THE SCIENTISTS IN THE MAKING: AN IN-DEPTH UNDERSTANDING OF STEM STUDENTS' MOTIVATIONS AND PERCEPTIONS TOWARDS SCHOOL SCIENTIFIC PURSUIT IN PADRE GARCIA INTEGRATED NATIONAL HIGH SCHOOL

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Executive Summary

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The field of science has been a significant contributor to human progress and development in all aspects of life. However, despite the many benefits that science has to offer, there has been a significant decline in the number of students who are interested in pursuing careers in science. STEM students' perception of the relevance of scientific pursuit to their future career is often hindered by a lack of understanding of the value and application of scientific knowledge in different fields. This study focused on exploring the perceptions of students in the STEM strand regarding scientific pursuits. It aimed to investigate how students perceived these pursuits, understood their motivations towards engaging in them, and determined their views on the relevance of scientific pursuits to their future careers and personal goals. By gaining insights into students' perspectives, this research aimed to inform educational practices and curriculum development in order to align STEM education with students' interests and aspirations.

It made use of interpretative phenomenological analysis in investigating and explaining phenomena and their relationships. It involved nine (9) STEM students' from STEM students from the three (3) sections of STEM in Padre Garcia Integrated National High School which are the Newton, Pasteur, and Einstein, who were selected via purposive and convenience sampling. One-on-one interview using self-constructed semi-structured interview schedule were used to gather the necessary data. After thorough interpretation and analysis, six major themes emerged that constituted to the motivations and perceptions of subject: enlightening intellects towards scientific engagement and development, fostering innovation and surmounting obstacles for scientific advancement, the quest for personal fulfillment and transcedence towards scientific pursuit, the triumph of intellectual exploration and tenacity, the implication of knowledge-related wisdom on triumph and evolution, and determinants influencing knowledge path.

Based on the conclusions drawn from the study on Grade 11 STEM students' motivations and perceptions towards scientific pursuits, the most important recommendation is to establish mentorship programs and partnerships with industry professionals. These mentors can guide and support students in their scientific endeavors, sharing experiences, insights, and inspiring them to overcome challenges. Such collaborations enhance students' understanding of real-world applications of scientific knowledge, build professional networks, and create opportunities for internships or research collaborations. By implementing mentorship programs, educators can provide valuable guidance to students and help them excel in their scientific journeys.

Keywords: STEM students, motivations and perceptions towards scientific pursuits, IPA