BAH Agonoy: Exploring the Lived Experiences of Elementary Educators during High Tide in Hagonoy Bulacan

Tallara Austen Peter Jr. M., Penas, Lyn Heaven G., Valiente, Jadelyn, Pangan, Cashmir G., Guballa, Michael Jo S.

In Partial Fulfillment of the Requirements for PSYCH 13 X – Field Methods in Psychology

DOI: https://dx.doi.org/10.47772/IJRISS.2024.804107

Received: 15 March 2024; Revised: 02 April 2024 ; Accepted: 06 April 2024; Published: 13 May 2024

ABSTRACT

This qualitative analysis of the lived experiences of six (6) primary school teachers in Hagonoy, Bulacan, who had to deal with high tides. The research made use of in-depth interviews to reveal different courses that high water levels take: the hindrances and struggles in maintaining the quality of education, the strategies employed in different teaching styles, coping mechanisms, and the positive aspects of teaching in coastal areas. The findings of the study revealed that there were various challenges such as transport disruption and poor learning atmospheres. Additionally, the study covers measures that can be taken to address declining educational quality as well as digital divides. The study further explores educators' strategies, shedding light on the importance of flexibility and innovation. Moreover, employing theoretical triangulation, this paper delves into the emotional and psychological challenges encountered by educators. It offers valuable insights to bolster resilience in coastal area elementary education, such as in Hagonoy, Bulacan, necessitating a transfor mative approach to Disaster Risk Reduction (DRR) Education.

INTRODUCTION

In recent years, people worldwide have faced a significant increase in climate-related challenges, which has deeply affected different aspects of society and the day-to-day lives of individuals and communities. Specifically, there's been a noticeable rise in sea levels and an increase in the occurrence of high tides (National Geographic, 2022). This has brought about various problems in coastal areas, including vulnerabilities in infrastructure and concerns about how communities can bounce back from these challenges. Das (2010) highlighted in "Climate Change and Education" the impact on children, encompassing both the quality of education and the teaching-learning environment. Despite extensive research on these challenges, there is still a significant gap in understanding the experiences of elementary educators in coastal areas, especially regarding the specific challenges they face during recurrent high tides. This gap is crucial given the pivotal role these educators play in nurturing young minds and fostering community resilience. Recent trends in the literature emphasize the need for micro-level investigations into the experiences of educators on the front lines of climate-related challenges. This study aims to fill in this gap, adding to the ongoing discussions about adapting to climate change and education, offering valuable insights to inform policy and practice in coastal communities.

In the Philippine context, Bulacan is widely recognized as a flood-prone region, particularly during the monsoon season and typhoon occurrences. This vulnerability is sometimes exacerbated by the controlled discharge of water from nearby dams (Santos, 2023). A first district municipality in Bulacan, "Hagonoy," colloquially called "BAHA gonoy," is a miniature representation of broader global environmental changes and challenges. Hagonoy's coastal areas in Bulacan possess low elevations, rendering them susceptible to

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue IV April 2024

inundation. Hagonoy's flat terrain and proximity to numerous river systems place it at a heightened risk of Flooding, particularly when rivers overflow. Additionally, fragmented dam management protocols exacerbate the situation. Moreover, there is growing speculation that the *New Manila Airport* project may lead to a sudden increase in high tides. The impact of these high tide events extends beyond environmental concerns; they significantly affect residents' daily lives. Although a qualitative study by Adarayan et al. (2018) finding suggests that the residents of Sta. Cruz, Hagonoy, Bulacan already adopted the situation brought about by the high tide through different strategies to improve their lives. One group significantly impacted by these recurrent high tide events is the *elementary educators* of Hagonoy.

The effects of high tides on their lived experiences are not limited to the community but also permeate into their teaching practices. These educators face challenges such as disruptions to their daily routines, changes in classroom dynamics, and the necessity to incorporate environmental education and disaster preparedness into their curriculum. Beyond the physical challenges, the research also aimed to explore the psychological and emotional impacts on elementary school teachers in Hagonoy, recognizing the potential stress, anxiety, or other mental health aspects resulting from recurrent high tide events. Understanding these dimensions is crucial for comprehensively assessing the intersection of environmental challenges with the professional lives of educators in the region.

With that in mind, this qualitative research aimed to explore the experiences and perspectives of elementary school teachers in Hagonoy, Bulacan, amidst recurrent high tide events. The researchers selected six specific elementary teachers in Hagonoy to capture the nuanced ways these environmental challenges intersect with their professional lives, potentially influencing teaching practices and the quality of education provided to students. The research focused on gauging participants' lived experiences, aiming to: a) comprehend current experiences in dealing with daily high tides; b) identify the impacts on perceptions and attitudes toward environmental challenges; c) recognize challenges faced in navigating daily high tides; and d) discover coping strategies employed by educators in facing daily high tide challenges.

High Tides

High tide happens when water advances to its furthest extent onto the shoreline (National Geographic, 2022). High tide itself is not generally considered an environmental disaster. High tides are a natural occurrence and a part of the Earth's tidal cycle. However, due to years of sea level rise, high tide flooding – often referred to as "king tides" or "nuisance" flooding will become increasingly common (Carter, 2022), which, in turn, can contribute to or exacerbate environmental disasters when combined with other factors such as high tides coincided with storm surges or heavy rainfall which are often classified as disasters.

In the Philippines, as indicated in a study by Adarayan et al. (2018) Hagonoy, Bulacan, primarily relied on agriculture as its primary source of livelihood during the early 2000s. However, as residents gradually transformed rice fields into fish ponds, this land-use change contributed to Flooding in Hagonoy, establishing a causal link with the onset of high tide-related floods. This characteristic is a principal factor responsible for the stagnation of floodwaters from high-altitude neighboring towns during rainy seasons, commonly called "back flooding." Additionally, owing to its geographical attributes as a coastal and low-lying region, the town is susceptible to coastal floating, locally recognized as high tide.

Educators

An educator, a beacon of knowledge and inspiration, plays a pivotal role in shaping lives, particularly in the context of elementary education amid the challenges posed by high tides. Beyond being instructors, these educators become lifelines for students navigating disrupted environments. Teachers are instrumental in providing stability, inspiration, and support, creating a profound impact on the lives they touch (Exeed College, 2019). In the Philippines, where formal education dates back to the Spanish colonial period of

1565, elementary educators find themselves at the forefront of recent educational reforms. As the Philippine education system evolves to address the impacts of high tides on schools and communities, educators become central figures in ensuring not only access to education but also in enhancing the resilience and adaptability of students in the face of environmental challenges.

High Tide and Elementary Educators

In Pakistan's Sindh province, a growing concern is evident as the region faces a notable increase in natural disasters, with the 2010 floods leaving a lasting impact on child education and national development. This study delves into the consequences of these disasters, emphasizing the crucial role of clean water, sanitation, quality education, health awareness, and micro-economic development in facilitating recovery. This vulnerability significantly impacts the town's twenty elementary schools, resulting in structural damage and disruptions in educational processes. Amid these challenges, educators' resilience takes center stage, prompting a focused approach on resource allocation and morale-related considerations to ensure the sustainability of educational practices in this coastal setting (Gaikhorst, 2015). Turning our attention to Hagonoy in Bulacan, Philippines, a parallel challenge unfolds. The town grapples with recurrent issues stemming from elevated tides due to its flat terrain and rising sea levels.

Educators' Lived Experiences

In the Philippines, educators have shown remarkable adaptability amid transformative challenges, reforms, and a steadfast commitment to delivering high-quality education, a cornerstone of societal progress, as emphasized by the Department of Education (DepEd). The Philippines implemented the K-12 education reform in 2013, extending the standard education period by two years to enhance overall quality. Teaching methods are evolving to cater to diverse learner needs through differentiated instruction, adaptive technologies, and collaborative practices. Technology accessibility varies, with a growing focus on e-learning, especially post-COVID-19, integrating digital tools, online resources, and blended learning. Emphasizing environmental education resources and addressing teacher knowledge disparities is crucial (Munsaka & Mutasa, 2021b). While inclusive education is advocated, limited resources and training challenges persist. In the broader context, natural disasters have claimed a considerable number of lives in the last 20 years. These calamities frequently jeopardize kids' access to educational resources, which has an impact on both the volume and quality of learning. Disasters can have a variety of effects, from total disruption to detrimental effects on academic performance and attendance at school (Mudavanhu, 2015; Gibbs et al., 2015; Akhtar, 2020).

Research by Francisco et al. (2020) delves into the experiences of educators in coastal schools, revealing significant challenges related to safe travel, communication methods, limited instructional resources, and the economic circumstances of students. Despite these obstacles, educators have devised coping mechanisms, including the use of life-support equipment for safe travel, adapting communication methods during crises, and showcasing resourcefulness to address learning material scarcity. Similarly, Apigo et al. (2018) outlined the two-sided scenario of teaching in coastal regions. Challenges such as transportation constraints, time management dilemmas, and family adjustment were evident, but educators also derived fulfillment from special hardship allowances and rewarding interactions with students. In similar findings, resilience amid environmental threats is evident in coastal communities and educational institutions. Ardales et al. (2016) study on the impacts of floods on public schools in the Philippines highlight disruptions to lessons, physical damage, and negative effects on teachers, emphasizing the urgent need to address the fundamental right to inclusive education. Building on this understanding, Adarayan et al. (2018) and Francisco et al. (2020) highlight adaptive strategies, schedule modifications based on high tide timings, and a preference to stay in the area due to financial constraints and strong community connections. However, it's crucial to recognize the detrimental impact of high tides on infrastructure, schools, communities, and children's health.

Synthesis

In summary, rising sea levels contribute to high tides, causing flooding and various issues. In Hagonoy, Philippines, changes in land use have made floods more common, affecting lives and schools. Teachers in coastal areas play a crucial role as lifelines, offering support during disruptions. Coastal places like Hagonoy are at risk, affecting educators and schools significantly. The Philippines and Pakistan illustrate how natural disasters impact children's education and the country's growth. Teachers in coastal areas adapt to challenges like safe travel, communication, and resource scarcity (Francisco et al., 2020; Gaikhorst, 2015).

Despite teachers' resilience, they face challenges such as disrupted lessons and damaged school, thus impacting their well-being (Ardales et al., 2016). It is crucial to address the impact of high tides on education to ensure that everyone has the opportunity to learn. The shift to online learning, worsened by natural disasters, poses additional challenges, necessitating a plan to safeguard schools from such hazards (Akhtar, 2020; Gibbs et al., 2015; Mudavanhu, 2014). Teaching methods are evolving to meet the needs of all students, incorporating different approaches and technology. The Philippines is striving to improve education by promoting fairness and teaching relevant content. However, challenges persist, including insufficient resources and improper training (Munsaka & Mutasa, 2021c). This collectively shows the varied impact of high tides on places like Hagonoy, emphasizing the need for further research and a support system to address challenges faced by educators. A research gap has been identified as essential for developing a comprehensive understanding and introducing strategies and teaching styles that fit educators' needs. This literature calls for an in-depth exploration of the concept of "BAHAgonoy" to bridge learning gaps and assess lived experiences, providing knowledge and credible support for future studies.

STATEMENT OF THE OBJECTIVE

In response to the pressing environmental challenges coastal regions face, this phenomenological study explores the experiences and perspectives of elementary school teachers in Hagonoy, Bulacan, in light of rising sea levels and recurrent high tide events. The researchers conducted this study with a specific focus on selected elementary teachers in Hagonoy, Bulacan, aiming to understand how these environmental challenges intersect with educators' professional lives, potentially influencing their teaching practices and the quality of education provided to students. This study aims to explore and comprehend the current lived experiences of high tide events on teaching practices among elementary teachers in Hagonoy, Bulacan. To achieve this goal, the study addresses the following key objectives:

Central Research Question: How can the experience of Elementary Educators in Hagonoy be described?

Specific Questions:

1. How do high tides impact the physical learning environment in coastal elementary schools?
2. To what extent do high tides influence elementary educators' curriculum delivery and instructional methods?
3. What strategies do elementary educators employ to mitigate the impact of high tides on their teaching practices?
4. What emotional and psychological challenges do elementary educators face due to high tides, and how do they cope with them?

METHODOLOGY

Research Design

The study utilized Qualitative Research, specifically the Phenomenological method to thoroughly explore

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue IV April 2024

the lived experiences of educators during high tide in Hagonoy Bulacan. This method helps the researchers delve into the participants' thoughts, viewpoints, insights and emotional reactions to this phenomenon, providing a detailed understanding that is not easily achievable through quantitative approaches. Choosing phenomenology aligns with qualitative research principles, ensuring an unbiased exploration of human experiences. Through this method, the researchers aim to authenticate their findings, improving the validity and credibility of the study's research outcomes (Delve, 2022). Essentially, phenomenology offers a strong framework for grasping the 'lived experiences' of our participants, allowing the researchers to contribute valuable knowledge to the field of education and climate change adaptation in coastal regions.

Participants

This study used a *Purposive Sampling Technique* to select six Public School Elementary Teachers. This technique relied on researchers' judgment when choosing participants for interviews. The criteria for participant selection included being registered voters in Hagonoy, currently employed as public school elementary teachers with at least five years of teaching experience, and having exposure to high tide conditions. For the qualitative study, the number of participants was able to represent the data of the study (Moran & Budiu, 2021).

Table 1: Demographic Profile of Elementary Educators in Hagonoy, Bulacan.

		n	%	N
Age	30-40	2	33.33	
	41-50	3	50.00	
	51-60	1	16.67	
Sex	Female	6	100	**6**
	Male	0		
Years of Teaching	15-20	2	33.33	
	21-30	2	33.33	
	31-40	2	33.33	

Instruments

This study employed a researcher-developed semi-structured interview guide to gather data during in-depth interviews with the participants. The said interview guide was anchored on the research questions and was further improved based on existing literature and studies about the present study. To ensure the validity and appropriateness of the instrument, a validation process involving three experts from the School of Education and Arts and Sciences at National University Baliwag was conducted. The validation process was also conducted to ensure that the questions used would be ethically appropriate and sensitive with the situations of the participants who are teachers in the coastal villages. To facilitate data capture accurately, the researchers utilized commonly available recording materials, including pens, paper, and audio recording devices like cellular phones. These interviews were typically conducted as single sessions, lasting anywhere from 30 minutes to over an hour, depending on the depth and breadth of the discussions (Pharm, 2014).

Data Gathering / Procedure

After receiving the research-developed questionnaire from the three experts, the researchers proceeded with disseminating the informed consent form to the study participants.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue IV April 2024

In order to ensure a smooth and ethical data collection process, the researchers diligently followed the following procedures: First and foremost, informed consent was emphasized. The participants were thoroughly briefed about the study, with a clear understanding that their participation was entirely voluntary. They had the autonomy to decide whether they wished to participate in the study. Informed consent forms were provided to convey the nature of the study. Subsequently, participants were presented with a tape-recording consent form, seeking their permission to record the interviews. To maintain transparency, participants received an interview guideline well before the interview day. This advanced provision of the guideline was able to assist participants in preparing themselves adequately, ultimately facilitating the generation of information-rich responses.

Additionally, it allowed the researcher to prepare for the interviews effectively. The interviews were conducted individually in a private, quiet room to ensure a conducive environment for open communication. Semi-structured, one-to-one interviews facilitated in-depth understanding and provided flexibility for the researchers. During each interview, cellular phone was used to ensure an accurate and comprehensive recording of the participants' responses, eliminating the need for note-taking during the interviews. All of the interview transcripts were carefully transcribed, analyzed, and treated with utmost confidentiality to protect the participants' privacy and uphold ethical research standards. Lastly, the researchers gave thanks to the participants for their valuable participation, acknowledging their contribution to the study.

Data Analysis

In the data analysis process, the researchers employed rigorous methods inspired by Johnny Saldana's "The Coding Manual for Qualitative Researchers." This approach guided them in systematically analyzing the qualitative data gathered from the research, enabling the extraction of meaningful insights. Codes originate from both the central and specific research questions, and themes identified within the interview transcripts are meticulously organized. Qualitative methodology, commonly utilized in academic research, enables a comprehensive exploration of specific issues, aimed at fostering a deep understanding of the phenomenon under study (Creswell, 2015). To further enhance the analysis, a thematic analysis was employed, since it is a useful way to study and understand patterns and themes in qualitative data. It's flexible, adaptable, and gives valuable insights in research.

Trustworthiness

In qualitative research, "trustworthiness" refers to results quality, truthfulness, and correctness. Readers' trust in results matters (Schmidt & Brown, 2015). Researchers should establish protocols and methods for each work to be considered by readers (Amankwaa, 2016). Thus, Lincoln and Guba (1981)'s credibility, dependability, confirm ability, and transfer ability criteria will be employed to verify this study's reliability. In participant selection, the researchers prioritized fairness and transparency, following a careful, unbiased process to enhance the study's credibility. To ensure participants' understanding and voluntary agreement, a detailed informed consent form was provided and signed, underscoring the ethical foundation of the study. Throughout data collection, trustworthiness was maintained by using open-ended questions, active listening, and building rapport with participants. These practices aimed to authentically capture participant perspectives, further enhancing the overall reliability and credibility of the study.

Credibility. The credibility of study findings determines acceptability. The research methods, participants, and setting determine the researcher's credibility with the findings and its legitimacy in terms of its findings (Guba, 1981). While conducting the study, the researchers were all aware of their personal biases and it was made sure that they all maintained a reflecting stance. Also, Clear and transparent coding procedures were utilized, and the coding framework, along with the process of developing themes, is thoroughly documented. In addition, triangulation was then also applied by using related studies, observed data, and

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue IV April 2024

recorded data. In data analysis, researchers compared their own version of codes for a more accurate result (member checks). As well as orient the participants about the scope, benefits, and risk of the study (peer briefing).

Transfer ability involves the usability and applicability of research findings in different contexts. Researchers should provide a "thick description" of participants and study procedures, allowing readers to assess the relevance of the results to their specific situations (Guba, 1981). In this study, the researchers offered detailed participant descriptions and a comprehensive research methodology to facilitate future evaluations of result generalization. This encompassed a thorough explanation and depiction of the participants' setting, and purposive sampling was employed to ensure the inclusion of homogeneous participants experiencing the same phenomenon. Additionally, the researchers actively engaged with the local community, immersing themselves in the environment in which the participants were situated.

Dependability in a study implies consistent results that can be replicated in different contexts (Guba, 1981). To uphold this, an audit trail was meticulously maintained by the researchers, recording every step of the study, including questionnaire validation comments, participant consent forms, validation certificates for questionnaires, and analytical memos throughout and after the interview process. Each researcher was assigned specific tasks to maintain focus, and their self-awareness helped reduce subjectivity influence in the study.

Furthermore, researchers engage in regular peer debriefing sessions to discuss their experiences, interpretations, and potential biases. This collaborative reflection aims to ensure a uniform approach to data interpretation and minimize individual biases.

Confirm ability in research concerns how much the study's findings are shaped by participants rather than the researcher's biases. To ensure the results are trustworthy, other researchers should be able to replicate them independently, reducing the chance of intentional or unconscious bias. In this study, the researchers were determined to make their work reliable. They carefully documented their methods, including the questionnaire and the research paper, to minimize bias and ensure fairness. The study underwent thorough examination by a research advisor, and the researchers paid attention to non-verbal cues from participants that might affect their responses. Additionally, several researchers independently coded the data, ensuring that interpretations weren't solely based on one person's perspective. Analytic memoing was used to record important information throughout the research process, making sure that the generated codes and themes were based on what participants shared. Lastly, the researchers supported their findings with four related theories, adding strength and reliability to the study.

Ethical Consideration

The research is guided by Bryman and Bell's (2007) ethical framework, prioritizing participant well-being, explicit informed consent, and privacy protection. Participants were afforded the right to voluntary participation and withdrawal, and confidentiality standards were strictly upheld to ensure an unbiased presentation of findings. Ethical considerations encompass seeking institutional approval to comply with regulations and protect participants. Informed consent involved providing participants with a comprehensive study description, including risks and benefits, and respecting their withdrawal rights. The researchers maintain confidentiality and anonymity, handling data with the utmost care to safeguard personal information and preserve participants' privacy. Transparency remains central to their communication, encompassing the disclosure of affiliations, funding sources, and potential conflicts of interest. Throughout their action research endeavor, the researchers uphold principles of honesty and transparency.

Voluntary Participation. Potential participants were informed that their involvement in the research is entirely voluntary, and they have the right to choose not to participate without any consequences to the

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue IV April 2024

services they receive. They could withdraw from the study at any point, even if they initially agreed to participate.

Procedures. Participants were invited to take part in the study through in-person interviews. The interview, lasting a maximum of forty minutes, was conducted in a comfortable location chosen by the participant. The interviewers were the only person present unless the participant prefers otherwise. The recorded information is kept confidential, and no one except the researchers will have access to it. The recording will be deleted after data gathering.

Duration. The research is set to span four weeks, with individual interviews taking a maximum of forty minutes.

Risk. Participants are informed about the potential risk of sharing personal or confidential information and are assured that they are not obligated to answer any question that makes them uncomfortable.

Benefits. While there is no direct benefit to participants, their involvement is expected to contribute valuable insights into the lived experiences of elementary educators.

Reimbursements. Participants will receive a token of appreciation for their contribution to the study.

Confidentiality. Participants are assured that their information will be kept private, with data assigned a number rather than names. Only the researchers will have access to this information, and it will be securely stored.

Sharing the Results. Participants are informed that their identity will remain confidential, and the researchers will share the knowledge gained from the research with them and their community before making it widely available to the public. Each participant will receive a summary of the results.

Right to Refuse or Withdraw. Participants had the right to refuse or withdraw from the research without any negative impact on their job or job-related evaluations. They could review and modify or remove portions of their remarks if they disagreed with the researcher's notes or felt misunderstood.

RESULTS AND DISCUSSION

This chapter contains the tables that present the findings and interpretations of the data collected via in-depth interviews. To arrive at the emerging themes, the data from the interviews were coded and themed using thematic analysis

This section discusses the lived experiences of Elementary Educators in Hagonoy on the Impact of High Tides on Student Learning Environment. Two themes are identified: Disruption of Student Learning Environment Due to High Tides and Education Resilience in the Face of High Tides. These themes helped the teachers to navigate their personal experiences.

Table 2: The Impact of High Tides on Student Learning Environment

Domains	**Themes**	**Sub-themes**
Impact of High Tides on Student Learning Environment	Disruption of Student Learning Environment Due to High Tides	(1) Transportation Disruption; (2) Student Discomfort;

		(3) Inundated non-flood resistant classroom; (4) Challenges with government initiatives.
	Education Resilience in the Face of High Tides	(1) Adjustment and Adaptability

Table 2 Highlights two emerging themes under the Impact of High Tides on Student Learning. It explores the repercussions of high tides on student learning environments, revealing disruptions in transportation, student comfort, inundated non-flood-resistant classrooms, and challenges stemming from government initiatives. Additionally, delve into the ways educators resiliently adjust and adapt to these high tide-induced disruptions.

Disruption of Student Learning Environment Due to High Tides.

Inundated Non-flood Resistant Classrooms. One of the reported impacts of High Tides on Student Learning Environment is the inundated non-flood resistant classrooms or rooms that has been flooded or submerged by the rising water levels during high tides. Elementary educators elaborated that half of classrooms are unused due to high tides.

Educator 2 said, *"Actually, our school have lost half of its number of classrooms. If there are 52 classrooms, we can only use 26 of them."*

In like manner, Educator 5 agrees that, *"In this area, the building on the right is almost gone, it can't be used anymore. And the other classrooms below, yes, it has an up-and-down structure, but the ones below can't be used anymore because of its structure. That's why many of our classrooms are no longer in use."* [In the context of older, non-flood-resistant classroom buildings constructed several years ago]; Referring to inability of old structured building to adapt, without a doubt,

Educator 4 expressed same sentiment, *"Most of the time, schools go down, and water enters, flooding them. The ground level is no longer appropriate for the level of water that comes in, so mostly, the ground, especially those on the first floor, is really reached by the water."*

Challenges with Government Initiatives. Another emerging theme is the induced effect of policy failure of the government. This was interestingly interrelated to the previous sub-theme because the government's disjointed actions contribute to underutilized classrooms.

Participant 2, *"Many new classrooms were built here, but when it rains and the road level rises, water flows into our area. So, the purpose of the government in providing us with classrooms is disregarded because they get flooded, and the buildings are not usable. They are not accommodating for the children. So, it's just wasted. It just gets damaged."*

Student Discomfort. Elementary Educators also reported Student Discomfort. This signifies that teachers acknowledge that addressing student discomfort related to corroded school furniture and slippery surfaces in coastal areas is crucial to ensure the safety, health, and overall well-being of students. A conducive and

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue IV April 2024

comfortable learning environment is essential for students to thrive academically and enjoy a positive educational experience.

Educator 1 said, *"They also feel uncomfortable because some of our classrooms are underwater. It surely affects the learning environment of the school. So, the pupils are uncomfortable – of course, they are submerged."*; Moreover,

Educator 5 of the same opinion noted that, *"So the high tide has a huge impact on us, primarily on the children's education because they can't attend without wearing boots. Some are carried by their mothers, and sometimes, others don't realize that there's still water, and accidents happen; they slip."*; also on top of that,

Educator 3 voiced, *"Well, the impact of high tide is highly significant because the arm chairs, furniture are easily torn because of the regular inundation of water, the concrete nails are always rusted. So, that's the effect on the furniture, and the flooring becomes slippery and dangerous, prone to accidents for the children."*

Transportation Disruptions. Majority of Elementary Educators emphasized transportation disruption because it directly impacts students' access to education, punctuality, consistency, equality, well-being, teaching time, and parental concerns. Hence, they believed that students' restricted mobility contributes to student enrollment decline.

Educator 3 said that high tides directly affects student punctuality, *"So that has a huge impact on the children; they can't enter on time."*; Similarly, two another educators agreed that high tides impact students' access to education because students cannot come to school because even the house and the road are submerged in water.

Educator 4 stressed, *"The impact of high tide is really significant on students, not only in schools but also in their homes because there's water there too. Instead of going to school, they prefer to have their modules or activities at home. They really don't go to school anymore.";* In the same line of thinking,

Educator 6 said, *"Perhaps those who are really affected are those whose homes are directly impacted. They can't go to school."*

What is of notable concern is the educators' observation of a substantial decrease in enrollment due to the doubling of transportation fees and difficulties for students in commuting to school as the roads become submerged in water during high tide. Educator 1 said, *"They [students] are also having a hard time going to school, that's why our enrollment suffers. At least 200 students are missing from our enrollment, and one of the main reasons is the high tide. They have to spend a lot of money on transportation since our pupils come from different barangays."* Not only that

Educator 2 who's been teaching for decades observes the contiguity of events and said, *"Instead of staying at our school, they choose to enroll in other schools. They can't come here because the transportation cost is high, so what happens is they just transfer to another school. As a result, they can't study properly, and some children are frequently absent."*

Education Resilience in the Face of High Tides

Adjustment and Adaptability. Parental and School Faculty Adjustments were also reported by educators. For them, this entails not only the adjustments and adaptation made by school faculty but also parental support which are both crucial in off-setting the impacts of high tides in the learning environment of

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue IV April 2024

students.

Educator 3 said, *"What I see here is that even when it floods, the children wear boots, and the mothers carry their children."*; Likewise,

Educator 5 said, *"Some mothers carry their children,"* Along the same line, *"Some parents escort their children, carrying the smaller ones just to help them reach their classrooms."* On the other hand,

Educator 6 argued, *"Since half of the classrooms were left inundated, students were unaccommodated."*; Having that said,

Educator 2 pointed out, *"Most of the classrooms are submerged, and not everyone can attend the whole day. So, we have half-day sessions. Physically, it cannot accommodate the students."*; With regards to half-day sessions

Educator 5 emphasized that in their school classes starts at, *"7 to 12, and another one from 1 to 5 to still sustain the 6 hours of contact with the students."* In some situation educators are utilizing specific rooms such as computer room and clinic which are not designed for conducting classes, *"Sometimes, for example, our clinic is used as a classroom. The computer laboratory that was supposed to be on the 2nd floor, well, we no longer have a computer laboratory. We just used it as a classroom to sustain and provide a classroom for other students."*

This section discusses the lived experiences of Elementary Educators in Hagonoy on challenges they have encountered in maintaining a consistent education experience due to high tides. Two themes are identified: Learning Gaps, Lack of Access to Technology.

Table 3: The Challenges encountered in Maintaining a Consistent Educational Experience.

Domains	**Themes**	**Sub-themes**
Challenges encountered in maintaining a consistent education experience due to high tides.	Decline in Educational Quality	(1) Educational Deficiencies; (2) Student Absenteeism; (3) Limited Space for Activity
	Digital Access Disparities	(1) Lack of Access to Technology; (2) Internet Quality Disparities.

Table 3 Highlights the challenges in coastal education during high tides, including a decline in educational quality and digital access disparities, affecting student attendance and technology access. This inquiry seeks insights into high tides' diverse impacts on education and educators' resourceful responses.

Decline in Educational Quality

Educational Deficiencies. One of the reported sub-theme is *Educational Deficiencies.* Educators believed

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue IV April 2024

one of the posed challenge is meeting educational standards or learning objectives.

Educator 2 said, *"I can't teach all the competencies; actually, it's very inadequate, of course, because of the flooding, classes are suspended. So, you can't teach all the competencies that you should be teaching to the children. So, you're in a hurry, so it's not complete; it doesn't get finished, you're rushing, so it's lacking, lacking because you're in a hurry."* The educator added, *"Not complete—Not finished—rushed. So, it's lacking because you're in a hurry."*

Student Absenteeism. Another emerging sub-theme reported under learning gaps is the habitual absence of students from their schools. Educators believed "*Student absenteeism"* can have negative consequences on their academic performance, learning progress, and overall educational outcomes.

Educator 4 said, *"What happens is only a few children attend, and when the water level becomes too much, even at their homes, they really can't come. It means a significant reduction in attendance every day when there's a lot of water or during high tide.";* The educator stressed that student absenteeism or recurring absence of students from their educational institution can have negative consequences such as inability to adapt with the learning process, *"The challenges there, of course, if there's high tide here at the school, they won't come. So, when the children don't come, they can't adapt to the learning process for the day. Let's say there are three days of high tide; they won't attend school for three days as well."*

Limited Space for Activity. Educators are also challenged with *limited field space* as it restricts opportunities for hands-on, experiential learning. Many subjects, such as science, physical education, and outdoor education, rely on field activities to reinforce classroom concepts. For them, when space is limited, students may miss out on practical learning experiences.

Educator 5 said, *"We have a lot of challenges. Firstly, of course, the children should be able to come in, enter properly. Secondly, the regular activities they should be doing, they can't do them right away."* The educator emphasized, *"For example, we have activities, during high tide, they can't use our ground for P.E. They always have to stay inside the classroom."* and added another example, *"For example, We have lessons about ecosystems, and we no longer have a garden [because of high tides]. It's not like before when I could really take my Grade 3 students around our garden."*All of these factors collectively contribute to a diminished overall educational experience and can hinder students' preparedness for success in both their academic and professional endeavors.

Digital Access Disparities

Lack of Access to Technology. Not forgetting the *Access to Technology*. While online classes played a crucial role during the pandemic, educators also highlighted the challenges they faced with technology. Elementary Educators accentuated the aspect of *Digital Divide* such as ***Quality and Access of Technology.***

Educator 4 said, *"My class mostly has students with internet connections. So, as their adviser, I conduct online classes. Now, since the pandemic started, we use Group chats. That's where we send screenshots of the students' activities per subject."* While it may be true that online class offers an adaptive resolve, disparities may arise due to financial constraints. This is apparent by how the educator 6 responded, *"That's the big challenge, sometimes sending the tasks through messenger during high tide. Some parents don't have gadgets, so they can't see what the children should do. Sometimes, we send pictures or screenshots to make it easier for them to see. The problem is, some parents really don't have data or available gadgets to use."*

The section discusses strategies used and challenges faced in implementing different modes of teaching Elementary Educators in Hagonoy to address the effects of high tides on their teaching practices. Five main

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue IV April 2024

themes have been identified: *Flexible Mode of Teaching, Challenges in Strategy Implementation, Excelling Beyond Expectation, Contigency Plan Implementation, and Efficient Time Management in Education.*

Table 4: The extent high tides influence elementary educators' curriculum delivery and instructional methods

Domains	**Themes**	**Sub-themes**
The strategies the educators employed to mitigate the impacts of high tides on your teaching practices?	Flexible Mode of Teaching	(1) Education in the Digital Age; (2) Blended Learning; (3) Make-Up Shift
	Challenges in Strategy Implementation	(1) Internet Instability; (2) Student Non-Compliance; (3) Financial Constraints; (4) Parental Educational Support
	Excelling Beyond Expectations	(1) Exceeding 100% effort
The Specific techniques or resources Elementary Educators find particularly effective	Contigency Plan Implementation	(1) Personalized assessment; (2) Applying Personal Life Experiences to Classroom Activities; (3) Putting follow-up questions that is not internet-based.
	Efficient Time Management in Education	(4) Starting the class with a Diagnostic test; (5) Contingency Plan (1) Switching morning and afternoon classes; (2) Adjusting Educators' travel time.

Table 5 highlights the impact of high tides on elementary educators' curriculum delivery and instructional methods. Educators utilize a "Flexible Mode of Teaching" with strategies like "Education in the Digital

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue IV April 2024

Age," "Blended Learning," and "Make-Up Shift" to address high tide disruptions. Implementation challenges include "Internet Instability," "Student Non-Compliance," "Financial Constraints," and the crucial role of "Parental Educational Support." Educators respond with exceptional efforts, exceeding 100% effort in "Excelling Beyond Expectations."

Flexible modes of Teaching. In a coastal area prone to high tides, schools may need to have contingency plans in place to ensure that education can continue even during high tide-related disruptions. This could involve a combination of digital tools, blended learning approaches, and flexible scheduling to accommodate the needs of both students and teachers while ensuring their safety.

Education in the Digital Age. One of the reported sub-theme is (Adapting) Education in Digital Age. For educators, while traditional teaching methods remain valuable, the integration of video discussions can enhance the overall learning experience, making it more dynamic, engaging, and effective for kids.

Educator 1 said, *"You know, kids nowadays love watching videos, right? So, that's the modern trend in education now. It's not just about the teacher talking. Although the teacher's explanation is still necessary, they love [watching videos], see, they enjoy it."*

Blended Learning. Building upon the digital age another emerging sub-theme is Blended leaning, which is an educational approach that combines traditional face-to-face teaching with online or digital learning, and modular methods. As educators employed different strategies they have realized the successful outcomes of these approach.

Educator 1 explained, *"When it's high tide, we have our modular lessons. We send them modules to study at home. I also send videos. So, it's not just all written, but I also ask them to watch because kids nowadays are used to watching videos."*

Similarly, Educator 2 said, *"We resort to 'modular' when, for example, we have no classes. Usually, if there's high tide in the morning, we have classes in the afternoon. I give them activities to do at home and send them through GC. So, even if we have no face-to-face classes, the students don't stop learning.";* Additionally,

Educator 3 emphasized, *"Online check-ins for learners with Wi-Fi connection, but for others who do not have internet connection at home, there are group chats with the parents."*; Besides this,

Educator 5 explained, "*It's more advantageous [online] than modular to some extent because you can teach them, explain every lesson thoroughly. It's not like modular where they have to fend for themselves, even though they text us, it's not the same as having interaction, at least there's some interaction between the student and the teacher."*; Similarly,

Educator 6 elaborated, *"This is where our distance learning comes in. Sometimes, for example, if the students are able to go online, we set up online classes. But when it's really not possible, we just do modular. We provide them with modules or leave modules for them because there's a schedule for high tide. For example, if it's scheduled tomorrow at 3.9 or the water level is already high, we will go to their homes to leave modules for them to answer at home."*

Make-Up Shift. Educators also elaborated the crucial part of Make-Up Shift in mitigating the impacts of high tides as it prioritizes safety, continuity of education, and adaptability to environmental challenges.

Educator 5 said, *"Nowadays, we have 'make-up shifts'; we adjust the schedule. For example, if high tide is in the morning, sometimes we start classes at 10 or 11 o'clock until 5 o'clock. So, we adjust the schedule.*

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue IV April 2024

And if, for example, the weather is really bad, and there's high tide, we shift the class to modular learning – so we make it blended. Others, because some have the capability to go online like this, they can attend online classes."

Challenges in strategy implementation.

Implementing an educational strategy can pose challenges, with several obstacles and issues hindering the execution of strategic plans. Some emerging sub-themes include internet instability, student non-compliance, and limited or over-involvement parental educational support, which may impede the success of strategy implementation.

Internet Instability. Generally, Internet instability is a widely acknowledged obstacle that often stands out as one of the most common challenges in the implementation of blended learning. For educators, internet instability posed a threat in the learning continuity of the students.

Educator 1 said, *"Sometimes, the challenge is the connection. They would say, 'Teacher, it's weak. We don't have a connection.' So the challenge is the connection."*

Student Non-compliance. Relatedly, Internet instability can result in student non-compliance due to the disruptive nature of connection issues. Educators elaborated that 'Non-compliance' often results in incomplete assignments and educed participation in virtual classes or discussions making it challenging for educators to gauge students' progress accurately and provide timely feedback.

Educator 2 stressed, *"Not everyone does the tasks, not everyone answers, not everyone submits. That's the reason why it's difficult to make grades – you don't know where to get them since not everyone is cooperative."*

Financial Constraints. An additional challenge that educators reported is technology cost which can be an additional financial burden as 'Blended learning' often relies on digital tools and resources, which can be expensive to acquire and maintain.

Educator 6 accentuated,*"Online is also good, probably better than modular, but since not every child has a gadget, I think the best thing a teacher can do now is to provide modules because that's usually what we do when there's no face-to-face class."*

Parental Educational Support. This sub-theme encompasses the crucial role of Parental involvement in education. Incorporating flexible teaching strategies implies a shift towards distance learning. Hence, educators stressed that another challenge that they faced is the twin problem of *Parental Educational Over-involvement and Support Deficiency*.

On one hand, Educator 4 stated, *"The child's interest is also a challenge because maybe it's the parent who is studying, not the child. So, you are not sure if really the child is studying. Because the parents guide them, but since I'm not with them, I'm not sure if the pupils are learning by themselves, right? Maybe the mother is studying beside them."* Educator 4 added, *"Parents admit that when it comes to topics, especially in Grade 6, which is relatively more difficult; the lessons are challenging compared to the lower grades. So, what parents do, instead of getting stressed with the child's constant questions, they end up answering the questions themselves."*;

Likewise, Educator 2 also observed and stated, "*Not all pupils are the ones who are answering the modules, some of them are their parents. That's why even the answers may vary, they also copy them.";*

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue IV April 2024

Although this holds validity, educators stressed that another contributing challenge is when parents are unable to effectively teach their children at home due to a lack of education themselves.

Educator 3 said, "Some of the parents are not educated. So, they find it hard to teach their children. For example, in the module. They cannot explain the content of the module because the parents are not fully educated." All of these factors contribute to learning gaps,*"Yes, indeed, when we had face-to-face sessions, we conducted a diagnostic assessment. That's when the learning gap became apparent. The teachers worked doubly hard in teaching, through remedial sessions focusing on reading and numeracy during face-to-face classes."*

When asked if they have freedom in using teaching strategy and why they find it successful Educator 4 stated, *"Yes, because I prefer online classes for my children. Not all parents focus on the child when we send modules. Not everyone explains each lesson one by one. Most parents are working, and they just let their children handle the modules. Another thing I avoid is that some children are clever; they look at the key to correction at the back. For me, online classes are better because even if it's a computer, tablet, laptop, or cellphone, we still have a conversation and communication, although sometimes there are problems, of course, like weak internet connection. For me, online classes are the strategy I prefer. That's effective for my class."*

Educators Excelling Beyond Expectations

Educators Exceeding 100% effort. Educators surpassing the 100% mark epitomize unwavering dedication and a commitment that goes beyond their typical duties, all in the pursuit of ensuring their students' success and overall well-being. This exceptional effort extends beyond the confines of their job descriptions, reflecting a willingness to invest additional time, energy, and creative innovation to foster an optimal learning environment despite high tide and maximize opportunities for their students.

Educator 1 said: *"Oh, you're adding effort, if before you were giving 100%, add more, make it 101%. So, more effort, especially on the part of the teacher, because we really can't do anything, that's just how it is."*

Educators' Personalized Approaches in Teaching

Personalized assessment. It talks about evaluations to individual students, enhancing educational outcomes. This student-centered approach offers a more accurate assessment of capabilities, allowing educators to adjust teaching methods, ultimately deepening understanding and encouraging greater student responsibility and not just be too dependent with the available resources that they have which in their case: modules

Educator 2 said *"You are adding your personal touch by including questions that are not part of the module to ensure that they are not simply copying and pasting answers."*

Applying Personal Life Experiences to Classroom Activities. This idea revolves around the incorporation of students' real-life experiences, knowledge, and skills into educational activities within the classroom. The aim of the interviewed educators is to prompt students to establish connections between their personal life experiences and the classroom content, with the goal of making learning more relatable and captivating, ultimately facilitating a deeper grasp of the subject matter.

Educator 2 stated *"There are questions in the modules that are from the internet. It's really good to have those related to the life experiences of the children, so they can answer more effectively."*

Starting the class with a Diagnostic test. Evaluating students' current understanding and abilities in the subject matter provides teachers with valuable insights into individual strengths and areas that require

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue IV April 2024

improvement, enabling them to customize instruction for a more effective and engaging learning environment. This has helped educators to identify the learning gaps that they need to prioritize.

Educator 4 said *"Then, we started with a diagnostic test. That diagnostic test was a big help to the teachers because from there, in the diagnostic, we were able to identify and see the issues of the children."*

Efficient Time Management in Education

Switching morning and afternoon classes. This was done during high tide to prioritize the safety and convenience of both students and teachers, allowing uninterrupted learning even in the face of tidal flooding. This scheduling adaptation serves to minimize the risks and challenges tied to high tides, creating a more seamless educational environment.

Educator 1 said, *"If the high tide occurs early in the morning, we adjust, and we have a half-day. If the high tide happens in the afternoon, and it's time for dismissal, our classes are in the morning. So, either we shorten the period or make necessary adjustments. We are the ones adapting to the water because they can't adjust to us, right?"*

Adjusting Educators' travel time. This was practiced by educators to secure the safe and on-time arrival of teachers at their educational institutions, thus minimizing disruptions to the educational process resulting from tidal conditions. This change underscores the importance of educators' well-being and reliability, enabling them to deliver effective teaching and support to their students without being impeded by adverse weather-related challenges.

Four themes are identified: *Driving Force of Inspiration, Psychological and Emotional Management of Educators, Importance of Effective Leadership and Motivation*

Table 5: The Educators' coping strategies to deal with emotional and psychological challenge. This section discusses the Educators' coping strategies to deal with emotional and psychological challenge.

Domains	**Themes**	**Sub-themes**
Rewarding Experiences in teaching at coastal areas **Coping mechanisms or support systems of elementary educators to manage the emotional and psychological impacts of their work.**	Driving Force of Inspiration	(1) Unwavering Commitment of Parents; (2) Students' Resiliency and Dedication to learn; (3) Passionate Educators
	Psychological and Emotional Management of Educators.	(1) Seeking for advice; (2) Support received from colleagues, friends, and family members
	Importance of Effective Leadership	(1) Principal's dedication to well-being of school and its members
	Motivation	(1) Achievement motivation; (2) Self-determination; (3) Commitment to their profession.

Table 5 highlights the rewarding experiences in coastal teaching, this study results on key factors: parent commitment, student resilience, and passionate educators. Strategies for emotional management include seeking advice and support from colleagues. Coping mechanisms for educators involve effective leadership

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue IV April 2024

and motivational factors like achievement and commitment to their profession.

Driving Force of Inspiration.

Unwavering Commitment of Parents. One of the emerging theme can be attributed to *Parental Commitment.* Educators elaborated that the unwavering commitment of parents to ensure their children attend school despite challenging conditions inspires and motivates teachers by acknowledging the importance of education and reinforcing their shared purpose in fostering students' success.

Educator 4 said, *""Fulfilling? It's when we see the great support, the full support of the parents. Here in Teodora, you can see that when the water is high, the parents still carry their children. That becomes your drive, that becomes your motivation. Even if it's high tide, the parents carry their children, so in return, of course, we find ways to make sure that the children use their time properly."* As a matter of fact, parents are willing to contribute to improvement by actively engaging in initiatives like school pathways. Educator 5 said, *"Like that, the Parent-Teacher Association (PTA) initiates projects to elevate the pathway."*

Students' Resiliency and Dedication to learn. Educators also highlight and have seen *students' resiliency and dedication to learn* as positive aspect as they believed this shows the students' willingness to come to school despite high tides it signifies their dedication to education, resilience, and their role in promoting a culture of learning in their community.

Educator 3 said, "*What I see here is that even when it floods, the children wear boots. They really want to reach school even if there's flooding, even during high tide. That's where you see their eagerness, and I am happy despite the struggles they face just to come to school."* In the same way, Educator 6 said, *"Okay, so here, the aspect is probably like ours, where we had face-to-face classes even with significant flooding, we don't get overwhelmed because sometimes, despite the high water, they can still come. It warms the heart to see them learning even with water around us."*

Passionate Educators. Passion fuels motivation. Educators elaborated that Passion in teaching is a valuable quality, particularly in schools prone to high tides, as it empowers educators to motivate and inspire students and create a positive educational experience despite challenging conditions.

Educator 2 said, *"I became a teacher because I wanted to be a teacher. I wanted to contribute, I wanted to create children; to mold children into successful leaders in the future."* Likewise, Educator 5 reflected and stated, *"Even in our situation, whatever it is; but we still fight. It's like we're still giving our best. We are very happy that our objective for that day, we were able to impart to them, and they also learned what we should teach them. Even in a physically challenging environment, we provided them with quality education, right?"*

Psychological and Emotional Management of Educators Seeking for advice.

One of the reported sub-theme is *seeking advice.* From the data, educators' emotions were managed with the help of asking and considering their colleagues' advises most especially during periods of heavy workloads.

Educator 6 said *"Of course, when we're here at school, the first thing we do is talk to our colleagues. We vent out our frustrations and problems. When we discuss things at home, of course, with our spouses, they also provide insights— we seek their help or ask for suggestions on what we can do when we have significant issues with the children or with our work."*

Support received from colleagues, friends, and family members. This theme was also evident from the transcript that has been coded by the researchers. Upon analyzing the data it was found out how family members, colleagues, and friends serve as a support to educators' way of managing their stress on their

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue IV April 2024

workloads. Also, it was found out how educators that travel with their friends and eat out with their workmates relieve the stress they are feeling. According to the participants, spending time with their friends, workmates,and family members allow them to forget what is going on inside the four corners of their rooms.

Educator 1 said, *"My coping mechanism is to travel. I go with my friends. Those are the people I share my gossip with— my friends. Usually, the ones I share a building with, we've formed a relationship as if we're not just co-teachers."*

Educator 5 also said, *"First, your family, and then the seniors above you and your senior colleagues in service, so it's also possible with other younger teachers."*; In addition,

Educator 6 said, *"We can also vent our frustrations or discuss our heavy challenges with the principal, especially when it comes to disciplining the children. At home, we also talk about things with our spouses."*

Importance of Effective Leadership.

Principal's dedication to well-being of school and its members. Most of the participants shared that their principals play a very important role in their life. They could really feel the support of their principal and their principal does make their learning environment more bearable. Moreover, they also stated that it feels good to feel supported and seen by your superior.

Educator 2 said, *"For me, in my personal life? Of course, the school faculty, the support of the principal, the support system, right? The principal and the co-workers. Because it has a huge impact on a teacher's life when they know that there is a leader who understands where they are, their situation."*

Additionally, Educator 4 said, *"Perhaps the support of each other, especially the principal, is significant. It's different because Ma'am Glecy is a different kind of supporter to her teachers, very pro-teacher."* The same educator added, *"When she senses that we are having a hard time with reports, she would say, 'Alright, focus on that first—whether it's online, modular, blended, or face-to-face—then we'll deal with the other things later.'"*

Motivation

Achievement motivation. Under this sub-theme, participants were very vocal about what motivates them to keep going despite what is going on around them as educators. Also, this serves as a reminder for them to keep doing their responsibilities because there are students who rely on them.

Educator 3 shared, *"Keep going and don't harm others just to rise. As they say, if it's meant for you, it's really meant for you. Just do what you can, and you will achieve what you want, granted to you by your Lord as long as you do what is right and good to others."*

Self-determination. The transcripts revealed how determined and resilient teachers are when it comes to doing their job. It underscores the significance of volition and self-regulation in driving educators' motivation. Based on the interview with educators, having this certain aspect elevates their general well-being.

Educator 3 emphasized, "*What's important is that we don't become the cause of other people's problems."* The educator also added, *"This is my hashtag, 'Part of the solution,' to make a positive impact."*

Similarly, Educator 6 mentioned, *"What are the strategies? So, becoming a positive thinker."*

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue IV April 2024

Commitment to their profession. This sub-theme sums up the willingness of the educators to go to school despite the negative impact of high tide. From most of the responses of the participants, the willingness to teach despite the obstacles of most educators can be felt. Educator 6 expressed, *"We need to fulfill our duty at work by providing what is right for the children. The water is deep, but we plunge in just to teach them."*

DISCUSSION

The lived experiences of six (6) elementary educators in Hagonoy, Bulacan, during high tides were the primary focus of this qualitative study. The researcher collected information about the effects of high tides on the learning environment for students, the difficulties in providing a consistent education, the methods and difficulties encountered in putting various teaching modalities into practice, the rewarding feelings associated with teaching in coastal areas, and personal adaptation and teaching practices. Through compelling sub-themes that demand immediate attention, a thorough examination of the lived experiences in elementary education reveals the impact of high tides on the physical learning environment. The learning environment appears to be compromised by everything from the disruption in transportation, which is evident in students' limited mobility and a subsequent decline in enrollment due to accessibility challenges, to the discomfort experienced by students among corroded or rusted school furniture and slippery surfaces. The problem is made worse by the overcrowding of classrooms that are not flood-resistant, which results in the underutilization and unused use of important space and lowers the standard of education as a whole. The difficulties presented by failed initiatives by governments highlight the need for all-encompassing solutions to address these urgent issues.

The goal of the study is enhanced by the seamless alignment of this narrative with the findings of Valencia et al. (2019). Their results support the adoption of an innovative approach to Disaster Risk Reduction (DRR) education. The study suggests an all-encompassing approach that includes making DRR a required subject for all students, training DRR instructors at the basic education level, using current and accurate resources, and taking an interdisciplinary approach that incorporates both social sciences and physical/natural sciences. It also highlights how important educational institutions are in fostering a culture of safety. The similarity between our results and the research conducted by Valencia et al. (2019) points out the need for immediate action and authority in enhancing elementary school resilience to environmental impacts, particularly those posed by high tides.

There is a complex relationship between the impact of high tides on the curriculum and teaching strategies used by elementary school teachers. The conventional landscape of teaching and learning is disrupted by the observable impact of high tides on an evident degradation in educational quality, which is characterized by low academic performance, increased student absence rates, and limited activity areas. This implies that teachers should actively modify and customize their teaching strategies. In addition, there is an immediate concern with digital access disparities, which include issues with technological accessibility as well as variations in internet quality. In the age of digital learning, these differences have a big impact on how teachers use technology in the classroom. To put it simply, elementary school teachers' curricula and methods of instruction are greatly impacted by high tides. Despite significant environmental barriers, this influence compels them to take adaptive measures to close learning gaps and ensure equitable education. This narrative aligns seamlessly with the insights brought to light by Francisco et al. (2020), who meticulously explore the experiences of educators in coastal schools. Their research unveils a spectrum of challenges, encompassing impediments linked to secure travel, constraints in communication methods, deficiencies in instructional resources, and the economic circumstances faced by students. These findings accentuate the seriousness of the situation, emphasizing the urgent need for strategic interventions to fortify the resilience of elementary education in the face of environmental challenges posed by high tides.

Third, the strategies employed by educators to mitigate the impacts of high tides on their teaching practices.

Under the theme "Flexible Mode of Teaching," sub-themes such as "Education in the Digital Age," "Blended Learning," and "Make-Up Shift" are highlighted, shedding light on the various approaches used to adapt to high tide disruptions. The second theme, "Challenges in Strategy Implementation," delves into the hurdles faced during the implementation of these strategies, including issues like internet instability, student non-compliance, financial constraints, and the importance of parental educational support. Additionally, personal adaptations by educators are addressed, focusing on themes like "Educators Excelling Beyond Expectations," highlighting their exceptional efforts, and "Educators' Personalized Approaches in Teaching," showcasing personalized assessment, integration of personal experiences into classroom activities, the use of visual aids, non-internet-based questions, diagnostic tests, and remedial classes. Furthermore, efficient time management in education is discussed, featuring sub-themes like switching morning and afternoon classes and adjusting educators' travel time. These discussions highlighted the creativity of educators in the face of high tide disruptions, as well as their achievements and unique challenges when adjusting their teaching strategies. Smith et al.'s (2018) study substantially supports our findings by offering an alternative review of educators' strategies for adjusting to dynamic educational environments. Which, in line with our study of the strategies teachers employ when high tides interrupt their classes, both studies emphasize the significance of flexibility and creativity in teaching techniques.

The fourth research objective was to determine the psychological and emotional issues experienced by elementary school teachers in floods and understand their coping strategies. The interview transcripts showed that participants described being under stress as they coped with high tides that made it hard for them to provide a consistent educational experience for their students, although the thematic analysis did not explicitly express any idea related to psychological and emotional challenges facing educators. The research emphasizes the sources of motivation driving educators in challenging educational environments. The research points out where educators' motivation is drawn from in tough learning conditions. For example: Teachers are inspired when parents demonstrate commitment to taking children to school despite difficult circumstances. Additionally, teachers are motivated by the resilience shown by students against flooding while trying to create an atmosphere conducive to learning. Intrinsic motivation among teachers, competent principal leadership, collegial support, and passionate personalities contribute further to their determination. All these things form together into one big picture.

Also, the findings of this study align with Cadiz-Gabejan et al. (2022) who investigated the Lived Experiences of Teachers in Coastal Areas regarding Modular Instruction amid the COVID-19 pandemic. They reported that teachers involved in the study regardless of their age, gender, and duration of service were devoted, dedicated, and enthusiastic about teaching even through different modes of teaching. The most suitable approach to instruction was the use of modules in coastal areas. According to the research, adaptation to new normal education called for acceptance by teachers from coastal areas for this unique instructional setup, and the acquisition of time management skills among others like adaptability inventiveness resourcefulness accountability patience, and love for work.

Theoretical Triangulation

Social ecological model of Bronfen brenner (year) supports the analysis of disturbances in elementary education as a result of high tide. This helps to show how it impacts on different levels such as: microsystem challenges (transportation, uncomfortable facilities), mesosystem issues (unsuccessful government initiatives affecting the educational environment), exosystem considerations (broader societal context), macrosystem reflections (government policy challenges), and the evolving chronosystem. Therefore, this framework highlights the complexity of these problems and the necessity of comprehensive solutions.

As the researchers turn to investigate how high tides affect classroom delivery in primary schools, Cultural-Historical Activity Theory or CHAT; Vygotsky, 1978 is an appropriate framework. Thus through this lens,

it can be seen that the educational landscape is shaped by both social and cultural factors. The interconnection between apparent decline in quality education linked to students' absences among other factors is associated with learning's social and cultural dimensions that are convoluted. Changes in traditional teaching approaches brought about by working with floods provide a perfect example for teachers who will have to change their style considering the current setting of society while addressing cultural challenges too often arising from such events. A crucial point to underscore is the fact that teaching in the digital age is highly influenced by high tides on how teachers operate, and such challenges include issues of limited access to technology and poor quality of the internet. This means that despite environmental challenges, there are still some efficient ways through which teachers can deal with knowledge gaps and adjust their approaches for better results.

In addition, this paper takes a look at strategies that educators employ when dealing with the impacts of high tide based on Activity theory (Vygotsky, 1978). Such sub-themes as Education in the Digital Age under the "Flexible Mode of Teaching" stage further explain these interactions in a more dynamic manner. Another aspect captured in this section is Challenges in Strategy Implementation—where community dynamics have been emphasized through issues such as internet instability. The adaptations that Educators Excelling Beyond Expectations make mirror the rules and division of labor from this perspective. In other words, Activity Theory helps understand why teachers act so dynamically towards challenges created by high tides. With these insights from the Activity theory, we find it imperative to also consider systems theory when looking at how teachers' actions contribute to the resilience of the educational system against environmental factors.

Activity Theory, which highlights inter connectivity and adaptability of systems, is therefore complementary to Systems Theory focuses on the micro-level, i.e. provides a broad picture of the various interactions within the educational system. This outcome is consistent with Self-Determination Theory principles (SDT; Deci & Ryan, 2000). In SDT it was argued that motivation springs from three central psychological needs: autonomy, competence, and relatedness. Specifically, teachers' emotional well-being, support from parents, and encouragement from peers are important contributors to feelings of connectedness. Similarly, the Conservation of Resources (COR) theory could be employed to explain how educators in difficult conditions actively seek and maintain valued resources like social support from colleagues or a good leader in order to keep them motivated at work and have their psychological well-being sustained (Hobfoll et al., 2018). These theoretical perspectives offer a way through which the intricate factors affecting motivation as well as resilience can be analyzed and understood within education.

Summary

This qualitative study examines the lived experiences of six primary school teachers during high tides in Hagonoy, Bulacan. It uses in-depth interviews to examine how teaching and learning is affected by high tides, what makes teaching effective, various modes of instruction employed by educators and personal adjustments made. In addition, it brings to light some positive aspects about teaching near the sea. A research from Valencia et al. (2019) explains that Disaster Risk Reduction (DRR) education needs to be transformative. This also looks into how teachers are able to cope with high tides as they undertake their curriculum delivery, pointing out that adaptability is key to addressing diminishing educational quality and digital access inequality. The issues raised by Francisco et al. (2020) further highlights the challenges faced by educators working on coastal schools. The study explores different teaching strategies such as flexible modes of instructions and implementation challenges which correspond with Smith et al.'s work (2018). The educators in this case are seen to be experiencing emotional and psychological problems that are associated with their work as well as connections with Cadiz-Gabejan et al. (2022), who conducted a study on the Lived Experiences of Teachers in Coastal Areas towards Modular Instruction Amidst the Covid-19 Pandemic. This study deploys theoretical triangulation through Social Ecological Model, Cultural-Historical

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VIII Issue IV April 2024

Activity Theory (CHAT) and Self-Determination Theory (SDT), which are helpful in giving out a full coverage of varied difficulties and motivating factors that teachers have when high tide becomes a problem.

CONCLUSION

The main objective of this study is to examine the experiences and perspectives of elementary school teachers in Hagonoy, Bulacan with respect to recurring high tide events. The findings indicated the following:

Primarily, considering the consequences of high tides on the physical learning environment, significant challenges arose from transport problems, and unfavorable learning environments among others that are supportive of a need for comprehensive solutions.

Secondly, how high tides affect curriculum delivery and instructional processes by educators leading to a decrease in educational value and digital inequalities has been brought out through this study.

Thirdly, while exploring strategies that teachers use to mitigate the effects of high tides; themes like "Flexible Mode of Teaching" and "Challenges in Strategy Implementation" were identified.

Further still, the research looked into the emotional and psychological struggles faced by instructors during times when tides are high and revealed how educators must have a support system set up including self-motivation from within so as not only overcome these but also remain motivated even in such an education sector.

Moreover, the study's theoretical triangulation was further enriched using the Social Ecological Model (SEM), Cultural-Historical Activity Theory (CHAT), Activity Theory (AT), Systems Theory (ST), Self-Determination Theory (SDT) and Conservation of Resources theory (COR). Theoretical perspectives like these are useful tools for scrutinizing the array of factors that motivates and makes students resilient in their studies.

In sum, this paper contributes important findings to the existing literature on educational problems faced by teachers living in coastal regions during high tides. It stresses the pressing need for strategic initiatives and holistic approaches to strengthening primary education's ability to bounce back from adversity.

RECOMMENDATIONS

After a thorough assessment and consideration of the foregoing findings and conclusions of the study, the following recommendations are presented.

To be at par with flexible teaching methods, digital literacy and innovative approaches, elementary educators should undergo continuous professional development for effective strategy implementation during environmental disruptions.

Government input is essential for remediating failed programs and resolving issues to do with accessibility and quality of education. The government can use the outcome as a guide in deciding on allocating resources towards building cyclone resistant classes, improving means of transport infrastructure, and maintaining school facilities regularly due to high tide impacts.

In order to close the digital divide, the Department of Education (DepEd) must make sure that educators and learners are treated equally when it comes to using technology, particularly during high tide periods that

interfere with the learning process. DepEd should also set up psycho-social support programs, with a focus on creating a supportive work environment, to help educators deal with emotional and psychological difficulties.

Finally, future studies could investigate the experiences of educators in coastal areas facing high tide disruptions compared to those in non-coastal areas. This could be useful in identifying particular problems and solutions that fit particular geographic settings. Furthermore, broadening the research's focus to include international comparisons and investigating how educators in coastal regions of various nations handle environmental challenges would offer a more comprehensive viewpoint on practical approaches. Together, these suggestions seek to create an environment that is resilient, flexible, and supportive so that students can successfully navigate environmental challenges in the classroom.

REFERENCE LIST

1. Adarayan-Morallos, P., & Morallos, P. (2018). Weathering the School Climate: Role of Teachers' conflict Management Styles. ResearchGate. https://www.researchgate.net/publication/329982767 Weathering the School Climate Role of Teachers' Conflict Management Styles
2. Akhtar, M. N., Anees, M. T., & Bakar, E. A. (2020). Assessment of the effect of high tide and low tide condition on stream flow velocity at Sungai Rompin's Mouth. IOP Conference Series, 920(1), 012014. https://doi.org/10.1088/1757-899x/920/1/012014
3. APA PsycNet. (n.d.). https://psycnet.apa.org/record/1989-98594-000
4. Apigo, A., David, CN., Ponce, CJ., Limin, IN., Vicente, J., Montemayor, JM., Pabalate, JR., Rojas, NE., & Sampang, VJ. (March 2018). The Phenomenological Study of the Lived Experience of the Teacher living in Coastal Areas – – Studocu. https://www.studocu.com/ph/document/mary-the-queen-%20college/bace-in-accountancy/the-phenomenological-study-of-the-lived-experience-of-the-teacher-%20living-in-coastal-areas/26841843
5. Ardales, G. J. Y., Maria, V. O., Espaldon, M. V. O., & Zamora, O. B. (2016). IMPACTS OF FLOODS ON PUBLIC SCHOOLS IN THE MUNICIPALITIES OF LOS BAÑOS AND BAY, LAGUNA, PHILIPPINES. ResearchGate. https://www.researchgate.net/publication/320490757 IMPACTS OF FLOODS ON PUBLIC % 20 SCHOOLS IN THE MUNICIPALITIES OF LOS BANOS AND BAY LAGUNA PHILIP % 20 PINES
6. Bell, E., & Bryman, A. (2006). The Ethics of Management Research: An Exploratory Content analysis. British Journal of Management, 18(1), 63–77. https://doi.org/10.1111/j.1467-8551.2006.00487.x
7. Cadag, J. R., Petal, M., Luna, E. M., Gaillard, J., Pambid, L., & Santos, G. V. (2017). Hidden disasters: Recurrent flooding impacts on educational continuity in the Philippines. International Journal of Disaster Risk Reduction, 25, 72–81. https://doi.org/10.1016/j.ijdrr.2017.07.016
8. Cadiz-Gabejan, A. M., Mabubay, M. L., & Solis, A. P. V. (2022). Lived Experiences of Teachers in Coastal Areas toward Modular Instruction amidst the Covid-19 Pandemic. British Journal of Teacher Education and Pedagogy, 1(2), 58-73. https://doi.org/10.32996/bjtep.2022.1.2.7
9. Creswell, J. (2015). Research Design: Qualitative, Quantitative and Mixed Methods Approaches. Pearson Education Inc
10. Creswell, W., & Creswell, J. (2018). Research Design Qualitative, Quantitative, and Mixed Methods Approaches (5th ed.). SAGE Publication.
11. Gaikhorst, L., Beishuizen, J., Roosenboom, B. H., & Volman, M. (2016). The challenges of beginning teachers in urban primary schools. European Journal of Teacher Education, 40(1), 46–61. https://doi.org/10.1080/02619768.2016.1251900
12. How many participants for Quantitative usability studies: A summary of Sample-Size Recommendations. (n.d.). Nielsen Norman Group. https://www.nngroup.com/articles/summary-quant-sample-sizes/
13. How to achieve trustworthiness in qualitative research. (n.d.).

https://www.thefarnsworthgroup.com/blog/trustworthiness-qualitative-research#:~:text=Credibility%20is%20a%20measure%20of,well%20as%20their%20research%20methods.

14. Jamshed, S. Q. (2014). Qualitative research method-interviewing and observation. Journal of Basic and Clinical Pharmacy, 5(4), 87. https://doi.org/10.4103/0976-0105.141942
15. Lassa, J., Petal, M., & Surjan, A. (2022). Understanding the impacts of floods on learning quality, school facilities, and educational recovery in Indonesia. Disasters, 47(2), 412–436. https://doi.org/10.1111/disa.12543
16. LibGuides: Qualitative study design: Phenomenology. (n.d.). https://deakin.libguides.com/qualitative-study-designs/phenomenology
17. Luna, M. J. (2023). Challenges and Complexities of School Based Management: Level of Perception of the Pre-Service Teachers of Bulsu Hagonoy Campus. International Journal of Multidisciplinary Research and Analysis, 06(06). https://doi.org/10.47191/ijmra/v6-i6-79
18. Moseley, C., Desjean-Perrotta, B., & Utley, J. (2010). The Draw-An-Environment Test Rubric (DAET-R): exploring pre-service teachers' mental models of the environment. Environmental Education Research, 16(2), 189–208. https://doi.org/10.1080/13504620903548674
19. Munsaka, E., & Mutasa, S. (2021). Flooding and its impact on education. In Intech Open eBooks. https://doi.org/10.5772/intechopen.94368
20. Ordu, U. B.-A. (2021). The Role of Teaching and Learning Aids/Methods in a Changing World. In: New Challenges to Education: Lessons from around the World Bulgarian Comparative Education Society., Vol. 19 (pp. 210–216). BCES Conference Books. Sofia. https://files.eric.ed.gov/fulltext/ED613989.pdf.
21. Petal, M. (2017). Hidden disasters: Recurrent flooding impacts on educational continuity in the Philippines. www.academia.edu. https://www.academia.edu/81067695/Hidden disasters Recurrent flooding impacts on educati % 20 onal continuity in the Philippines
22. Pharm., J. (2014). Qualitative research method-interviewing and observation. PubMed Central, 5(4), 87-88. https://doi.org/10.4103/0976-0105.141942
23. PlanED Episode 2: Education in the face of climate change. (2023b, April 27). IIEP-UNESCO. https://www.iiep.unesco.org/en/planed-episode-2-education-face-climate-change14344#:~:text=Flooding%20and%20rising%20sea%20levels%20affect%20where%20people%20can%20live,education%20systems%20continue%20to%20function.
24. Resources, D. (2021). A history of the system of education in the Philippines – its implication for the present generation. *TeacherPH*. https://www.teacherph.com/history-system-education-philippines
25. Tolentino, C. (2017). Teachers' Experience of a Flood in Their School Community: Their Beliefs, Perceptions, and Thoughts About Practice.
26. Trochim, W. M. (n.d.). Qualitative validity. Research Methods Knowledge Base. https://conjointly.com/kb/qualitative-validity/
27. Valencia, M., Mohammad, A., Maryani, E., & Supriatna, N. (January 2019). Integration of Disaster Risk Reduction in the Curriculum of Philippine Educational Institution. https:doi.org/10.2991/aes-18.2019.104.
28. How to achieve trustworthiness in qualitative research. (n.d.-b). https://www.thefarnsworthgroup.com/blog/trustworthiness-qualitative-research#:~:text=Credibility%20is%20a%20measure%20of,well%20as%20their%20research%20methods
29. Das, P. K. (2010, March). CLIMATE CHANGE AND EDUCATION BANGLADESH. PreventionWeb. https://www.preventionweb.net/files/16355_climatechangeedbangladesh.pdf
30. Mudavanhu, C. (2014, December 5). The impact of flood disasters on child education in Muzarabani District, Zimbabwe. Mudavanhu | Jàmbá: Journal of Disaster Risk Studies. https://jamba.org.za/index.php/jamba/article/view/138/285
31. Lunativo. (2018, November 3). "Adaptation Strategies in Climate Change: Case of Sta. Cruz, Hagonoy, Bulacan" Maestro's Journal. http://sirejbulan.blogspot.com/2018/11/adaptation-strategies-in-climate-change.html
32. Smith, D. N. (2018, December). Teachers' Perceptions of Student Engagement in a Hybrid

Learning Environment. ScholarWorks | Walden University Research. https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=7223&context= dissertations

33. Admin. (2019, July 1). Role of teachers in education | Importance of classroom learning | Functions & duties of teacher | EXEED College. Exeed College. https://exeedcollege.com/blog/the-role-of-teachers-in-education/
34. Francisco, C. (2020, October 29). Sailing against the Waves: Challenges and Coping Mechanisms of Teachers Assigned in a Coastal School. Hc:33225| Humanities CORE. https://hcommons.org/deposits/item/hc:33225/
35. Resources, D. (2021, September 30). A history of the system of education in the Philippines – its implication for the present generation. TeacherPH. https://www.teacherph.com/history-system-education-philippines.
36. Varcas, M. (2021, December 13). Living Amid Flood In Hagonoy, Bulacan. OneNews.PH. https://www.onenews.ph/articles/in-photos-living-amid-flood-in-hagonoy-bulacan?fbclid=IwAR32aV0oCqdbOdgRYmE8p1NzvYTK2EvQBNMjyKT8F3soLnmeO88u4dfCNogaem ASCN bfet39kxxv3K WXrbqyQWDmGG7DJcseYEQw4 ql84kwRE-fCh9RrvisKqVQWuLacdL7Bmx4WZtV2ufeYPGT
37. Carter, C. (2022, August 11). High tide flooding will become increasingly common due to sea level rise. WGCU PBS & NPR for Southwest Florida. https://news.wgcu.org/2022-08-11/high-tide-flooding-will-become-increasingly-common-due-to-sea-level-rise
38. Philippineeducationhub.com. (2022, December 21). The history of education in the Philippines -. – For Filipino Educators and Learners. https://philippineeducationhub.com/?p=80#:~:text=Formal%20education%20was%20introduced%%2020to,th
39. Antonio, A. (2023, August 3). How Bulacan tricycle drivers rise above the coastal flood. RAPPLER. https://www.rappler.com/moveph/how-tricycle-drivers-bulacan-adjust-dwell-coastal-flood/
40. Santos, J. M. (2023, August 3). Understanding the impact of water dams on flooding. Pinoy Builders. https://pinoybuilders.ph/understanding-the-impact-of-water-dams-on-flooding/#:~:text=Once%20the%20limit%20of%20these,the%20areas%20of%20the%20waterways.
41. H, L. (2023, August 30). What is Phenomenological Research Design? — Delve. Delve. https://delvetool.com/blog/phenomenology
42. Mancini, M. (2023, September 8). What causes tides? high and low tides explained. HowStuffWorks. https://science.howstuffworks.com/environmentachelor-of-%20scienl/earth/geophysics/tide-cause.htm
43. Bello, R. P. (2023, November 1). Aerotropolis heightens disaster risks for Bulacan communities. RAPPLER. https://www.rappler.com/environment/aerotropolis-airport-heightens-disaster-risks-communities-%20bulacan/#:~:text=Subsidence%20and%20rising%20sea%20levels,communities%20vulnerable%20t%20o%20severe%20flooding
44. Moran, K., & Budiu, R. (2024b, January 30). How many participants for Quantitative usability studies: A summary of Sample-Size Recommendations. Nielsen Norman Group. https://www.nngroup.com/articles/summary-quant-sample-sizes/?fbclid=IwAR1vKgxVEY1qNJJi6FFsAApVxRuflJ407RuOG1Mwh0p7iz750BTxWx–xk