learning is the reason how teachers' competencies can influence teachers' professional development. This indicates that teachers personalized learning is a contributory factor on how teachers' competencies affects teachers professional development.

On the other hand, the effect size ( $\beta=.342$ ) measure how much of the effect of teachers competencies (IV) on teachers professional development (DV) can be attributed to the indirect path (IV to MV to DV). The total effect ( $\beta=.673$ ) is the summation of both direct effect and indirect effect. The direct effect ( $\beta=.332$ ) is the size of correlation between teachers' competencies (IV) and teachers' professional development (DV) with Teachers' Personalized Learning (MV) included in the regression.

The indirect to total ratio index reveal an R-square of .0000. This means that about 100 percent of the total effect of IV on the DV goes through MV, and zero percent of the total effect is either direct or mediated by other variables not included in the model.



1 the second regression

**Table 6**  
Type of Mediation Used

<b>Type of Mediation</b>	Significant	
<b>Sobel z-value</b>	5.202822	$p = < 0.000001$
	95% Symmetrical Confidence Interval	
	Lower	.31036
	Higher	.68554
<b>Unstandardized indirect effect</b>	a*b	.49795
	Se	.09571
<b>Effective Size Measures</b>		
<u>Standardized</u>		
<u>Coefficients</u>		R2 Measures (Variance)
Total:	.673	.454
Direct:	.332	0000
Indirect:	.342	.454
Indirect to Total ratio:	.507	0000

### QUALITATIVE STRAND

#### Essential themes that Emerged from Lived Experiences of Teachers' Pertaining to Personalized Learning Competencies and Professional Development

This section discusses eight main themes that arose from the in-depth interviews and focus group discussions with the participants. Table 2 depicts these themes as the respondents' assessment in analyzing the lived experiences of teachers' personalized learning as estimated by competencies and professional development such as: Skills Development, Personalized Learning, Teachers' Personal Development, Time Management, Work-Life Balance, Positive Outlook, Comprehensive Understanding, Professional Enhancement.

**Skill Development.** Teaching is an ongoing skill since a skilled teacher must continue to improve her abilities in order to engage kids productively in the classroom and assure the desired outcome in our students.

*I experienced different trainings and workshops that will help to improved myself and my teaching career. (IDI\_P2)*

*I experienced professional development in my workplace such as SLAC and INSET. These helped me increase my skills as an employee which can lead to me to discover new things and opportunities that I used in my teaching career and to have a good and better person as well as a member in my workplace. (IDI\_P4)*

*The professional development that I have experienced in my workplace just like internship, taking classes, going to workshops and seminar, and teaching themselves new skills. In that way, we can give professionals the opportunity to learn and apply new*

*knowledge and skills that can use or help in our job and further in our career. (IDI\_P5)*

*The professional development that I have experience in my workplace are attending seminars and training that will enhance my ability and experience as an educator. Taking my master's degree is also one of my professional development to improve my knowledge and skills in order to facilitate individuals most especially to my colleagues. (FGD\_P2)*

The comments made by the participants gave the impression that skill development is necessary for teachers to innovate their professional development. Thus, the ideas of the participants is supported by Kress (2020) which states that "the past required an education for stability, the future requires an education for instability." Using Kress' theories, you can explain why teachers' professional growth must be rethought. Education's goals change quickly in response to a more capable society. These expectations affect schooling. Teachers must have a variety of professional skills to keep a school system running smoothly. Teachers' abilities must be reevaluated in light of human existence and education's evolution.

**Personalized Learning.** Learning is a dynamic process in which students create conceptual knowledge and understanding in partnership with others. Personalized Learning (PL) in teacher education is concerned with how modes of instruction influence student-teacher learning and, in turn, how student-teacher learning may influence their future teaching. PL entails not only what and how student teachers are learning, but also how the design of the learning process and environment impacts the quality of their learning and their future teaching of others.

*The factors contributed to the overall impact of learning competencies and professional development on personalized learning is to widen our knowledge effective resourceful teacher. (IDI\_P1)*

*Professional development ensures that Teachers can develop self - confidence, skills and be more productive and effective teacher. Through personalized learning, learners focused on their own needs and interest, we provide customize learning to the learners so that the learners can learn by their own styles. (IDI\_P3)*

*As a teacher, you need to find some activities that are suited to the level of the pupils to make your class more interesting. From that you can be an effective teacher to your class. (IDI\_P7)*

*The relationship of the three is that teachers always have the ability on how to deliver the lesson very well. But somehow, we face challenges that not all the children are smart to we try to modify things or contextualize it to suit in their level. With the help of trainings, seminars, we could provide better understanding and learning to make it improve better.(FGD\_P3)*

The statements of the participants imply that teachers are beginning to recognize that each student in a classroom has a distinct set of skills and interests. Students are able to express their interest and produce their best work via the use of tools and tactics that highlight their skills rather than their impairments. The statements of the participants is aligned to the ideas of Landon (2019). He stated that schools may seek out innovative teaching methods such as customized learning to better serve 21st-century students. Changing the classroom to engage students isn't a new idea, but some of the techniques are. He explored an "open classroom" that lets students pursue interests beyond the instructors. Contemporary approaches include personalization, individualization, and distinctiveness.

**Teachers' Personal Development.** For teachers, personal development provides for instructors to keep up to speed on curricular standards and the latest instructional practices. When it comes to school-wide efforts, professional development strengthens the skill sets of individuals, hence increasing the value of department and grade-level teams.

*Always allow improvements in yourself. Continue to learn more, value the suggestions of senior colleagues, and never stop learning. (IDI\_P9)*

*The measures that I would like to recommend is that teachers shouldn't stop learning. Earning master's degree could help teachers improve their personal and professional development. (IDI\_P10)*

*We teachers need to give ourselves an opportunity to develop our personal and professional aspects to become better and improve our skills. Through this, we could teach our students effectively. Teachers need flexible learning plans, and that's where implementing personalized learning strategies in the classroom can really make a difference. (IDI\_P11)*

*In order to improve these three, i suggest that we should continue to grow personally and professionally. This will help us gain new skills and help us reach our goal in our chosen career. (FGD\_P3)*

The remarks of the participants imply that when teachers learn new teaching strategies through professional development, they can change their lecture styles and curricula to better meet students' needs. Professional development for teachers exposes them to new delivery methods, evaluation styles, and record-keeping strategies. The remarks of the participants is supported by Timperley (2021). He pointed out that teachers' professional development has long been recognized as a crucial aspect in improving classroom practice, bolstering schools, and enhancing student learning outcomes. Formal learning environments include professional development programs, teaching research groups, and formal mentorship programs.

**Time Management.** Teachers must take measures to effectively manage class time in order to provide an effective learning environment. By implementing teacher time management

tactics, it is feasible to meet the educational needs of each student, handle critical circumstances immediately, and prevent falling behind when unforeseen occurrences occur.

*The challenges that affect my professional development is the availability of time, management of work while taking my professional development. (IDI\_P1)*

*For me as a teacher time management and financial sustainability can really affect professional development (IDI\_P3)*

*The challenges that affect my professional development is my financial status and the time to be spent in studying while working. Having an extended family also requires financial support whenever there's an emergency. (IDI\_P4)*

*Lack of time, financial, interest. (FGD\_P3)*

Participants' thoughts suggest that time management is essential. This can help teachers maximize student learning. Time management helps prioritize tasks. After listing your daily responsibilities, prioritize them.

Thus, the participants' statement is anchored to Jackson (2019). Competencies are the abilities and knowledge necessary for a teacher's success. To enhance student learning, teachers must have knowledge in a broad range of competencies in a particularly complicated setting where hundreds of crucial decisions must be made daily.

**Work-Life Balance.** Work-life balance improves teacher effectiveness and student learning. Work-life balance improves faculty wellness and student behavior. This study examined work-life balance among Indian teachers in universities and colleges. The teachers' designation, nature of appointment, academic stream, and serving institution affect their work-life balance directly and significantly.

*I think time and balancing of work from family was the challenge that affect my professional development. (IDI\_P2)*

*The challenge that affects my professional development is balancing work, life, and study. Another common challenge for adult learners is balancing their personal lives with work obligations while studying. To manage family and work responsibilities while taking rigorous programs, working professionals have found a variety of solutions. (IDI\_P5)*

*The challenges that affect my professional development are financial problem and time management between work and family. (FGD\_P5)*

The ideas of the participants imply that Maintaining a healthy work-life balance is not only vital for a teacher's health and relationships, but also for his or her productivity and, ultimately, performance.

The ideas of the participants are connected to Marafi (2012). It's when employees can balance their job and personal life. Job-life balance is accomplished when a person's right to a fulfilling existence inside and outside paid work is honored. Some call it flexible working arrangements, which allow parents and non-parents to manage work and family duties. It's the extent to which people are equally invested in and satisfied with their career and family roles.

**Positive Outlook.** Teachers can unleash the power of positivity in the classroom most effectively through optimism, positive thought, positive speech, and positive behavior. Set personal objectives and support pupils in establishing and accomplishing their own objectives. Avoid negative words and behavior and concentrate on your personal presentation and attitude while promoting positive behavior. The power of positivity will go a long way toward fostering a better mood and improved performance in the classroom and throughout life.

*Be always optimistic and do what is right. (IDI\_P2)*

*We will likely face challenges throughout our career, including while searching for a job, starting a new role or receiving a promotion. The methods or strategies that I can implement to overcome almost any obstacle is just remain positive, will help you to be motivated and focused on overcoming any challenge, from job rejections to co-worker conflict. (IDI\_P5)*

*Be flexible, remain optimistic, know when to delegate, set goals, have patience, becoming more understanding, manage time, effort to do the things, have a solution to obstacles, ask experts or elders suggestions or ideas to improve your work, and keep things on track. (IDI\_P8)*

*I overcome these challenges by thinking of the better future of my pupils. I always told myself that I should provide what is best for my pupils to effectively learned in my class. (FGD\_P3)*

The ideas of the participants imply that maintaining a positive attitude toward learning can also aid in reducing stress, a crucial aspect of learning because it makes students more relaxed and attentive.

Also, the ideas of the participants are supported by Celikoz and Cetin (2016), if teacher candidates are taught to have positive attitudes toward their professions, they will carry out their duties more effectively. In addition, they will have favorable sentiments about their students. In addition to becoming researchers, they will become more creative and translate ideas into learning. They can more easily motivate students.

**Comprehensive Understanding.** To engage, inspire, and instruct all students at optimal levels, teachers must comprehend the learning process in general, recognize and respond to students' unique emotional and cognitive profiles, and choose instructional strategies and tactics that are appropriate for varied students.



*The impact of personalized learning on personalized development is making individual independent and produce students become knowledgeable in all areas and oriented in 21st century trends and it makes individuals flexible anytime or anywhere in learning. (IDI\_P1)*

*Personalized learning had a great impact on professional development, the combination of experience, knowledge and new concepts, results in better understanding and learning becomes more effective for every teacher. (IDI\_P3)*

*The impact of personalized learning on professional development are it helps learning environment more collaborative. Teachers work together to develop effective approaches, strategies for specific classes. Teachers will be well-versed and knowledgeable in the content they teach. Teachers also support students social and emotional growth identity development. (FGD\_P4)*

The ideas of the participants imply that meaningful engagement occurs when teachers investigate and make sense of the complicated circumstances in which they work because it helps to explain or rationalize how they experience much of their professional work and activities.

The ideas of the participants are connected to Shulman (2019). He stated that to help all kids achieve, teachers need a broad grasp of learning. What it means to study for varied aims and how to identify the most significant forms of learning are important questions for students. Special-needs students need teachers who can identify their strengths and weaknesses. Teachers must be conversant with curricular materials and resources so students may explore ideas, gather and synthesize information, and frame and solve problems. Teachers and parents need certain abilities to collaborate effectively. Instructors must design student interactions to maximize collaborative learning and cooperate with other teachers.

**Professional Enhancement.** Factual knowledge promotes cognitive processes like problem solving and thinking. The deeper the information base, the more efficiently and effectively these cognitive processes, the very ones that educators aim to cultivate. Thus, students get more intelligent as they acquire more information.

*Be attentive to different seminars or trainings and workshops in order to have different learnings to make individuals a competitive and skillful and knowledgeable one. (IDI\_P1)*

*A common training, seminar program our learnings can transform by collecting knowledge, experiences and better engagement. In short personalized learning makes learning and professional development more relevant and effective. (IDI\_P3)*

*For me, taking a course, seminars, and workshops are more effective in improving my personalized learning competencies and professional development. (FGD\_P5)*

The ideas of the participants imply that training for teacher workshops enables instructors to track and update their assessment and teaching methods, allowing them to explore more sophisticated and current tactics from an academic standpoint, as well as for procedures such as webinars, extra-curricular modules, and others.

Also, the ideas of the participants are supported by Timperley (2021). He pointed out that teachers' professional development has long been regarded as a key factor in transforming classroom practice, strengthening schools, and increasing student learning results. Professional development programs, teaching research groups, and formal mentorship programs are all examples of formal learning environments.

### **Joint display of Quantitative and Qualitative Results**

Table 10 reveals the data of salient quantitative and qualitative results. It reveals the nature and purpose of data integration in both quantitative and qualitative findings of the study. In the aspect of the status of the first variable Level of Teachers' Personalized Learning obtained the four indicators of Teachers' Personalized Learning such as teachers' ownership of learning, assessment of performance, develop learning pathways, and utilizing flexible learning environments obtained the overall mean score of 4.34 and standard deviation of 0.618 which reflects the consistency of the responses of the participants. But as far as the themes are concerned, the result of the interview confirmed the four indicators. Hence, it forms an axiological implication that the goal of personalized learning is to aid each student's academic achievement by identifying their learning requirements, interests, and goals, and then offering educational opportunities that are personalized – to a greater or lesser degree for each student.

On the aspect of high-level rating of second variable which is Teachers' Learning Competencies. All items from the variable of 1.2. Teachers' Learning Competencies are high. The indicators under this variable ranging from 4.38-4.54 and the overall mean score of 4.45 and standard deviation of .525 which interpreted as high level of teachers' learning competencies. Participants justify the result describe as high of Teachers' Learning Competencies. Thus, it implies the axiological implications of the competency of teachers is essential for the process of student "healthy development" in assuring excellent learning, particularly for vocational college students. The academic progress and abilities of students will benefit from instructors' competence, and teachers will be able to enhance their teaching practices as a result.

Furthermore, on the third variable Teacher's Professional Development obtained The four indicators of Teacher's Professional Development Innovative Work Performance Professional Coursework, Technical Skills Training, and Teamwork and Interpersonal Skills obtained the overall mean score of 4.44 and standard deviation of .479 which reflected the consistency of the responses of the participants. These indicators obtained the mean score ranging from 4.33-4.55 which interpreted as High Level of Teachers' Professional Development. Thus, the participants justify the result describe as high. Teacher's Professional Development as far as the theme is concerned. Also, it imply the axiological implications that professional development encompasses all of the training, certification, and education that a worker requires to advance in his or her career. It's no secret that different jobs necessitate a variety of skills. Even if a worker currently possesses the required skills, he or she may require additional training in the future.

**Table 10**

### Joint display of Quantitative and Qualitative Results

Research Area	Quantitative Phase	Qualitative Phase	Nature of Integration	Axiological implication
<b>Status of three variables</b>  Level of Teachers' Personalized Learning	The four indicators of Teachers' Personalized Learning such as teachers' ownership of learning, assessment of performance, develop learning pathways, and utilizing flexible learning environments obtained the overall mean score of 4.34 and standard deviation of 0.618 which reflects the consistency of the responses of the participants.	Participants have lived experiences in all indicators coming out as the priori of essential themes, all though not all items in the survey questionnaire have been mentioned. But as far as the themes are concerned, the result of the interview confirmed the three indicators.	Confirming Merging Connecting	The results of the study imply that the goal of personalized learning is to aid each student's academic achievement by identifying their learning requirements, interests, and goals, and then offering educational opportunities that are personalized – to a greater or lesser degree for each student.
<b>Teachers' Learning Competencies</b>	All items from the variable of 1.2. Teachers' Learning Competencies are high. The indicators under this variable ranging from 4.38-4.54 and the overall mean score of 4.45 .525 which interpreted as high level of teachers' learning competencies.	Participants justify the result describe as high of Teachers' Learning Competencies.  Please refer to table 2.	Confirming Merging Connecting	The competency of teachers is essential for the process of student "healthy development" in assuring excellent learning, particularly for vocational college students. The academic progress and abilities of students will benefit from instructors' competence, and teachers will be able to enhance their teaching practices as a result.
<b>Teacher's Professional Development</b>	The four indicators of Teacher's Professional Development Innovative Work Performance Professional Coursework, Technical Skills	Participants justify the result describe as high of Teacher's Professional Development.  Please refer to table 3	Confirming Merging Connecting	Professional development encompasses all of the training, certification, and education that a worker requires to advance in his or her career. It's no

	Training, and Teamwork and Interpersonal Skills obtained the overall mean score of 4.44 and standard deviation of .479 which reflected the consistency of the responses of the participants. These indicators obtained the mean score ranging from 4.33-4.55 which interpreted as High Level of Teachers' Professional Development.			secret that different jobs necessitate a variety of skills. Even if a worker currently possesses the required skills, he or she may require additional training in the future.
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### CONCLUSION

Based on the descriptive results in the study it was revealed that the personalized learning of teachers is high. It means that teachers individualized learning aids academic accomplishment by recognizing each student's learning needs, interests, and objectives and then giving personalized educational options. Moreover, there was a high level of Teachers' Learning Competencies. It means that teacher competency is essential and effective learning, especially for vocational college students. Teachers' competency will improve students' academic development and talents, and teachers' teaching methods. Furthermore, based on the descriptive results teacher's professional development obtained high level. It means that professional development includes training, certification, and education needed to enhance a profession. Various occupations need different talents. Also, based on the correlation analysis it was revealed that there was a high significant relationship between teachers' personalized learning and teachers' competences ( $r=.697$ ,  $p<0.05$ ). Moreover, there was a high significant relationship between Teachers' Personalized Learning and Teachers' Professional Development ( $r=.721$ ,  $p<0.05$ ). Finally, there was a high significant relationship between Teachers' Competencies and Teachers' Professional Development ( $r=.673$ ,  $p<0.05$ ). Based on the results of regression analysis it was revealed that teachers' competencies ( $r=.303$ ,  $p=0.000$ ) and Teachers' Personalized Learning ( $r=.468$ ,  $p=0.000$ ) are the best predictors of teacher's professional development. More likely, based on the results of Sobel test revealed that teachers personalized learning significantly mediates teachers' competencies and teachers' personal development ( $5.202822$ ,  $p = < 0.000001$ ). In addition, based on the results revealed in the thematic analysis on the lived experiences of Teachers' Pertaining to Personalized Learning Competencies and Professional Development there were eight themes that emerged such as Skills Development, Personalized Learning, Teachers' Personal Development, Time Management, Work-Life Balance, Positive Outlook, Comprehensive Understanding, Professional Enhancement. Finally, based on the results revealed from the quantitative and qualitative findings the data integration was confirming, merging, and connecting.

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