

Audio-Visual Materials Used In Classroom Instruction: Its Effect On The Performance Of Teachers In Science

ISAGANI B. ALJECERA

Masbate Colleges Graduate Studies and
Research
San Fernando East Elem. School, DepEd
Philippines
ORCID ID#: 0009-0005-8209-2096
isagani.aljecera001@deped.gov.ph

IVY B. FRANCISCO

Masbate Colleges Graduate Studies and
Research
Halabangbaybay National High School,
DepEd Philippines
ORCID ID #: 0009-0003-9527-0192
ivy.francisco001@deped.gov.ph

RICHARD C. INSO

Masbate Colleges Graduate Studies and
Research
Gilotongan Elementary School, DepEd
Philippines
ORCID ID #: 0000-0003-0584-8118
richard.inso001@deped.gov.ph

RENA M. LIHAYLIHAY

Masbate Colleges Graduate Studies and
Research
Tanque National High School, DepEd
Philippines
ORCID #: 0009-0004-9295-342X
rena.lihaylihay@deped.gov.ph

MARY GLYDELL ROSE B. OSABEL

Masbate Colleges Graduate Studies and
Research
Victor B. Duran Elementary School, DepEd
Philippines
ORCID ID #: 0009-0003-2742-9886
maryglydellrose.osabel@deped.gov.ph

**SANNY S. MAGLENTE, LIB, PhD,
DHum**

Masbate Colleges Graduate Studies and
Research
ORCID ID#: 0000-0002-7895-7625
Maglente1722@gmail.com

MA. CECILIA C. MORAN

Masbate Colleges Graduate Studies and
Research
Maravilla National High School, DepEd
Philippines
ORCID ID #: 0009-0006-2467-5098
macecilia.camacho@deped.gov.ph

JENNIFER B. OSABEL

Masbate Colleges Graduate Studies and
Research
Buenasuerte Integrated School, DepEd
Philippines
ORCID ID #: 0009-0006-9047-119x
jennifer.osabel@deped.gov.ph

SHEENA B. RAMIREZ

Masbate Colleges Graduate Studies and
Research
Masbate Nat'l Comprehensive HS, DepEd
Philippines
ORCID ID #: 0009-0007-2391-1201
sheena.ramirez001@deped.gov.ph

MARIS B. RODRIGUEZ

Masbate Colleges Graduate Studies and
Research Dancalan Elementary School,
DepEd Philippines
ORCID ID #: 0009-0005-9029-9193
maris.rodriquez@deped.gov.ph

JULIE M. MAGLENTEMasbate Colleges Graduate Studies and
Research Baleno National High School.

DepEd Philippines

ORCID ID # :0009-0008-1793-7373

julie.maglente@deped.gov.ph**MARIA SHEILA C. MAGLENTE, PhD.**Masbate Colleges Graduate Studies and
Research

ORCID ID#: 0009-0008-7447-9495

Maglente1722@gmail.com

Abstract — Audio-visual materials expose students to real-world scenarios, foster simulations, and produce interactive content to enhance students' practical understanding of the subject matter. This process will benefit both the students and teachers, allowing for a more engaging and effective education process and learning experience. This study aims to measure the impacts of using audio-visual materials on the teaching performance of Science teachers. In this quantitative study, sixty (60) teachers were selected from different schools as part of the sample for the analysis, following its objectives using non-probability sampling, specifically purposive sampling. The chosen probability sampling was based on the research design, descriptive design. As a means of gathering data, a survey form utilizing Google Forms was employed. The study was successful because it accomplished its goals and responded to the issues raised in the problem statement. The common audio-visual materials utilized in teaching Science are laptops, educational videos, and television. These materials got the highest percentage used by the teachers teaching Science. Strengthening students' outcomes was chosen to be the most impactful to the teaching performance of Science teachers while improving inclusivity for diverse learners needs to be emphasized. To further enhance the teachers' performance in using audio-visual materials in teaching Science, teachers should utilize the materials based on the teaching objectives and students' learning needs, consider the learners' needs, include discussion while using the materials, and improve skills in using technologies in classroom discussion. The study shed light on the impacts of audio materials on Science teachers' performance, and only a little research has been conducted yet.

Keywords — **Audio-Visual Materials, Teaching Science Subject, Teachers' Performance**

I. Introduction

Gone were the days when teachers used chalk, chalkboards, manila papers, and other paper strips in teaching. As the times modernized, so has the teacher's way of teaching. The need for instructional materials for effective teaching and learning has been established, especially in other studies (WoottingPong, 2014; Asadi & Berimani, 2015). Teachers have been developing their 21st-century skills to create a positive and conducive learning environment for the students, primarily catering to their different learning needs. This transition is seen explicitly in subjects that require innovative teaching strategies and instructional materials, like Science subjects. This innovation may include but are not limited to audio-visual materials like using a television and projector set to play documentaries or video lessons about experimentation. Shibaralyani, et.al (2015) define visual aids as tools that help to make an issue or lesson clearer or easier to understand and know (pictures, models, charts, maps, videos, slides, real objects etc.).

The purpose of this study is to investigate the teaching performance of teachers in teaching Science subject using audio-visual materials.

Specifically, this sought to answer the following questions:

1. What is the socio-demographic profile of the teachers in Science in terms of:
 - a. grade level handled
 - b. number of years teaching
2. What are the common audio-visual materials frequently utilized by the teachers in Science in teaching the subject?
3. What are the perceived impacts of using audio-visual materials on teachers' teaching performance?
4. To what extent do the teachers in Science influence classroom instruction using the audio-visual materials?
5. What suggestions can the teachers in Science propose to enhance their teaching performance using audio-visual materials?

Literature Review

In modern educational settings, the integration of multimedia and technology has revolutionized traditional classroom instruction. One prominent facet of this transformation is using audio-visual materials as powerful tools to enhance teaching and learning experiences. Various studies have been conducted in different subject areas with regards to the use of audio-visual equipment – Math, English, Science, Music, Health, Social Science, and other subject areas. This paper delves into the intriguing realm of "Audio-Visual Materials Used in Classroom Instruction: Its Effect on the Performance of Teachers in Science," investigating the profound impact of multimedia resources on educators' effectiveness in delivering science education. The integration of audio-visual materials, such as videos, animations, simulations, and interactive presentations, has emerged as a pedagogical strategy that engages students in a multisensory and dynamic learning process. Eze (2013) states that the human being learns more easily and faster by audio-visual processes than by verbal explanations alone.

Idris (2018) defines audio-visual as the combination of various digital media types such as text, images, sound and video, into an integrated multi-sensory interactive application or presentation to convey a message or information to an audience. In other words, audio-visual means “an individual or a small group using a computer to interact with information that is represented in several media, by repeatedly selecting what to see and hear next”. Audio -visual aids are the best tool for making teaching effective and the best dissemination of knowledge

(Razul, et.al, 2011). It also attracts students' attention, especially those needing help with focus and those preoccupied with other subjects.

The visual and auditory stimuli offered by these materials can significantly aid in clarifying complex scientific concepts and making abstract ideas more concrete. This approach provides students with a captivating platform that can stimulate their curiosity and foster more profound understanding. In a blog post written by Yang (n.d.) he emphasized that each student has a distinct learning style, and audiovisual technology can assist in addressing these variations. Graphics, photos, and videos, for instance, are helpful to visual learners in helping them visualize ideas. Those who learn best orally can take part in group discussions or listen to audio recordings of the course to learn. This far supports the idea that it is important to cater the different learning needs of the students and using audio-visual materials is a good starting point. This supports the idea that it is essential to cater to the students' different learning needs, and using audio-visual materials is a good starting point.

Idris (2015) on his study investigated the effectiveness of Audio-visual materials in teaching and learning some English Language Skills in some Secondary schools in Katsina State. Using a sample of 200 students, the result of the experimental study revealed that the use of Audio-visual materials in the teaching and learning of speaking skills was significantly better than the use of the conventional method in which no audio-visual materials were used. The result was similar to the qualitative study conducted by Al Mamun (2014) on the power of audio-visual equipment. Using audio-visual aids gives pupils a chance to get background information on any important subject, based on the responses of teachers and students concerned about this.

However, most of the previous studies dealt on the impacts of audio-visual materials on the academic performance of the students. The study of Chijioke and Ekwueme (2022) shows that students taught with audio-visual aids were better than their equivalents taught machining with printed materials. While much research has focused on students' learning outcomes, this paper focuses on the teachers. In this study, the pivotal role of educators is emphasized, investigating how the use of audio-visual materials impacts their teaching performance in the field of science. When teachers effectively leverage multimedia resources, they can potentially elevate their instructional methods, leading to enhanced student engagement, comprehension, and retention. Gopal (2010) stressed that audio-visual materials help the teacher to overcome physical difficulties of presenting subject matter. These materials also provide a multi-sensory learning environment that meets the needs of both visual and auditory learners, improving memory retention and knowledge transfer. A dynamic learning environment is also created in the classroom when multimedia tools like movies, simulations, and interactive presentations engage students and encourage active participation. That is to say, with audio-visual materials, the barrier of communication and distance is broken. In the study by Labinska et al. (2020), students showed an increase in their performance in learning and using the English language using audio-visual materials. The results demonstrate that when teachers use authentic audio and video professional

materials, it affects students' sensory systems and improves their memory of words and speech patterns, enabling them to respond more quickly to communicative situations.

In addition, Natoli (2011) stressed that audio-visual materials are important in the teaching and learning processes because “Having seen something, most people remember, for whatever that thing was, it conjures up an image at a mere mention and can be talked about freely. Lukman (2021) explains that the impact of audio-visual resources can be so significant in teaching, thus making learning permanent "Audio-visual methods seem to facilitate the acquisition, retention, and recall of lessons learned. However, it is a reality that if a teacher needs to learn how to utilize audio-visual materials, learning still does not take place.

The investigation into this topic contributes to the discourse on modern pedagogical practices and holds practical implications for teacher professional development. As technology becomes an increasingly integral part of education, understanding its effects on teachers' pedagogical strategies is essential for optimizing classroom experiences. This study explores the dynamic interplay between multimedia resources and teachers' performance in science education. This study is somewhat related to the study conducted by Rasul, et.al (2011). Their study designed to analyze the effectiveness of audio-visual aids in teaching learning process at university level. By probing into this relationship, educators, researchers, and policymakers can glean valuable insights that have the potential to elevate the quality of science instruction and enhance the learning journey for students. Through a comprehensive analysis of teachers' experiences and perceptions, this research provides a deeper understanding of how audio-visual materials can be harnessed as a potent tool to empower educators and foster scientific literacy among learners.

II. Methodology

Design. The research conducted was in the form of quantitative research, specifically descriptive research design, to collect, analyze and interpret the data. In this research, the selected teachers from elementary to senior high school levels answered the survey questionnaire through the use of Google Form. As explained by Fraenkel (2010), descriptive method is a process of gathering, analyzing, classifying, and tabulating data about a prevailing phenomenon, practices, beliefs, processes, trends, cause and effect relationship and then making adequate interpretation of the data collected with or without the aid of statistical method.

Sampling. The study utilized non-probability sampling - purposive sampling, where respondents are chosen based on the purpose of the study. Purposive sampling is a non-probability sampling method and it occurs when “elements selected for the sample are chosen by the judgment of the researcher. Researchers often believe that they can obtain a representative sample by using a sound judgment, which will result in saving time and money” (Black, 2010). There was a total of 60 respondents who teaching Science subjects. The researchers chose this sampling technique as it was the best option in choosing the respondents.

Respondents. The study's respondents were all teachers teaching Science subjects in their respective schools. There were sixty (60) respondents comprising different grade levels: elementary, junior high school, and senior high school. The respondents were purposively chosen based on the objective of the study.

Research Procedures. The present research study employed a systematic set of procedures to investigate the research questions effectively. Initially, the research questions were carefully formulated to guide the study's focus. Subsequently, the researcher identified suitable respondents and determined the appropriate sample size to ensure the study's representativeness and validity. The Graduate School Professor/Adviser validated the instruments. The survey questionnaire and the necessary consent forms were distributed to the selected participants using Google Forms as the data collection tool. Once data collection was completed, the collected responses underwent thorough analysis and evaluation to extract meaningful insights and draw conclusions. These meticulously designed procedures enabled the research to obtain relevant and reliable data, paving the way for robust findings and contributing to the body of knowledge in this field.

Ethical Considerations. The researchers conducted the study ethically by obtaining informed consent from the respondents, respecting the confidentiality and anonymity of the responses, ensuring no conflict of interest in the research process, and data were treated with utmost care and confidentiality in alignment with the study's objectives and purpose. By following these ethical practices, researchers uphold credibility and demonstrate competence, honesty, and integrity in their research endeavors.

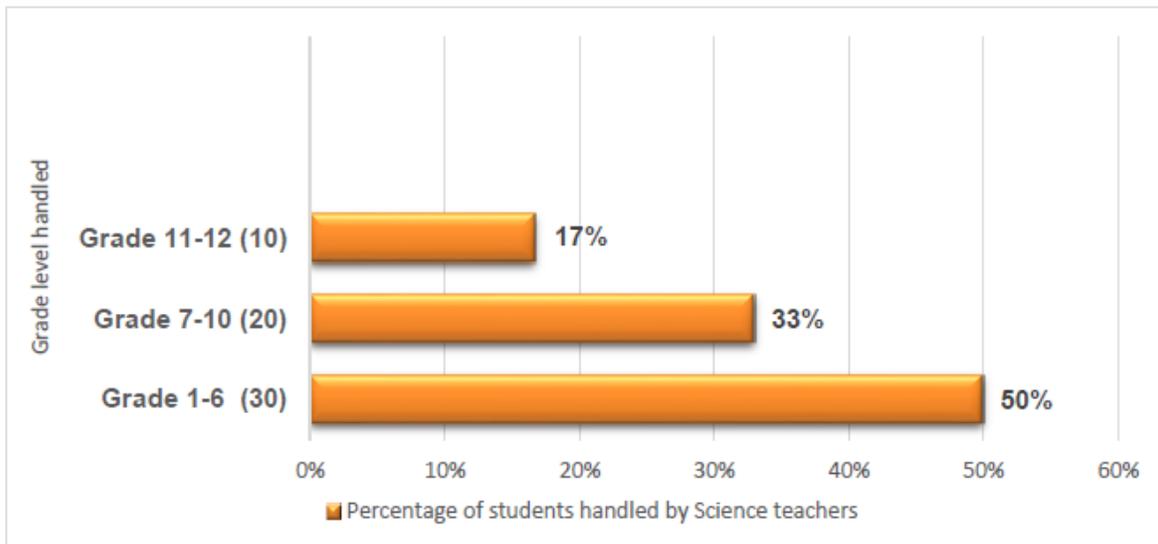
Research instrument. Choosing the appropriate research instrument was crucial to any research study. The researchers carefully chose the research instruments based on the study's objectives and purpose. The instruments will be used for collecting all types of data. They are primarily used to obtain reliable data, which will be analyzed later (Aina, 2004). The study utilized the use of a researcher-made survey questionnaire in the form of Google Forms as the research instrument. A survey questionnaire is best used in quantitative research to gather objective and detailed answers from the respondents. The responses from quantitative survey questionnaires were analyzed and reported as quantitative data. The survey questionnaire was divided into two parts: Part 1 is for the socio-demographic profile of the respondents, and Part 2 is for the survey questions.

Statistical Treatment of Data. The study utilized a descriptive research design. The quantitative responses were tallied and tabulated. The data were treated statistically using the following statistical tools: Frequency and Percentage, Weighted Mean, and Ranking. These tools were utilized to measure the impacts of using audio-visual materials to the teachers' performance in teaching Science subject.

III. Results and Discussion

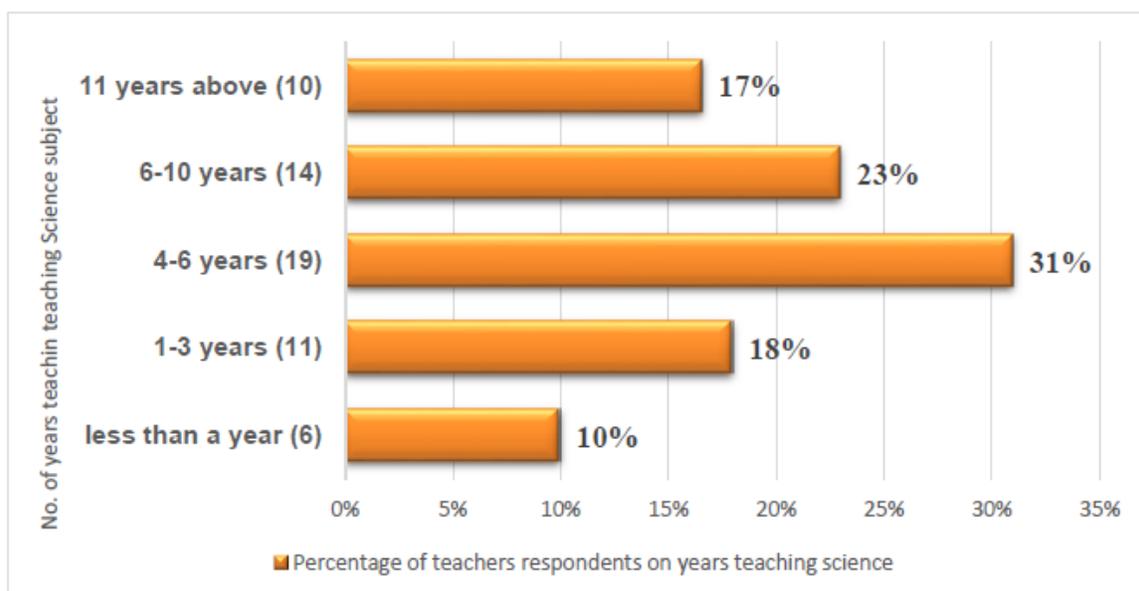
The following tables show the results and findings based on gathered and tabulated data. Part I presented the demographic profile of respondents and Part II was the survey questions.

Figure 1. Grade-level handled by science teachers



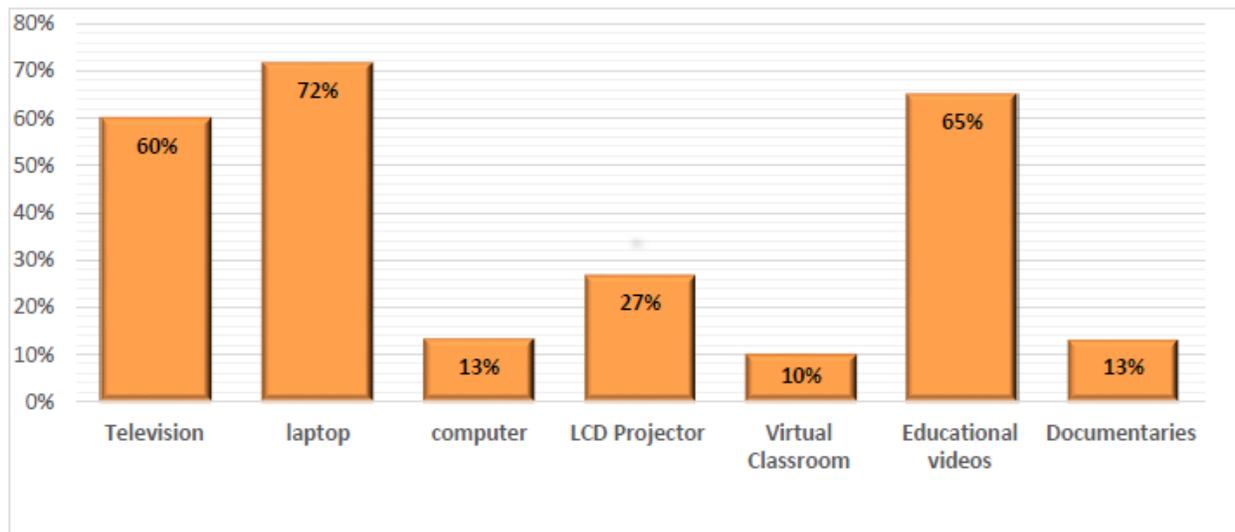
The chart illustrates the distribution of grade levels taught by 60 surveyed teachers who specialize in science education. Among these respondents, 50% (30 teachers) were engaged in teaching science at the elementary level, comprising grades 1 to 6. Additionally, 33% (20 teachers) handled grades 7 to 10, representing junior high school levels. For grades 11 to 12, senior high school levels, there were only 17% (10) of the respondents.

Figure 2. Number of years teaching Science subject



The presented chart provides comprehensive insights into the years of experience shared by the respondents in teaching Science. Notably, 19 or 31% of the respondents have dedicated their expertise to teaching the subject for 4 to 6 years. Fourteen respondents (23%) served as Science educators for 6 to 10 years. Teachers with a service duration of 1 to 3 years accounted for 18% (11) of the respondents. In contrast, seasoned professionals with over ten years of experience numbered ten (17%) out of the 60 respondents, showcasing their substantial contributions. Lastly, a small percentage (10%) of the respondents, or six teachers, were considered novices in teaching Science subjects for less than a year.

Figure 3. Common audio-visual materials utilized in teaching science

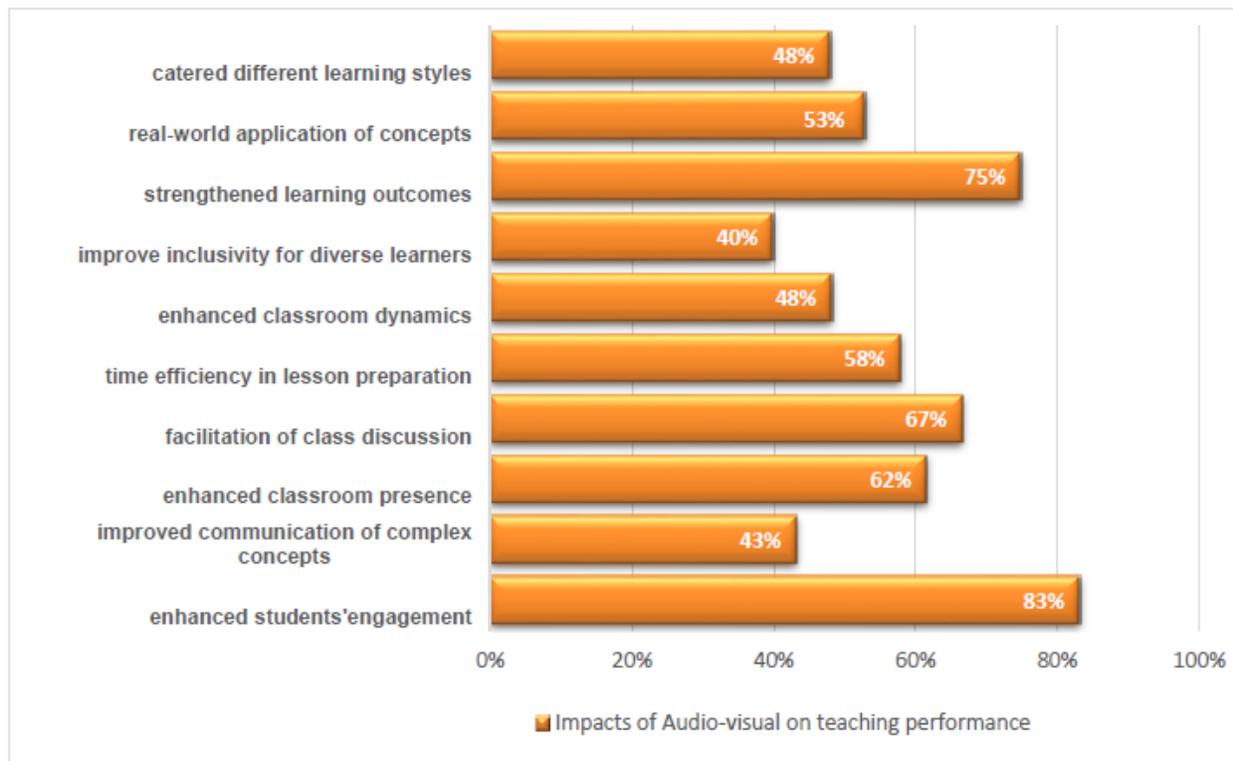


Audio-visual is a productive form of communication. The teacher uses instructional materials depending on the application's availability, use, and efficiency. The results presented in Figure 3 show the common audio-visual materials teachers use as classroom instruction aids to improve students' critical and analytical thinking in science.

Most respondents selected "laptop" as a common audio-visual material used with 72%. Laptops are portable, which makes them convenient to use. This audio-visual truly has significance, making it easy for teachers to engage students in substantive, collaborative, inquiry-oriented, and project-based learning on teaching science. Laptops also provide curriculum support additional information to the students (Street, 2017). "Educational videos" was the next top used with 65%. It increases students' engagement and participation, reduces cognitive overload, and maximizes retention. "Television" was the third most common audio-visual material, and 60% of respondents used it as a substantial tool to promote learning and fun. "LCD Projector" was used with 27% of respondents, wherein teachers allow to interact with students and provide more entertaining ways to teach science. "Documentaries" (12%), "computer" (13%), and "virtual classroom" (10%) are rarely used in the classroom due to lack of internet connection and limited

resources. Hence, these materials are rarely applied in classroom instruction in science due to a lack of resources.

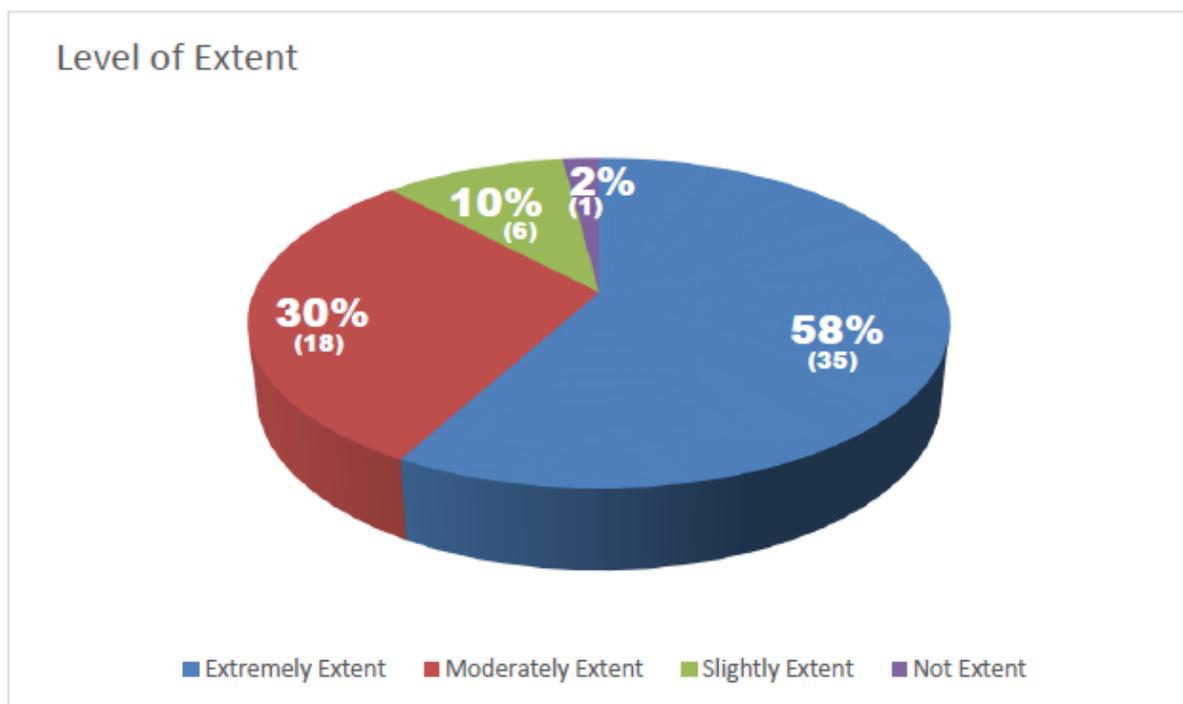
Figure 4. Impacts of using audio-visual materials on teaching performance



The figure shows the impacts of audio-visual on teaching performance. According to most respondents' responses with 83%, "**enhanced students' engagement**" was identified as the most impactful of using audio-visual. It highlights that more engagement of students in science lessons creates more learning that is achievable and fun. It develops students' behavioral, emotional, and cognition factors. "**Strengthened learning outcomes**" was the second impactful use of audio-visual with 75% of the respondents. Participation involvement is essential. It leads students to develop ideas and prove assertions. "**Facilitation of class discussion**" was the third impactful, with 67% of respondents' responses. Facilitation of class discussion involves the recognition and employment of different perspectives and different skills to create an inclusive environment. "**Enhanced classroom presence**," got 62% of the responses. Teachers serv as the facilitators of learning inside the classroom. With the use of audio-visual materials, teachers were able to provide discussions that will cater the learning needs of the students. Audio-visual materials made 58% of the respondents to have "**time efficiency in lesson preparation.**" Based on the article written by Savchenko (2021), the survey showed that teachers and instructional designers also benefit from audio-visual aids as 82% of teachers report these learning improvement tools significantly reducing lesson preparation time. Managing time improves work-life balance. Time efficiency in

preparing lessons reduces stress and allows achieving goals faster and easier. "**Real-world application of concepts**" was selected with 53% of responses. Teaching real-life applications provides meaningful learning. The real-world application provides a concrete application to knowledge and skills learned. "**Enhanced classroom dynamics**" and "**catered different learning styles**" have the same percentage of 48 among respondents' choice. "**Improves communication of complex concepts**" was emphasized, too, with 43% of respondents selected. Good communication skills are necessary to solve and able to understand complex concepts. Everyone expresses their views, feelings, and opinions. In order to understand complex concepts, it needs to dissect ideas. Lastly, "**improve inclusively for diverse learners,**" with 40% of respondents' choice, was also impacted. Diverse learners provide an education for all where it develops relationships and interactions among learners. Appropriate learning environments and opportunities are given to achieve the potential best. Profound effects of audio-visual were all acknowledged and emphasized that making teaching-learning result-oriented, easy, effective, and enjoyable to teachers and students in science.

Figure 5. Extent of influence of audio-visual materials in classroom instruction



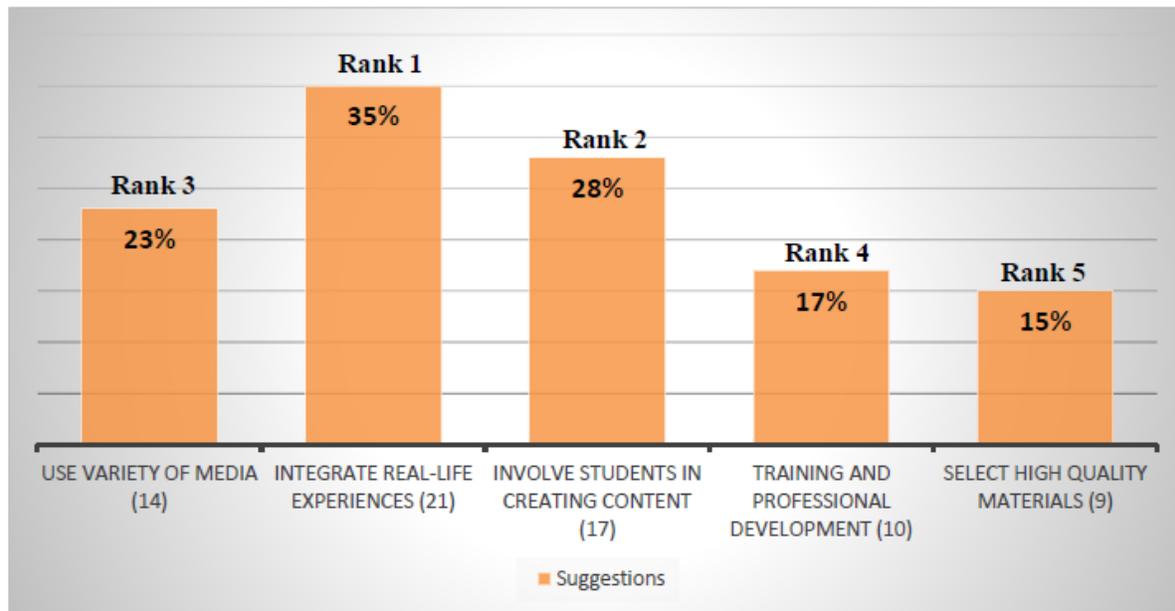
The data presented in Figure 5 highlighted the extent of influence of audio-visual materials in classroom instruction in Science subjects.

The respondents' feedback regarding audio-visual materials' impact on classroom instruction was extremely positive. Thirty-five (58%) of the respondents expressed that using audio-visual materials had a great outcome, highlighting its effectiveness in classroom delivery of lessons. Additionally, eighteen (30%) of the respondents felt that audio-visual materials contribute

moderately, demonstrating their ability to encourage teachers to use ICT for more engaging student activities. Notably, ten (6%) respondents reported an extent of the impact, and only one (2%) respondent identified a slight extent of the influence. Remarkably, all respondents unanimously agreed that using audio-visual materials effectively and effectively gives classroom instruction.

With most respondents expressing an extreme extent of impact and a substantial number recognizing its moderate influence, the materials effectively encourage teachers and students to participate in classroom activities.

Figure 6. Suggestions to enhance teaching performance using Audio-Visual materials



The data presented in Figure 5 highlighted the extent of influencing classroom instruction using audio-visual materials. The data obtained from the survey indicates a highly positive impact of using audio-visual materials during classroom instruction.

The respondents' feedback regarding audio-visual materials' impact on classroom instruction was highly positive. Thirty-five (58%) of the respondents expressed that using audio-visual materials had a great outcome, highlighting its effectiveness in classroom delivery of lessons. Additionally, eighteen (30%) of the respondents felt that audio-visual materials contribute moderately, demonstrating their ability to encourage teachers to use ICT for more engaging student activities. Notably, ten (6%) respondents reported an extent of the impact, and only one (2%) respondent identified a slight extent of the influence. Remarkably, all respondents unanimously agreed that using audio-visual materials effectively and effectively gives classroom instruction.

With most respondents expressing an extreme extent of impact and a substantial number recognizing its moderate influence, the materials effectively encourage teachers and students to participate in classroom activities.

IV. Conclusion

Classroom instruction is one of the important aspects in teaching and learning process. To be more effective in delivering the lesson, teachers use audio-visual materials in giving an engaging and meaningful activities during classroom discussion. Students can easily cope up the lesson with the use of audio-visual materials, and at the same time, teachers can give more interesting topics through the aid of materials. With the use of audio-visual materials in teaching, the teachers can enhance the learning experience of the students as well foster a conducive and learning environment. Though the preparations of the materials may be laborious to the teachers, it was all worth it at the end. These address that student-centered approach has given emphasis by letting the students make a discovery on their own through the guide of materials. Although the data portray a positive perception of the use of audio-visual materials, there is always room for improvement to come up the best result and to enhance teaching performance by integrating real-life experiences, involve students in creating content and use a variety of media.

V. Recommendations

To further improve the positive effect of audio-visual as a classroom instruction on teachers' performance on teaching science, this study recommended the followings as a result of the research.

1. Use the audio-visual in a classroom instruction to achieve learning objectives, enhance and increase students' participation, serve as facilitation in class discussion and increase retention of information.
2. The audio-visual materials used must integrate a real-life experience, involve students in creating content and use variety of media that make the teaching-learning result-oriented, easy, effective and influence both teachers and students in meaningful and life-long experiences.
3. Teachers should plan on what audio materials to be used based on the teaching objectives and the learning needs of the students. The materials should have direct relevance to the topic to be discussed.
4. For the students to remain interested, teachers should use various audio-visual materials that foster engagement and accommodate learning preferences.
5. Discussion opportunities should still be a priority. Audio-visual materials will only fully make the students learn by properly utilizing them with appropriate discussion.
6. Teachers should be open to more than the audio-visual materials they only know. They must attend training to further enhance their skills in using audio-visual materials, especially in teaching science subjects.

REFERENCES

- [1] Al Mamun, A. (April 2014). Effectiveness of Audio-visual Aids in Language Teaching in Tertiary Level, BRAC Institute of Languages (BIL), BRAC University, Dhaka, Submitted in partial fulfilment of the requirement for the degree of MA in TESOL.
- [2] Chijioke, O. and Ekwueme, O. (2022). Effect of Audio- Visual Aids on Students' Academic Achievement in Mechanical Engineering Craft Practice in Technical Colleges in Rivers State. East Asian Journal of Multidisciplinary Research (EAJMR) Vol. 1, No. 11, 2022 : 2769-2778
- [3] Eze, E.U. (2005). Effect of Instructional Materials on the Academic Performance of Junior Secondary School Students in Social Studies. Unpublished PGDE Thesis. Imo State University Nigeria.
- [4] Gopal, V.P. (2010). Importance of Audio-Visual in teaching methodology. Mahourasta, India
- [5] Natoli, Carol (2011). The Importance of Audio-Visual Materials in Teaching and Learning www.helium.com/channels/224-earlychildhood-ed.
- [6] Shabiralyani, G. et.al. (n.d.). Impact of Visual Aids in Enhancing the Learning Process Case Research: District Dera Ghazi Khan.
- [7] Idris, A. O. (2015). The effect of Audio-visual materials in teaching and learning of speaking of skills in junior secondary schools in Katsina State Nigeria. International journal of social science and humanities research 3 (3), 50-58.
- [8] Idris, A.T. et.al (2018). Use of Audio-Visual Materials in Teaching and Learning Classification of Living Things Among Secondary School Students in Sabon Gari LGA of Kaduna State. Plant. Vol. 6, No. 2, 2018, pp. 33-37. doi: 10.11648/j.plant.20180602.12
- [9] Labinska, B., et.al (2020). Enhancing Learners' Communicative Skills through Audio-Visual Means. Revista Romaneasca Pentru Educatie Multidimensionala, 12(2), 220-236. <https://doi.org/10.18662/rrem/12.2/275>
- [10] Lukman, D. (2021). How Audio Visual Improves Students' Interest In Learning. <https://imperialwriters7.medium.com/how-audio-visual-improves-students-interest-in-learning-bf31913b431f>
- [11] Rasul, S., et.al (2011). A study to analyze the effectiveness of audio visual aids in teaching learning process at University level. Procedia - Social and Behaviora I Sciences. 28.78–81. 10.1016/j.sbspro.2011.11.016.
- [12] Rasul, S. et.al (2011). A study to analyze the effectiveness of audio visual aids in teaching Learning process at University level, Procedia - Social and Behavioral Sciences, Volume 28, 2011, Pages 78-81, ISSN 1877-0428, <https://doi.org/10.1016/j.sbspro.2011.11.016>. (<https://www.sciencedirect.com/science/article/pii/S1877042811024554>)
- [13] Savchenko, A. (2021) The Pros Of Audiovisual Learning In Education, <https://www.edtechreview.in/trends-insights/insights/the-pros-of-audiovisual-learning-in-education/>
- [14] Street, E. (2017). How laptops in classroom improve student learning. <https://learningliftoff.com/k-12-education/technology/how-laptops-in-the-classroom-improve-student-learning>
- [15] The benefits of audio-visual technology in modernizing classroom learning (n.d.) <https://blog.rjyoung.com/audio-visual-technology/benefits-of-audio-visual-technology-in-modernizingclassroomlearning#:~:text=Audio%20visual%20technology%20allows%20teachers,and%20engagement%20from%20all%20students.>

- [16] WootingPong, K. (2014). Effective of using video materials in teaching and learning skills for University Students in Thailand – International Journal of Linguistics 6(4) 200- 212

AUTHOR'S PROFILE

ISAGANI B. ALJECERA
Principal I
San Fernando East Elem. School
isagani.aljecera001@deped.gov.ph



MA. CECILIA C. MORAN
Teacher I
Maravilla National High School
macecilia.camacho@deped.gov.ph



IVY B. FRANCISCO
Teacher II
Halabangbaybay National HS
ivy.francisco@deped.gov.ph



JENNIFER B. OSABEL
Teacher II
Buenasuerte Integrated School
jennifer.osabel@deped.gov.ph



RICHARD C. INSO
Principal I
Gilotongan Elementary School
richard.inso001@deped.gov.ph



SHEENA B. RAMIREZ
Teacher II
Masbate National Comprehensive HS
sheena.ramirez001@deped.gov.ph



RENA M. LIHAYLIHAY
Teacher II
Tanque National High School
rena.lihaylihay@deped.gov.ph



MARIS B. RODRIGUEZ
Teacher I
Dancalan Elementary School
maris.rodriguez@deped.gov.ph



MARY GLYDELL ROSE B. OSABEL, Teacher I
Victor B. Duran Elementary School
maryglydellrose.osabel@deped.gov.ph



JULIE M. MAGLENTE
Teacher III
Baleno National High School
julie.maglente@deped.gov.ph



SANNY S. MAGLENTE, LIB, PhD, DHum
Dean, Masbate Colleges
Graduate Studies and Research
maglente1722@gmail.com



MARIA SHEILA C. MAGLENTE, PhD.
Master Teacher-II, Aroroy NHS
Professor, Masbate Colleges Graduate
Studies and Research
masbatecolleges_0218@yahoo.com