

**E-BIKE CLASSROOM: ITS EFFECTS ON INTRINSIC MOTIVATION &  
ACADEMIC COMPETENCE OF MARGINALIZED LEARNERS  
AT SAN FRANCISCO ELEMENTARY SCHOOL**



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**ABSTRACT**

This action research aimed to remediate Grade Three Level of San Francisco Elementary School learners on Filipino and English reading skills in their reading performance.

This was done through an E-bike classroom with different reading activities.

The study used 88 learners from Grade Three of San Francisco Elementary School Binan City as the respondents of the study. The respondents were from the results of the Phil-Iri pre-assessment. Those were the pupils who got 0, 1, and 2 on the Phil-Iri FLAT Reading Level Scale. Those levels were non-readers and frustrations.

For the non-readers, the researcher provided activities and worksheets about letters and sounds and for the frustrations, phrases, and sentences with comprehension.

Home visitations were also done to follow up on the progress of the pupils, especially those who are non-readers.

**Keywords:** E-bike classroom, remediate, non-readers, frustrations

## **INTRODUCTION**

Internet usage has an incredible influence on social interaction but is a hindrance to those learners without gadgets and having difficulty in their studies. In line with this, the E-bike classroom through enhanced home visitation will bring literacy to the marginalized learners as stipulated in Dep Ed Order No. 12, s. 2015 entitled "Guidelines on the Early Language, Literacy and Numeracy: a program to develop Filipino children's literacy and numeracy skills and attitude which will contribute to lifelong learning.

Some parents have their cellphones but they bring them to their workplace so learners have no gadgets to use. Teachers' assistance is of great help in bringing literacy, especially to marginalized learners.

In many low-income countries, where there is poor or no connectivity to the internet or mobile networks (globally about 50% and 43% of households, respectively, do not have a computer or access to the Internet), teachers prepared take-home packages for their students. To support their work, teachers have also formed communities of practice and support groups through social media platforms such as Facebook and Twitter (UNESCO, 2020).

Reading and sharing stories can help the learners get to know sounds, words and language, and develop early literacy skills "spark the child's imagination and stimulate curiosity. Help develop the child's brain, ability to focus, concentration, social skills and communication skills" (Raising Children Network, Australia, 2020).

On the other hand, home visitation is designed and implemented in every school to support families in providing an environment that promotes the healthy growth and development of their children. The target is to improve child development, enhance school readiness, and promote positive parent-child interactions. It can provide child development and family support services that reduce risk and increase protective factors (Kelly, Grace PhD., et al. 2022)

Bringing literacy to the learners through enhanced home visitation with the help of E-bike classrooms transporting story books, Marungko approach reading materials, Fuller reading materials, flip charts, and other creative instructional materials like Bingo games on letters to form a word, and wheel words for literacy in their homes or areas that can help learners in their basic reading and writing skills and to develop their love for reading.

## **METHODOLOGY**

This study aimed to determine the effects of E-bike classroom on the intrinsic motivation and academic competence of non-readers of marginalized learners in the Grade Three Level of San Francisco Elementary School for S.Y. 2022-2023.

The researchers asked permission to conduct the study from the school principal and the research coordinator the process of data gathering.

This study employed the purposive sampling of descriptive quantitative research design based on the Pre-test results of PHIL-IRI.

E-bike classroom for reading activities supervised by the teachers was used. " Books and other creative instructional reading materials were placed in this transportation in order to bring literacy to the place/areas where non-readers/struggling readers can access it to help them become literate. The Master Teacher in intermediate level or the School Research Coordinator was the one who checked the reading materials placed in the E-bike to be used in conducting the reading activity.

The Grade Three learners who are academically challenged in literacy skills of San Francisco Elementary School for SY 2022-2023 participated in the research. Based on the results of the Pre-Test in PHIL-IRI, a total of 88 learners were 21 non-readers and 66 frustrations in English while in Filipino total of 67 learners were 14 non-readers and 53 frustrations all of them together with their parents and advisers were asked voluntarily in participating in the research, as well as the academic progress of identified learners with low performance through reading.

Data gathering included the preparation of the research and different tools were used. The revised Intrinsic Motivation Inventory made by the researchers was given in order to assess the respondents subjective experience related to the reading activity before having their Pre-Test in PHIL-IRI.

The identification of the respondents of this study was done. The researchers used the Phil-IRI results of Grade Three pupils in Filipino and English.

The Phil-IRI used as a classroom-based assessment tool aims to measure and describe the learners' reading performance in both English and Filipino languages. For this school year, the FLAT or Functional Literacy

Assessment Tool was used. The FLAT assesses the highest level of reading that children can perform comfortably. For grade 3 pupils, they were asked individually to read the story aloud in front of the class adviser. Then they read the questions and answered them out loud. If a child reads the story with more than 3 mistakes, and cannot answer at least 2 comprehension questions, we mark the child at "Paragraph Level".

The following Reading Level Scale were used to identify their performance in reading:

0 - Nothing	0 - Non-reader
1 - Letter	1 - 2 - Frustration
2 - Word	3 - 4 - Instructional
3 - Paragraph	5 - 6 - Independent
4 - Story	
5 - Story + 2 comprehension	
6 - Local Materials + Comprehension	

The respondents were also asked to answer the Post test for Intrinsic Motivation Inventory. This is to assess the respondents subjective experience related to the activity.

The researchers used the descriptive quantitative research design, and for the statistical treatment, the Frequency and Percentage were used in answering the extent of E-bike classroom on its effects on the intrinsic motivation and academic performance through enhanced home visitation and academic performance through enhanced home visitation on the reading ability of the participants used in the correlation on survey method.

A. Frequency- is the number of times the value occurs in the data. The distribution of a variable is the pattern of frequencies.

$$\text{Formula: } f = \frac{x_1 + x_2 + x_3 + x_4}{n}$$

Where:

x = Individual Item

n = Number of Items

B. Percentage Method – used in determining the percent or part of a variable. It follows the formula;

$$P = \frac{F \times 100}{N}$$

Where:

P = Percentage  
f = Frequency  
n = Sample Size

## RESULTS

### PHIL-IRI (FLAT) PRE AND POST RESULTS IN ENGLISH AND FILIPINO

ENGLISH	PRE		POST Reading TEST (MID SY PHIL IRI)		
	Non-Readers	Frustrations	Non-Readers	Frustrations	Instructional
Respondents (Grade III)	21	67	15	66	7

**Table 1.1 PHIL-IRI (FLAT) Results on Pre-Test and Post-Test in English subject**

Looking at the summary table, in English subject it could be gleaned that in the Pre-Test there were 21 learners who were non-readers and it became 15 learners who were non-readers in the Mid-Year Post-Test and 67 learners under Frustrations Level in the Pre-Test were reduced into 66 learners who were under the Frustrations Level and there were 7 learners who were under the Instructional Level.

FILIPINO	PRE		POST Reading TEST (MID SY PHIL IRI)		
	Non-Readers	Frustrations	Non-Readers	Frustrations	Instructional
Respondents (Grade III)	14	53	10	50	7

**Table 1.2 PHIL-IRI (FLAT) Results on Pre-Test and Post-Test in Filipino subject**

It reveals the results on Filipino subject on the Pre-Test that there were 14 learners who were non-readers and it became 10 learners for the Mid-Year Post-Test then there were 53 learners under Frustrations level in the Pre-Test which were reduced into 50 learners under Frustrations Level for the Mid-Year Post Test and have an Instructional Level of 7 learners in the Mid-Year Post Test.

As a summary for Table 1.1 and Table 1. 2, this implies that the innovation and strategies were effective for the learners to become readers or literate.

PRE-IMI										
	EFFORT/IMPORTANCE		PRESSURE/TENSION		PERCEIVED CHOICE		VALUE/USEFULNESS		Average	
					not my choice	do or join				
	fq	%	fq	%	fq	%	fq	%	fq	%
1 - not at all	12	14%	20	23%	16	18%	8	9%	2	2%
2 - somewhat	45	51%	23	26%	44	50%	10	11%	12	14%
3 - true	12	14%	21	24%	12	14%	45	51%	28	32%
4 - very true	19	21%	24	27%	16	18%	25	29%	46	52%

The table shows the Pre-INTRINSIC MOTIVATION INVENTORY of the respondents with results for them has a low effort in reading which has an average of 21% and respondents had high tension and pressure which is very true as 27%, in addition, the choice not to join or read in 29% which is greater compared to their likeness to read. From the results still, there are only 52% among the respondents the value and benefits of reading. As to the average of the IMI, it garnered 29% very true as the results of the survey.

POST-IMI											
	EFFORT/ IMPORTANC E		PRESSUR E/ TENSION			PERCEIVED CHOICE			VALUE/ USEFULNE SS		Averag e
					not my choice		do or join				
	fq	%	fq	%	fq	%	fq	%	fq	%	
1 - not at all	2	2%	31	35%	39	44%	0	0%	0	2%	17%
2 - some what	22	24%	21	26%	16	18%	18	20%	6	14%	20%
3 - true	20	23%	22	24%	29	33%	16	18%	18	32%	26%
4 - very true	44	51%	14	15%	4	5%	54	61%	64	52%	37%

The table shows the POST INTRINSIC MOTIVATION INVENTORY of the respondents with a good results that tend to be more motivated after the E-bike classroom and other technology related tools in reading made them strive to read as they now realized the importance and the benefit of reading to them (51% compared to pre 21% as to they relieved themselves from tension 15% which is lesser before it is 27% and got much confidence 61% and they can able to choose to read and value but it remains the same as 52% pre and post. As the average increased to 8%, it means they gained enthusiasm while joining the E-bike classroom intended for marginalized learners.

## DISCUSSION

The performance of the respondents was found to have strong correlation with their Intrinsic Motivation based on the results shown in the summary table where in the frequency percentage was used to answer the extent of E-bike classroom has an effect on the literacy/academic

performance through enhanced home visitation on the reading ability of the participants or learners during Modular Delivery Learning. Numeracy was integrated only during the reading activities.

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