

IMPROVING GRADE 12 LEARNERS' RESEARCH SKILLS USING INQUIRIES, INVESTIGATIONS, AND IMMERSIONS' STANDARDIZED MODULES

Presentation by

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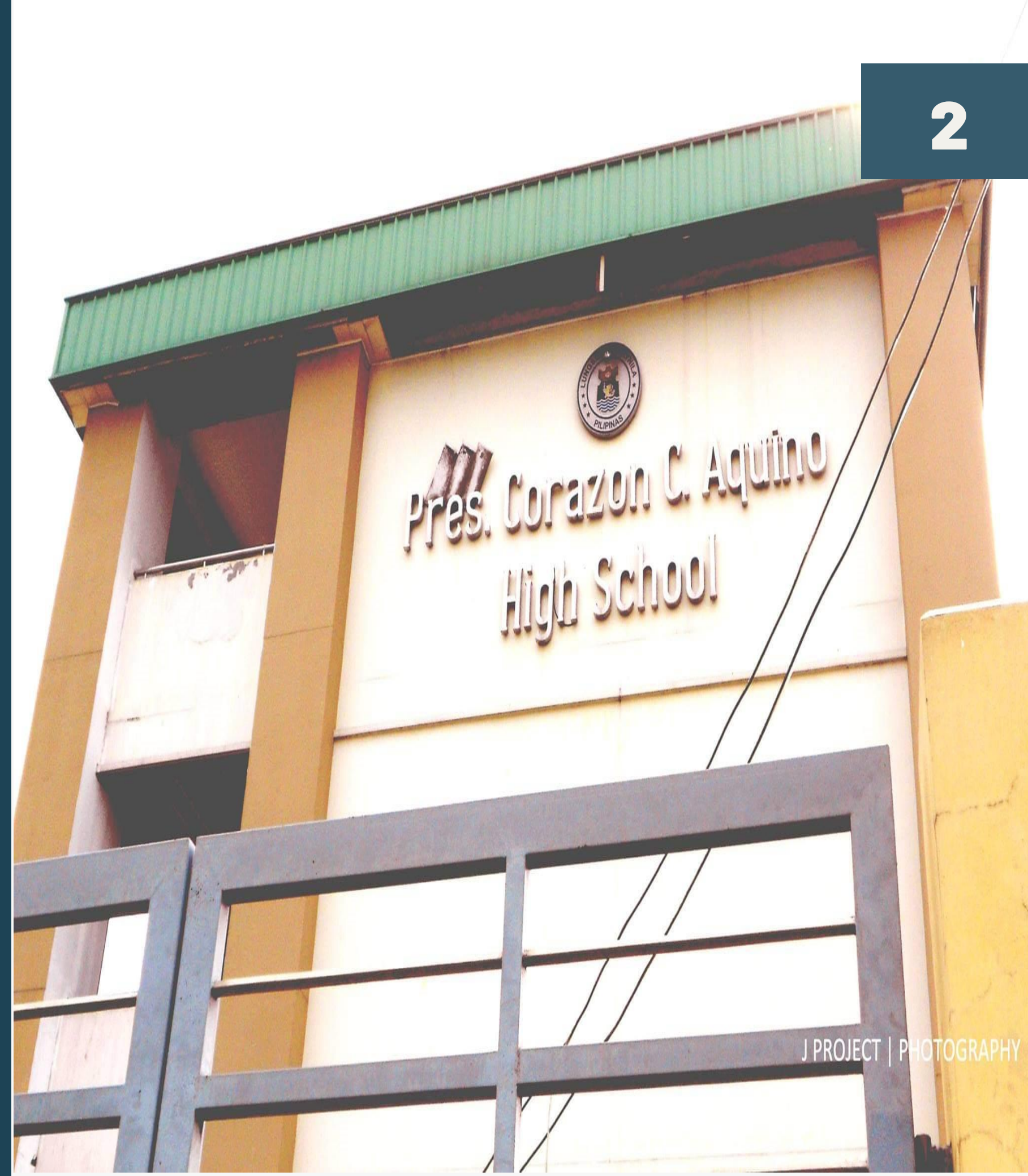
RESEARCH OBJECTIVES

- To assess the performance of Grade 12 senior high school learners in research during Practical Research 2.
- To determine the effectiveness of standardized modules in enhancing the research skills of Grade 12 senior high school learners.
- To provide recommendations for the improvement and implementation of standardized modules to further enhance the research skills of Grade 12 senior high school learners.



BACKGROUND

- Since President Corazon C. Aquino High School implemented the pilot face-to-face learning mode at the end of SY 2021-2022, it is currently conforming to the DepEd-mandated 5 days of in-person sessions.
- This action research successfully addressed the critical situation faced by President Corazon C. Aquino High School by solving the problem of the lack of textbooks and instructional materials and providing a solution to the financial burden faced by parents who could not afford to buy books.



RATIONALE

- President Corazon C. Aquino High School has taken significant steps to address the challenges faced during the COVID-19 pandemic and ensure quality education for its students.
- The school have utilized Modular Distance Learning (MDL), a learning approach that enables students to access self-learning modules (SLMs) either in print or digital format.
- MDL provides flexibility and allows students to learn at their own pace while utilizing standardized modules for inquiries, investigations, and immersions.



RATIONALE

- Standardized modules for inquiries, investigations, and immersions were provided, relieving the financial burden on parents who couldn't afford to buy books.
- Teachers have a vital responsibility in monitoring learners' progress, providing assistance, and conducting home visits if needed.
- Parents serve as partners in education, fulfilling roles such as acquiring and submitting printed modules, ensuring adherence to schedules, and creating a conducive learning environment at home.



CONCEPTUAL FRAMEWORK

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INPUT

- **Standardized Modules: Self-learning modules (SLMs) for inquiries, investigations, and immersions provided by the school.**
- **Teachers: Facilitators who guide and support students' learning process.**
- **Parents: Partners in education who play a crucial role in supporting students' learning at home.**
- **Students: Learners who engage in independent learning using the standardized modules.**



PROCESS

- **Independent Learning: Students utilize the standardized modules to engage in independent learning activities.**
- **Guidance and Support: Teachers and parents provide guidance, assistance, and support to students during their learning process.**
- **Interaction and Communication: Students engage in interactions with teachers, parents, and peers to seek clarification, share ideas, and receive feedback.**
- **Skill Development: Students develop their research skills through the structured approach provided by the standardized modules and the guidance of teachers.**



OUTPUT

- **Improved research skills among 12th graders.**
- **Enhanced abilities in critical reasoning, problem-solving, information literacy, and analysis.**
- **Increased learner participation and engagement in research activities.**
- **Evaluating the efficacy of standard modules that include inquiries, investigations, and immersions.**
- **Recommendations for incorporating investigations, inquiries, and immersions into the more extensive curriculum.**

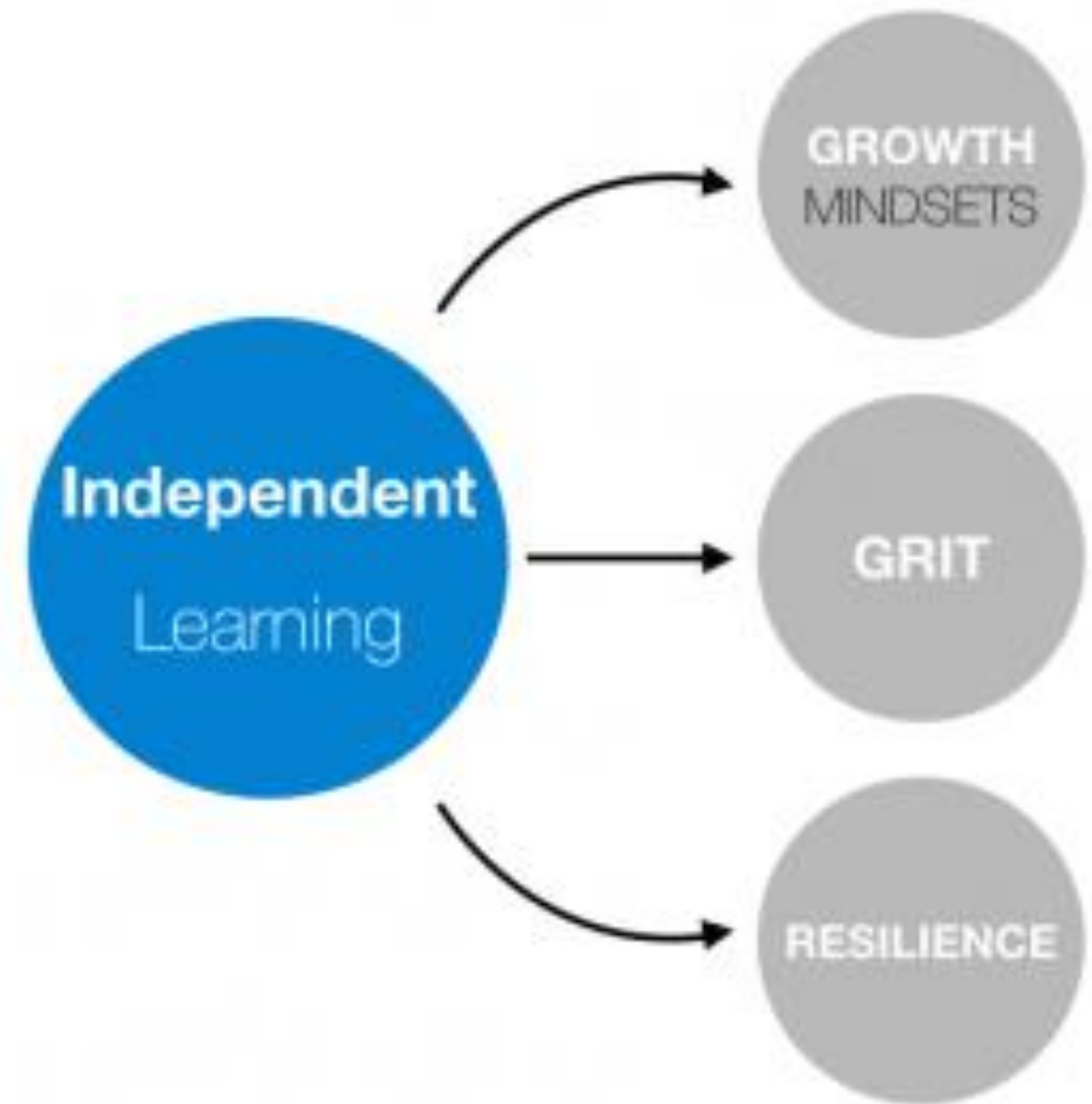


FEED BACK

THEORETICAL FRAMEWORK

Theory of Independent Learning:

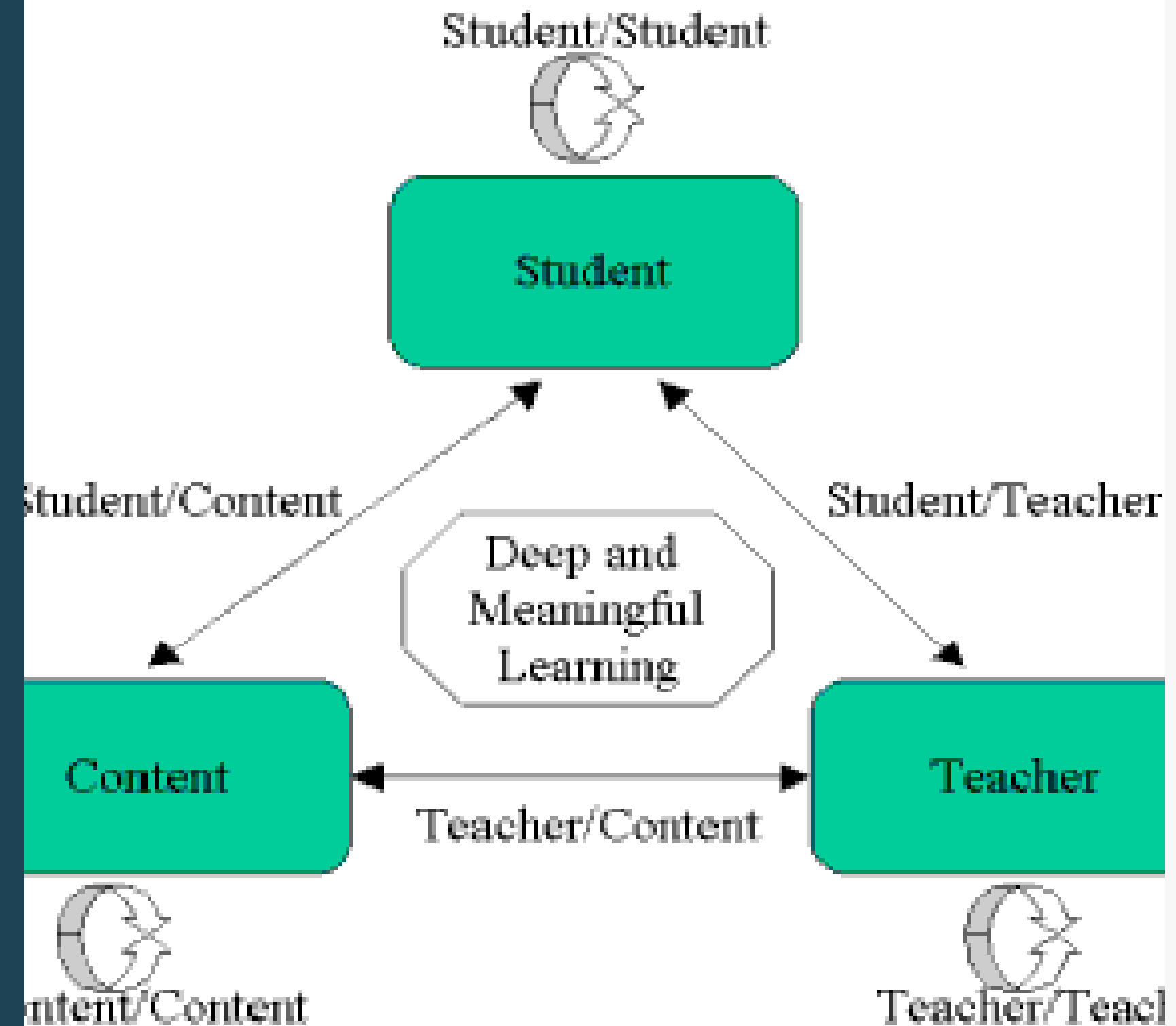
- The study was anchored in the theory of independent learning, which emphasizes that students can develop their learning autonomously with guidance and support from others.
- The standardized modules used in the study provided a structured approach for students to engage in independent learning and develop their research skills.
- Students were encouraged to take ownership of their learning process and actively participate in inquiries, investigations, and immersions.



THEORETICAL FRAMEWORK

Theory of Interaction and Communication:

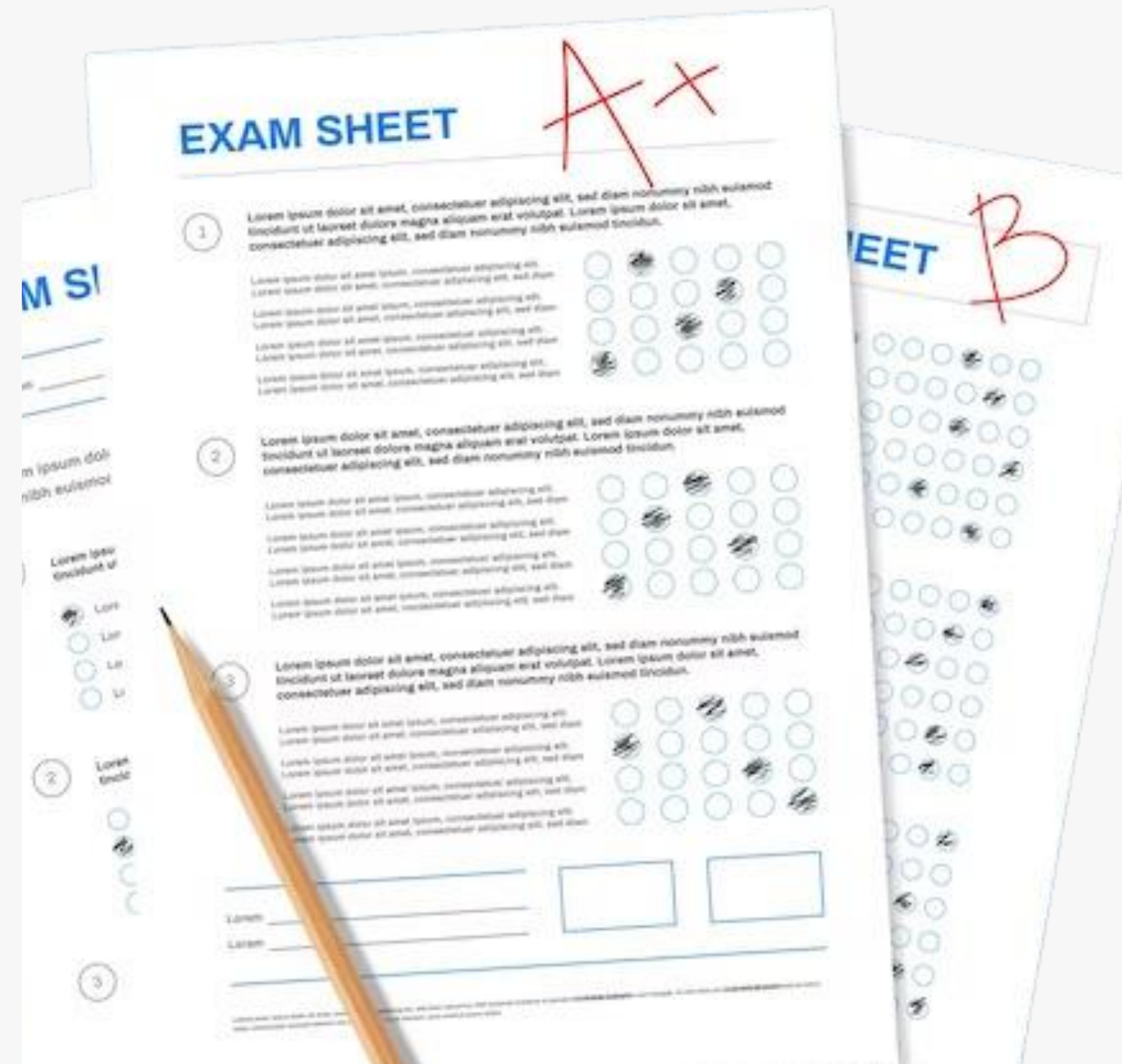
- According to this model, communication involves the alternation of sending and receiving messages, which are then decoded physically or psychologically.
- In the study, students engaged in interactions with various stakeholders, including teachers, parents, and peers, to support their learning process and overcome challenges.
- Students had to decode the messages received from their support network and effectively communicate their thoughts and ideas, especially in relation to their modular tasks.



METHODS

A. Participants and/or other Sources of Data and Information

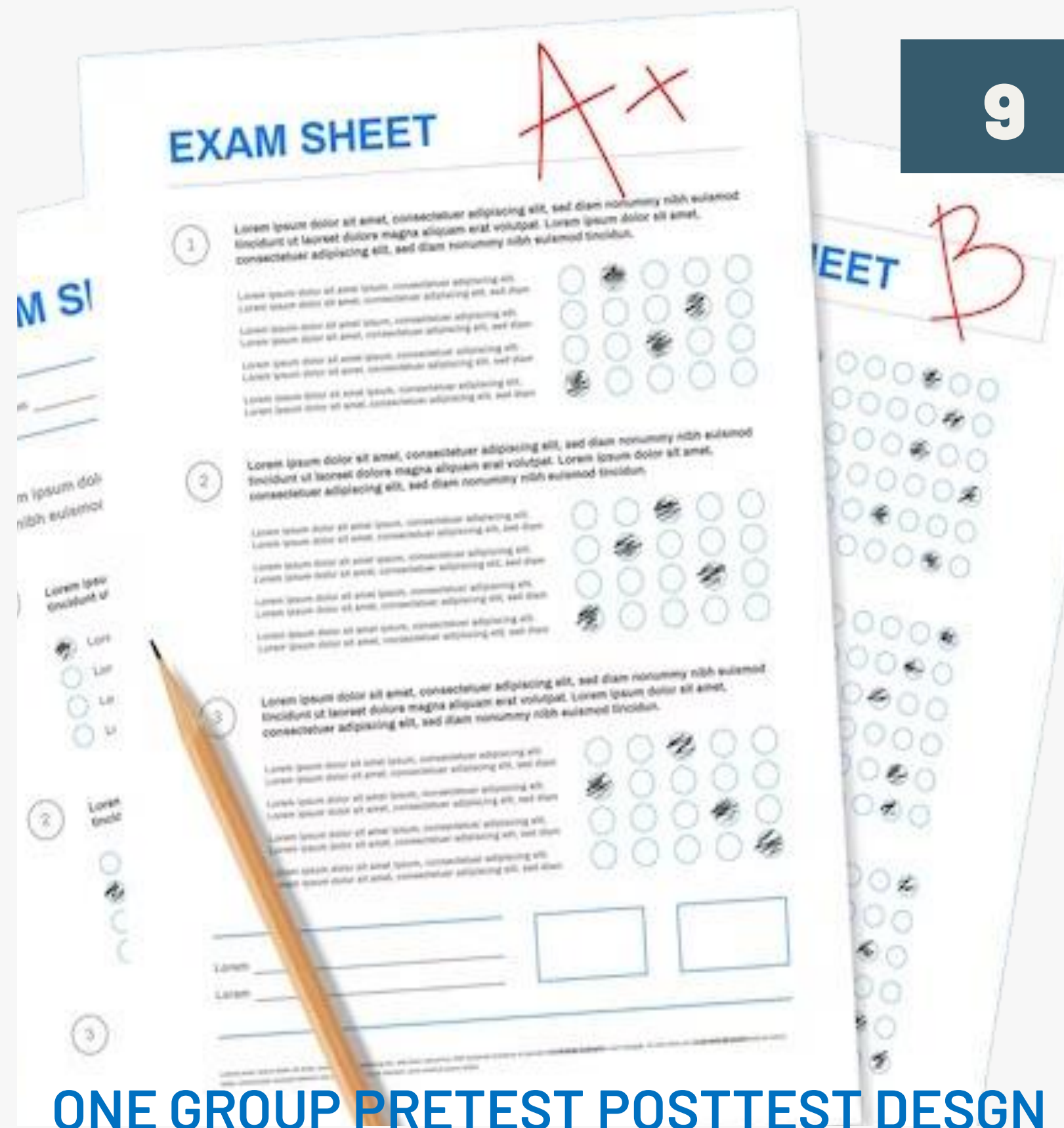
- The study conducted at President Corazon C. Aquino High School focused on Grade 12 section Matiyaga as the respondents.
- The selection of respondents was carried out using purposive sampling, a non-probability sampling technique based on specific criteria and the study's objectives.
- First semester grades: The selection was based on the students' first semester grades, specifically focusing on their performance in Practical Research 2 during the second quarter.



METHODS

B. Data Gathering Methods

- Validated 30-item multiple-choice teacher-made pre-test and post-test were the main instruments of the study. The pre- and post-tests were used to assess the respondents' academic performance before and after the intervention.
- The face and content validity of the pretest and posttest were validated by experts. An individual with the necessary skills, high moral standards, training, credentials, scientific education, and supervision of her superior carried out the action research procedures.



ONE GROUP PRETEST POSTTEST DESIGN



FINDINGS

- More than 50% of Grade 12 students in the Matiyaga class need improvement in their academic performance in the second quarter of Practical Research 2.
- Additional support and resources are required to help these students improve their grades.

Problem #1: What is the performance of the learners in research in the second quarter in Practical Research 2?

Table 1
Profile of the Respondents Academic Performance before Pretest

Second Grading Grades	Frequency	Percentage (%)	INTERPRETATION
90 – up	0	0	O
85 – 89	2	6	VS
80 – 84	5	17	S
75 – 79	7	23	NM
74 – below	16	54	NI
Total	30	100	

FINDINGS

- The use of standardized modules significantly enhances the research skills of Grade 12 senior high school learners.
- There was a notable improvement in the posttest scores compared to the pretest scores.
- Most respondents achieved higher performance levels, such as Very Satisfactory and Outstanding, in the posttest.
- The mean learning gain was approximately 90%, indicating substantial improvement in performance.

Problem #2: How effective is the use of standardized modules in enhancing the research skills of Grade 12 senior high school learners?

Table 2

Level of Respondents' Performance in Pretest and Posttest Using the Standardized Modules

Test Scores	Level of Performance	Pretest		Posttest	
		N	%	N	%
25 – 30	Outstanding	0	0	10	33
19 – 24	Very Satisfactory	0	0	14	47
13 – 18	Satisfactory	0	0	6	20
7 – 12	Fairly Satisfactory	26	87	0	0
0 – 6	Did Not Meet Expectation	4	13	0	0
Total		30	100	30	100

FINDINGS

Problem #3: What significant difference exists in the pretest and posttest performance of the respondents?

Table 3

Significant Difference of the Pretest and Posttest Performance of the Respondents

Paired Sample	N	Mean	Mean Difference	t-statistics	t-value	p-value	df	Decision	Interpretation
Posttest	30	21.87	13.04	2.045	17.751	<.00001	29	Reject Ho	Significant
Pretest	30	8.83					29		

The value of t is 17.751871. The value of p is $< .00001$. The result is significant at $p < .05$.

- **There is a significant difference between the pretest and posttest performance of the respondents.**
- **The calculated t-value and p-value indicate that the difference is statistically significant.**
- **The null hypothesis, stating no significant difference, was rejected.**
- **The use of (3Is) Inquiries, Investigations, and Immersions' standardized modules effectively improves the research skills of Grade 12 learners.**

CONCLUSION/RECOMMENDATIONS

- *The study found that the standardized modules effectively enhanced students' research skills in different areas such as information gathering, analysis, and interpretation.*
- *The study highlights the importance of immersions and fieldwork in deepening students' understanding and appreciation of the research process.*
- *Recommendations for teachers include using standardized modules to facilitate effective learning, soliciting feedback on teaching methods, helping students develop positive study habits, and cultivating positive attitudes towards the subject.*
- *Future action research should focus on conducting similar studies in other subjects and schools, using digitized modules, and improving teaching skills and strategies.*

THANK YOU!