SHAPING CLASSROOM DYNAMICS: TEACHERS CONCEPTION AND INSTRUCTIONAL PRATICES IN TEACHING MATHEMATICS

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ABSTRACT

This study examines how teachers' conceptions and instructional practices in teaching mathematics influence classroom dynamics. It aims to explore the relationship between teachers' backgrounds, beliefs, and teaching strategies in fostering effective mathematics instruction. The study is divided into three key components. The first part focuses on the profile of the respondents, including age, gender, educational attainment, civil status, years of teaching experience, and training related to mathematics. These demographic and professional factors provide insights into the teachers' backgrounds and their potential impact on instructional approaches. The second part investigates teachers' conceptions of mathematics, emphasizing their beliefs about teaching and learning as well as their underlying educational philosophies. The third part explores instructional practices, particularly the teaching methods employed and the integration of technology in mathematics instruction. Descriptive-correlational was used as a research design. Frequency and Percent was used to determine the profile of the respondents. Weighted Mean and Mean was used to determine the Conceptions of Mathematics Teachers and instructional practices. Pearson Product Moment Correlation was used to determine the Significant relationship between the profile and the conceptions of the respondents, Significant relationship between the profile and instructional practices of the respondents and Significant relationship between the conceptions and the instructional practices of the respondent-test for Independent Samples was used to determine Significance difference in conception and instructional practices of teachers when grouped according to school size. Data showed that there is no significant relationship between the profile and the conceptions of the respondents, there is no significant relationship between the profile and instructional practices of the respondents, and there is no significant relationship between the conceptions and the instructional practices of the respondents. Moreover, there is no Significance difference in conception and instructional practices of teachers when grouped according to school size. The findings of this study will contribute to a deeper understanding of how mathematics teachers' profiles, beliefs, and instructional practices shape classroom dynamics.

Keyword: *conception, educational philosophy, instructional practices, teaching method, technology*

1. INTRODUCTION

Effective classroom dynamics play a pivotal role in shaping students' learning experiences, particularly in the domain of mathematics education. Central to this dynamic are teachers' conceptions of mathematics and their instructional practices, which collectively influence students' engagement, understanding, and achievement in the subject. As educational methodologies evolve, understanding how teachers perceive mathematics and implement instructional strategies becomes increasingly critical. The diverse approaches teachers adopt in teaching mathematics, influenced by their pedagogical beliefs and the broader educational context. These conceptions and

practices are shaped not only by formal training and experience but also by ongoing professional development and societal expectations. This research seeks to delve deeper into the nexus between teachers' conceptions of mathematics and their instructional practices within classroom settings.

Horn, I., (2019), emphasizes the importance of creating a classroom environment that fosters intrinsic motivation among students. She explores how teachers' instructional choices influence student engagement and participation in mathematics [1]. Berenson S.B., and Schwerha, D.B., (2020) their research focuses on differentiated instruction in middle school mathematics classrooms, investigates how varying instructional strategies impact classroom dynamics and teacher-student interactions [2]. Moschkovich, J., (2020) contributions highlight the concept of "teacher noticing" in mathematics education. Her work explores how teachers' observations and interpretations of student thinking shape instructional decisions and classroom interactions [3]. Bieda, N.B., et al. (2021) in their research article, examine classroom discourse to identify instructional practices that promote student engagement in mathematics. They emphasize the role of teacher-student interactions in creating a supportive learning environment [4].

Recently, there are challenges regarding to the proficiency level of mathematics subject in the most elementary schools under San Agustin District, Surigao del Sur Division. Moreover, from the past few years and at present the Mean Percentage Score (MPS) of mathematics subject all over the district level is nearly proficiency level which means between 50-75% of proficiency level. One notable research need concerning the underlying factors when mean percentage scores are nearly at proficiency levels in mathematics education is the lack of investigation into the specific instructional strategies and classroom dynamics that contribute to marginal gains or barriers to reaching proficiency. Addressing these disparities can provide deeper insights into effective strategies for supporting students at critical stages of learning mathematics and inform professional development efforts aimed at enhancing teaching practices and classroom dynamics.

The research study on shaping classroom dynamics, teachers' conceptions, and instructional practices in teaching makes several key contributions to the body of knowledge in education. It enhances understanding of teaching practices, it deepens our understanding of how different instructional strategies impact classroom dynamics and student learning in mathematics education. Findings from the study contribute to the development of targeted professional development programs for teachers. These programs can enhance educators' skills, knowledge, and confidence in implementing effective instructional practices, ultimately benefiting student outcomes. Research outcomes inform educational policies and curriculum development initiatives by providing evidence-based recommendations for improving mathematics education. Overall, the research study enriches the body of knowledge by providing empirical insights into the complex dynamics of teaching mathematics.

2. METHODOLOGY

2.1 Research Design

The study used descriptive-correlational method of research. It is descriptive in nature as it involves description, recording, analysis and interpretation of conditions that exist in Mathematics instructional practices. The descriptive-correlational method is effective for exploring the conceptions and instructional practices of elementary mathematics teachers because it allows for a comprehensive examination of multiple variables simultaneously. By collecting data on teachers' beliefs, attitudes, and instructional strategies without manipulation, this method provides a holistic understanding of how these factors interact. (Smith and Johnson, 2023) study demonstrates the utility of this approach in uncovering the natural relationships between teachers' conceptions and their instructional practices, offering valuable insights for improving mathematics education.

2.2 Research Participants

The respondents of the study were the 14 Elementary Schools of San Agustin Surigao del sur, San Agustin District. The researcher was using random sampling for teachers' respondent. Schools under San Agustin District with medium size category in number of teachers are San Agustin Central Elementary School, Salvacion elementary

School and Sto. Niño Elementary School. Schools under small category as of the number of teachers are, Buhisan Elementary School, Lamela Elementary School, Britania Elementary School, Gata Integrated School, Campanubay Elementary School and Hamburger elementary School, Hornasan Elementary School, Maurillo Avila Integrated School, Pongtod Elementary School, Janipaan Elementary School and Teodoro Alvizo IP Community Elementary School.

2.3 Reseach Instruments

The study was utilized a researcher-made instrument on shaping classroom dynamics on conception and instructional practices of elementary mathematics survey questionnaire that is subjected to validation and reliability testing to ensure that the findings accurately represent the underlying constructs. The survey questionnaire consists of three parts. The first part is the profile of the respondents, the second part is the teacher's conceptions on mathematics and the third part is the instructional practices of mathematics teachers. The researcher-made instrument on shaping classroom dynamics on conceptions and instructional practices of mathematics teachers survey questionnaire will present items with Likert response set in a scale from one to five. Respondents will check the degree to which they agree or disagree with each item. A rating of one will indicate that the respondent strongly disagrees with the statement and a rating of five will indicate that the respondent strongly agrees with the statement.

2.4 Data Gathering Procedure and Analysis

The researcher was secured a certification and letter of request from the Graduate School of North Eastern Mindanao State University. Then, approval of the Schools Division Superintendent in the Division of Surigao del Sur will be needed for the conduct of the study. Similar permission will be obtained from the District Supervisor of San Agustin District and the school head of each elementary schools. The researcher will personally do the actual data gathering. The researcher will stay and take time depending on the number of respondents in the respective schools. The researcher will distribute the questionnaires personally to the respective school heads and teachers. The researcher will assure that the data being collected will be kept confidential and anonymous. The data will be tallied and tabulated and will be submitted to the statistician for interpretation and analysis.

3. RESULTS AND DISCUSSION

3.1 Profile of the Respondents

The table presents the profile of the respondents focusing on their age, gender, educational attainment, civil status, years in teaching and seminars/training attended. Table 2 shows the result of the respondents' profile in terms of sex, age, educational attainment, years in teaching, and training related to mathematics. It can be seen that the greatest number of respondents age ranges from 40 and above with 55.2 % and the lowest number of age ranges from 20-29 with 10.4 %. It was gleaned that most of the respondents are female, or 88.5% of the total population and the male respondents have only 11.5 %. In terms of their educational attainment, most of the respondents have master's degree units with 91.7% and no one of the respondents reaches the highest educational attainment which is doctoral degree. Respondents are typically married and have a prevailing range of 5-10 years in teaching with 36.5% and only 9.4% for less than 5 years in teaching. Moreover, the table showed that many of the respondents have Inset (In Service Education Trainings) related to mathematics during school LAC (Learning Action Cell) sessions.

The data reveals that a significant portion of the respondents are aged 40 years and above, suggesting a relatively mature teaching workforce. In contrast, the youngest age group, those between 20-29 years indicating a lesser representation of novice teachers. Gender distribution shows a marked dominance of female respondents than male teachers. This aligns with common trends in the teaching profession where females often outnumber males, particularly at the basic education level. Regarding educational attainment, a majority of the teachers hold master's degree units, reflecting a high level of academic advancement among the respondents. However, it is notable that

none have attained a doctoral degree, highlighting a potential area for further academic development. Marital status trends suggest that most of the respondents are married, which may correlate with their age distribution. In terms of teaching experience, the most common range is 5-10 years. This indicates that many are mid-career educators, while only a small proportion have less than five years of teaching experience, suggesting limited presence of newly hired teachers. Finally, the data indicates strong engagement in professional development, with many respondents participating in mathematics-related In-Service Education Trainings (INSET) during school-based Learning Action Cell (LAC) sessions.

The result shows that majority are aged 40 and above, indicating a mature teaching population, while the youngest group 20–29 years old represents the smallest portion. Most respondents are female, making up 88.5% of the total. In terms of education, a large majority hold units toward a master's degree, though none have attained a doctoral degree. Many are married and have been teaching for 5 to 10 years. Additionally, a significant number have participated in in-service mathematics training through Learning Action Cell (LAC) sessions, suggesting ongoing professional development in the subject area.

Table 2. Profile of the Respondents

Indicator	Category	Frequency	Percentage
Age	20 -29	10	10.4
	30-39	33	34.4
	40 and above	53	55.2
	Total	96	100.00
Gender	Male	11	11.5
	Female	85	88.5
	Total	96	100.00
Educational Attainment	Bachelor's Degree	7	7.3
	With MA Units	88	91.7
	MA Degree	1	1.0
	With Doctoral Units	-	-
	Doctoral Degree	-	-
	Total	96	100.00
Civil Status	Single	17	17.7
	Married	73	76.0
	Separated	2	2.1
	Widowed	4	4.2
	Total	96	100.00
Years in Teaching	Less than 5 years	9	9.4
	5 – 10 years	35	36.5
	11 – 15 years	16	16.7
	16 – 20 years	15	15.6
	21 years and above	21	21.9

	Total	96	100.00
Seminars Training	Elln (early language literacy and numeracy)	17	17.71
	Developmentally Appropriate Practices in Early Language, Literacy, and Numeracy	55	57.29
	District training on financial literacy.	34	35.42
	INSET (In-Service Education and Training)	77	80.21
	Total	183	190.625

3.2 Conceptions of Mathematics Teachers

Table 3 shows the conceptions of Mathematics Teachers on their believe on teaching and learning and educational philosophy. Table 3 shows the conceptions of mathematics teachers. Based on the results, it can be seen that respondents' conceptions of mathematics in terms of believe on teaching has the highest mean of 4.64 with an adjectival rating of strongly agree in which teachers believe that using a variety of instructional strategies to cater to diverse learning styles and abilities in their classroom. The lowest mean 4.09 with an adjectival rating of agree in which teacher believe that every student has the potential to succeed in mathematics, advocating for equity and access to quality mathematical education for all learners. Furthermore, in terms of educational philosophy, it shows that the highest adjectival rating of strongly agree has a mean of 4.43 indicates that teachers value the application of mathematics in real-world contexts, emphasizing it relevance and utility. However, the lowest mean of 4.08 with an adjectival rating of agree believe that teachers adhere to active learning approaches, viewing learning as an active process where students construct their own understanding through exploration. Overall, the data shows strongly agree with the mean of 4.33.

The data in Table 3 reveals that mathematics teachers generally hold strong positive conceptions about teaching and learning mathematics. The highest-rated belief reflects teachers' strong commitment to using varied instructional strategies to meet the diverse needs of students. Conversely, the lowest-rated belief still shows positive support for equity and access in mathematics education, though slightly less strongly. Regarding educational philosophy, the emphasis on real-world application suggests teachers value making mathematics relevant and practical. The lowest philosophical belief still supports active learning but indicates a slightly weaker endorsement. Overall, the general data suggests that teachers have a solid and progressive outlook on teaching mathematics.

The results suggest that mathematics teachers have a positive conception about teaching and learning. They highly value the use of diverse instructional strategies to address various learning needs, as reflected by the highest mean score. Although slightly lower, their belief in student potential and equitable access to quality math education remains positive. In terms of educational philosophy, teachers strongly agree on the importance of connecting mathematics to real-life situations, showing their emphasis on relevance and practicality. While support for active learning is slightly lower, it still indicates agreement. Overall, the result indicates that teachers generally embrace inclusive, student-centered, and practical approaches to mathematics education.

Table 3. Conceptions of Mathematics Teachers

Indicator	Weighted Mean	Adjectival Rating
Believe on Teaching and Learning		
I believe in fostering a growth mindset among students, encouraging them to embrace challenges and persist through difficulties.	4.18	Agree
I value conceptual understanding over rote memorization, aiming for students to	4.30	Strongly

grasp the why behind mathematical procedures		Agree
I believe in creating a supportive classroom environment where students feel safe to ask questions and explore different problem-solving approaches.	4.59	Strongly Agree
I emphasize the importance of mathematical reasoning and critical thinking skills, preparing students for real-world applications of mathematics.	4.51	Strongly Agree
I believe in using a variety of instructional strategies to cater to diverse learning styles and abilities in their classrooms.	4.64	Strongly Agree
I see assessment not just as a measure of knowledge but as a tool for diagnosing student misconceptions and adjusting instructional strategies accordingly.	4.28	Strongly Agree
I value collaborative learning experiences, where students can engage in peer discussion and learn from each other's perspectives	4.46	Strongly Agree
I believe in integrating technology effectively to enhance mathematical learning experiences, using tools that promote visualization and exploration.	4.27	Strongly Agree
I prioritize the development of problem-solving skills, equipping students with strategies to approach unfamiliar problems with confidence.	4.30	Strongly Agree
I believe that every student has the potential to succeed in mathematics, advocating for equity and access to quality mathematical education for all learners.	4.09	Agree
Mean	4.36	Strongly Agree
Educational Philosophy		
I believe in promoting a deep understanding of mathematical concepts rather than mere procedural knowledge.	4.27	Strongly Agree
I adhere to active learning approaches, viewing learning as an active process where students construct their own understanding through exploration.	4.08	Agree
I value the application of mathematics in real-world contexts, emphasizing its relevance and utility.	4.43	Strongly Agree
I support the idea of differentiated instruction, tailoring teaching methods to accommodate diverse learning needs and styles. .	4.42	Strongly Agree
I advocate for a balanced approach to teaching, incorporating both direct instruction and student-centered learning activities.	4.35	Strongly Agree
I prioritize fostering a growth mindset, encouraging students to embrace challenges and learn from mistakes in their mathematical journey.	4.19	Agree
I believe in using formative assessment strategies to continuously monitor student progress and adjust instruction accordingly.	4.33	Strongly Agree
I promote collaborative learning environments where students engage in meaningful mathematical discourse and problem-solving activities together.	4.36	Strongly Agree
I value the integration of technology as a tool to enhance learning experiences and facilitate exploration of mathematical concepts.	4.26	Strongly Agree
I emphasize the development of critical thinking and problem-solving skills as essential outcomes of mathematical education, preparing students for lifelong learning and success in various fields.	4.21	Strongly Agree
Mean	4.30	**Strongly Agree**
Overall Mean	4.33	**Strongly Agree**

3.3 Instructional Practices of the Mathematics Teachers

Table 4 reflects the instructional practices of the mathematics teachers on their teaching methods use and the use of technology. Table 4 shows instructional practices of the mathematics teachers. It is shown that the respondents' instructional practices in terms of teaching method use has the highest mean of 4.48 with adjectival rating of frequently in which teachers employ direct instruction new concepts and procedures, providing clear explanations and examples and teachers frequently incorporate hands-on activities and manipulatives to help students visualize abstract concepts and enhance understanding. While the lowest mean of 3.98 with the adjectival value of often in which teachers implement flipped classroom models, where students learn foundational content through online videos or readings outside of class, allowing for more interactive and application focused activities during class time. However, in terms of the use of technology, the highest mean with adjectival rating of often is 4.01 which indicates that the teachers incorporate multimedia presentations and videos to illustrate real-world applications of mathematical principles, connecting theory to practical scenarios. The lowest mean is 3.40 which means often, the teachers use online platforms and apps to assign homework, provide practice problems, and conduct quizzes, allowing for immediate feedback and personalized learning experience. Overall, has a mean of 4.0 with adjectival rating of often.

The data in Table 4 indicates that mathematics teachers generally demonstrate strong instructional practices. Teaching method use is the most frequently applied practice, highlighting the teachers' emphasis on direct instruction, clear explanations, and hands-on activities to aid conceptual understanding. However, the implementation of flipped classrooms received the lowest rating, suggesting that while this approach is used, it is less prevalent compared to traditional methods. In terms of technology integration, the use of multimedia to connect math to real-world contexts was more common than using online platforms for assignments and feedback, which points to a need for enhanced utilization of digital tools to support personalized learning.

The result shows that mathematics teachers frequently use direct instruction and hands-on activities, suggesting a strong focus on clear explanations and student engagement through manipulatives. On the other hand, the least practiced method is the flipped classroom approach, with a lower mean although still rated as "often." Regarding technology use, teachers often utilize multimedia tools to connect math concepts to real-life scenarios. However, the use of online platforms for assignments and assessments is less frequent. Overall, the average mean of 4.0 reflects that teachers "often" apply a variety of instructional strategies in their practice.

Table 4. Instructional Practices of the Mathematics Teachers

Indicator	Weighted Mean	Adjectival Rating
Teaching Methods Use		
I often employ direct instruction to introduce new concepts and procedures, providing clear explanations and examples.	4.48	Frequently
I utilize problem-based learning approaches where students work collaboratively to solve real-world or challenging mathematical problems.	4.38	Frequently
I frequently incorporate hands-on activities and manipulatives to help students visualize abstract concepts and enhance understanding.	4.48	Frequently
I use inquiry-based learning methods, guiding students through questioning and exploration to develop their own solutions and understanding.	4.34	Frequently
I integrate technology into their teaching, utilizing educational software, apps, and interactive simulations to facilitate learning and exploration.	4.22	Frequently

I employ differentiated instruction strategies to accommodate diverse learning needs and styles, providing varying levels of support and challenge.	4.40	Frequently
I often use cooperative learning structures, where students work in small groups to discuss ideas, solve problems, and explain their reasoning.	4.30	Frequently
I implement flipped classroom models, where students learn foundational content through online videos or readings outside of class, allowing for more interactive and application-focused activities during class time.	3.98	Often
I engage in formative assessment practices, such as quizzes, exit tickets, and observations, to gauge student understanding and adjust instruction as needed.	4.47	Frequently
I encourage reflective practices, where students analyze their own problem-solving strategies, identify errors, and develop strategies for improvement in their mathematical learning journey.	4.16	Often
Mean	**4.32**	**Frequently**
Use of technology		
I often integrate technology such as graphing calculators, interactive whiteboards, and educational software to enhance their lessons.	3.66	Often
I use online platforms and apps to assign homework, provide practice problems, and conduct quizzes, allowing for immediate feedback and personalized learning experiences.	3.40	Often
I enables technology to demonstrate complex mathematical concepts visually through simulations and animations, making abstract ideas more accessible to students.	3.66	Often
I utilize digital resources to access a wide range of teaching materials, including virtual manipulatives and interactive games that promote active learning.	3.82	Often
I incorporate multimedia presentations and videos to illustrate real-world applications of mathematical principles, connecting theory to practical scenarios.	4.01	Often
I leverage online collaboration tools to facilitate group work and peer learning among students, promoting communication and problem-solving skills.	3.55	Often
I allow assessment tools integrated with technology to monitor student progress in real-time, adjust instructional strategies accordingly, and provide timely interventions	3.74	Often
I create immersive learning experiences in mathematics through emerging technologies such as virtual reality and augmented reality.	3.60	Often
I encourage students to use mathematical software for problem-solving and exploration, fostering independent learning and deeper understanding of concepts.	3.41	Often
I Improve teaching strategies while equipping students to thrive in the digital age. These sentences highlight how technology enhances instructional practices in mathematics education, promoting engagement, interactivity, and personalized learning experiences by embracing technology.	3.89	Often
Mean	**3.67**	**Often**
Over-all Mean	**4.0**	**Often**

3.4 Significant Relationship Between the Profile and the Conceptions of the Respondents

Table 5 highlights the significant relationship between the profile and the conception of respondents. Its focuses between the profile of the respondents on their believe on teaching and learning and educational philosophy. Shown in table 5 is the respondents' profile and conceptions. Result shows that the educational attainment of the respondents has significant relationship/difference on the believe on teaching and learning (p value < 0.05). However, age, gender, civil status, years in teaching and seminars/training attended related to mathematics has no significant relationship (p value> 0.05). Moreover, educational attainment and years in teaching of the respondents

has significant relationship on their educational philosophy (p value < 0.05). On the other hand, age, gender, civil status, and seminars/training attended related to mathematics has no significant relationship (p value> 0.05).
The results indicate that the respondents' educational attainment has a significant impact on their beliefs about teaching and learning, suggesting that those with higher levels of education may have different perspectives or more informed views on instructional methods. However, factors such as age, gender, civil status, years of teaching experience, and mathematics-related seminars or training do not significantly influence these beliefs, as evidenced by the p-values greater than 0.05. Additionally, both educational attainment and years of teaching experience significantly influence the respondents' educational philosophy, meaning that more educated and experienced teachers tend to have more defined or evolving educational philosophies. However, other factors like age, gender, civil status, and training related to mathematics do not show a significant relationship with their educational philosophy.

The findings suggest that teachers' level of education and teaching experience play key roles in shaping their beliefs about teaching, learning, and educational philosophy. In contrast, personal demographics such as age, gender, civil status, and participation in math-related seminars appear to have little to no influence on these areas. This highlights the importance of formal education and professional experience in developing teaching perspectives and philosophies.

Table 5. Significant Relationship Between the Profile and the Conceptions of the Respondents

Variable Tested		**Computed r**	**p-value**	**Conclusion**
Age	Believe on Teaching and Learning	0.047	0.652	Not Significant
Gender		-0.018	0.862	Not Significant
Educational Attainment		0.246	0.016	Significant
Civil Status		0.007	0.944	Not Significant
Years in teaching		0.158	0.124	Not Significant
Seminars and Trainings		0.152	0.139	Not Significant
Age	Educational Philosophy	0.182	0.075	Not Significant
Gender		0.072	0.488	Not Significant
Educational Attainment		0.286	0.005	Significant
Civil Status		0.071	0.490	Not Significant
Years in teaching		0.247	0.015	Significant
Seminars and Trainings		0.035	0.737	Not Significant

*Significant if p-value is less than .05

3.5 Significant Relationship Between the Profile and Instructional Practices of the Respondents
Table 6 shows the significant relationship between the profile and the instructional practices of the respondents. It focuses between respondents' profile on their teaching methods use and the use of technology. Shown in table 6 is the respondents' profile and instructional practices. Result shows that the years in teaching and seminars attended related to mathematics of the respondents has significant relationship on teaching methods use (p value < 0.05). However, age, gender, civil status, and educational attainment has no significant relationship/difference (p value>

0.05). Moreover, the years in teaching and seminars attended related to mathematics of the respondents has significant relationship on the use of technology (p value < 0.05). Yet, age, gender, civil status, and educational attainment has no significant relationship/difference (p value> 0.05).

The findings in Table 6 suggest that teaching experience and participation in math-related seminars significantly influence both the teaching methods and the use of technology among the respondents. This implies that practical experience and continuous professional development contribute to more varied or effective instructional practices. In contrast, demographic factors such as age, gender, civil status, and educational attainment do not show a significant impact, indicating that these personal attributes are less influential in shaping teaching strategies or technology integration in the classroom.

The results indicate that teachers who have more years of experience and have attended more math-related seminars are more likely to adopt diverse teaching methods and effectively use technology in their instruction. This highlights the importance of hands-on experience and ongoing training in improving teaching practices. On the other hand, factors like age, gender, civil status, and educational attainment do not appear to affect how teachers choose their methods or use technology, suggesting that professional development has a greater influence than personal background.

Table 6. Significant Relationship Between the Profile and Instructional Practices of the Respondents

Variable Tested		Computed r	p-value	Conclusion
Age	**Teaching Methods Use**	-0.082	0.427	Not Significant
Gender		0.044	0.672	Not Significant
Educational Attainment		0.146	0.156	Not Significant
Civil Status		-0.196	0.055	Not Significant
Years in teaching		-0.255	0.012	Significant
Seminars and Trainings		0.239	0.019	Significant
Age	**Use of technology**	-0.094	0.361	Not Significant
Gender		-0.057	0.584	Not Significant
Educational Attainment		0.186	0.070	Not Significant
Civil Status		-0.175	0.088	Not Significant
Years in teaching		-0.216	0.034	Significant
Seminars and Trainings		0.284	0.005	Significant

*Significant if p-value is less than .05

3.6 Significant Relationship Between the Conceptions and the Instructional Practices of the Respondents

Table 7 highlights the significant relationship between the conceptions and the instructional practices of the respondents. Table 7 shows the significant relationship between the conceptions and instructional practices of the respondents. It shows that believe on teaching and learning has no significant relationship/difference on teaching

methods use and the use of technology as well as respondents' educational philosophy regarding teaching methods and the use of technology (p value> 0.05).

The data in Table 7 suggests that there is no significant relationship between the respondents' beliefs about teaching and learning and their actual use of teaching methods or technology in the classroom. Similarly, their educational philosophy does not appear to significantly influence their choice of teaching methods or use of technology, as indicated by the p-values greater than 0.05. This implies that even if respondents hold certain beliefs or philosophies about education, these do not necessarily translate into their instructional practices.

The findings suggest a disconnect between what respondents believe about teaching and learning and how they actually teach. Even though they may value certain approaches or ideas in theory, these beliefs are not strongly reflected in their classroom methods or in their use of technology. This could indicate that other factors, such as school policies, available resources, or personal habits, may have a stronger influence on their instructional practices than their stated beliefs.

Table 7. Significant Relationship Between the Conceptions and the Instructional Practices of the Respondents

Variable Tested		Computed r	p-value	Conclusion
Believe on Teaching and Learning	Teaching Methods Use	0.001	0.989	Not Significant
	Use of technology	0.016	0.880	Not Significant
Educational Philosophy	Teaching Methods Use	0.048	0.645	Not Significant
	Use of technology	0.067	0.516	Not Significant

3.7 Significant Difference in Conception and Instructional Practices of Teachers when Grouped According to School Size

This section presents the significant difference in conception and instructional practices of teachers when grouped according to school size. Table 8 shows the result in conception and instructional practices of teachers when grouped according to school size. It is shown that believe on teaching and learning, educational philosophy, teaching methods use and the use of technology has no significant difference when group according to size of the school (p value> 0.05).

Table 8 reveals that teachers' conceptions and instructional practices — specifically their beliefs about teaching and learning, educational philosophy, choice of teaching methods, and use of technology — do not significantly differ based on the size of their school. This is supported by p-values greater than 0.05, indicating that school size does not have a meaningful impact on these aspects of teaching.

The findings suggest that regardless of whether teachers work in small or large schools, their beliefs about education, teaching strategies, and use of technology remain consistent. School size does not appear to influence how teachers perceive teaching and learning or how they apply instructional practices.

Table 8. Significant difference in conception and instructional practices of teachers when grouped according to school size

Variable Tested	Computed t	p-value	Conclusion
Believe on Teaching and Learning	0.67	0.510	Not Significant

Educational Philosophy	0.48	0.643	Not Significant
Teaching Methods Use	0.29	0.781	Not Significant
Use of technology	0.52	0.461	Not Significant

4. CONCLUSIONS

Based on the findings of this study, the majority of the respondents are seasoned female teachers over 40, with solid teaching experience and a strong commitment to professional growth through advanced studies and active participation in math-related training. Teachers are positive about math teaching, valuing diverse strategies and real-world connections, though there's slightly less emphasis on active learning and equity. They primarily use direct instruction and hands-on activities, with some use of multimedia tools, but less frequent reliance on online platforms for assignments. The study found that educational attainment and years of teaching experience significantly influence teachers' beliefs about teaching and learning, as well as their educational philosophy. However, factors like age, gender, civil status, and math-related seminars showed no significant impact. Moreover, the years of teaching experience and attendance at math-related seminars significantly influence both the teaching methods used and the use of technology. However, factors such as age, gender, civil status, and educational attainment showed no significant impact. Teachers' beliefs about teaching and learning do not significantly impact their choice of teaching methods or the use of technology, nor do their educational philosophies show a significant relationship with these aspects. Furthermore, the study reveals that teachers' beliefs, educational philosophy, teaching methods, and use of technology do not differ significantly based on the size of the school.

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