INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue III
February 2025
Available online at https://www.instabrightgazette.com

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SPECIAL SCIENCE ELEMENTARY SCHOOL (SSES): ITS IMPORTANCE TO LEARNERS' HIGH SCHOOL RESEARCH PERFORMANCE AS BASIS FOR ENHANCEMENT PROGRAM

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ABSTRACT

This descriptive-qualitative study determined the importance of Special Science Elementary School (SSES) on high school research performance in Sto. Domingo - SSES, Iloilo City, during the 2024-2025 school year. A total of 16 graduates from SSES were selected for the study. A researcher-made interview schedule was used. Based on the results of the in-depth interview with the participants, it was found out that the importance of learners' learnings from SSES program were familiarization of research activities, enhancement of research performance, and learning basic knowledge in research. It was found out that the connection of learners' learnings from SSES program in preparation for their high school research were similar research activities, team work, similar research process, and research format. It was also found out that the challenges encountered by high school learners on their research that believed could be addressed by introducing these skills at the elementary were application of scientific method through hands-on activity, enrichment of research subject, access to science laboratory, and exposure to research format and process.

Keywords*: Special Science Elementary School (SSES), research performance, enhancement program*

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ISSN: 2704-3010
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INTRODUCTION

The Philippine Constitution emphasizes the importance of education, science, and technology for national development and human progress.

To further support and strengthen these constitutional mandates, the Department of Education launched the Special Science Elementary Schools (SSES) Project in 2007.

One of the special features of SSES program is the additional elective subject like Research and/or Computer in all grade levels. These subjects encourage critical thinking, develop research skills, foster curiosity, enhance self-confidence, and provide early career exploration. By engaging in research, students develop transferable skills like problem-solving and communication, making them more competitive in college applications and the job market.

Early exposure to research activities fosters critical thinking and problem-solving skills, as inquiry-based learning encourages students to actively engage with content, leading to a deeper understanding and improved critical thinking capabilities. Learners who engaged in inquiry-based learning significantly enhanced their critical thinking abilities (Wale & Bishaw, 2020).

A recent study added and highlights that project-based learning (PBL) not only enhances academic performance but also significantly fosters critical thinking and problem-solving skills among students. The research indicates that PBL encourages students to engage actively with their learning, which in turn stimulates their confidence and self-learning abilities (David, 2024). This supports the idea that engaging students in research-oriented activities,

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ISSN: 2704-3010
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such as PBL, can lead to improved academic achievements and the development of essential skills necessary for success in various fields.

Mercer et al. (2017) highlighted that elementary students involved in research projects tend to improve their communication skills. They learn to articulate their ideas, present findings, and engage in discussions, which are crucial for their overall development.

This early exposure to research especially on collaborative work helps build social skills and the ability to work effectively with others.

More so, research in elementary school may not immediately translate to high-level research skills, but it can lay a foundational base for future success. Research in elementary school may not be standardized, and there might be variations in quality and implementation. By studying the impact, people can understand if early exposure to research fosters a stronger interest in research, improves critical thinking skills, or enhances information literacy, all of which can contribute to better high school research performance.

Studying the impact can identify potential gaps in current programs and inform the development of best practices for teaching research in elementary school. This can ensure that students are receiving a high-quality research experience that prepares them for more advanced research in high school.

The impact of elementary research can demonstrate the value of early exposure to research and provide evidence for policymakers and educators to support the integration of research into the elementary curriculum. This can lead to greater investment in research programs and resources for elementary students.

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Thus, the department may strengthen the SSES program by providing schools with functional learning facilities such as laboratory apparatuses and equipment, enough computer sets for learners and capacitate teachers through seminar workshops and trainings.

MATERIALS AND METHODS

Research Methodology

This chapter presents the research method, research design, participants of the study, data-gathering procedures, research instrument, and data analysis used in this study. The purpose of this study was to determine the importance of Special Science Elementary School (SSES) Program on learners' High School Research Performance as basis for program enhancement.

Research Method

The research method utilized in this study was descriptive method under qualitative research using in-depth interview.

The descriptive method of research is a systematic approach used to observe and document various variables and conditions affecting a particular phenomenon without manipulating those variables. Its primary goal is to provide a detailed account of the characteristics, trends, and correlations within a specific population or situation (Singh, 2023).

The interviewer with the interviewee during the was allowed to sit together in a distance and think about the series of questions about a certain issue. The aim was to get the

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main or the necessary views of the participants in a certain issue in a social context through the responses of the participants to the questions.

Research Design

The study used phenomenological research design. Phenomenology can be considered a philosophical approach to undertaking qualitative research. The goal of phenomenology is to understand how others view the world, and how this view may vary from commonly held views by focusing on a person's subjective interpretations of what she experiences. Phenomenology is done by interviewing the subjects to learn their impressions, and is frequently used in such fields as psychology, sociology, and social work.

Phenomenology focuses on the study of structures of consciousness as experienced from a first-person perspective. The central aim of phenomenology is to investigate and describe phenomena as they are consciously experienced, without resorting to theories about their causal explanations or being influenced by unexamined preconceptions (Biemel & Spiegelberg, 2024).

Participants of the Study

The total number of participants is 16, in which 8 learners were from public secondary schools and 8 came from private secondary schools. These 16 purposely chosen learners were graduates of SSES and officially enrolled in public and private high schools in Iloilo City.

The 8 participants coming from the public schools were purposely taken from Oton National High School, Philippine Science High School, Iloilo City National High School, and Special Education-Integrated School for Exceptional Children (SPED-ISEC).

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The 8 participants coming from the private schools were purposely taken from Colegio Del Sagrado Corazon De Jesus and other private schools in Iloilo City offering research as a subject.

Sampling Design

Purposive sampling design was used in the study. Purposive sampling according to Berg and Lune (2021) is a non-probability sampling technique commonly used in qualitative research. This method involves intentionally selecting participants based on specific characteristics, knowledge, experiences, or other criteria relevant to the research objectives. The goal is to gather information-rich cases that can provide deeper insights into the phenomenon being studied.

Research Instrument

The research instrument utilized in the study was a researcher-made interview schedule.

The interview schedule has three major questions focusing on how the learners assess the importance of their learning from SSES program, how the learners connect their learning from SSES program in preparation for their high school research, and the challenges they encountered on their research that believed could be addressed by introducing these skills at the elementary.

Voice and video recorder were also used for data gathering and documentation depending upon the permission of the participants.

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Validity of the Research Instrument

Prior to the determination of the validity of the interview schedule made by the researcher, the adviser, Dean of the Graduate School then a panel of jurors who were considered for their expertise in the field of research, testing and assessment, and English, were requested to validate each question for review and modification.

Validity refers to the appropriateness, meaningfulness, correctness, and usefulness of inferences that a researcher makes. In the context of content-related evidence of validity, it is essential that the content and format of a measurement tool are consistent with the definitions of the variables and the sample of subjects to be measured. This consistency is crucial for validating the items in a questionnaire, ensuring that the instrument accurately assesses the intended constructs (Creswell & Creswell, 2022).

Comments, corrections, and suggestions of the panel of validators regarding the interview schedule were considered using the appropriate form of Good and Scates (Appendix A).

Data Gathering Procedures

Approvals were secured from the adviser, Dean of the Graduate School, Office of the Schools Division Superintendent, Office of the District Supervisors, School Heads, and individual participants to authorize the researcher to carry out the study. To ensure accessibility and convenience for the participants, the researcher personally visited the schools, communities, or other suitable locations to conduct the interviews.

Before proceeding with the interviews, the researcher encouraged participants and

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ISSN: 2704-3010
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their parents to sign a waiver or permission form consenting to their involvement in the study. During the in-depth interviews, both voice and video recorders were used to accurately document the participants' responses. Following multiple interview sessions, the researcher systematically compiled and organized all collected data.

Data Analyses

The information gathered was analyzed using thematic approach.

Thematic analysis is the process of identifying patterns or themes within qualitative data. It is a widely used method that allows researchers to interpret and understand the meanings behind the data collected from interviews, focus groups, and other qualitative sources (Braun & Clarke, 2023).

The aim of a thematic analysis is to identify themes, such as 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 summarizing, analyzing and interpreting the data gathered and making sense of it. The phases are familiarization of data, generation of codes, combining codes into themes, reviewing themes, determine significance of themes, and reporting of findings.

RESULTS AND DISCUSSIONS

The study aimed to assess the importance of Special Science Elementary School (SSES) on high school research performance in Sto. Domingo - SSES, Iloilo City, during the 2024-2025 school year.

A total of 16 participants, including 16 graduates from SSES, were selected for the study.

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A researcher-made interview schedule was used, with four specific questions asked.

The questionnaire was validated by a Panel of Experts, and permissions were obtained from various stakeholders.

Data was collected, analyzed, and interpreted using a thematic approach, ensuring the validity of the study.

The following are the findings of the study:

Based on the results of the in-depth interview with the participants, it was found out that the importance of learners' learnings from SSES program were familiarization of research activities, enhancement of research performance, and learning basic knowledge in research.

It was found out that the connection of learners' learnings from SSES program in preparation for their high school research were similar research activities, team work, similar research process, and research format.

It was also found out that the challenges encountered by high school learners on their research that believed could be addressed by introducing these skills at the elementary were application of scientific method through hands-on activity, enrichment of research subject, access to science laboratory, and exposure to research format and process.

Based on the findings, the following insights were drawn:

The SSES program appears to have a profound impact on learners and develop competent researchers who can contribute meaningfully to their fields.

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The SSES program equips learners with a comprehensive set of skills and knowledge that directly supports their preparation for high school research and provide a strong foundation to succeed in their academic pursuits.

Challenges at the elementary level can significantly enhance learners' readiness for high school research by providing a proactive approach not only benefits individual learners but also contributes to a more scientifically literate society.

CONCLUSION

In the light of the findings and insights arrived in this study, the following recommendations are forwarded:

The SSES program can further empower learners, equipping them with the skills, knowledge, and confidence needed to excel in their research pursuits and make meaningful contributions to their fields.

The SSES program can further provide learners with a robust foundation for high school research and academic pursuits not only to enhance learners' research skills but also cultivate a lifelong passion for inquiry and learning.

Research in elementary education must be given priority and attention to make everyone ready for high school research. This proactive approach not only benefits individual learners but also fosters a culture of inquiry and scientific literacy that is essential for the advancement of society.

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A copy of a proposed sustainability program must be shared to the Schools Division Office, District office, and to other school heads for their information and guidance, and if necessary be implemented in their respective schools to better improve the implementation of their own initiate school program.

A similar study is also encouraged to be conducted in the future, consider other variables not used nor mention in the study, and if possible, a quantitative research in line with the level of implementation of the program, acceptance, and the effect of the program to learners' achievement.

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