

## Impact assessment of the beginning reading *para sa mga tsikiting* in Butuan City, Philippines

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### ABSTRACT

This study assessed the impacts of the beginning reading *para sa mga tsikiting* (beginning reading for kids) or BRPT intervention project, an initiative of the College of Education, Caraga State University, Mindanao, Philippines. Using a descriptive research design, it employed the Revised Philippine Informal Reading Inventory (Phil-IRI) Reading Profile as a baseline to assess learners' reading progress. The intervention involved 125 primary-grade pupils, 12 teachers, and 20 parents (home teachers). The conduct of impact assessment by a third party is required and mandated by the university after project completion. Results reveal significant improvement in reading performance post-project implementation, particularly evident in reducing frustration levels and increasing independent reading achievements. In addition, School A (with intervention) outperformed School B (without intervention). Despite the challenges it faced in its implementation, the project successfully met its target objective of enhancing reading performance. The project demonstrates its efficacy in improving early readers' literacy skills and fostering positive social and economic influences through community engagement despite issues in its implementation. The findings also highlight the project's social and economic impacts, such as the enhancement of parental engagement and strengthening of home-school partnerships while providing cost-effective measures and utilizing local expertise. Further, findings provide novel insights into the existing and future literacy programs.

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## 1. INTRODUCTION

Impact assessment is crucial for analyzing the effectiveness of a reading intervention project [1]. It helps the proponents understand the project's possible impacts before they start. Despite extensive research on reading intervention projects, most studies need more methodological rigor [2]. This particular assessment addressed this gap by conducting a more rigorous analysis of the impacts of the beginning reading *para sa mga tsikiting* (beginning reading for kids) or BRPT, a reading intervention implemented by the Department of Elementary Education-College of Education in collaboration with its extension school partner, Babag Elementary School, a public elementary school under the Department of Education. Launched in October 2019, the intervention project initially supplemented regular classroom instruction. However, with the emergence of the pandemic, the program had to transition from in-person sessions to a virtual format [3]. Regardless of the change, the project implementers successfully delivered the series of webinars and online workshops and

other-related activities. After three years of its implementation, the proponents saw the need to collect significant insights to determine whether the project goals have been achieved and to measure both intended and unintended targets. Hence, an impact assessment is necessary. This impact assessment is vital for understanding the project's overall effectiveness and areas needing improvement.

BRPT was conceived as a local response of the university to the declining reading proficiency of Filipino learners. As shown by the Program for International Student Assessment (PISA), the Philippines was at the bottom rank in reading comprehension, scoring 340 out of the 79 countries surveyed [4]. Additionally, the project aims to contribute to achieving United Nations' Sustainable Development Goal 4, which makes sure that all learners finish free basic education by 2030 [5].

The project highlights the critical need for early intervention to support learners who struggle with reading [6]. All activities of the project were focused on reading for struggling beginning readers. One of the objectives of beginning reading is phonemic awareness [7]. Teaching phonemic awareness poses a challenge for teachers [8], especially when learners need more support from their parents, as early literacy is expected to start at home [9]. Thus, measuring learners' improvement in phonemic awareness is crucial for evaluating the project's effectiveness. This is a key factor to consider in the impact assessment.

Aside from phonemic awareness, another aspect to be assessed in this study is the social impact of the project on the lives of the stakeholders. For the reading intervention project to learn and grow, it must analyze the social impacts resulting from past activities [10] and any processes of social change caused by such interventions [11]. Lastly, the economic impacts of the project should also be analyzed [12]. Assessing the project's economic impacts is significant in measuring the resulting increase in output, incomes earned, and jobs created or supported. Furthermore, policymakers, universities, and proponents continually decide the most efficient allocation of resources [13]. These decisions must be based on a thorough understanding of all projects and their impacts [13]. The data collected in the impact assessment would provide new insights on the conduct of future proposed reading intervention projects of the college and those projects implemented and to be implemented by other colleges in other universities in the Philippines and abroad. Thus, the relevance of this study on the conduct of school-community literacy projects and programs in higher education institutions is obvious.

## 2. METHOD

### 2.1. Research design

This study utilized the Revised Philippine Informal Reading Inventory (PHIL-IRI) profile results as a baseline to assess the improvement in reading skills among primary-grade learners. The reading assessment tool consists of graded passages that evaluate a learner's reading performance. It identifies the learner's independent, instructional, and frustration reading levels [14]. The project implementers utilized the learners' data from the assessment tool to create an intervention tailored to the learners' specific needs and abilities. As for the social and economic impacts of the intervention, the implementers conducted key informant interviews (KIIs) and analyzed their participants' responses through thematic analysis.

The proponents used the two types of assessment: before and after and with or without. The before and after kind of assessment means comparing the impact of the intervention before the implementation and when it was done or completed. On the other hand, with and without pertains to an assessment that used a counterfactual or an entity that is comparable (with similar characteristics) with the community where the intervention was conducted. It gauged the performance of the ones that received the intervention and compared it with the ones that did not have the intervention, such is called counterfactual.

To better understand the impact assessment plan, the BRPT framework is shown in Figure 1. It illustrates how the extension project of College of Education-Caraga State University receives institutional support regarding human and material resources. Operating as a research, development, and extension (RDE) of the university, its objectives include the development and validation of instructional materials known as pupil learning support materials (PLSMs) and the capacity-building of teachers (both in-service and pre-service) and home teachers (parents) in effective reading techniques and strategies through training workshops and partnerships.

Additionally, the project sought to boost the primary-grade pupils' reading performance by implementing a series of online reading tutorials. Its adoption within the school community was assumed to be facilitated by information dissemination efforts, such as distributing fliers and newsletters and representation at events like *brigada eskwela* (a week-long preparation for the opening of public schools in the Philippines) and school-held meetings. Successful adoption would manifest in observable changes in practice and products, including a decrease in struggling readers and an increase in the application of reading techniques and strategies among participants, particularly teachers. Moreover, there should be an increase in the development and validation of PLSMs-intervention materials made to boost the reading performance of beginning readers. As displayed in Figure 1, the project implementers sought to evaluate its impact on the school community,

including economic impacts such as access to online tutorials and utilization of local expertise, as well as social impacts like increased of the involvement of parents in their children's reading and overall learning.

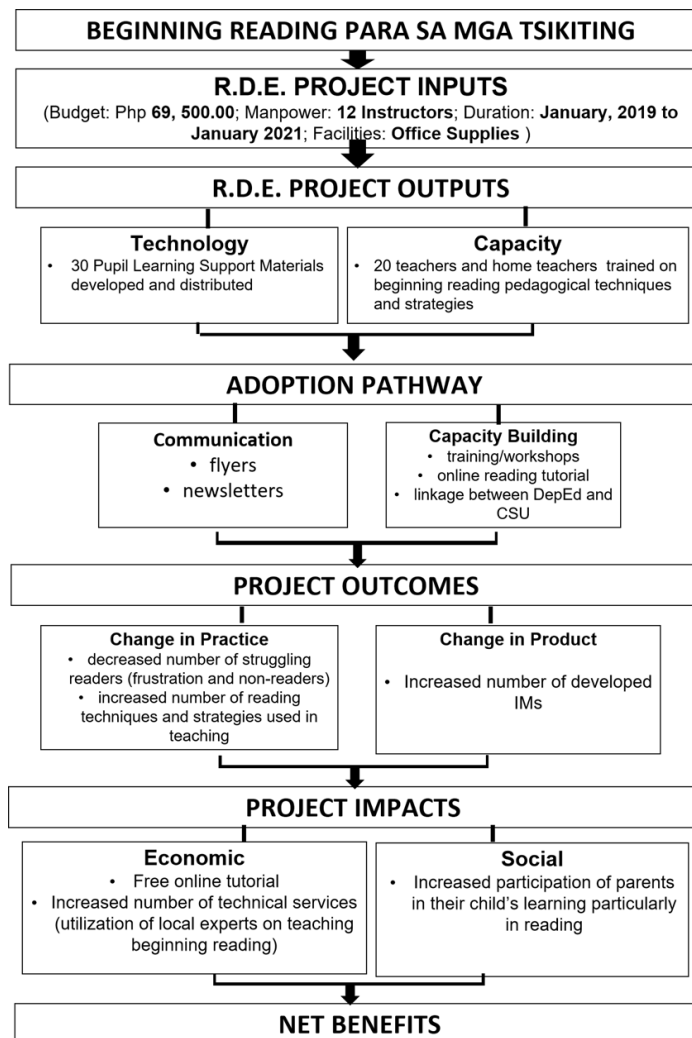


Figure 1. The BRPT impact pathways

## 2.2. Sampling design

To gauge the success of the project, specifically the online reading tutorials, 125 independents, instructional, frustrated, and non-readers who had participated in it were completely enumerated. Aside from gauging the effectiveness of the intervention before and after its implementation, the study also identified the school counterfactual by which results of the intervention were compared for the consideration of the comparison of performance in the school with the intervention and the school without the intervention. In terms of gauging the economic and social impacts of the intervention, purposive sampling was used to identify the participants for the interviews. They included 12 teachers and 20 parents.

## 2.3. Data gathering procedure

### 2.3.1. Before the intervention

As a result of the project, the implementers collected data from the school reading profile of Babag Elementary School. This document provided detailed profiles of the learners, including their sex, grade level, and reading level. The data were collected by the Babag Elementary School teachers, who assessed the pupils' reading abilities across independent, instructional, and frustration levels.

To determine these levels, pupils were made to read two or more stories and respond to subsequent questions, with the number of stories depending on their test results. For the independent reading level, teachers

provided selection one level lower than the given selection until the pupil attained 97%-100% in word recognition and 80%-100% in comprehension. For the frustration level, teachers provided selections one level higher than the instructional level until the pupil’s reading performance dropped to 89% or below in word recognition and 58% or below in comprehension.

After establishing the profiles of 125 pupils, the implementers initiated a series of reading intervention activities. These activities included training both teachers and parents (acting as home teachers), developing beginning reading instructional materials known as PLSMs and conducting an assessment of the intervention program’s effectiveness.

**2.3.2. During the conduct of the intervention**

To enhance the participants’ reading pedagogy, both onsite and online training workshops were organized for in-service and pre-service teachers. These sessions also included parents who acted as home teachers during the quarantine. A total of 51 parents, 12 teachers, and 94 pre-service teachers participated in the five workshops. Amidst the pandemic, student volunteers conducted ten online reading tutorials, attracting 125 pupils. Babag Elementary School covered the Php 9,000.00 data connection expenses, evenly divided among participating parents and their learners. To further evaluate the project’s effectiveness, Lemon Elementary School was chosen as a comparison to Babag Elementary School due to similar characteristics such as school size, teacher and learner population, reading skill concerns among pupils, and geographical location. This selection would prove invaluable in assessing the success of the project through a comparison of outcomes between the two schools.

**2.3.3. After the intervention**

Following the implementation of the reading intervention, a comprehensive assessment akin to the pre-implementation procedure was carried out to gauge the updated reading proficiency of the learners. The proponents gathered pertinent data utilizing various methods, including frequency, percentages, and thematic analysis. With the new reading profiles of the 125 primary-grade students in hand, the proponents of the assessment delved into evaluating the intervention’s social and economic impacts on the school community. Through interviews with selected parents and teachers, their insights were methodically categorized into distinct themes. Additionally, challenges met during the implementation of the reading intervention were documented based on interviews conducted with Babag Elementary School participants. In addition to gathering data for pre- and post-intervention assessments, the proponents also collected information from the counterfactual school, Lemon Elementary School, to facilitate a comparative analysis that is the “with and without” assessment approach.

**3. RESULTS AND DISCUSSION**

**3.1. The sex and grade level profile of the primary pupils involved in BRPT**

As shown in Figure 2, there is a notable decline in the number of learners in the grade 3. The highest enrollment is in grade 1, with 32 female and 19 male learners. In contrast, the third grade has the lowest enrollment, with only 32 learners, comprising 14 males and 18 females.

Research indicates that gender differences in reading competence are more pronounced among children and adolescents but less significant in adulthood. Overall, female students consistently outperform male students in reading. A study of Thums *et al.* [15] conducted across three grade levels found that girls consistently have higher reading scores than boys, a trend observed over the past 15 years.

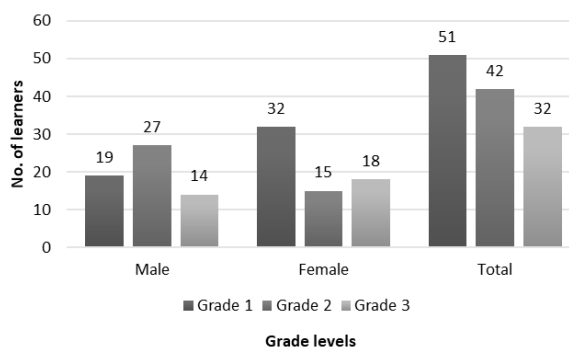


Figure 2. Profile of the learners in terms of sex and grade level

### 3.2. Analyzing the difference in the primary pupils’ reading performance before and after the project implementation

Figure 3 shows that before the implementation of the project; the highest number of profiled learners was at the frustration level. However, after the intervention, the independent level became predominant. Notably, no learners were profiled as non-readers. The paired sample test results for primary pupils were significant, with a p-value of 0.001 (less than the 0.05 level of significance). The data indicates a substantial difference in reading performance before and after BRPT, suggesting that the intervention positively impacted primary-grade pupils’ reading abilities.

The result differs from the data in the study on reading intervention for struggling readers in the upper elementary (1988-2019), which found only minor effects on both basic reading skills (effect size, (g=-0.22)) and comprehension (effect size, (g=-0.21)) [16]. These findings suggest that upper elementary students did not acquire early solid foundational reading skills, indicating a need for more intensive interventions to help them catch up. For a successful reading intervention, according to Thurston *et al.* [17], it should be done with personal interaction between tutors and tutees to significantly impact its outcomes. Strategies that integrate content while considering the learner’s reading level are also crucial. These findings highlight the importance of tailored interventions aligned with students’ needs and learning preferences. Also, Wu and Hindman [18] elucidated that adult such as the parents and guardians need to stay involved in their children’s education. Human interaction plays a role in children’s foundational literacy skills [19].

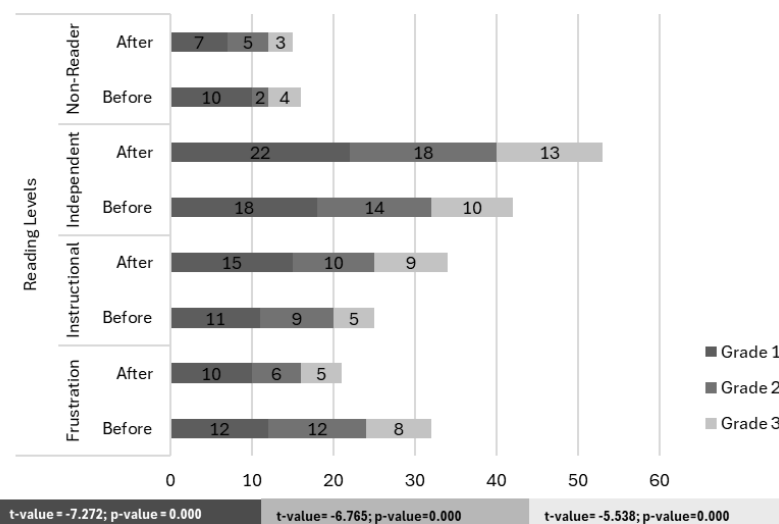


Figure 3. Learners’ reading level before and after the project implementation (by grade level)

Reading intervention activities can significantly benefit all children, particularly those from disadvantaged communities [20], by preventing a decline in reading performance and fostering a love for reading. Notably, the BRPT project involved not only teachers but also parents (acting as home teachers) in a series of training sessions. The project recognized that parental involvement is a significant factor in the success of any reading intervention initiative.

Figure 4 presents the impact of the BRPT intervention on learners’ reading performance. As observed, after the implementation of BRPT, 18 pupils reached the independent reading level, while 16 attained the instructional level. Additionally, 14 learners transitioned from the frustration level to higher reading levels, and 20 non-readers either progressed or were displaced.

These findings highlight the effectiveness of the reading intervention, which involved strategy reinforcement through teacher training, home support, and online tutorials. The increased number of learners achieving independent and instructional levels reflects improved reading comprehension and fluency. Considering the findings, Lindström-Sandahl *et al.* [21] emphasized the scarcity of evidence supporting long-lasting benefits from early reading interventions. Such effects are often modest and do not substantially alter learners’ relative skill levels within their peer group over time. However, Hurry *et al.* [22] countered this view, asserting that reading interventions continue to exert influence as children mature. While certain challenges may naturally resolve with time, early intervention remains crucial for mitigating negative cycles of interaction and establishing essential foundational skills.

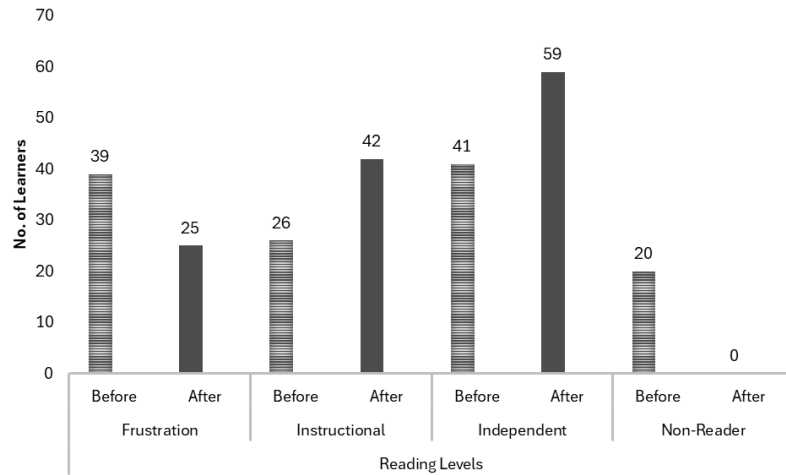


Figure 4. Overall learners’ reading performance before and after the project implementation

**3.3. Analyzing the difference in the primary pupils’ reading performance with and without the project**

Figure 5 compares learners’ reading performance with and without the BRPT intervention. School A (with BRPT) showed higher achievement at the independent level, while School B (without BRPT) had fewer learners at the frustration level. Although the results were not statistically significant, subtle interventions in School A improved reading proficiency significantly.

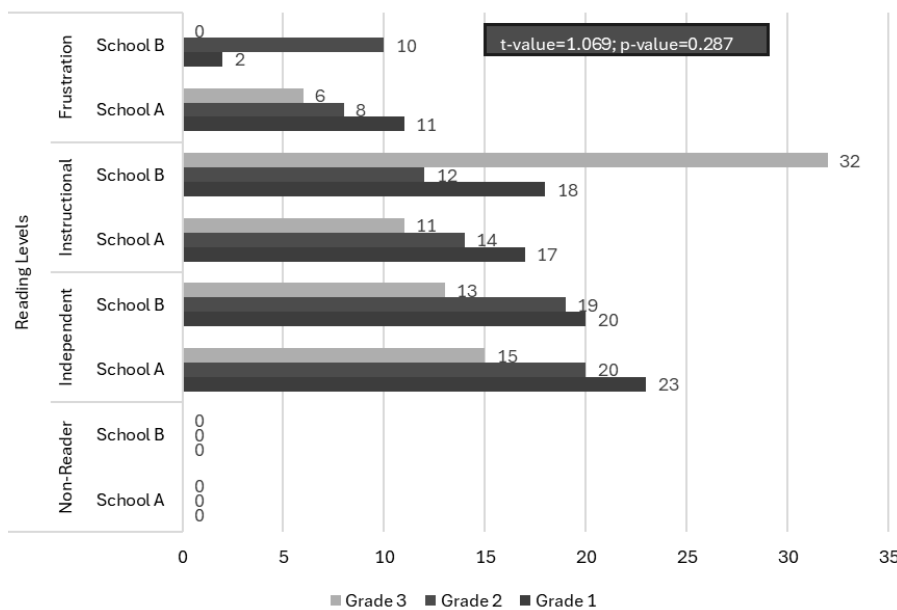


Figure 5. Learners’ reading level with and without the project (use of counterfactual) by grade level

Prior research such as Young *et al.* [23] suggests that phonological interventions benefit early readers, while comprehension interventions are more effective for older readers. Long-term impact assessments beyond the intervention period are essential. Figure 6 reveals notable improvements in learners’ reading proficiency following the reading intervention. Despite having more pupils at the frustration and instructional levels in School A (with BRPT), it outperformed School B (without BRPT) with 58 registered learners a difference of 6 compared to the latter. These findings underscore the effectiveness of the implemented reading intervention. The substantial number of learners progressing to higher reading levels across frustration and non-reader categories demonstrates its efficacy. In a study by Young *et al.* [23], similar positive outcomes were observed in their reading intervention program. When effectively implemented alongside regular schooling, the

intervention enhanced reading expression, reading rate, decoding skills, word knowledge, and reading comprehension.

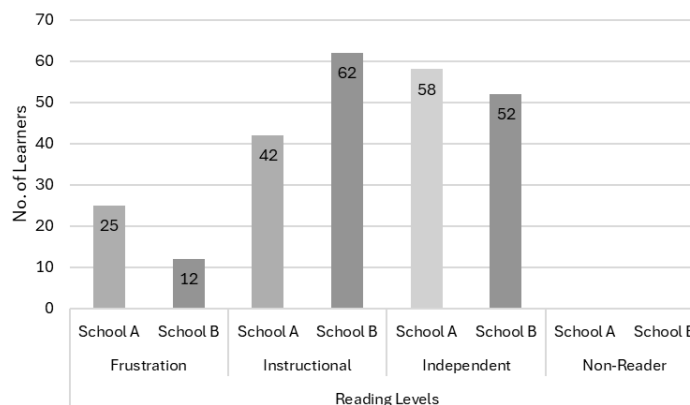


Figure 6. Overall learners' reading level performance with and without the BRPT (use of counterfactual)

Furthermore, evidence-based research by Young *et al.* [23] displays a significant decrease in reading failure rates when classroom teachers provide clear instruction in phonemic awareness, phonemic decoding skills, fluency in word recognition and text processing, meaning construction, vocabulary, spelling, and writing. To effectively support children at risk of reading failure, these instructional components need to be clearer, comprehensive, intensive, and supportive, as highlighted by Maurer *et al.* [24].

### 3.4. Intervention strategies to enhance beginning reading performance in primary-grade pupils

The project implementers carried out the following activities to achieve its primary goal of enhancing the reading performance of primary-grade learners:

#### 3.4.1. Series of training

The project conducted a series of online training-workshops, including the BRPT launching and learners' assessment, online workshop on instructional material development for beginning readers (focused on design and development), teachers' training in mentoring teachers on intervention materials development, online workshop in pedagogical techniques on beginning reading for home teachers, and a webinar on polishing PLSMs for beginning readers. These training workshops were attended by teachers from Babag Elementary School, partner schools in extension, parents or home teachers, bachelor of elementary education pre-service teachers, and College of Education Faculty who served as project implementers. The activities were held from 2019 to 2021.

#### 3.4.2. Reading intervention related-activities

Beyond the training sessions, the project implementers held consultative meetings with the school community and took part in speaking engagements. They also conducted online reading tutorials for learners at the struggling levels (frustration and non-readers). These activities complied with the health protocols established by the Inter-Agency Task Force for the Management of Emerging Infectious Diseases (IATF-EID), a task force organized by the Philippine government to address infectious disease issues, given that the project was implemented during the pandemic.

#### 3.4.3. Beginning reading instructional material development and validation

Student volunteers crafted instructional materials for beginning reading. These materials were modeled after strategic intervention materials (SIMs), which are commonly used for teaching science. They are used to address the dearth of instructional materials in schools [25]. A total of 30 learning support materials were developed and validated. These materials were distributed to home teachers or parents, aiming to enhance learners' reading performance through grade-level appropriate activities that students can complete independently.

The online training sessions, the BRPT activities, and the crafting and validation of instructional materials were all designed to meet the project's objectives of enhancing the reading performance of beginning readers and positively impacting the school community. Roberts *et al.* [26] identified some characteristics of

successful interventions for learners who are at risk for reading difficulties, such as timeliness, data-driven, motivating, and supportive. The claim of Roberts *et al.* [26] aligns with the actual project implementation, which involved activities such as training workshops, reading intervention-related tasks, and the development and validation of reading instructional materials for beginning readers since the project aimed to provide timely and data-driven interventions while fostering a conducive atmosphere to effective learning through improving the reading performance of the primary-grade learners.

### 3.5. The social impact of the project

The analysis of the responses of the participants to the social impacts of the reading intervention project BRPT on the school community was categorized into two themes. These were identified by the teachers and parents involved. The first theme gathered in the interviews was increased parental engagement. By participating in the series of training workshops on reading strategies and techniques, parents became more engaged in their children's education, particularly in supporting literacy development at home. Parents as home teachers, particularly during the pandemic, learned effective reading strategies and were becoming better equipped to assist their children with reading practice, comprehension, and vocabulary building. This increased involvement led to stronger bonds between parents and children and a deeper understanding of the importance of reading in academic success.

Parent-participant 8 showed gratitude for being able to participate in the training workshops. This expression of gratitude was evident in her statement:

*“Nalipay ko na nakaattend ko sa online og kadtong isa ka training na nakaapil ko sa eskwelahan kay nakakat-on ko unsaon pagtudlo sa akong anak og basa especially na akong anak matod pa sa teacher na naa sa frustration level.” (I felt happy when I attended the online training and that one onsite training in school where I learned how to teach my child how to read especially that he is (according to the teacher) belongs to the frustration level.)*

Parent-participant 3 mentioned her appreciation of the project as she stated:

*“Nindot siguro kung nakaapil ko sa tanan na training workshops kay nakakat-on gali ko unsaon pagtudlo og reading sa akong anak na sa kadtong duha ra akong na-attanan, labaw na gyud tana kung nakompleto nako ang training.” (It would have been better if I have attended all training workshops because I already learned how to teach my child to read by just attending in two, much more if I have attended all of the training workshops.)*

Also, parent-participant 1 expressed her approval of the intervention as she stated:

*“Ganahan na ko motudlo sa akong anak pagbasa kay kabalo na ko unsaon ang pagsugod gyud og tudlo og reading. Karon kabalo na ko sa letter sounds. Dako na ni na tabang sa ako og sa akong anak.” (I now love to teach my kid how to read because I already know how to begin teaching reading. Now, I already know about letter sounds. This is a big help for me and my son.)*

Parents were able to appreciate their attendance in training workshops and they became equipped home teachers as they were able to learn how to teach their children how to read. The statements above also prove that the parents are spending time teaching their children. Another theme extracted from the interviews is strengthened home-school partnerships. As parents become more involved in their children's reading education, cooperation between the home and school can flourish. Teachers offer resources and guidance to parents on supporting reading development at home, while parents share their child's progress and challenges faced at school. This collaborative relationship fosters a supportive learning environment, reinforcing reading skills consistently both in school and at home. This partnership contributes to improved student reading outcomes and overall academic success.

The strengthening of the partnership between teachers and parents was manifested in the statement of teacher-participant 5:

*“Ganahan ko sa BRPT kay nakita nako na na-boost ang motivation sa parents na motudlo sa ilang kaugalingong anak which is advantageous sa amo kay mas sayon na tudloan og basa ang mga bata nila.” (I like BRPT since I observed that the parents were more motivated to teach their own children and which is good on our part since it will be easier for us to teach our learners how to read.)*

Parent-participant 10 also shared her appreciation of the BRPT in her statement:

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*Impact assessment of the beginning reading para sa mga tsikiting in Butuan City ... (Ariel U. Cubillas)*



*“Nafeel gyud nako ang akong role as first teacher sa akong mga bata tungod sa BRPT. Partner na gyud mi sa maestra sa pagtudlo og basa.” (I really felt my role as the first teacher of my own kids. I and the teacher are indeed partners in teaching reading).*

The parents successfully embraced their roles as educational partners, as evidenced by the statements above. Their involvement in the project provided them with the skills needed to teach reading to their children. According to Soyooft *et al.* [27], parent-involved reading activities significantly enhanced primary-grade learners' reading comprehension, motivation, and attitudes toward reading. Moreover, Çaliskan and Ulas [28] stressed that parental involvement in a child's literacy practices is a more influential factor than other family background variables, such as social class, family size, and parental education level. Additionally, Kim and Yim [29] noted that home literacy creates an environment rich in books, fostering a culture of reading. In summary, parents' active involvement in teaching their children to read, facilitated by the reading intervention project, leads to increased parental engagement and stronger home-school partnerships. These social impacts benefit not only individual learners but also create a more supportive and cohesive school community.

### 3.6. The economic impact of the project

The project had two significant economic impacts on the school community, especially among the learners, teachers, and parents involved, particularly regarding the provision of free resources and increased access to technical services. These themes were extracted from the responses in the interviews conducted. The first theme is the cost savings for the participants. The provision of free online reading tutorials for learners and free online and onsite training workshops for teachers and parents eliminates the financial barrier to accessing educational resources and professional development opportunities. Teachers and parents did not need to allocate funds for purchasing reading materials or attending training sessions, thereby reducing their training-related expenses. This cost savings allows participants to reallocate their resources to other essential needs, contributing to improved economic well-being for families within the school community. This claim is manifested by teacher-participant 3 in her statement:

*“Nindot ang BRPT kay nakaapil ko og training on reading strategies without much hassles like fare since online man ang majority sa training workshops and for free pa gyud. Free na with certificate pa gyud.” (BRPT is nice because I was able to participate in the training on reading strategies without much hassle, like fare for transportation, since the majority of the activities were done online and were offered for free. Aside from being cost-free, we also received a certificate of participation.)*

Also, parent-participant 6 expressed her appreciation of BRPT when she mentioned in her statement:

*“Asa man ka makakita of tutorial na for free karon? Pasalamat ko kay libre akong anak og tutorial plus CSU pa gyud na mga maestrahonon ang nagtudlo.” (Where can you find a free reading tutorial nowadays? I am truly grateful that my son was able to attend the tutorial aside from the fact that pre-service teachers from CSU are their tutors).*

Teachers and parents appreciated the cost-free online reading tutorials and the training workshops of the reading intervention project. They were able to enjoy the learning and development opportunities without many worries and hassles since they were given for free. Another theme is the utilization of local expertise. By increasing the number of technical services, mainly through the utilization of local experts in teaching beginning reading, the reading intervention project enhances the school community's access to specialized knowledge and skills. Local experts, particularly the selected parents and teachers, provided tailored support and guidance based on the context and needs of the community, leading to more effective reading instruction and support systems. Additionally, the engagement of local experts promoted economic development within the community by creating opportunities in the education sector. Using local experts makes the most of available resources and helps the community feel more involved and invested in the success of the reading intervention project. Teacher-participant 2 shared her experience of being a local expert on reading in her statement:

*“First-time gyud nako ma-speaker na naay participants not coming from our school. This is a treasured opportunity for me. The training workshops I went through under BRPT were able to equip me with better knowledge of teaching beginning reading strategies.” (It was my first time to be a resource speaker with participants/audience not coming from my school. This is a treasured opportunity for me. The training workshops I went through under BRPT were able to equip me with better knowledge of teaching beginning reading strategies.)*

Parent-participant 10 also mentioned his appreciation of his BRPT experience in his statement:

*“Nalipay ko kay na-speaker ko sa usa ka training sa BRPT. Wala nako damha na mainvite ko na moshare sa akong knowledge and experiences sa uban parents og mismo sa mga teachers.” (I was happy when I became a resource speaker in one of the BRPT training workshops. I did not realize that I would be invited to share my knowledge and experiences with other parents and even among the teachers.)*

Both parents and teachers were grateful that they were able to share their knowledge with other parents and teachers. Such opportunities became possible because they attended the activities in the reading intervention project. They, being local experts, could now be invited to future extension project engagements related to reading. However, the proponents noted that an in-depth analysis of the economic benefits of reading intervention may be conducted utilizing a more rigorous method or approach to gauge the project’s economic impact on the school community.

According to Vignoles and Cherry [30] suggests that while many studies talk about the economic advantages of literacy programs, they often need more solid economic analysis to support these claims. This idea means it takes time to make definite conclusions about the financial benefits. Specifically, they need to look more closely at things like the time and money spent on literacy programs, and they need to measure the results more carefully.

In summary, the provision of free online tutorials for learners, free training workshops for teachers and parents, and increased access to technical services utilizing local expertise contribute to cost savings for participants and promote economic development within the school community. These economic impacts not only benefit individual participants but also contribute to the overall economic resilience and prosperity of the school community.

### **3.7. Challenges encountered by the implementers of the project**

The project’s implementation was bolstered by the launch of Department of Education’s *Sulong Edukalidad* (advancing education quality): battlecry moving forward amidst the pandemic. Following this, numerous challenges emerged, which the project implementers identified through interviews. The data were consolidated into three key issues: i) the abrupt transition from in-person to virtual training; ii) the inconsistent participation of home teachers; and iii) the overlapping work schedules of the BRPT implementers. The abrupt shift to virtual training caught the implementers off guard when classes were suspended due to the COVID-19 pandemic. This was supported by the statement of implementer-participant 2 who said:

*“We did not follow in toto the suggested activities in our proposal since most of them are to be done in face-to-face set-up. In fact, there came a time, when we want to suspend the implementation of the project since we, at that time lacked options on how to carry on with the project.”*

Another challenge faced during the project’s implementation was the low participation of home teachers in the training sessions. Many parents struggled to attend due to their work commitments and the need to earn a living. Additionally, their limited familiarity with technology further hindered their ability to participate in the training. This issue is evident in a statement made by teacher-participant 2 as she commented:

*“Dili gyud halos makaapil ang pipila ka ginikanan sauna sa mga training kay uban nagtrabaho and ang uban pod dili lihiro og technology. Good na naa mi mga maestra para mohelp sa ila paggamit sa Zoom and Google Meet.” (In the beginning, some of the parents were not able to participate in the training since they were working and others are not good in handling technology. It’s a good thing that we (teachers) were able to help them by giving them assistance in using GoogleMeet and Zoom.)*

The implementers’ busy schedules also posed a challenge for the project. Some reported that the work-from-home system actually made them busier, as people assumed they were always available since they were at home. The demand of their time has increased. Implementer-participant 5 stated:

*“It would be better if the heads of the offices would consider that the employees who are in work from home mode are not always available. They too must see to it that as much as possible, the schedules of their meetings or training do not overlap with other university events or college event in the least.”*

The abrupt transition from in-person to virtual training, the low participation of home teachers, and the overlapping work schedules of the implementers have directly impacted the project's implementation. These issues need to be resolved immediately to facilitate the smooth and successful completion of the reading intervention project.

#### 4. CONCLUSION

The reading intervention project, which targeted non-readers and frustration-level learners, conducted activities such as teacher and parent training, online tutorials, and instructional material development. As a result of the intervention, learners yielded notable improvements in reading levels, with significant gains observed before and after the intervention period. Enhanced parental involvement emerged as a key outcome, with training workshops fostering increased participation in children's literacy development and strengthening parent-child relationships. This positive engagement also led to better home-school collaboration, providing a supportive learning environment for consistent skill reinforcement. Economically, the project offered substantial impacts to the school community by providing free resources and access to technical services, as revealed through interviews. Cost savings were realized through complimentary online tutorials and training workshops, while local expertise was leveraged to boost community-based economic opportunities.

Despite initial challenges, such as adapting to online training and limited teacher participation, the project successfully met its goals of improving reading skills and positively impacting the community. It demonstrated effectiveness in enhancing literacy and community engagement, offering insights for future literacy programs in the Philippines and beyond. The study primarily employed qualitative methods with reading inventory tools and interviews, needing more quantitative data to fully measure economic impacts. Future research should incorporate a more comprehensive economic assessment to quantify these effects.

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#### AUTHOR CONTRIBUTIONS STATEMENT

This journal uses the Contributor Roles Taxonomy (CRediT) to recognize individual author contributions, reduce authorship disputes, and facilitate collaboration.

Name of Author	C	M	So	Va	Fo	I	R	D	O	E	Vi	Su	P	Fu
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C : Conceptualization

M : Methodology

So : Software

Va : Validation

Fo : Formal analysis

I : Investigation

R : Resources

D : Data Curation

O : Writing - Original Draft

E : Writing - Review & Editing

Vi : Visualization

Su : Supervision

P : Project administration

Fu : Funding acquisition

#### CONFLICT OF INTEREST STATEMENT

Authors state no conflict of interest.

## INFORMED CONSENT

We have obtained informed consent from all individuals included in this study.

## ETHICAL APPROVAL

The research related to human use has been complied with all the relevant national regulations and institutional policies in accordance with the tenets of the Helsinki Declaration and has been approved by the authors' institutional review board.

## DATA AVAILABILITY

The authors confirm that the data supporting the findings of this study are available within the article.




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