



\*\*\*\*\*  
**VISUAL CUES AND MODULE-BASED LEARNING: THEIR EFFECTS  
ON LEARNERS' PERFORMANCE IN SCIENCE**

**MAE JOY S. BULAQUEÑA  
TEACHER II**

San Luis National High School  
masabulaquena.ui@phinmaed.com

**ABSTRACT**

The study aimed to find out the effects of visual cues and module-based learning on learners' performance in science. The subjects in this study were the 60 grade 9 learners from the two classes of San Luis National High School for the school year 2022-2023 who were purposively selected. Results revealed that the learners' pretest performance in science was "Fairly Satisfactory" and posttest performance was "Satisfactory" using visual cues strategy. There was a significant difference in the pretest and posttest results of learners' performance in science using visual cues strategy. Learners' pretest performance in science was "Fairly Satisfactory" and posttest performance was "Satisfactory" using module-based learning. Significant differences existed in the pretest and posttest results of learners' performance in science using module-based learning. There was no significant difference in the pretest results of learners' performance in science using visual cues strategy and module-based learning. There was a significant difference in the posttest results of learners' performance in science using visual cues strategy and module-based learning.

\*\*\*\*\*

**Editorial Team**

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

**Manuscript Editors / Reviewers:**

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez,  
Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban  
Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*



\*\*\*\*\*

**Keywords:** *visual cues, module-based learning, academic performance in science*

## INTRODUCTION

Education is a valuable instrument that may provide everyone with access to any amount of knowledge. It is essential for ensuring that people acquire the knowledge and skills necessary to boost their productivity, enhance their quality of life, and take an active part in society's change and nation-building (Saxton et al as cited by Barrientos, 2015).

Due to its application of problem-solving and critical thinking abilities and its connection to the lives of the students, science education is a crucial subject in schools. It enables students to come up with ideas, make intelligent decisions, and engage in various research that will improve their understanding of the world. One of humanity's greatest resources, scientific knowledge may offer a way to improve people's quality of life. However, the current issues with the Philippines' science educational system, such as teacher shortage, rising number of youth who are not in school, and inadequate and subpar facilities, made it difficult for students to reach their full potential and jeopardized scientific literacy (Ali, 2012).

Teaching science is a difficult task for teachers because they must not only provide students with the chance to develop a grasp of science but also engage and inspire them to value science, its topic, and its methods. The initial interest in science seems to be a necessity for

\*\*\*\*\*

### Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

### Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez,  
Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban  
Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*

# INSTABRIGHT e-GAZETTE

ISSN: 2704-3010

Volume V, Issue III

February 2024

Available online at <https://www.instabrightgazette.com>



\*\*\*\*\*  
understanding and long-term learning. The desire to learn on the part of students does not ensure that they will comprehend science, particularly science material. When teaching science, it's important to exercise critical thinking, good communication, teamwork, and creativity (Hadzigeorgiou, 2015).

It is challenging for teachers worldwide to support the development of students' academic achievement. They make an effort to inspire and include students in the learning process. Students have a strong sense of their own ability or incapacity when they enter school as a result of messages they have received from home. Learners' perceptions of their capacities will influence their degree of motivation and engagement, depending on whether they have been urged to persevere in the face of difficulties or discouraged from taking risks to overcome hurdles (Horvath, 2011).

Teachers have a huge and diverse chance to motivate young people to study, develop, and become deserving members of society by acting as learning facilitators. They can make learners' lives miserable or joyful, inspire or torture, humiliate or induce amusement, harm or heal, all while fostering an environment that is favorable to learning. It is essential to love teaching because, despite the fact that it may not be monetarily gratifying, the commitment to shaping the next generation and serving the country is priceless (Barrientos, 2015).

With these, the researcher decided to push through with this research on the effects of visual cues and module-based learning on learners' performance in science.

\*\*\*\*\*

## Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

## Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez,  
Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban  
Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*



\*\*\*\*\*

## MATERIALS AND METHODS

### Research Methodology

In this chapter, the research design is presented, as well as the research method, research instrument, the participants of the study, data gathering procedures, data analysis and the statistical tools that were used to analyze the data.

### Research Method

The research used the experimental method. According to Saigo (2022), Experimental method was adopted to test causal hypotheses; the difference in the pretest and posttest scores was used to determine the effects of visual cues strategy and module-based learning to the learners' performance in science.

### Research Design

The quasi-experimental research design was employed, and two groups were involved: the experimental group (visual cues) and the control group (module-based learning).

A quasi-experiment is an experimental study that intends to evaluate the effect of interventions on its target population without randomization (Thomas, 2020). Participants in the study could be drawn from one community or several populations that have the same traits. Both groups will take part in pre and post testing, yet only the experimental group will get the treatment or intervention. The pretest will be used to gauge how similar the two groups are to

\*\*\*\*\*

### Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

### Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez,  
Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban  
Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*



\*\*\*\*\*

one another. The effectiveness of the intervention will be assessed by comparing the posttest results.

The research method was considered to be fit in the study since the study was conducted to find out the effects of visual cues and module-based learning in learners' performance in Science of San Luis National High School, San Luis, Sara, Iloilo for the First Quarter of SY 2022-2023.

The independent variables are visual cues and module-based learning while the dependent variable is learners' performance in science.

### Participants of the Study

The participants of the study were the sixty (60) learners gathered from the two sections of Grade 9 of San Luis National High School during the Academic Year 2022-2023.

Participants were grouped into two (2). One group was taught using visual cues and the other group was taught using module-based learning for 12 consecutive days. The assignment of the teaching tool to the group was based on a toss coin process. The group came from the two sections handled by the researcher.

\*\*\*\*\*

### Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

### Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez, Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*



\*\*\*\*\*

The data are shown in Table 1.

**Table 1**

*Distribution of the Participants*

Group	Section	N
Experimental	Group I	30
Control	Group II	30
Total		60

**Sampling Design**

The researcher used purposive sampling method in selecting the participants in the study. Purposive sampling is defined as a method of choosing samples in which all the member. It is considered as a non-probability sampling wherein researchers must depend on their own judgement in selecting participants of the study (Frost, 2023).

**Research Instrument**

The researcher-made test was used in gathering the data to test the effects of visual cues and module-based learning on learners' performance in science. The research instrument consisted the following topics: Respiratory and Circulatory Systems Working with other Organ Systems which are based on the K to 12 Science curriculum guide. It was validated by a group of experts to establish validity.

\*\*\*\*\*

**Editorial Team**

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

**Manuscript Editors / Reviewers:**

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez, Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*



\*\*\*\*\*

The researcher made a matrix of activities of visual cues and module-based learning in teaching science and was followed during the duration of the quasi-experimental research with the following data: date intended for the topic, competencies, corresponding activities and the methods to be used.

A science performance test was employed in the pretest and posttest. The first draft of the test evaluated for face and content validation to a panel of experts in science, as well as test construction. The experts' comments and suggestions were presented to the thesis adviser prior to finalization. One-hour time was allotted for the test and each correct response received one point.

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

Validity is one of the needed criteria to assess the quality of a test questionnaire. Subong (2005) defined validity as the suitability and accuracy of inferences that a researcher makes based on the data he collects. The content and as well as the format must be consistent and congruent with the definition of variables and sample of subject to be measured and is also helpful in validating the items in the questionnaire (Fraenkel & Wallen, 2007).

The researcher constructed a multiple choice test which was also submitted to the thesis adviser for review and as well as face and content validation to a panel of experts in the field of science, test construction and statistics. The panel of experts inspected each item based on appropriateness, relevance, clarity of the language used, and correctness of sentences. The

\*\*\*\*\*

### **Editorial Team**

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

### **Manuscript Editors / Reviewers:**

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez,  
Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban  
Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*



\*\*\*\*\*  
corrections or modifications, and suggestions on the content of the questionnaire were followed in the final draft of the questionnaire before the reliability testing.

### Reliability of the Research Instrument

To determine the consistency of the items, the validated questionnaire underwent reliability testing. The researcher employed internal consistency method. The researcher conducted a pilot test and administered the instrument to 30 Grade 9 learners of Luca National High School, District of Ajuy, Province of Iloilo, who were not part of the final set of respondents.

The responses were encoded in the statistical tool, SPSS version 22 and analyzed by determining Cronbach's Alpha.

The researcher did an item analysis for reliability testing. Item analysis evaluates the quality of test items using learners' responses. This flag two important values such as the difficulty index which indicates the number of learners who correctly answer the test item. The value ranges from 0.001-1.00, higher difficulty index value denotes easier test item. Also, discrimination index which differentiates the performance of learners who scored high and learners who scored low on the test. The value ranges from 0.00-1.00, a higher discrimination value means a more discriminating item.

\*\*\*\*\*

### Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

### Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez,  
Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban  
Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*



\*\*\*\*\*

## Data Gathering Procedures

The study was quasi-experimental in nature; thus, treatment was done for 2 weeks during the school year 2022-2023. The Grade 9-gold was assigned as the experimental group and the grade 9-silver as the control group.

The data needed for the study were obtained through a researcher-made test during the pretest and posttest. The same set of questionnaire were given to both groups. The result of the tests served as a baseline data in determining the effectiveness of the visual cues and module-based learning in teaching science to Grade 9 learners.

The data collection was done in three stages: pre-experimental, experimental and post experimental done with full supervision of the thesis adviser.

*Pre- Experimental Stage.* The researcher secured a permit from the school heads of Luca National High School to conduct pilot-testing and San Luis National High School to permit the researcher to conduct the study.

The researcher made a Matrix of Activities of visual cues and module-based learning in teaching Science. A 30-item science performance test was made and passed to the thesis adviser for review and to the panel of experts for face and content validity and was pilot-tested at Luca National High School grade 9 learners.

Purposive sampling method was utilized to determine the respondents of the study. Grade 9-gold was assigned as the experimental group and Grade 9-silver as the control group.

\*\*\*\*\*

### Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

### Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez,  
Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban  
Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*

# INSTABRIGHT e-GAZETTE

ISSN: 2704-3010

Volume V, Issue III

February 2024

Available online at <https://www.instabrightgazette.com>



\*\*\*\*\*

Before the start of the experiment, the respondents were given the same pretest. Learning materials with visual cues, printed modules as well as lesson plans were prepared for the presentation of the topics.

*Experimental Stage.* This stage lasted for 2 weeks. The grade 9-gold class was taught using the visual cues and grade 9-silver was taught using printed modules. The teaching sessions were based on the class program of the Junior High School Department during the First Quarter of the SY 2022-2023.

Participants to the study were encouraged to complete their attendance during the experimental period and incentives such as additional points to the second quarter ratings were given.

*Post Experimental Stage.* After two weeks, posttest was administered to the learners from both groups.

The data were then organized, scrutinized, and analyzed using various statistical tools; for analyses, a scale of means and corresponding interpretations for significance were used to determine the learners' performance in science both in pretest and in posttest.

## Data Analyses

To measure the consistency of the scores, the researcher did an item analysis.

\*\*\*\*\*

### Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

### Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez,  
Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban  
Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*



\*\*\*\*\*  
After the conduct of the study, the data gathered were organized, tabulated, computer-processed, analyzed and interpreted using the Statistical Package for Social Sciences (SPSS) software.

## RESULTS AND DISCUSSIONS

### Summary

The study aimed to find out the effects of two methods of teaching on Grade 9 learners' performance in science. The two instructional approaches used in the study were the visual cues (experimental group) and module-based learning (control group). The 60 (sixty) Grade 9 learners of San Luis National High School, San Luis, Sara, Iloilo for the School Year 2022-2023 who were purposively selected served as the participants of the study.

The teacher utilized the visual cues in teaching the experimental group and module-based learning in the control group on the topic Living Things and Their Environment: Respiratory and Circulatory Systems Working Together with Other Organ Systems based on the Department of Education K to 12 Science Curriculum guide. To gather the data, the researcher used a researcher-made questionnaire which had been scrutinized by experts in the areas of statistics, science and research and pilot tested to establish reliability. The study used quasi-experimental method. The data obtained were organized, scrutinized and interpreted using mean for descriptive statistics. To determine the significance of the difference among the means, the researcher used the

\*\*\*\*\*

### Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

### Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez,  
Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban  
Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*

# INSTABRIGHT e-GAZETTE

ISSN: 2704-3010

Volume V, Issue III

February 2024

Available online at <https://www.instabrightgazette.com>



\*\*\*\*\*

Wilcoxon Signed-Rank test and Mann-Whitney U test. The alpha was set at 0.05 level of significance.

The findings of the study revealed the following:

The learners' pretest performance in science was "Fairly Satisfactory" and posttest performance in science was "Satisfactory". There was a noticeable improvement in the learners' science performance in the experimental group as evident in the mean score; thus, using visual cues strategy as a teaching tool is effective in improving the learners' performance in science.

There was a significant difference between the pretest and posttest results of the learners in the experimental group using the visual cues strategy. Visual cues strategy appears to be very effective in enhancing the learners' performance in science as evident in the results of Wilcoxon Signed-Rank Test.

The learners' pretest performance in science was "Fairly Satisfactory" and posttest performance in science was "Satisfactory". With the use of module-based learning, it would reveal that there is an increase in the performance of the learners. The posttest mean score showed that the performance in science of the control group increased from fairly satisfactory to satisfactory after exposure to module-based learning.

There was a significant difference between the pretest and posttest results of learners in the control group using the module-based learning. The module-based learning was an effective

\*\*\*\*\*

## Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

## Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez,  
Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban  
Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*



\*\*\*\*\*  
teaching strategy in enhancing the learners' performance in science as evident in the results of Wilcoxon Signed-Rank Test.

There was no significant difference in the pretest results of learners' performance in science using visual cues strategy (experimental group) and module-based learning (control group) as evident in the results of Mann-Whitney U Test.

There was a significant difference in the posttest results of learners' performance in science using visual cues strategy (experimental group) and module-based learning (control group) as evident in the results of Mann-Whitney U Test.

## CONCLUSIONS

On the basis of the findings of the study the following conclusions were drawn:

The use of visual cues was an effective tool in enhancing the learners' performance in science.

The use of visual cues significantly increased the learners' performance in science. Pictures, diagrams, graphic organizers, videos used in teaching the lesson enhanced the learners' attention, cued them to participate in activities, provided visual support for concepts being taught and allowed them to retain, transfer and internalize information better.

Similarly, module-based learning is an effective teaching strategy in improving learners' performance in science.

\*\*\*\*\*

### Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

### Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez, Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban, Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*



\*\*\*\*\*

Module-based learning also increased the learners' performance in science. Thus, science lessons can still be effectively taught using module-based learning.

Both visual cues and module-based learning as teaching tools are advantageous to develop learners' ability to organize information, increase classroom engagement, inspire students to think with greater clarity and give them innovative experiences that would prepare them to become globally competitive individuals.

Based on the improvement of the learners' performance in science, the use of visual cues was observed to be more effective than module-based learning. The use of visual cues drew learners' attention, highlighted information, ensured active thinking skills and actively engaged them in the learning process. While in the module-based learning, the teacher's in depth discussion of the lesson and the students' attentiveness led to an improvement in the learners' performance in science.

## RECOMMENDATIONS

From the above findings and conclusions, the researcher suggested the following recommendations:

Visual cues should be used when teaching science since they improve learners' performance.

\*\*\*\*\*

### Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

### Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez, Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*

# INSTABRIGHT e-GAZETTE

ISSN: 2704-3010

Volume V, Issue III

February 2024

Available online at <https://www.instabrightgazette.com>



\*\*\*\*\*

To enhance learners' performance and foster a more dynamic and engaging learning environment, science teachers should exert an effort to develop a variety of activities and instructional materials that use visual cues.

Learners should strive to actively participate in class, make an effort to understand information to be able to increase their science performance.

Parents should urge their children to participate actively in their education. Parents should recognize and support their children's interest in and aptitude for science, as well as help them develop these skills through real-world projects at home.

Teachers should be exposed to upskilling and trainings in the various teaching strategies for them to have knowledge on how to apply different teaching tools which are useful in learners' science performance.

The performance of learners in science can be improved if science teachers who are used in utilizing module-based learning shift to visual cues strategy.

To make the most of the findings of this study, demonstration classes should be held and staff development initiatives should concentrate on preparing teachers to employ new and creative teaching techniques that will increase student engagement.

In order to provide students with more comprehensive learning experiences, school administrators should provide training opportunities for instructors to acquire or develop new

\*\*\*\*\*

## Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

## Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez,  
Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban  
Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*

# INSTABRIGHT e-GAZETTE

ISSN: 2704-3010

Volume V, Issue III

February 2024

Available online at <https://www.instabrightgazette.com>



\*\*\*\*\*  
teaching practices. Visual cues should be used in the classroom by teachers in different subject areas.

The initiatives developed to assist educational innovations like the visual cues strategy should be put into practice by science supervisors. For effective learning to take place, they need to train teachers in the proper application of such instructional strategies.

Further studies should be undertaken to test other learning strategies considered as relevant to learners' academic performance.

The conclusions of the study could provide information and direction to students, science teachers, school administrators, program directors of educational initiatives, parents, researchers, and future researchers. Thus, the study results showed SLAC sessions and school demonstrations.

\*\*\*\*\*

## Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

### Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez,  
Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban  
Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*



## References

- Ali, T. (2012). A case Study of the Common Difficulties Experienced by High School Students. Retrieved from [https:// www.sciencedirect.com](https://www.sciencedirect.com) on August 12, 2022.
- Ambag, R. (2018). Teaching Science in the Philippines: Why and How We can do Better. <https://www.flipscience.ph>
- Anderman, E. & Sinatra, G. (2012). The Challenges of Teaching and Learning about Science in the 21st Century: Exploring the Abilities and Constraints of Adolescent Learners. Retrieved from [https://sites.nationalacademies.org/cs/groups/dbassesite/documents/webpage/dbasse\\_072608.pdf](https://sites.nationalacademies.org/cs/groups/dbassesite/documents/webpage/dbasse_072608.pdf) on August 18, 2022.
- Almuslamani, H. (2020). The Effect of Educational Videos on Increasing Student Classroom Involvement. Retrieved from <https://ideas.repec.org/a/jfr/ijhe11/v9y2020i3p323.html> on September 8, 2022.
- Aquino, J. (2020). Modular Approach in Teaching with the End-In-Review of Proposing a Module in Organic Chemistry. Retrieved from <https://www.paperpublications.org/upload/book/EFFECTIVENESS%20OF%20SELF-27042022-4.pdf> on August 22, 2022.

\*\*\*\*\*

### Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

### Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez, Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*



\*\*\*\*\*

Armstrong, T. (2020). Multiple Intelligences. Retrieved

from <https://www.institute4learning.com>

/resources/articles/multiple-intelligences/ on August

11, 2022.

Asgar, A. & Satyanarayana, R. (2021). An Evaluation of

Faculty Development Programme on the Design and Development of Self-learning  
Materials for Open Distance Learning. Retrieved from

<https://www.paperpublications.org/upload/book/EFFECTIVENESS%20OF%20SELF-27042022-4.pdf> on August 17, 2022.

Barrientos, K. (2015). Factors Affecting Performance in Science of Fourth Year Learners in the  
National Achievement Test (NAT). Retrieved from <https://www.slideshare.net> on July 1,  
2018.

Benito, S. et al. (2022). Effectiveness

of Self-Learning Modules (SLMs) in Teaching Mathematics 3. Retrieved from

<https://www.paperpublications.org/upload/book/EFFECTIVENESS%20OF%20SELF-27042022-4.pdf> on November 9, 2022.

Betlen, E. (2021). Effect of Modular Learning Approach on

the Academic Achievement of Students. Retrieved from  
[https://www.globalscientificjournal.com/researchpaper/EFFECT\\_OF\\_MODULAR\\_LEARNI](https://www.globalscientificjournal.com/researchpaper/EFFECT_OF_MODULAR_LEARNI)

\*\*\*\*\*

## Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

## Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez,  
Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban  
Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*

# INSTABRIGHT e-GAZETTE

ISSN: 2704-3010

Volume V, Issue III

February 2024

Available online at <https://www.instabrightgazette.com>



\*\*\*\*\*

NG\_APPROACH\_ON\_THE\_ACADEMIC\_ACHIEVEMENT\_OF\_STUDENTS.pdf on December 11, 2022.

Boone, A. (2022). Why Visuals Are So Important for Your Presentation. Retrieved from <https://ethos3.com/why-visuals-are-so-important-for-your-presentation/> on September 2, 2022.

Bozdogan, A. (2011). The Effects of Instruction with Visual Materials on the Development of Preservice Elementary Teachers' Knowledge and Attitude Towards Global Warming. Retrieved from <https://files.eric.ed.gov/fulltext/EJ932241.pdf> on December 11, 2022.

Burmark, L. (2022). Visual Literacy: Learn to See, See to Learn. Retrieved from <https://www.amazon.com/Visual-Literacy-Learn-See/dp/0871206404> on November 22, 2022.

Callao, M. & Pacalda, C.A. (2020). Multimedia in Teaching Grade 10 Science. Retrieved from <https://www.researchpublish.com/papers/margarito-b-callao-crispina-ana-n-pacalda> on October 17, 2022.

Campbell, E. & Cuba M. (2015). Analyzing the Role of Visual

\*\*\*\*\*

## Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

## Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez, Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*

# INSTABRIGHT e-GAZETTE

ISSN: 2704-3010

Volume V, Issue III

February 2024

Available online at <https://www.instabrightgazette.com>



\*\*\*\*\*

Cues in Developing Prediction-Making Skills of Third- and Ninth-Grade English Language Learners. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1111749> on September 19, 2023.

Clark, R. & Lyons, C. (2010) as cited in Melamid, C.

(2021). Use Visual Cues to Enhance Learning. Directing Attention with Visual Cues. Retrieved from <https://thelearningcoach.com/media/graphics/use-visual-cues-to-enhance-learning/> on August 17, 2022.

Collins Dictionary (2023). Science. Retrieved from

<https://www.collinsdictionary.com/dictionary/english/science-subject> on February 20, 2023.

Duque (2017) as cited in Haro, C.A. (2018). Visual Learning

Approach: It's Effects on Learners' Performance in General Mathematics. A Master's Degree Thesis. PHINMA University of Iloilo, Iloilo City, Philippines.

Frost, J. (2023). Purposive Sampling. Definition &

Examples. Retrieved from <https://statisticsbyjim.com/basics/purposive-sampling/> on May 1, 2023.

Gardner, H. (2013). Frequently Asked Questions—Multiple

Intelligences and Related Educational Topics. Retrieved from

\*\*\*\*\*

## Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

## Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez, Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*



\*\*\*\*\*

[https://howardgardner01.files.wordpress.com/2012/06/faq\\_march2013.pdf](https://howardgardner01.files.wordpress.com/2012/06/faq_march2013.pdf) on  
September 23, 2022.

Hadzigeorgiou, Y. (2015). Science, Personal Relevance and Social Responsibility: Integrating the Liberal and the Humanistic Traditions of Science Education. <https://www.frontiersin.org/articles/10.3389/feduc.2019.00038/full#B40> on October 7, 2023

Hadzigeorgiou, Y. (2015). Young Children's Ideas About Physical Science Concepts, in Research in Early Childhood Science Education. Retrieved from <https://www.frontiersin.org/articles/10.3389/feduc.2019.00038/full#B40> on September 28, 2022.

Horvath A. (2011). Effects of Peer Tutoring on Learner Achievement. Retrieved from <https://files.eric.ed.gov> on September 19, 2022.

Ilhan, G. & Oruc S. (2016). Effect of the Use of Multimedia on Students' Performance: A Case Study of Social Studies Class. Retrieved from <https://files.eric.ed.gov/fulltext/EJ109999.pdf> on September 1, 2022.

Iwuanyanwu, P.N. (2019). What we Teach in Science, and What Learners Learn: A Gap that Needs Bridging. *Pedagogical Research*, 4(2), em0032. Retrieved from <https://doi.org/10.29333/pr/5780> on January 27, 2022.

Jamet, E. et al. (2008). Attention Guiding in Multimedia

\*\*\*\*\*

## Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

## Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez, Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*

# INSTABRIGHT e-GAZETTE

ISSN: 2704-3010

Volume V, Issue III

February 2024

Available online at <https://www.instabrightgazette.com>



\*\*\*\*\*

Learning. Retrieved from <https://thelearningcoach.com/media/graphics/use-visual-cues-to-enhance-learning/> on January 11, 2023.

Kapri, U.C. (2017). Impact of Multimedia in Teaching

Science. Retrieved from [http://ijariie.com/AdminUploadPdf/IMPACT\\_OF\\_MULTIMEDIA\\_IN\\_TEACHING\\_OF\\_SCIEN-CE\\_ijariie6298.pdf](http://ijariie.com/AdminUploadPdf/IMPACT_OF_MULTIMEDIA_IN_TEACHING_OF_SCIEN-CE_ijariie6298.pdf) on August 19, 2022.

Karem, A. (2018). The Use of Multimedia in Teaching Biology

and Its Impact on Students' Learning Outcomes. Retrieved from <http://www.epess.net/en/pub/issue/38900/457937> on January 9, 2023.

Kolam, J. (2021). Overview of the Understanding of Learning

Modules and Main Functions. Retrieved from <https://lp2m.uma.ac.id/2021/04/09/overview-of-the-understanding-of-learning-modules-and-main-functions/> on August 20, 2022.

Kusumawati, R. & Nayazik, A. (2018). Developing Mathematics

Learning Strategy Based on Journal Review. Retrieved from <http://ejournal.radenintan.ac.id/index.php/al-jabar/article/view/3110> on September 7, 2022.

Luo, H. et al. (2016). Investigating the Effects of Visual

\*\*\*\*\*

## Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

## Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez, Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*



\*\*\*\*\*

Cues in Multimedia Instruction Using Eye Tracking. Retrieved from [https://www.researchgate.net/publication/304019896\\_Investigating\\_the\\_Effects\\_of\\_Visual\\_Cues\\_in\\_Multimedia\\_Instruction\\_Using\\_Eye\\_Tracking](https://www.researchgate.net/publication/304019896_Investigating_the_Effects_of_Visual_Cues_in_Multimedia_Instruction_Using_Eye_Tracking) on August 4, 2022.

Madhu, N. (2020). What is the Multiple Intelligences

Theory. Retrieved from <https://www.uopeople.edu/blog/what-is-the-multiple-intelligences-theory> on September 1, 2022.

Maliya, N. & Sukestiyarno, S. (2019). Analysis of

Mathematical Problem-Solving Ability Based on Self confidence in Creative Problem Solving Learning and Independent Learning Assisted Module. Retrieved from <https://www.paperpublications.org/upload/book/EFFECTIVENESS%20OF%20SELF-27042022-4.pdf> on September 29, 2022.

Merriam-Webster (2022). Effect. Retrieved from

<https://www.merriam-webster.com/dictionary/effect> on September 4, 2022.

Moskowitz, G.B. (2005). *Social cognition: Understanding*

*self and others*. Retrieved from <https://psycnet.apa.org/record/200-030> on September 1, 2022.

Murphy (2006) as cited in Haro, C.A. (2018). Visual

Learning Approach: Its Effects on Learners' Performance in General Mathematics. A Master's Degree Thesis. PHINMA University of Iloilo, Iloilo City, Philippines.

\*\*\*\*\*

## Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

## Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez, Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*



\*\*\*\*\*

Mwila, P. (2022). Effects of Visual Aids in Enhancing

Teaching and Learning Process in Public Secondary Schools in Ilemela Municipality, Tanzania. Retrieved from

[https://www.researchgate.net/publication/359710707\\_Effects\\_of\\_Visual\\_Aids\\_in\\_Enhancing\\_Teaching\\_and\\_Learning\\_Process\\_in\\_Public\\_Secondary\\_Schools\\_in\\_Ilemela\\_Municipality\\_Tanzania](https://www.researchgate.net/publication/359710707_Effects_of_Visual_Aids_in_Enhancing_Teaching_and_Learning_Process_in_Public_Secondary_Schools_in_Ilemela_Municipality_Tanzania) on September 1, 2022.

Mynbayeva, A. & Sadvakassova, Z. (2018). Pedagogy of the

Twenty-First Century: Innovative Teaching Methods. Retrieved from <https://doi.org/10.5772/intechopen.72341> on August 13, 2022.

Naboya, D. (2019). Effect of Modular Approach on the Level

of Achievement of Students in Inorganic Chemistry. Retrieved from [https://www.researchgate.net/publication\\_339198899\\_EFFECT\\_OF\\_MODULAR\\_APPROACH\\_ON\\_THE\\_LEVEL\\_OF\\_ACHIEVEMENT\\_OF\\_STUDENTS\\_IN\\_ORGANIC\\_CHEMISTRY](https://www.researchgate.net/publication_339198899_EFFECT_OF_MODULAR_APPROACH_ON_THE_LEVEL_OF_ACHIEVEMENT_OF_STUDENTS_IN_ORGANIC_CHEMISTRY) on September 14, 2022.

Nardo, M.T.B. (2017). Modular Instruction Enhances

Autonomy. Retrieved from <http://pubs.sciepub.com/education/5/10/3/index.html#:~:text=The%20use%20of%20modules%20is,in%20doing%20their%20individual%20tasks.&text=It%20directs%20>

\*\*\*\*\*

## Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

## Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez, Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban, Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*

# INSTABRIGHT e-GAZETTE

ISSN: 2704-3010

Volume V, Issue III

February 2024

Available online at <https://www.instabrightgazette.com>



\*\*\*\*\*

students%20to%20practice%20or%20rehearse%20information.,-

To%20gain%20mastery on September 17, 2022.

Oxford Languages (2023). Learners. Retrieved from

[https://www.oxfordlearnersdictionaries.com/us/definition/american\\_english/learner](https://www.oxfordlearnersdictionaries.com/us/definition/american_english/learner) on

February 12, 2022.

Oxford Languages (2023). Performance. Retrieved from

[https://www.oxfordlearnersdictionaries.com/us/definition/american\\_english/performance](https://www.oxfordlearnersdictionaries.com/us/definition/american_english/performance)

on February 12, 2022.

Ozcelik, E. et al. (2010). Why Does Signaling Enhance

Multimedia Learning? Evidence from Eye Movements. Computers in Human Behavior.

Retrieved from

[https://www.researchgate.net/publication/220495067\\_Why\\_does\\_signaling\\_enhance\\_m](https://www.researchgate.net/publication/220495067_Why_does_signaling_enhance_multimedia_learning_Evidence_from_eye_movements/citation/download)

ultimedia\_learning\_Evidence\_from\_eye\_movements/citation/download on January 18,

2023.

Pacalda, C.A. (2020). Effects of Multimedia in Teaching

Science: Implication to Practice in Secondary Basic Education. Retrieved from

<https://www.ijtsrd.com/papers/ijtsrd33555.pdf> on October 27, 2022.

Pakyo, E. et al. (2021). The Effectiveness of

\*\*\*\*\*

## Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

## Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez,  
Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban  
Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*



\*\*\*\*\*

Self-learning Modules on the Retention of Learning Among Grade 7 Students in MAPEH of Mountain Province General Comprehensive High School. Retrieved from <https://ijisrt.com/assets/upload/files/IJISRT21AUG614.pdf> on August 23, 2022.

Perkins, Y. (2020). Companion Guide for Visual Cues.

Retrieved from <https://www.coursehero.com/file/13430972/Home-Companion-Guide-for-Visual-Cuespdf/> on November 4, 2022.

Prathoshni, S.M. et al. (2018). Effect of Teaching Aids on

Student's Academic Performance in Professional Courses. Retrieved from [https://www.researchgate.net/publication/359710707\\_Effects\\_of\\_Visual\\_Aids\\_in\\_Enhancing\\_Teaching\\_and\\_Learning\\_Process\\_in\\_Public\\_Secondary\\_Schools\\_in\\_Ilemela\\_Municipality\\_Tanzania](https://www.researchgate.net/publication/359710707_Effects_of_Visual_Aids_in_Enhancing_Teaching_and_Learning_Process_in_Public_Secondary_Schools_in_Ilemela_Municipality_Tanzania) on February 2, 2022.

Rahmawati, R. et al. (2019). Analysis of the

Effectiveness of Learning in the Use of Learning Modules Against Student Learning Outcomes. Retrieved from [https://www.Analysis\\_of\\_the\\_Effectiveness\\_of\\_Learning\\_in\\_the\\_Use\\_of\\_Learning\\_Modules\\_Against\\_Student\\_Learning\\_Outcomes](https://www.Analysis_of_the_Effectiveness_of_Learning_in_the_Use_of_Learning_Modules_Against_Student_Learning_Outcomes) on Decmeber 23, 2022.

Regoniel, P. (2021). Modular Learning: 8 Tips for Effective

Online Teaching. Retrieved from

<https://simplyeducate.me/2021/06/22/modular-learning/> on October 3, 2022

\*\*\*\*\*

## Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

## Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez, Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*



\*\*\*\*\*

Rippel, M. (2022). 10 Tips for Reaching Your Struggling

Learners. Retrieved from <https://blog.allaboutlearningpress.com/struggling-learner/> on August 11, 2022.

**Sadera, J.R. et al. (2020).** Challenges Encountered by

Junior High School Students in Learning Science: Basis for Action Plan. Retrieved from [https://www.hrpub.org/journals/article\\_info.php?aid=10266](https://www.hrpub.org/journals/article_info.php?aid=10266) on August 2, 2022.

Saigo, H. (2022). What is Experimental Research Design.

Retrieved from <https://study.com/learn/lesson/experimental-research-design-study.html#:~:text=The%20experimental%20research%20design%20definition,framework%20of%20the%20scientific%20method> on August 18, 2022.

Satyarthi, G. (2017). An Effective Learning Strategy for

Secondary School Students-Modular Approach. Retrieved from [http://zenithresearch.org.in/images/stories/pdf/2017/JAN/ZIJMR/\\_6\\_ZIJMR\\_VOL7\\_ISSUE1\\_JAN\\_2017.pdf](http://zenithresearch.org.in/images/stories/pdf/2017/JAN/ZIJMR/_6_ZIJMR_VOL7_ISSUE1_JAN_2017.pdf) on September 30, 2022.

Strauss, V. (2013). Howard Gardner: Multiple

Intelligences Are Not Learning Styles. Retrieved from <https://www.washingtonpost.com/newa/answer-sheet/wp/2013/10/16/howard-gardner-multiple-intelligences-are-not-learning-styles/> on August 29, 2022.

Subong, Jr. P.E. (2005). Statistics for Research Methods.

\*\*\*\*\*

### Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

### Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez, Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*

# INSTABRIGHT e-GAZETTE

ISSN: 2704-3010

Volume V, Issue III

February 2024

Available online at <https://www.instabrightgazette.com>



\*\*\*\*\*

Retrieved from <https://studylib.net/doc/25536058/overview-and-exemplar-components-of-the-research-methodology> on September 3, 2022.

Sunga, D.L. & Hermosisima, M.V.C. (2016). Fostering

Better Learning of Science Concepts Through Creative Visualization. Retrieved from <https://po.pnuresearchportal.org/ejournal/index.php/normallights/article/view/275> on September 1, 2022.

The Glossary of Education Reform (2016). Science Content.

Retrieved from <https://www.edglossary.org/about/> on August 3, 2022.

Thomas, L. (2020). Quasi-Experimental Design. Retrieved

from <https://www.scribbr.com/methodology/quasi-experimental-design/> on August 19, 2022.

UNESCO (2012) as cited in Iwuanyanwu, P. N. (2019). What we

Teach in Science, and What Learners Learn: A Gap that Needs Bridging. Pedagogical Research. Retrieved from <https://doi.org/10.29333/pr/5780> on January 27, 2022.

Van, G. (2014). The Signaling (or Cueing) Principle in

Multimedia Learning. Retrieved from <https://thelearningcoach.com/media/graphics/use-visual-cues-to-enhance-learning/> on September 2, 2022.

Valencia, M. (2020). Modular Approach in Teaching Science.

\*\*\*\*\*

## Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

## Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez, Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*

# INSTABRIGHT e-GAZETTE

ISSN: 2704-3010

Volume V, Issue III

February 2024

Available online at <https://www.instabrightgazette.com>

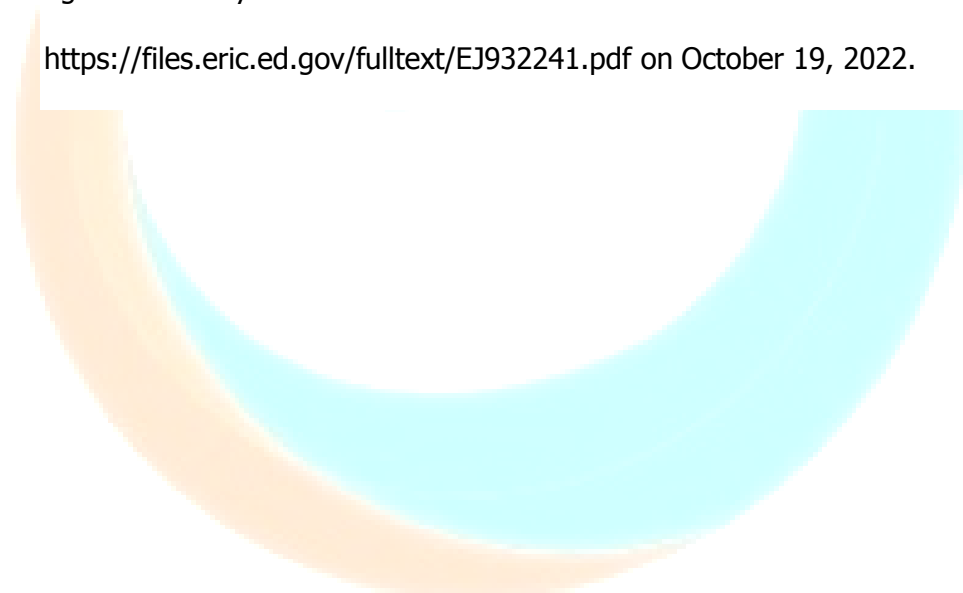


\*\*\*\*\*

Retrieved from <https://www.ijtsrd.com/other-scientific-research-area/other/30318/modular-approach-in-teaching-science-10/marsha-r-valencia> on October 1, 2023

Wixtrom, E. (2023). Howard Gardner's Theory of Multiple Intelligences. Retrieved from <https://www.cornerstone.edu/blog-post/what-are-multiple-intelligences-and-how-do-they-affect-learning/#:~:text=In%20short%2C%20this%20theory%20states,through%20mathematical%2Dlogic%20based%20learning> on March 23, 2023.

Yakışan, M. et al. (2007). Biyoloji öğretmen adaylarının tohumlu bitkiler hakkındaki alternatif kavramları. Retrieved in <https://files.eric.ed.gov/fulltext/EJ932241.pdf> on October 19, 2022.



\*\*\*\*\*

## Editorial Team

**Editor-in-Chief:** Alvin B. Punongbayan

**Associate Editor:** Andro M. Bautista

**Managing Editor:** Raymart O. Basco

**Web Editor:** Nikko C. Panotes

## Manuscript Editors / Reviewers:

Chin Wen Cong, Christopher DC. Francisco, Camille P. Alicaway, Pinky Jane A. Perez, Mary Jane B. Custodio, Irene H. Andino, Mark-Jhon R. Prestoza, Keive O. Casimiro, Ma. Rhoda E. Panganiban Rjay C. Calaguas, Mario A. Cudiamat, Jesson L. Hero, Albert Bulawat, Cris T. Zita, Allan M. Manaloto

\*\*\*\*\*