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Columban College The Journal *(CC The Journal)*
Volume13 (June 2024) ISSN 1655-3713
https://doi.org/10.69502/tqxc4609
A Multidisciplinary Research Review produced by
CCI-RIKDO-*Research Innovation and Knowledge Development Office*

PERSPECTIVE OF TEACHERS ON THE LEVEL OF ACQUISITION OF SCIENCE PROCESS SKILLS AND LEARNING DIFFICULTIES OF JUNIOR HIGH SCHOOL STUDENTS

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Abstract: *Science process skills are vital to successful acquisition of competencies. Hence, using convergent parallel mixed method design the researcher conducted a study on the perspective of teachers on the level of acquisition skills of Science process skills and learning difficulties of junior high school students. The data were treated using Percentage, Mean, Pearson r, Analysis of Variance, and Thematic Analysis. Most of the respondents were bachelor's degree holder, served for 5-9 years, and have attended 0-4 trainings related to teaching science. The perspective of teachers on students' level of science process skills stipulated a general description of "Sometimes". Overall, the respondents strongly agreed on the factors responsible for the difficulty in learning Science. Based on the interviews, two (2) recurring themes were teachers design hands-on, inquiry-based activities, and teachers directly teach and model specific Science Process Skills. There are substantial links between teachers' perception on students' levels of acquiring science process skills and the factors contributing to the challenges faced in learning science subjects. Furthermore, the perceived impact of factors contributing to the challenge of learning science subjects does not significantly differ when grouped on their profile.*

Keywords: *Science Education, Science Process Skills, difficulty in learning Science, junior high schools, Science Teachers, Mixed Methods, Olongapo City*

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INTRODUCTION

Students need critical thinking and knowledge to solve daily difficulties. Cognitive capabilities enhance information creation, problem-solving, and outcome formulation in science. These crucial skills help pupils digest life experiences. (Kamila et al., 2024) emphasize the importance of integrating local resources into science learning, which can significantly enhance 21st-century skills and cultural awareness among students. Aydoğdu (2016) defines SPS as skills that enhance learning and teaching through discovery-based techniques, student participation, responsibility, and practical study comprehension. Yılmaz (2015) suggests that science education can increase children's environmental awareness and curiosity. Mueller & Bentley (2006) emphasize the importance of pluralism in science education, asserting that prioritizing diverse frameworks in pedagogy can help rectify misconceptions students may have about the nature of science itself. Students need science because it emphasizes practical experiences to build skills and stimulate the scientific discovery of new insights. Science is learned via experience and problem-solving. Baharuddin et al. (2023) delineate basic and integrated science process skills, noting that basic skills allow students to engage in the scientific method while integrated skills enable them to conduct complex investigations. Hypothesis development, variable control, experimentation, model formulation, data interpretation, and operational specification are integrated process skills. (Ecevit & Kaptan, 2022) found that argumentation-based inquiry approaches significantly contributed to the development of science process skills among teacher candidates. Teachers should emphasize a skill-based curriculum. Science process skills are crucial in Western education. Turkish biology, physics, and chemistry courses have improved. Science process skills in secondary science instruction have received attention recently. Understanding science, developing scientific knowledge, posing and evaluating problems, and finding answers are essential in a world of rapid technology and easy information access. It needs more than teaching students existing

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information and how to handle non-life issues to prepare them for the future (Rillero, 2018). Science education wants better science literacy. Students can explore their environment and produce scientific concepts with science process skills. Thus, teachers must know these skills. Ron et al. (2022) point out that the landscape of research surrounding problem-solving in mathematics teacher education remains fragmented. (Ramos et al., 2022) emphasize the role of formative research in strengthening disciplinary knowledge among educators. Their findings suggest that when teachers are engaged in research activities, they are more likely to implement and reflect critically on their teaching practices, thus enhancing their overall effectiveness in science instruction. Aybek (2017) advises schools to hire teachers who can teach interested children, actively participate in conversations, listen to other opinions, analyze and prioritize information, investigate alternate solutions, and critically evaluate different viewpoints. Birman et al. (2020) found that topic-focused professional development increases instructors' competence.

Due to the volume of information, education today emphasizes learning above teaching. By improving Science Process Skills (SPS), comprehension-based learning helps people address new challenges. Science Process Skills (SPS) lets students apply science to real-life situations through hands-on experiences. Science Process Skills are needed to learn science and technology. These traits make learning easy and exciting. Somantri (2018) revealed that 92% of students score below the Minimum Completeness Criteria (KKM) with an average score of 53.78, corroborating the interview findings. More expertise with experiments and lab work could clarify this. A lack of practical lab experiences in science education has brought on students' misconceptions and subpar science performance. Indonesia ranked 62nd out of 72 countries in science, according to the 2016 PISA. According to the report, Singapore's educational system is superior to that of North America, Europe, and South America (Berlianto, 2016). The skills of scientific procedures must be taught to students in order to tackle everyday problems. This study is supported by Rini's (2017) findings, which point to numerous causes of poor science process abilities, notably in experimental capabilities. To comprehend scientific concepts, one must possess science process skills. Scientific inquiry is based on the scientific process. Task execution, data collection, use, and problem-solving all require the application of scientific process abilities (Aktamis & Ergin, 2018). Scientific process skills include observing, inferring, anticipating, formulating hypotheses, planning experiments, utilizing concepts, and communicating, Andini et al. (2018) underscore the necessity of explicitly teaching these scientific process skills within high school curricula. Students with science process skills have more meaningful learning chances and improved cognitive development (Tilakaratnea & Ekanayakeb, 2017). Process skills are necessary for learning science (Harlen, 2020). Science process abilities stimulate learning and enhance higher-order thinking (Lee et al., 2022). A few international studies on science process skills in science education are Monhardt and Monhardt (2016) and Harrell and Bailer (2014). The importance of integrating these skills into teacher education programs is reaffirmed by Özdemir and Dikici (2016), who investigate the relationship between scientific process skills and scientific creativity. Their findings affirm that engaging students in developing these skills fosters both cognitive and creative capacities necessary for scientific inquiry (Sabthazi et al., 2024). Malaysian scholars Salbiah (2015) and Saat (2014) studied similarly. Before SARS-CoV-2 was found and enhanced community quarantine (ECQ) was established, DepEd addressed severe deficiencies in high-quality elementary education. Low national PISA scores prompted this approach. Nearly 22% of Filipino students achieved two or more on the 2018 PISA scientific competence questionnaire. These pupils can understand well-known scientific phenomena and evaluate a result using only factual knowledge from elementary scenarios. Most students failed level 5 or 6, indicating they required more excellent science skills. The OECD (2019) says students can apply their scientific knowledge and skills to tackle

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unforeseen situations. Ciriaco (2019) reports that the Philippines has the lowest literacy rate among 79 OECD members and affiliates. Their math and science results were second-to-last. DepEd's "Sulong Edukalidad" program aims to improve education quality under existing conditions. The program focuses on four critical areas: a thorough assessment and reform of the K–12 curriculum, improved professional development for school administrators and teachers, and collaboration among all stakeholders (DepEd, 2021). Develop students' attitudes, actions, and reasons now. Without these larger capacities and qualities, students will be unprepared for the difficulties they and their society will face (Miller, 2017).

The lack of practical activities in scientific education has led to student misconceptions and poor science performance (Widyaningsih, 2020). While ASEAN Integration began in 2015, the Philippines adopted the K–12 Basic Education Curriculum. The proposed curriculum modification emphasizes formative assessment and requires a significant change in classroom assessment methods. This exam encourages students to reflect on their academic growth and helps teachers improve their teaching—Department of Education Order 8 from 2015. In science, "hands-on" performance tasks require students to manipulate items, measure findings, and observe their experiments. Practical activities help develop procedural skills for specific tasks. Freeman et al. (2014) emphasize the significance of inquiry-based learning as a pedagogical approach that encourages the development of scientific process skills. In inquiry-based, hands-on science education, "doing" science means applying the scientific method. Science process skills are adaptable across scientific fields and reflect scientists' behavior (Padilla, 2020). Students exercise scientific process skills to understand how scientists solve challenges in and out of the classroom. To create an intervention strategy, this study examined junior high school students' perceptions of their science process abilities and science topic difficulty in Olongapo City public schools from 2023 to 2024. Science process skills studies could have been numerous. Science subject difficulty and students' science process skills tend to be unrelated. Science education gains knowledge from this research on teaching and student assessment. This type of study is worth traversing after the pandemic period of education to fully understand the necessity of improving science process skills in students to improve academic performance and reduce science learning difficulties. This project aims to develop practical solutions to relevant issues (Darmaji et al., 2020). The researcher believed that developing science process skills would lay the groundwork for integrated skills. Science fundamentals include observation, categorization, prediction, measurement, inference, and communication.

FRAMEWORK

The present investigation was grounded in the constructivist theory. The present theoretical framework revolves around the fundamental notion that learners assume an active role in their educational trajectory, wherein knowledge is constructed through the assimilation and interpretation of personal experiences. As events unfold, individuals introspect, contemplate their encounters, and assimilate novel concepts into their cognitive framework. Learners engage in the cognitive process of developing schemas, which serve as mental frameworks for organizing and structuring acquired knowledge. Prominent scholars, namely Dewey, Piaget, Vygotsky, Gagne, and Bruner, have profoundly influenced the model under consideration in the field of education and have made significant contributions to the development of learning theories. The "Constructivist Learning Theory" is a widely recognized and influential framework for acquiring science process skills. The theory, which has gained significant traction in science education, posits that learners engage in an active process of knowledge construction by leveraging their prior experiences and understanding.

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Supporting the importance of constructivist methodologies, Tanjung et al. (2023) conducted a meta-analysis illustrating the positive effects of constructivism-based learning strategies, particularly project-based learning (PBL), on student learning outcomes. The conceptual framework's input variables are the level of acquisition of science process skills of the students and factors responsible for the difficulty in teaching and learning primary science subjects. The students' acquisition of science process skills includes observing, measuring, classifying, inferencing, communicating, and hypothesizing. Lastly, a survey questionnaire gathered the factors responsible for the difficulty in learning science subjects. The output of the study is an intervention plan that may be developed to enhance the students' acquisition of science process skills and lessen the difficulty in learning science subjects.

OBJECTIVES OF THE STUDY

This study was conducted to: (1) determine the perceived level of acquisition of Science process skills of the students be assessed by their teachers; (2) assess the perceived extent of influence of the factors responsible to difficulty in learning science; (3) discuss how do teachers integrate the teaching of Science Process Skills in their lesson; (4) identify significant relationship between the perceived level of acquisition of Science process skills of the students as assessed by their teachers and the extent of influence of the factors responsible to difficulty in learning Science subjects; (5) determine significant variations on the perception of the respondents on the students' levels of acquisition of Sciences process skills and the extent of influence of the factors responsible to difficulty in learning Science when grouped according to their profile; and (6) develop an intervention plan to enhance the level of acquisition of Science process skills and lessen the difficulty in learning Science subjects of the students.

METHODOLOGY

Research Design

The research design used in this study was a mixed method of descriptive-correlational and qualitative thematic analysis to analyze the data gathered further, mainly convergent parallel mixed method design. Kim et al. (2016) document the characteristics of qualitative descriptive studies in their systematic review, indicating that this methodology is particularly useful for generating comprehensive summaries of participants' views through various data collection methods, such as interviews and focus groups. (Vaismoradi et al., 2013) detail the utility of descriptive research in qualitative studies, emphasizing its role in content analysis and thematic exploration. Their work reveals that descriptive approaches allow researchers to maintain a relatively low level of interpretation while still providing valuable insights into participant experiences. Neergaard et al. (2009) discuss the relevance of qualitative descriptive designs in healthcare research, specifically emphasizing the importance of gathering factual, insightful information that reflects the perspectives of participants. Aggarwal & Ranganathan (2019) describes descriptive-correlational research design as involving the collection of data to address inquiries regarding the current state of a phenomenon. Thematic analysis, according to Crosley (2021), looks for patterns to reveal meaning. To put it another way, it involves examining the recurring themes and patterns in your data set to determine its underlying significance. It is important to note that your research questions and objectives will largely guide this approach, so it is not necessary to find every theme in the data; instead, concentrate on the most important elements that are relevant to your research questions.

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Research Site

This study was conducted in the Junior High Schools in the Division of Olongapo City during the School Year 2023-2024.

Participants

The participants of this study were Junior High School Science teachers in the Division of Olongapo City who have been teaching Science for five years. The researcher employed total population sampling to gather the most comprehensive data about the subject matter and provide a succinct plan of action to improve the present situation.

Instrumentation

The researcher modified the questionnaire from the study of Manes et al. (2022), Acquisition of Science Process Skills of Junior High School Students among Private Schools of Olongapo City and Osuolale (2014)—problems of Teaching and Learning Science in Junior Secondary Schools in Nasarawa State, Nigeria. In order to ascertain the instrument's dependability, consultations were conducted with professionals in the field of Science education, including Science Master Teachers and a School Head, who was a Science teacher for fifteen years, to establish face and content validity. Further, the thesis adviser and the Dean of Columban College Graduate School were consulted. The instrument in this study further underwent a face validity test; a Kendall's W test of concordance was used to determine whether the specialists/professionals who validated the instrument significantly agreed with the validation result. This is based on the result of Kendall's W of 1.000, which has a significant value less than the alpha value of 0.01. Moreover, the instrument underwent test-retest reliability coefficient, Cronbach's alpha Interreliability consistency test, and Tukey's Nonadditivity Test. The result shows that a Pearson correlation of 0.992 with a significant value of 0.001 shows excellent reliability at an alpha level of 0.01. The computed value of 0.983 indicates the respondents' responses to the items have excellent internal consistency and reliability. In addition, an F value with Tukey's Test for Nonadditivity of 2.626 at a p-value of 0.106 implies that the questionnaire items for each construct are significant enough to determine the reliability of the responses. All the results in this section are computed and tabulated using IBM SPSS Statistics 26.

Ethical Considerations

The researcher demonstrated great diligence in upholding the respondents' entitlement to privacy and confidentiality. The informed consent approach ensured that the respondents voluntarily participated in the study, fully comprehending the potential risks and benefits. Moreover, the researcher adhered to the ten ethical criteria outlined by Bryman and Bell (2017). 1.) No damage was inflicted on the study respondents. 2.) The preservation of research respondents' dignity was prioritized. 3.) Prior to the commencement of the study, the researcher requested complete consent from the respondents. 4.) The privacy of research respondents was safeguarded. 5.) The research data was securely stored. 6.) The identities of individuals and organizations involved in the study were kept confidential. 7.) The research's goals and objectives were accurately represented without misrepresentation or exaggeration. 8.) All affiliations, funding sources, and potential conflicts of interest were disclosed. 9.) All communications related to the research were conducted with integrity and transparency. 10.) Avoiding misleading information or biased presentation of the primary data findings was ensured.

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Data Collection

Following the acceptance of the Thesis Proposal, a formal letter was sent to the school division Superintendent to request authorization to implement the data collection phase. The protocol for data collection was specified in the permission to mitigate any challenges associated with the research endeavor. The respondents were given a consent letter indicating that their involvement in the study was entirely voluntary. The results and findings were disseminated to the Department of Education, the schools, and teacher respondents so that various improvements could be made with a solid foundation.

Statistical Techniques

The researcher utilized various statistical methodologies to examine and evaluate the data in this study. The data collected from the questionnaire responses were compiled, organized, and analyzed. The following tools were applied. First, the percentage was used to ascertain the proportion of survey respondents aligned with the particular standards and scales outlined in the questionnaire. Next, the mean was used to determine each item's mean and final weight based on the respondents ' responses to the questionnaire. Also, Analysis of Variance (ANOVA) was used to determine if there are significant variations in the respondents' perception of the student's acquisition of science process skills and the extent of influence of the factors responsible for the difficulty in learning Science when grouped according to their profile. Moreover, Pearson r was used to determine if there is a significant relationship between the students' perceived level of acquisition of Science process skills as assessed by their teachers and the extent of influence of the factors responsible for difficulty in learning Science subjects. Lastly, a thematic approach was applied in the analysis of interview responses.

RESULTS AND DISCUSSION

Profile of the Participants

About the highest level of educational achievement, it is noteworthy that a significant proportion of participants, precisely 44% of the total, possess a Bachelor's Degree. A considerable proportion of the cohort has acquired credits in a Master's Degree program, amounting to 31%. Additionally, a noteworthy percentage of 20% has completed a Master's Degree. Moreover, it is worth noting that a relatively lower proportion of individuals, specifically 3%, have successfully obtained academic credits towards a Doctorate Degree. In contrast, a slightly smaller percentage, namely 2%, have completed the requirements and been awarded a Doctor's Degree. All of the participants in the study have yet to complete any postgraduate degree units or obtain a Doctorate Degree from another program. According to Abellana and Abadiano (2020), from the perspective of educators, numerous advantages exist associated with pursuing a graduate teacher education program. These benefits encompass the development of novel teaching skills, the expansion of one's knowledge base, the enhancement of self-confidence, the application of current educational research into practical teaching methodologies, and the potential improvement of job security through increased remuneration. Regarding teaching experience, the data reveals a diverse distribution among participants. Expressly, 44% indicated having 5-9 years of experience. Furthermore, 27% of participants reported having 10-14 years of teaching experience, followed by 14% with 15-19 years of experience. Lastly, 15% reported having 20-24 years of teaching experience. Jia & Nasri (2019) provide a systematic review regarding teachers' competence in implementing culturally responsive pedagogy. The study emphasizes the necessity for educators to develop their pedagogical skills to address the diverse needs of students, thereby fostering a more inclusive learning environment. About the enhancement of

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professional skills and knowledge through structured training programs, it is observed that a significant proportion of participants (56%) have engaged in a range of 0-4 training sessions. A notable minority of individuals (25%) have participated in a slightly higher number of training sessions, specifically 5-9 sessions. Furthermore, a smaller fraction of participants (10%) demonstrated a higher level of commitment by attending 10-14 training sessions. A smaller proportion of individuals, specifically 9%, have engaged in 15-19 sessions. Furthermore, a mere 2% of the population have participated in more sessions, precisely 20-24. Based on the available data, there needs to be more individuals who have participated in 25 or more training sessions. The investigation by Oyebimpe and Köprülü (2022) elucidated the distinct advantages of consistent teacher training.

Levels of Acquisition of Science Process Skills

The students' levels of acquisition of science process stipulated the following results: observing (1.49 – rarely); measuring (1.61 – rarely); classifying (1.78 – sometimes); inferencing (2.33 – sometimes); communicating (2.36 – sometimes); and hypothesizing (2.41 – sometimes). The mean score for students' science process skills is 2.00, indicating an average level of proficiency across the observed skills. This summary indicates that some regions of student performance consistently exhibit proficiency while others exhibit potential for improvement. Providing focused teaching interventions and additional practice in specific skill areas can enhance the overall development of students' science process skills. Recent research studies have focused on various aspects of Science Process Skills (SPS). Maranan's 2017 study found that fundamental SPS and a good science mindset increase cognitive performance. Another 2021 Kimba et al. study examined SPS and students' attitudes toward physics. This study shows how SPS affects physics students' attitudes. Juhji and Nuangchalerm (2020) also studied students' SPS and scientific attitudes on technology pedagogical subject knowledge. This study examined how students' SPS may affect their technology views in the setting of scientific education pedagogy. In 2021, Noroña compared the existing situation of laboratory resources and their link with SPS. This study examined how laboratory resources affect student SPS development and use. Finally, Gastar and Linaugo (2022) examined how senior secondary pupils learn SPS through alternate methods. This study examined how different learning methods can help senior secondary pupils learn SPS. SPS's association with cognitive performance, attitudes toward certain subjects (e.g., physics), technology, pedagogical subject knowledge, laboratory resources, and alternative learning modalities are examined in these recent studies.

Factors Responsible for The Difficulty in Learning Science Subjects

The data illustrates the factors respondents perceive as accountable for the challenge of acquiring knowledge in science subjects. The mean value of 3.61 indicates a high level of agreement among respondents regarding these challenges. The 2014 WAEC Examiners Report on Sciences found that most students fail practical tests due to a lack of basic scientific experimentation skills. The results suggest that a lack of instructional resources makes teaching science challenging. They said schools did not need more course materials, and getting them took a lot of work. Since science textbooks were challenging to provide, they adopted other teaching aids. For science training, posters, graphs, overhead projectors, and VCDs are essential. Thus, visuals aid science instruction.

Teachers Integrate the Teaching of Science Process Skills in their Lesson

After the interviews, two emerging themes were gathered: teachers design hands-on, inquiry-based activities that allow students to engage in the scientific process actively, and teachers directly teach and model specific Science Process Skills to students. In inquiry-based learning, teachers help

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students create questions, arrange investigations, and draw conclusions based on evidence, according to Gholam (2019). With student-driven inquiry, inquiry-based learning improves communication, critical thinking, and problem-solving. Teaching pupils how to apply scientific methods effectively requires modeling SPS and clear guidance. Aslan and Kılıç (2022) simplify complex abilities and demonstrate SPS applicability through guided demonstrations. Students learn SPS with scaffolded coaching and guided practice from teachers. They give students organized SPS practice in a friendly environment and provide feedback, direction, and assistance to enhance skills (Boonmoh & Jumpakate, 2019). Through peer contact and collaborative learning, teachers foster idea exchange, teamwork, and cooperative problem-solving. (Sifelani et al., 2022) conducted a study on the coping strategies of adolescents in the aftermath of Cyclone Idai and found that participants benefitted from group discussions during the reconstruction of their experiences. Jobs (2024) says teachers improve SPS lessons with multimedia and technology. Interactive simulations, virtual labs, digital tools, and multimedia presentations may create immersive learning environments and inspire students to apply scientific concepts. Teachers use formative evaluation to track students' SPS progress and provide prompt feedback. Observation, questioning, informal evaluations, and self-reflection can assess students' comprehension and skill development. After receiving feedback, they may adjust their lesson plans (Pang, 2020). You (2017) state that teachers integrate SPS across subjects and disciplines to stress science's interdisciplinary character and its connections to other subjects. They improve comprehension and transferability by letting students utilize SPS outside of science class.

Significant Relationship Between the Perceived Level of Acquisition of Science Process Skills of the Students as Assessed by their Teachers and the Extent of Influence of the Factors Responsible to Difficulty in Learning Science Subjects

The findings indicate substantial and diverse links between students' perceived levels of acquiring science process skills and the factors contributing to the challenges faced in learning science subjects. The correlations between science process skills and students' challenges in learning science vary in strength and nature, ranging from low to moderate positive correlations. This indicates the intricate nature of the relationship between these two factors. This underscores the significance of simultaneously addressing these skills while mitigating the identified challenges to enhance science education effectively. At the local level, research was conducted on the correlation between interest in science, academic achievement, and attitude. Morales (2016) incorporated an indigenous language in the instruction and acquisition of scientific principles in physics. The intervention motivated the students to learn and develop an interest in science. As a result, students developed an intense inclination towards thoroughly analyzing physics concepts, resulting in a favorable disposition towards science and improved academic performance. Furthermore, a study conducted by Ebora (2016) revealed that the utilization of various sequences of activities in science led to a notable improvement in the academic performance of students in physics class.

Correlation Between Level of Acquisition of Science Process Skills and Factors Responsible to Difficulty in Learning Science Subjects

	Computed r	P - Value	Interpretation	Decision ($\alpha = 0.05$)
Observing and factors responsible to difficulty in learning Science subjects	+ 0.271	0.036227	Low Positive Correlation	Reject H_o (Significant)
Measuring and factors responsible to difficulty in learning Science subjects	+ 0.453	0.000279	Moderate Positive Correlation	Reject H_o (Significant)
Classifying and factors responsible to difficulty in learning Science subjects	+ 0.39	0.002068	Low Positive Correlation	Reject H_o (Significant)
Inferencing and factors responsible to difficulty in learning Science subjects	0.72	0.00001	Moderately High Positive Correlation	Reject H_o (Significant)
Communicating and factors responsible to difficulty in learning Science subjects	0.61	0.00001	Moderately High Positive Correlation	Reject H_o (Significant)
Hypothesizing and factors responsible to difficulty in learning Science subjects	0.44	.000435	Moderate Positive Correlation	Reject H_o (Significant)

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Significant Variations on The Perception of The Respondents on The Students' Levels of Acquisition of Sciences Process Skills when Grouped According to their Profile

Overall, the analysis indicates that the perceived impact of factors contributing to the challenge of learning science subjects does not significantly differ when the respondents are categorized based on their highest level of education, years of experience as master teachers, or the number of training sessions attended about teaching science. All the p-values for the grouping variables are more significant than the chosen significance level ($\alpha = 0.05$), resulting in the acceptance of the null hypothesis for each grouping variable. The teacher's training is a crucial prerequisite and integral element in all educational activities, encompassing the creation of a favorable learning environment, development and execution of the curriculum, and assessment (Zulfiqar, 2016). The lecture-teaching approach involves the teacher imparting knowledge to the students. The classic lecture or teaching method is another name for the lecture teaching approach (White & Kern, 2018). Many educators contend that because the traditional lecture style involves passive learning, it is less successful in fostering cognitive development in students. The students are not required to participate in the instructional process. Usually, the teacher gives the students the entire lesson.

CONCLUSION

This study found that most respondents are bachelor's degree holders, have been in the service for 5-9 years, and have attended 0-4 trainings related to teaching science. Moreover, the teachers' perception of students' acquisition of science process skills generally stipulated a descriptive rating of "Sometimes." Meanwhile, the factors responsible for difficulty learning science subjects were descriptively rated as Strongly Agree. In addition, after the thematic analysis of the participants' interview responses, the two (2) recurring themes were teachers design hands-on, inquiry-based activities that allow students to engage in the scientific process actively and teachers directly teach and model specific Science Process Skills to students. Moreover, the findings indicate substantial and diverse links between teachers' perceptions of students' levels of acquiring science process skills and the factors contributing to the challenges faced in learning science subjects. Furthermore, the analysis indicates that the perceived impact of factors contributing to the challenge of learning science subjects does not significantly differ when the respondents are categorized based on their highest level of education, years of experience as master teachers, or the number of training sessions attended about teaching science. Lastly, the output is an intervention plan, which is expected to improve the students' science process skills and lessen the difficulty of learning science subjects toward a more inclusive, collaborative, and creative education for all. The students' science process skills indicate an average proficiency across the observed skills. This summary indicates that some regions of student performance consistently exhibit proficiency while others exhibit potential for improvement. Providing focused teaching interventions and additional practice in specific skill areas can enhance the overall development of students' science process skills. Likewise, respondents have a high level of agreement regarding difficulty in learning science subjects. The respondents overwhelmingly concur that these factors significantly contribute to the challenges in learning science subjects. Hence, an intervention plan is needed to improve the status of the subject matter.

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Columban College The Journal *(CC The Journal)*
Volume13 (June 2024) ISSN 1655-3713
https://doi.org/10.69502/tqxc4609
A Multidisciplinary Research Review produced by
CCI-RIKDO-*Research Innovation and Knowledge Development Office*

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