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**TEACHING STRATEGIES OF ELEMENTARY SCIENCE TEACHERS:  
FACILITATING FACTORS AND CHALLENGES DURING  
IN-PERSON CLASSES AS BASIS FOR  
ENHANCEMENT PROGRAM**

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**ABSTRACT**

This narrative inquiry qualitative research was conducted to assess the teaching strategies, facilitating factors and challenges encountered during the in-person classes. The researcher employed in-depth interview guide questionnaire which was distributed to the (twenty) 20 purposefully selected elementary Science teachers of Valderrama District and was analyzed using the thematic content. The study revealed that participants used hands on learning, lecture method, 5Es model, differentiated activities, explicit teaching, collaborative learning, and ICT as teaching strategies. Active participation, modeling, use of ICT, various instructional materials, motivation, formative test, enough time, and skill of the teachers were all facilitating factors. Furthermore, teachers faced challenges due to the lack of learning materials, time consuming, behavioral issues for teachers and problems for learners, challenges in using ICT, and require more engaging strategies. The researcher recommended that similar study be undertaken that focuses on the teaching strategies that can increase learners' academic performance.

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**Keywords:** *teaching strategies, elementary science teachers, in-person classes*

## INTRODUCTION

Education helps people and societies that allow them to become all-around thinkers and strengthens their capacity for problem-solving by equipping them with knowledge, abilities, skills, and attitudes.

This happens in schools. School, plays a very important role in every person's life and in child development. It promotes interest and empowers every child with opportunities to become successful individuals. Aside from learning academics, a child also learns other important life skills such as cooperation, good behaviors, unity, sharing, and responsibility. Through all these, the child is able to function in the community with care.

Teaching and learning process is the most important activity for learners and teachers in school. It helps the learners develop mentally and adjust with the behavioral changes. The teacher's primary responsibility in this situation is to quickly and effectively turn students into active learners (Munna & Kalam, 2021).

Additionally, a classroom can become a vibrant, instructional learning environment through the use of excellent teaching practices (Joshua, 2022). That is to say, a teacher may accomplish much more to improve and facilitate students' learning with the help of excellent

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teaching tactics. Good and quick learning outcomes are favorably impacted by effective teaching practices (Raba, 2017).

It is the duty of educators to instruct well and support learners growth in order for them to receive a high-quality education. Their responsibilities encompass guiding class discussions, fostering students' curiosity about learning, and organizing and putting together stimulating exercises to promote an effective learning environment. The discovery of certain behaviors that facilitate good teaching and learning is a crucial subject in education. Since education is a transformative process, it is important to employ effective teaching strategies and approaches that align with students' needs in order to provide them the guidance they need (Khan et.al,2021)

Thus, teaching strategies were employed to enhance student learning and lessen the negative consequences of the pandemic-related shift to online and modular learning. According to (Ayua, 2017), a teaching strategy is an instructional method that teachers use to create or develop activities that help students learn the material and achieve the learning objectives. It is a method of instruction, technique, or plan of talks or activities that are used in the classroom to accomplish certain learning and teaching goals.

The delivery of various concepts and types of knowledge necessitates the employment of various teaching strategies. Because students learn differently, it is crucial for educators to create engaging lesson plans that take into account the context, the learners' learning preferences, and the subject matter.

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Teaching for several years, the researcher observed that educators experienced difficulties in implementation of teaching strategies since most of those required enough time and efforts thus needed financial support. For this reason, the researcher conducted the study to identify the facilitating factors and challenges faced by the science teachers as they implemented the teaching strategies that served as the program's foundation.

## MATERIALS AND METHODS

### Research Methodology

This chapter presents the research method, research design, participants of the study, research instrument, data gathering procedures, and data analyses.

### Research Method

Narrative inquiry research method under the qualitative investigation was utilized in the study. It was used to gain deeper understanding of the facilitating factors and challenges experienced by science teachers during the implementation of teaching strategies as basis for enhancement program. An interview guide was used to gather the said information.

Qualitative research is the process of collecting, analyzing, and interpreting non-numerical data, such as language. Qualitative research can be used to understand how an individual subjectively perceives and gives meaning to their social reality. The data is defined as non-numerical data, such as text, video, photographs, or audio recordings. This type of data can be

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collected using diary accounts or in-depth interviews and analyzed using grounded theory or thematic analysis (Bhandari, 2023). Because the study focused on the answers of the participants, qualitative research method fits best.

A narrative inquiry collects participants' responses and retells the participants' views by combining the researcher's experience with those of the participants to produce a collaborative narrative (Creswell, 2003).

The intent of the study was to illicit participants' responses by using narrative inquiry approach. A narrative inquiry was needed to provide in-depth information on the facilitating factors and challenges experienced by Science teachers in applying the different teaching strategies in the in-person classes as basis for enhancement program.

## Research Design

The study used a qualitative research design using an in-depth interview guide that contained questions that were asked of the participants during the face-to-face interview. The interviewer allowed the participants to answer the questions freely to obtain the information needed. Open-ended interview questions typically result in a discovery-oriented methodology. It aims to provide in-depth information that clarifies a person's viewpoint, experiences, emotions, and the meaning they derive from a specific topic or issue (Rutledge & Hogg, 2020).

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## Participants of the Study

The participants of the study were a total of twenty (20) science teachers teaching Grades 3 to 6. In each grade level, there were five (5) participants chosen from the Valderrama District, Antique, for the school year 2022-2023.

The participants are teachers who used to teach science subjects and were selected to be part of the study.

## Sampling Design

The selection of the participants was based on the strategy referred to as, "purposeful selection" (Maxwell, 2005). It is a selection strategy in which particular settings, persons, or activities are selected deliberately in order to provide information that can't be gotten from other choices.

## Research Instrument

The research instrument used in the study was an in-depth interview guide.

The questionnaire guide has four-item questions which allowed participants to answer freely and was used as guide during the interview. The questionnaire contained items about teaching strategies, facilitating factors and challenges of Science teachers during in-person classes.

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The interview guide was encoded and was given personally to the twenty (20) selected participants who are the science teachers. Right after answering the questionnaire, data was analyzed and interpreted as well.

### **Validity of the Research Instrument**

The validity of the interview guide refers to the accuracy of the measurement. Validity shows how a specific test is suitable for a particular situation (Nicolas, 2021). The researcher-made interview guide was submitted to the adviser for review and revision. After the corrections were considered and acted upon, the prepared interview guide was then be forwarded to the panel of experts for content and face validation. The guide was considered valid after it was checked by the panel of experts. Revisions were made after validation by the panel of experts and all their suggestions and corrections were incorporated. The final draft was submitted again to the panel for approval. The final interview guide was encoded and was given to the participants.

### **Data Gathering Procedures**

The interview guide questions were made based on the study. The research adviser provided guidance in formulating the aforementioned questions. The researcher let the validators review the guide , and the questionnaire's full validation was approved by the dean.

After the interview guide was found valid, it was encoded in a Google form and was reproduced. Through a letter sent to them, the researcher requested approval from the district-level principal, the head of the school, and the participants. The interview guide was provided to

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the participants in person after being approved by the district's in-charge, the principals of the chosen schools, and the participants themselves. The questionnaire that served as a guide for the interview was given to the participants with plenty of time to complete it. Their preferred time was chosen to schedule the interview. The aforementioned interview is recorded and only used for study.

### Data Analyses

The data gathered were analyzed using the thematic approach. Emergent themes were identified and discussed comprehensively.

Thematic analysis is a method for identifying, analyzing, and reporting patterns (themes) within data (Braun & Clarke, 2006). The goal of a thematic analysis is to identify themes, i.e. patterns in the data that are important or interesting, and use these themes to address the research or say something about an issue. This is much more than simply summarizing the data; a good thematic analysis interprets and makes sense of it (Clarke & Braun, 2013).

## RESULTS AND DISCUSSIONS

### Summary

The qualitative study was conducted to determine the elementary science teachers teaching strategies and its facilitating factors, and challenges during in- person classes as bases

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for enhancement program in the District of Valderrama, Province of Antique during the school year 2022-2023.

The study used a qualitative research design using an in-depth interview schedule. The interviewer allowed the participants to freely answer the series of questions about a certain issue which aimed to get the main issue in a social context through their responses.

The participants of the study were the twenty elementary science teachers. The researcher-made interviewer guide was utilized in the study. The researcher- made guide was validated by the experts determining its face and content validity using the 8-Point Criteria of Goods and Scates. The data gathered were analyzed and interpreted using Thematic analyses.

The following are the findings of the study:

The teaching strategies used by science teachers as enhancement program are hands on learning/ experiential learning, lecture method, 5Es model, differentiated activities, explicit teaching, collaborative learning, and use of ICT.

The ways of implementing the teaching strategies includes: routine, hands-on learning, lecture, modeling, and cooperative learning, using real objects, use of ICT, differentiated learning, and Inquiry-based instruction.

The facilitating factors used by teachers in imposing the teaching strategies are active participation, modeling and demonstration, use of ICT, various instructional materials, motivation, formative test, enough time, and skill of the teachers

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The challenges encountered by teachers in the use of teaching strategies are more engaging teaching strategies, inadequate background in the subject matter, teachers behavioral issues, behavioural problems of the learners, barriers and challenges in using ICT, inadequate learning materials, and time consuming.

## Insights

Based on the findings of the study, the following insights were gathered:

Teachers play a vital role in the academic performance of the learners. Their varied teaching strategies and different ways in using these depend on how appropriate it is to their respective topics. The act of teaching should be able to focus on enabling students to learn more than they would on their own, and to improve the possibilities that each student can realize their potential regardless of their situation in life.

The goal of imposing the teaching strategies is for the learners to give value to education. Through the use of various teaching strategies, they may learn to appreciate the purpose and importance of education in their life.

Teaching strategies are very helpful not only for the improvement of the academic performance of the learners but also for its development of their potential in performing different tasks inside and outside the classroom.

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The challenges that teachers faced as teaching strategies were implemented and practiced in the classroom helped them identify what should be used to ensure that students' academic performance keeps advancing.

## RECOMMENDATIONS

The following recommendations may be considered:

Students are encouraged to be participative in every activity or task provided by the teacher. Their cooperation will make a classroom interaction interesting and fun while learning is on-going.

The teaching strategies should be planned well by the teachers and supported by the school head so that it will yield good results.

School heads should encourage teachers to be more patient in imposing various teaching strategies for this will boost the learners' confidence to participate in every task provided to them. Their guidance and understanding is very helpful to improve the academic performance of every learner.

District supervisors may adopt the best teaching strategies in schools all over the district to attain improved academic performance of learners among schools.

A similar study should also be conducted within the Schools Division of Antique but should focus on the best teaching strategy that can improve the academic performance of learners.

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