Volume 9, Issue 7, July – 2024 International Journal of Innovative Science and Research Technology
ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24JUL955

Neuropsychological Cognition and Attitude Towards Mathematics as Predictors of Resilience among Mathematics Pre-service Teachers

Christine Jane B. Olivo ; Romulo G. Doronio, PhD
Faculty, Agusan del Sur State College of Agriculture and Technology
Member, Professional School of Assumption College of Nabunturan

Abstract:- Resilience is a constructive cognitive capacity that is susceptible to enhancement. It involves the intricate journey and outcome of an individual effectively adapting to arduous or demanding life circumstances, primarily through behavioral, emotional, and cognitive adaptability and accommodation to pressures originating internally and externally. The resilience of an individual plays a pivotal role in achieving professional accomplishments as it impacts aspects such as job opportunities, advancement in the workplace, and overall prospects for career growth. The main purpose of the study is to identify the variable among neuropsychological cognition and attitude towards mathematics that best predicts resilience of mathematics pre-service teachers, who are enrolled within the academic year 2023-2024 at Agusan del Sur State College of Agriculture and Technology. The findings indicate a noteworthy positive association between Neuropsychological Cognition and Attitude Towards Mathematics with Resilience. Additionally, Neuropsychological Cognition emerges as the most reliable predictor of resilience among pre-service Mathematics teachers.

Keywords:- *Neuropsychological Cognition, Attitude Towards Mathematics, Resilience, Preservice Teachers, Linear Regression, Philippines.*

I. INTRODUCTION

The decrease in the number of pre-service teachers choosing a career in teaching has significant implications for the economy of the nation, as a considerable number of graduates opt for jobs with less demanding job specifications and lower salary levels in comparison to teaching positions. Among the various factors contributing to the lack of interest among pre-service teachers in pursuing a career in teaching are the obstacles they encounter that serve to assess their resilience during internships.

In the region of Southeast Asia, an investigation conducted with pre-service teachers from Malaysia illuminated the challenges confronted by individuals in this group. Subsequent to multiple instances of classroom observations, it was revealed by the researcher that pre-service teachers possess inadequate proficiency in terms of their own subject matter knowledge, pedagogical skills, and professional dispositions (Singh et al., 2018). Moreover, Sharif et al. (2014) undertook a survey involving 116 pre-service teachers, wherein it was disclosed that 23% of the total respondents expressed their intention to not pursue a vocation in the field of education. In addition, Among the 443 Dutch pre-service teachers (PSTs) who participated in the survey carried out by Bruinsma et al. (2023), it was deduced from the analysis of the responses that PSTs exhibit diminished levels of resilience and self-efficacy.

In the study of Peligro (2022) conducted quantitative research and surveyed 483 pre-service teachers from different HEIs in Caraga Region, results indicate that the technological pedagogical and content knowledge (TPACK) among preservice teachers is at a low level, often demonstrated by inadequate training and limited exposure during their undergraduate studies and practice teaching. The finding may result to low resilience of preservice teachers as resilience is influence with knowledge and cognition (Geetha, 2023).

Locally, the College of Teacher Education at Agusan del Sur State College of Agriculture and Technology carried out a tracer study on its graduates as a component of the mandated requirements for AACCUP Accreditation. The findings of the investigation revealed that a limited number of BSEd-Mathematics graduates opted to continue their profession in teaching. Those graduates who decided on a different career path were questioned about their reasons for not pursuing teaching, yielding a multitude of explanations. Nevertheless, the predominant rationale cited was the realization they had gained during their internship that the vocation of teaching was far from effortless.

Despite the prevalence of many studies explored on the factors that might strengthen resilience among pre-service teachers in academic literature, there are still gaps in our understanding of how might strengthening resilience among pre-service teachers among universities specially focusing on the influence of Neuropsychological cognition and Attitudes towards mathematics of mathematics preservice teachers (Ungar, 2013). Thus, the researcher conducted the study to explore on the relationship of Neuropsychological Cognition and Attitude Towards Mathematics to Resilience of Mathematics Pre-service Teachers. The researcher also aimed to determine the variable in this study that best predicts Resilience.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24JUL955

II. METHOD

A. Research Design

The study used a quantitative research design, specifically a descriptive-correlational design. Quantitative research designs concentrate on the utilization of objective measurements and the application of statistical, mathematical, or numerical analyses to the data derived from surveys, questionnaires, and interviews, in addition to the enhancement of current statistics through computational tools (Sogolytics, 2022).

Canonizado (2021) defined the descriptive-correlational methodology as a tool designed to comprehend and evaluate the statistical association between the independent and dependent variables, while controlling for the impact of extraneous variables. Furthermore, descriptive-correlational investigations play a crucial role in establishing a connection or impact from one variable to another.

The study focused on which variable between neuropsychological cognition and attitude toward mathematics significantly predicts resilience among mathematics pre-service teachers the most.

B. Research Locale

The study was conducted at Agusan del Sur State College of Agriculture and Technology (ASSCAT) in the Municipality of Bunawan, Agusan del Sur, during the academic year 2023-2024.

Agusan del Sur State College of Agriculture and Technology (ASSCAT) started as a Manobo Farm School, founded in 1908. R.A. 5917, signed by former Congressional Representative Jose C. Ramos on June 21, 1969, change it to Southern Agusan National Agricultural College (SANAC). It was until March 1, 1995, when President Fidel V. Ramos signed R.A. 7932, converting Southern Agusan National Agricultural College (SANAC) to Agusan del Sur State College of Agriculture and Technology (ASSCAT).

In order to serve the growing number of college students in the province of Agusan del Sur, ASSCAT keeps getting better. ASSCAT administration with the faculty are working on its conversion from Agusan del Sur State College of Agriculture and Technology to Agusan del Sur State University.

C. Population and Sample

The study centered on Mathematics Pre-service Educators from the College of Teacher Education at Agusan del Sur State College of Agriculture and Technology. A total of 90 BSEd-Mathematics Interns from the Academic Year 2023-2024 participated in the study, with all of them serving as respondents. The researcher utilized the universal sampling technique to optimize the respondent count.

D. Research Instrument

The researcher used questionnaire as an instrument to obtain data from the respondents.

One of the prerequisites for deployment was that the respondents complete a neuropsychological test. The test results, which were interpreted by a licensed psychometrician, was used by the researcher to collect data measuring the respondents' neurocognitive domains.

The Questionnaire developed by Summers and Abd-El-Khalick (2017) to Assess Students Attitude Towards Science will be revised to fit this study and the revised questionnaire will undertake the process for validation, after validation, it will be adapted.

The Developed Questionnaire by Summer and Abd-El-Khalick (2017) has six statements for Attitude, six statements for Intention, nine statements for Behavior, six statements for control, and lastly it has three statements for normative indicator.

The Resilience Questionnaire developed and commercialized by Assessments and Development Consultants (2017) will be revised to fit this study and the revised questionnaire undergone the process for validation, after validation, was adapted.

The Resilience Questionnaire has 5 statements for each indicator which are: self-belief, optimism, purposeful direction, adaptability, challenge orientation, emotion regulation, and support seeking.

The questionnaire was validated by 5 experts and was tested for reliability through test and re-test method.

E. Data Collection

To gather data from the research respondents, the researcher secured permission from the Dean’s Office of the College of Teacher Education, to conduct the survey on officially enrolled fourth year students of BSED-Mathematics student during the academic year 2023-2024.

The Resilience Questionnaire and the questionnaire used to measure the Attitude of Students Towards Mathematics was personally administered to the respondents and provided them with clear instructions on how to answer.

The questionnaire was retrieved personally by the researcher. Data was extracted from the questionnaire and was classified, organized, and tabulated accordingly.

- *Statistical Treatment*

The appropriate statistical tools were used in analyzing the data for this study.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24JUL955

- *Mean*

To determine the level of Neuropsychological Cognition, Attitude Towards Mathematics and Resilience among Mathematics Pre-service Teachers.

- *Pearson r Correlation*

To determine if there is a significant relationship between Neuropsychological Cognition and Resilience, and relationship between Attitude Toward Mathematics and Resilience.

- *Linear Regression*

To determine which among Neuropsychological Cognition and Attitude Toward Mathematics has the most influence towards Mathematics Pre-service Teachers Resilience.

III. RESULTS

This chapter presents the results obtained from the collected and the subsequent analyses in a sequence corresponding to the problems presented. Data and preliminary information were also provided as basis of the computation and interpretations of the results.

Table 1. The Level of Neuropsychological Cognition, Attitude Towards Mathematics and Resilience of Mathematics Pre-service Teachers.

Item	Mean	Standard Deviation	Remarks	Verbal Interpretation
Neuropsychological Cognition	3.196	0.378	Average	It means that the item embodied is often manifested
Attitude Towards Mathematics	2.809	0.353	Agree	It means that the item embodied is often manifested
Resilience	3.1778	0.469	Agree	It means that the item embodied is often manifested

Table 1 illustrates the outcomes of Neuropsychological Cognition, Attitude Towards Mathematics, and Resilience among Mathematics Pre-service Teachers. Among the aforementioned variables, Neuropsychological Cognition stands out with the highest mean of 3.19, indicating an average remark and frequent manifestation. Conversely, Attitude Towards Mathematics exhibits the lowest mean of 2.809, suggesting that the item embodied is often manifested.

Table 2. The Relationship between Neuropsychological Cognition and Attitude Towards Mathematics to Resilience of Mathematics Pre-service Teacher

Item		r-value	p-value	Remarks
Neuropsychological Cognition	Resilience	0.740	.000	Significant
Attitude Towards Mathematics		0.523	.000	Significant

Table 2 shows that there is a significant and fairly positive relationship between Neuropsychological Cognition and Resilience. Furthermore, Attitudes Towards Mathematics and Resilience has a significant and moderately positive relationship.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24JUL955

Table 3. The Influence of Neuropsychological Cognition and Attitudes Towards Mathematics to Resilience of Mathematics Pre-Service Teachers.

Independent Variable	Standardized Coefficient β	t value	p-value	Remarks
Neuropsychological Cognition	0.594	7.215	.000	Significant
Attitude Towards Mathematics	0.261	3.169	.002	Significant

Dependent Variable: *Resilience*

The table shows the result of the multiple regression analysis. The regression results indicate that the variables Neuropsychological Cognition and Attitude Towards Mathematics significantly predict Resilience of Mathematics Pre-service Teachers as their p-values are less than 0.05 level of significance. Moreover, Neuropsychological Cognition is the best predictor, with standardized coefficient of 0.594, which is higher than the standardized coefficient of Attitude Towards Mathematics which is 0.261.

IV. DISCUSSION

- *Level of Neuropsychological Cognition, Attitude Towards Mathematics and Resilience of Mathematics Pre-service Teachers*

The neuropsychological cognition of Mathematics Pre-service Teachers in terms of intelligence, communication style, emotional stability, social adaptability, and work ethic is considered average. This suggests that their overall cognitive performance falls within the typical, expected spectrum when compared to peers of similar age. Research conducted by Khairani et al. (2018) with the participation of 693 Malaysian pre-service teachers indicated that these educators demonstrated positive social-psychological functioning related to mental well-being, impacting various aspects of their university life. The result suggest that Neuropsychological Cognition of education students can be developed by adding more activities that stimulates their brain function and prepare them before internship. As the study of Yang (2019) emphasizes that there is an interrelated connection between the emotional and cognitive dimensions of pre-service educators, which play a significant role in shaping their professional identity within the field of education.

Mathematics Pre-service Teachers attitude towards mathematics is often manifested, they have agreed mostly on the statements which reflects on the survey questionnaire. This is related to the finding of Gillo (2021), where a survey is conducted among 67 undergraduate students specializing in mathematics are enrolled in the Bachelor of Secondary Education program at Eastern Visayas State University, the respondents have moderate favorable attitude towards mathematics. A positive attitude towards mathematics is associated with better academic performance and a more inquiry-oriented approach to teaching (Segara & Julia, 2021).

Preservice teachers in Mathematics often exhibit resilience, this is relative to the finding of Brien et.al (2018) that higher education students have low resilience but can be developed as they advance towards their profession. In connection to this, Paller (2024) conducted a study emphasizing the significance of resilience among pre-service teachers. The study highlights how resilience plays a crucial role in the professional development journey of preservice teachers, showcasing their ability to persevere in the face of adversity.

- *The relationship between Neuropsychological Cognition and Attitude Towards Mathematics to Resilience of Mathematics Pre-service Teacher*

Resilience does not emerge from rare or exceptional abilities, but rather from the everyday magic of ordinary, normative human resources in individuals' minds, brains, and bodies, in their families and connections, and in their communities. This perception of resilience as something more than a particular traits or attributes (Xenofontos & Mouroutsou, 2022). On the other hand, cognition modulates the discrepancy between predicted and real-world circumstances via regulating cognitive control or emotions and pain perception. This flexibility is necessary for maintaining and coordinating multiple brain functions for adaptive behavior when confronted with adverse situations.

Neuropsychological cognition has a fairly strong influence to resilience, it was explained scientifically by bringing us into the medical world, it is through Brain imaging research, such as functional Magnetic Resonance Imaging (fMRI), have provided fascinating insights into the neurological foundation for resilience. This study reveal that resilient people have distinct patterns of brain activity and connectivity compared to their less resilient peers. In connection to this study, Mathematics preservice teachers' neuropsychological cognition impacts their resilience, as emotions and brain functions are crucial aspects of resilience.

Furthermore, preservice teachers with positive attitude towards mathematics tend to show high level of efforts and persistent with the teaching mathematics. Lutovac (2019) explained in his study that failure in mathematics of pre-service teacher constitute to low resilience as a teacher. Moreover, the research by Dono and Mangila (2022) undertaken at Josefina H. Cerilles State College reveals that college students exhibit a high level of motivation. They demonstrate a keen enthusiasm towards acquiring knowledge of mathematical concepts and skills, along with a profound

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24JUL955

comprehension of the subject matter. This knowledge proves to be significantly beneficial for their prospective careers.

- *The Influence of Neuropsychological Cognition and Attitudes towards Mathematics to Resilience of Mathematics Pre-service Teachers.*

The regression results neuropsychological cognition and attitudes towards mathematics significantly predict resilience of pre-service teachers, however, neuropsychological cognition best predicts resilience of mathematics pre-service teachers. Education instructors' resilience serves as a crucial intermediary component with a wide range of implications. It connects personality features with unique educational approaches, as well as school assistance and creative instruction. After identifying the relevance of resilience, the study focuses on neuropsychological cognition, which is an enormously significant aspect influencing resilience. As a result, educational institutions should promote the development of instructors' resilience, with a particular emphasis on enhancing their neuropsychological cognition (Deng,2020).

Moreover, the dynamic interplay between neuropsychological cognition and teachers' resilience is complex and constantly evolving. Enhancing cognitive functions, managing emotions, and leveraging social support networks can significantly boost teachers' resilience, empowering them to succeed in their demanding roles (Bordas, 2023).

V. CONCLUSIONS

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

First, the level of Neuropsychological Cognition of Mathematics Pre-service Teachers is average, where most indicators are average these were intelligence, manner of communication, emotional stability, social adaptability while the indicator work attitudes is High. This gives an implication that Mathematics Pre-service Teachers are responsible, loyal, persistent and intuitive. Second, Mathematics Pre-service Teachers attitude towards mathematics are often manifested, this gives an implication that they often embodied the most of the items in each indicators attitude, intentions, behavior, control, and normative. Third, Mathematics Pre-service Teacher, agreed on most items in indicators self-belief, ingenuity, adaptability, challenge orientation, emotion regulation and support seeking, where as they strongly agree on items under indicators optimism and purposeful direction; over all the respondents' resilience is often manifested.

Moreover, the variables Neuropsychological Cognition and Attitudes Towards Mathematics both has a positive relationship to Resilience. Among the independent variables it is Neuropsychological Cognition that best predicts Resilience of Mathematics Pre-service Teachers. This implies that to develop or enhanced resilience among Pre-service Teachers is to focused on factors that contributes to Neuropsychological Cognition.

RECOMMENDATIONS

Based on the conclusions derived from the findings of the study, the following recommendations are hereby presented:

The academe, as the molder of professional instructors, should explore improving techniques to improve students' neuropsychological cognition and attitude toward mathematics in order to strengthen their resilience.

A holistic strategy should be considered when developing mathematics preservice teachers' resilience since it is essential in their teaching career.

It is recommended that future research delve deeper into the intricate relationship between attitudes towards mathematics, neuropsychological cognition and resilience in various learning context.

For the future researcher to consider a much larger sample size to fully investigate the interplay between variable and indicators to come up with a more specific factors to be focused in planning programs to strengthen Mathematics Pre-service Teachers Resilience.

REFERENCES

[1]. Bordás, A. (2023). Investigation of Resilience among Teachers and in Teacher Education. Central European Journal of Educational Research, 5(1), 24–36. https://doi.org/10.37441/cejer/2023/5/1/11119
[2]. Brien, N. O., Lawlor, M., Chambers, F., Breslin, G., & Brien, W. O. (2019). Levels of wellbeing, resilience, and physical activity amongst Irish pre-service teachers: a baseline study. Irish Educational Studies, 39(3), 389–406. https://doi.org/10.1080/03323315.2019.1697948
[3]. Deng, Q., Zheng, B., & Chen, J. (2020). The Relationship Between Personality Traits, Resilience, School Support, and Creative Teaching in Higher School Physical Education Teachers. Frontiers in Psychology, 11. https://doi.org/10.3389/fpsyg.2020.568906
[4]. Doño, M. J. A., & Mangila, B. B. (2021). Mathematics Teacher's Engagement And Students' Motivation To Learn Mathematics. Infinity, 10(2), 285. https://doi.org/10.22460/infinity.v10i2.p285-300
[5]. Fokkens-Bruinsma, M., Tigelaar, E., Van Rijswijk, M., & Jansen, E. (2023). Preservice teachers' resilience during times of COVID-19. Teachers and Teaching, 1–14. https://doi.org/10.1080/13540602.2023.2172391
[6]. Geetha, K., & Fathima, M. P. (2023). Effect Of Metacognitive Intervention Strategies In Enhancing Resilience Among Pre-Service Teachers. Pupil: International Journal of Teaching, Education and Learning, 7(3), 101–112. https://doi.org/10.20319/pijtel.2023.73.101112
[7]. Gillo, M. D. (2021). Attitude, Self-Concept, Study Habits, and Anxiety Towards Mathematics Among Pre-Service Teachers. European Journal of Education and Pedagogy, 2(3), 110–112. https://doi.org/10.24018/ejedu.2021.2.3.123

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24JUL955

[8]. Khairani, A. Z., Idris, I., & Shamsuddin, H. (2019). Measuring Social-Psychological Functioning Among Malaysian Pre-Service Teachers. Asia Pacific Journal of Educators and Education, 33, 109–122. https://doi.org/10.21315/apjee2018.33.8
[9]. Lutovac, S. (2019). Pre-service mathematics teachers' narrated failure: Stories of resilience. International Journal of Educational Research, 98, 237–244. https://doi.org/10.1016/j.ijer.2019.09.006
[10]. Paller, M. F., & Quirap, E. A. (2024). Teachers' Resilience and Self-Efficacy. International Journal of Multidisciplinary Research and Analysis, 07(04). https://doi.org/10.47191/ijmra/v7-i04-35
[11]. Peligro, V. C. (2022). Technological Pedagogical and Content Knowledge (TPACK) of the Pre-service Science Teachers in Caraga Region. International Journal of Research and Innovation in Social Science (IJRISS), VI(XII), 816–817.
[12]. Segarra, J. R., & Julià, C. (2021). Actitud hacia las matemáticas de los estudiantes de quinto grado de educación primaria y autoeficacia de los profesores. Ciencias PsicolóGicas/Ciencias Psicológicas. https://doi.org/10.22235/cp.v15i1.2170
[13]. Sharif, T., Hossan, C. G., & McMinn, M. (2014). Motivation and Determination of Intention to Become Teacher: A Case of B.Ed. Students in UAE. International Journal of Business and Management, 9(5). https://doi.org/10.5539/ijbm.v9n5p60
[14]. Summers, R., Abd-El-Khalick, F. (2017). Development and Validation of an Instrument to Assess Student Attitudes Towards Science Across Grades 5 Through 10. Journal of Research in Science Teaching. DOI: 10.1002/tea.21416.
[15]. Ungar, M. (2012). Social ecologies and their contribution to resilience. In M. Ungar (Ed.), The social ecology of resilience: A handbook of theory and practice (pp13-32). New York: Springer.
[16]. Xenofontos, C., & Mouroutsou, S. (2022). Resilience in Mathematics education research: a systematic review of empirical studies. Scandinavian Journal of Education Research. https://doi.org/10.1080/00313831.2022.2115132.
[17]. Yang, H. (2019). The nexus between pre-service teachers' emotional experience and cognition during professional experience. Australian Educational Researcher, 46(5), 799–825. https://doi.org/10.1007/s13384-019-00320-8

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24JUL955

APPENDIX

APPENDIX A: SURVEY QUESTIONNAIRE

Direction: Here are items that will help evaluate **Neuro-Psychological Performance.** Please rate yourself honesty based on what appears on your Neuro-Psychological Test report. Please check the box that corresponds to the results after going through your Neuro-Psychological Test.

Rating Scale	Descriptive Rating	Interpretation
4	High	It means that the item embodied is always manifested.
3	Average	It means that the item embodied is often manifested.
2	Low	It means that the item embodied is seldom or occasionally manifested.
1	Absent	It means that the item embodied is never or hardly ever manifested.

Intelligence	**1**	**2**	**3**	**4**
Capacity for Abstraction				
Organizational Capacity				
Learning Ability.				
Alertness				

Manner of Communication	**1**	**2**	**3**	**4**
Verbal				
Non-verbal				

Emotional Stability	**1**	**2**	**3**	**4**
Coping with Stress				
Control of Hostile & Aggressive impulse				
Free from neurotic tendencies				

Social Adaptability	**1**	**2**	**3**	**4**
With people in general				
With peers				
With Superior				
With Subordinate				

Work Attitudes	**1**	**2**	**3**	**4**
Responsibility				
Loyalty				
Perseverance				
Initiative				

Survey Questionnaire on Pre-service Teachers Attitude Towards Mathematics

Direction: Here are items that will help evaluate **Survey Questionnaire on Pre-service Teachers Attitude Towards Mathematics.** Please rate yourself honestly based on what you experienced. Rest assured that all your responses will be treated with the utmost confidentiality and will be utilized solely for the study. Please (/) the number from the evaluation options that corresponds to the scales listed below:

Rating Scale	Descriptive Rating	Interpretation
4	Strongly Agree	It means that the item embodied is always manifested.
3	Agree	It means that the item embodied is often manifested.
2	Disagree	It means that the item embodied is seldom or occasionally manifested.
1	Strongly Disagree	It means that the item embodied is never or hardly ever manifested.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24JUL955

Attitude	**1**	**2**	**3**	**4**
I really like math.				
I really enjoy math lessons.				
I do not like math.				
I enjoy math.				
Math is one of the most interesting school subjects.				
I would like to solve math problems at home				

Intention	**1**	**2**	**3**	**4**
I would enjoy working in a math-related career.				
I will continue studying math after I leave school.				
I will take additional math courses in the future.				
I will study math if I get into a university.				
I will become a math teacher in the future.				
I will not pursue a math-related career in the future.				

Behavior	**1**	**2**	**3**	**4**
Math will help me understand the world around me.				
Knowledge of math helps me appreciate objects found in our environment.				
Knowing math can help me make better choices in life.				
We live in a better world because of math.				
Most people should understand math because it affects their lives.				
Teachers encourage me to understand concepts in math classes.				
Mathematicians are highly respected.				
People with math-related careers have a normal family life.				
Mathematicians usually like to go to work even when they have a day off.				

Control	**1**	**2**	**3**	**4**
I am confident that I can understand math.				
Math is easy for me.				
I can understand difficult math concepts.				
I am sure I can do well on math tests.				
I cannot understand math even if I try hard.				
I usually give up when I do not understand math concepts.				

Normative	**1**	**2**	**3**	**4**
My family encourages me to have a math-related career.				
My family encourages my interest in math.				
Members of my family work in math careers.				

Survey Questionnaire on Pre-service Teachers Resilience

Direction: Here are items that will help evaluate **Survey Questionnaire on Pre-service Teachers Resilience.** Please rate yourself honestly based on what you experienced. Rest assured that all your responses will be treated with the utmost confidentiality and will be utilized solely for the study. Please (/) the number from the evaluation options that corresponds to the scales listed below:

Rating Scale	**Descriptive Rating**	**Interpretation**
4	Strongly Agree	It means that the item embodied is always manifested.
3	Agree	It means that the item embodied is often manifested.
2	Disagree	It means that the item embodied is seldom or occasionally manifested.
1	Strongly Disagree	It means that the item embodied is never or hardly ever manifested.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24JUL955

Self-Belief				
Positive Behavioral Indicators	**1**	**2**	**3**	**4**
Demonstrates confidence in one's own ability to carry out a task or job.				
Is confident that they can cope with major problems and crises.				
Believes they can achieve whatever they set their mind to.				
Not easily deterred by difficulties or setbacks.				
Is self-assured in uncertain situations.				

Optimism				
Positive Behavioral Indicators	**1**	**2**	**3**	**4**
Stays positive in the face of setbacks and failure.				
I believe things will always work out in the end.				
Concentrates on the positive side of situations.				
Encourages others to think positively.				
Compartmentalizes difficulties and does not let them affect other aspects of their work.				

Purposeful Direction				
Positive Behavioral Indicators	**1**	**2**	**3**	**4**
Shows determination to achieve goals in demanding situations.				
Sets clear short- and long-term goals for themselves on a frequent basis.				
Consistently strives to meet targets and objectives.				
Keeps focused on the end goal, regardless of setbacks.				
They have a keen sense of what they want to achieve from their job and career.				

Adaptability				
Positive Behavioral Indicators	**1**	**2**	**3**	**4**
Sees change as positive rather than negative or threatening.				
Easily adapts to new situations and changes at work.				
Adjusts thinking and approach based on added information or events.				
Can modify their own behavior if the existing approach is not working.				
Is happy to change plans and priorities if necessary.				

Ingenuity				
Positive Behavioral Indicators	**1**	**2**	**3**	**4**
Think beyond the more obvious solutions when trying to solve problems.				
See opportunities and options in problem solving that others may not see.				
Generates imaginative ideas to overcome obstacles.				
Shows confidence in their ability to find a way around problems.				
Think of multiple ways around a problem.				

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24JUL955

Challenge Orientation				
Positive Behavioral Indicators	**1**	**2**	**3**	**4**
Does not shy away from challenging task, instead viewing them as challenges to be overcome.				
Actively seeks out tasks regarded as challenging.				
View challenges as opportunities to learn and develop.				
Enjoys dealing with recent problems they have never come across before.				
Sees tricky situations as an opportunity to test themselves.				

Emotion Regulation				
Positive Behavioral Indicators	**1**	**2**	**3**	**4**
Maintains focus on the main objectives even when under significant pressure.				
Maintains composure when faced with difficult or unexpected problems.				
Exhibits a calm and controlled manner in the face of difficult or stressful situations.				
Keeps events in perspective and does not overreact in high pressure situations.				
Thinks clearly and makes rational and effective decisions under pressure.				

Support Seeking				
Positive Behavioral Indicators	**1**	**2**	**3**	**4**
Refers to ask for help and does not feel like they need to tackle problems alone.				
They regularly share their concerns and feelings with people at work who they know well.				
It has a good support network who they can draw on for support with different issues.				
Recognizes the appropriate time to ask others for help.				
Is open to others offering help and support.				