Research Proposal

MEASURING THE IMPACT OF THE "I LIKE READING" INTERVENTION TOWARDS BASIC LITERACY IN KUPANG REGENCY, EAST NUSA TENGGARA USING AN "EDUCATIONAL IMPROVEMENT SCIENCE" FRAMEWORK

Research Coordinator: Joshua Pong, Ed.D

In Partnership with Yayasan Tunas Aksara

List of Researchers

No	Name	Phone number /E-mail	Institution/ University/School	last education	Disciplines	Expertise
1	Junita Wenda Rajah		Christian College of Economics	Bachelor of Economics	Management	Project management in non-profit organizations
2	Marice Yuliana Mauboy		Jaffray Theological College Jakarta	Bachelor Education Christianity	Theology	Project Manager and member of the YTA Board of Directors
3	Agustina Djulete		University of Nusa Cendana	Bachelor of Education	Guidance Counseling	SSM Regional Facilitator
4	Oktaviana Rulianti Djulete		University of Nusa Cendana	Bachelor of Education	English language education	Trainer
5	Sri Wulandari Here Willa		University of Nusa Cendana	Bachelor of Education	English language education	Trainer
6	Joshua Pong	+62 821 1738 1924	San Francisco State University	Ed.D. Education	Educational Leadership	Organizational Research and Evaluation

Researcher Affiliation

Joshua Pong is a researcher who acts as a volunteer at the Tunas Aksara Foundation. All other researchers are staff working at the foundation.

Background

Indonesia is facing a crisis in literacy. The Program for International Student Assessment (PISA) study shows that only 25% of 15-year-old students reach level 2 (the level considered ready to enter the 21st century workforce), compared to the OECD average of 74% (PISA, 2024). Indonesia is thus ranked 71st out of 80 countries for literacy (PISA, 2024). Since PISA

only tests 15-year-old students who are still in school, this figure is an upper limit. Therefore, it is reasonable to conclude that the percentage of students reaching level 2 is actually lower than 25%.

However, the Central Statistics Agency (BPS) dataset in 2024 illustrates a different situation. The illiteracy rate among 15-year-old students across Indonesia is only 3.33% (BPS, 2024). East Nusa Tenggara [NTT] is one of the ten provinces with the lowest literacy scores, at 4.85% for that group, (BPS, 2024). At first glance, this seems to be good news.

The literacy figures hide several facts. First, there is no data at all on the reading ability of children under the age of 15. This lack of data is not useful for measuring progress in literacy education. Second, the PISA assessment and the BPS assessment can only both be correct if they measure different things. Third, there is a big difference between urban and rural areas. Literacy skills tend to be concentrated in urban areas. Urban residents have better access to educational facilities, educators, and public facilities such as electricity and the internet (World Bank, 2019). As a result, literacy deficits more often affect impoverished rural areas (World Bank, 2019; INOVASI, 2019).

For example, there is a study conducted in Kupang district (Robot et al., 2022). The study is the result of a literacy test for 5,085 elementary school children in grades 1-3 in Kupang District. Table 1 shows their results.

Table 1. Literacy test results for 5085 elementary school children in Kupang district

	% read letters correctly	% words read correctly out of 20 words	% of words read correctly from story (100 words) in 60 seconds	% comprehension questions answered correctly from the story (100 words)
Grade 1 students	77	37	24	42
Grade 2 students	87	66	36	50
Grade 3 students	95	85	54	62

It is clear that almost a quarter of grade 1 students cannot read letters, let alone words. This may be in line with BPS data (2024) which shows that Kupang Regency is one of the NTT regions with the lowest rates for preschool enrollment. In addition, it can be seen that: (a) the success rate drops drastically as the complexity of tasks increases at all grade levels; and (b) there are grade 3 students who have difficulty reading fluently and understanding reading well.

There are several factors that cause this situation in NTT. These factors include the lack of: (a) good infrastructure, such as roads and bridges, that allow access from home to school, or from school to logistics facilities; (b) high-quality educational facilities and curriculum; (c) the number of high-quality teachers; (d) education budget restrictions that lead to poor educator welfare; (e) support and participation from the elementary school student community; (f) school

participation rates that are not yet optimal at all levels of education (INOVASI, 2019; World Bank, 2019; Adiatma et al., 2023; BPS, 2024; Wulakada, 2024). It is true that all of these causes are interrelated. However, it is sufficient to review studies that investigate the curriculum and teacher quality in NTT for the purpose of this study.

Research Conducted Regarding Teacher Quality

Several studies have revealed that the low quality of teachers is one of the biggest problems in education in Indonesia. The first reason is that the average teacher in Indonesia has not mastered their subject matter even though some have graduated and obtained a bachelor's degree (De Ree, 2016). Burgess (2019) revealed that teacher effectiveness has almost no correlation with their qualifications.

As response to low teacher quality , the Indonesian government launched Profesi Pendidikan guru (PPG), a program for the development of high-quality teachers. Mukrim et al. (2023) investigated the impact of PPG online courses on English teachers in Sumba. Although Mukrim's findings were positive, the study consisted of only two interviews with two teachers. Since the data obtained were anecdotal, it is not certain whether PPG is effective or not. On the contrary, there are studies that conclude that (a) PPG has not been effective at all in producing high-quality teachers; (b) it has not been effective in improving the scores of Indonesian students (Yusrina et al., 2022).

There are recommendations related to teacher development although not directly related to PPG. Tapung (2024) concluded that teacher training should focus on building teacher resilience, conflict management skills, and teacher innovation. Other recommendations include: (a) improving the selection and recruitment process (Burgess, 2019; Yusrina, 2022); (b) ensuring that prospective teachers master their subject matter before becoming teachers (De Ree, 2016), and (c) personalized mentoring for teachers (Burgess, 2019).

Intervention Research Conducted in NTT Regarding Teacher Quality and Curriculum

INOVASI conducted a baseline survey before implementing four pilot projects in Sumba. The study found that most teachers in Sumba were not yet competent in teaching. Furthermore, most teachers in Sumba did not prepare their lessons by writing lesson plans. Other reasons for the low scores of elementary school students were: (a) lack of libraries in schools to promote a culture of literacy; and (b) lack of knowledge of new students entering grade one because most of them did not attend preschool. Two recommendations from all were: (a) developing a curriculum with a focus on literacy and numeracy; (b) improving the capacity and quality of teachers in Sumba. However, only the baseline survey was published, resulting in the results of INOVASI's interventions not yet known (INOVASI, 2019).

Wahana Visi Indonesia (WVI) launched a program to increase community participation in building literacy in West Manggarai and East Manggarai (Wijaya, 2022). This program is based on the theory that low literacy is a cultural problem. Their main goal is to involve the entire

community around the students. WVI provides training to teachers on how to teach basic literacy skills, namely phonemic awareness, letter knowledge, vocabulary, fluency and reading comprehension. WVI also provides training to parents on how to help their children become readers. The findings of this study are good. However, there is no quantitative measurement to understand how effective the intervention is.

WVI research revealed that the key to success is teachers who are trained to (a) teach basic literacy skills; and (b) teach parents how to support their children at home. Interestingly, 92% of teachers in East Manggarai and 87% of teachers in West Manggarai taught letter knowledge skills based on the training. However, only 66.7.4% of teachers in East Manggarai and 55.3% of teachers in West Manggarai taught phonemic awareness skills based on WVI training (Wijaya, 2022). The percentage of teachers trained by WVI who taught reading fluency and comprehension based on WVI training was 33.4% of teachers in East Manggarai and 26.7% of teachers in West Manggarai (Wijaya, 2022). In other words, fewer teachers continued to use the new curriculum as the difficulty of the skills increased.

KIAT Guru implemented an intervention to improve teacher quality in West Manggarai and East Manggarai Districts (Gaduh et al., 2020). Teachers in the districts were divided into three groups. Since the primary goal of KIAT Guru was to improve student scores by reducing teacher absenteeism (rather than improving teacher quality), this study will focus on the third group only. All teachers in the group received 100% of their salary if they (a) attended class at least 85% of the time during the trial period; and (b) improved student scores.

Although this method increased teacher attendance in class, it was not as effective as the other group who received 100% of their salary if they were only present in class. This study argues that perhaps the third group was not as effective as the other groups because: (a) the “student score increase” condition was not clearly stated in its application; and (b) this method is prone to subjectivity (Gaduh et al., 2020). There is another possibility. Perhaps teachers in this group have not mastered the subject matter and do not utilize PPG. Thus, they are unable to improve student scores and have less incentive to meet the requirement.

So far, it can be seen that: (a) there are still elementary school students in rural NTT who have difficulty reading fluently (or even cannot read at all); (b) many teachers in NTT are not ready to teach effectively without additional training; (c) teachers are the key to success in improving the academic scores of elementary school students in NTT; (d) one method to improve teacher quality is to provide a new curriculum and related training.

Interventions Investigated In This Study

Yayasan Tunas Aksara (YTA) has designed an intervention program called "I Like Reading" (SSM) with the aim of improving the literacy level of early grade elementary school students in Indonesia. From the beginning, SSM was designed in accordance with: (a) the needs observed by the YTA Expert Team for urban underprivileged communities living in Jakarta; (b) the concept of "best literacy pedagogy" known at that time. The SSM curriculum has also been

revised many times by the YTA Expert Team based on feedback from teachers and other experiences in the field to improve the quality of its products.

Currently, the core elements of the SSM program include:

(a) Providing a comprehensive early literacy curriculum, consisting of 4 stages curriculum (namely: Letter Sounds, Syllables, Words & Sentences, Independent Reading). Each section includes a handbook, activity book, and educational props.

(b) Leveled reading books that are adapted to the curriculum stages.

(c) Teacher training that equips early grade elementary school teachers to teach reading

(d) Using SSM curriculum and educational principles according to best practices.

(e) Implementation of mentoring for elementary school teachers who have been trained, with the frequency and duration of mentoring depending on the type of SSM intervention carried out.

(f) Measuring the reading ability of elementary school children (who will learn from the SSM curriculum) with pre- and post-intervention test scores (hereinafter referred to as "baseline/endline"). The YTA baseline/endline test is based on other tests that have been proven to measure reading ability well.

(g) (Depending on the SSM intervention undertaken): Provide additional services (optional) called Library in a Box which consists of ~120 leveled books from other publishers.

YTA's team of experts has been running this program for 13 years in various regions in Indonesia from Sumatra to Papua. In general, the SSM curriculum is used in the context of urban underprivileged communities and underprivileged communities in disadvantaged, frontier, and outermost (3T) areas.

Since the beginning of the SSM program, recipients of the SSM curriculum such as elementary school students, their parents, elementary school teachers, principals, and others testify that they have felt the benefits of this program. However, testimonies are by nature anecdotal and do not prove the impact of SSM scientifically. The SSM Program's level of impact and benefits have not been systematically determined.

In addition, the Research Team is aware that suboptimal program implementation can be an internal school factor that contributes to suboptimal results. Therefore, the Research Team will also conduct an in-depth investigation into program implementation in all participating schools.

Conclusion

Based on the reviewed research, it is concluded that: (a) the Indonesian government values basic literacy skills more than functional literacy skills; (b) it is likely that there are more students in rural areas in NTT who have not mastered basic or functional literacy skills compared to other areas with lower illiteracy rates; (c) NTT communities may require comprehensive interventions, both in terms of pedagogy, curriculum, or both; (d) more in-depth quantitative data is needed on literacy interventions to assess their effectiveness.

There are two main reasons why the Research Team wanted to study the implementation of the SSM program in Kupang district, NTT. First, YTA has been operating in Kupang district for three years. The results show that the implementation of the SSM program in NTT has been carried out as well as possible. Furthermore, this research could be conducted in a quasi-experimental approach because the NTT Education Office has agreed to provide data from schools that did not receive the SSM program as a "control group". Thus, the Research Team considered data from NTT to be the most reliable for measuring the impact of the SSM program.

Therefore, this Research Team wants to examine the impact and implementation of the SSM program in NTT. This research is based on three premises:

1. YTA wants to know the extent of the impact of the SSM program on grade 1 elementary school students in NTT. To determine if the SSM program causes an impact, the study will be conducted in a quasi-experimental approach. This data will be collected through pre- and post-intervention test scores (hereinafter referred to as "baseline/endline").

2. YTA wants to know how to optimize the implementation of the SSM program. Therefore, YTA wants to investigate the factors that facilitate or hinder the implementation of the SSM program. The Research Team will interview educators such as teachers, principals, and school committees because: (a) researchers and educators often have different understandings of these factors (Johnson et al., 2016); and (b) educators, including principals and teachers, often have different perspectives from each other (Bridgeland, 2010)

3. YTA seeks to understand how contextual factors outside of school influence the learning process of the SSM program (Armstrong et al., 2020; Li, 2023). The data are expected to reveal relationships that are useful for supporting improvements in future iterations of the SSM program. Therefore, the Research Team will interview parents of SSM students.

Research Questions

1. Does the "Saya Suka Membaca" program (SSM program) improve the basic literacy skills of grade 1 elementary school students in East Nusa Tenggara (NTT)?

2. What factors facilitate or hinder the implementation of the SSM program by elementary school educators in NTT?

3. What are the household factors that influence the reading learning process of grade 1 elementary school students in NTT?

Research Location

All data collection will be conducted by the Research Team in Kupang district, NTT. The data will be analyzed at: (a) the YTA office in Kelapa Gading, North Jakarta; and (b) the YTA office in Kupang .

Methodology

Research Approach and Reasons for Its Selection

This study will use the theory of Educational Improvement Science (also known as Educational Improvement Science; hereinafter referred to as EIS) as a theoretical framework to guide its investigation. EIS is a theory that aims to measure, predict, and evaluate educational interventions according to the context of the intervention; (b) build capacity and sustainability related to the implementation of the intervention (Li, 2023).

According to EIS, the impact of an intervention must be considered within the context in which it is implemented. The Research Team will use Bronfenbrenner's Ecological Systems Theory (BEST) to guide its investigation of the context of SSM students. Bronfenbrenner theorized that a person is the result of factors external to the individual (Bronfenbrenner, 1979). The closer the factors are to the individual (in this case, the first graders), the greater the influence.

Specifically, the Research Team will use EIS as its overarching umbrella to evaluate SSM program's impact. Quantitative data will be collected, analyzed, and triangulated against the qualitative data available. Qualitative data will revolve around implementation facilitators and barriers both in and out of schools. BEST will guide the investigation of the environmental context surrounding SSM students, specifically directing whom will be questioned. Interactions between parties (i.e. between principals and teachers or between teachers and students) will not be a primary focus for data collection, though these will be investigated in a second round of questioning should such interactions prove to be a large factor in SSM's implementation or children's progress.

It is hope that that the data from this investigation will allow the Research Team to more precisely evaluate the impact of the SSM program. The data will be used to (a) improve the SSM program in general; and (b) suggest improvements in the implementation of the SSM program in these schools.

Method of collecting data

Participant

Participants include:

1. The 186 grade-1 students who received the SSM program and 87 students who were designated as comparison students in 2022-2023, are referred to as the "Timor Suka Membaca Cohort 1" (TSM1).

2. The 225 grade-1 students who received the SSM program and 225 students who were designated as comparison students in 2024-2025, were referred to as the "Timor Suka Membaca Cohort 2" (TSM2).

3. Parents of students from the 5% of the TSM2 Cohort who experienced the highest improvement or the 5% of the TSM2 Cohort who experienced the lowest improvement from the program (numbers to be determined).

4. TSM2 Educators (12 teachers, 8 principals)

All participants are residents of Kupang District in NTT. The students (including with and without intervention), teachers trained by the SSM program, their principals and related school committees, will be involved for 1 academic year (the duration of the SSM curriculum). After that, the students will no longer be participants.

Inclusion/Exclusion Criteria Used to Select Participants

The criteria consist of:

1. All students from Cohorts TSM1 and TSM2 are included though only their baseline/endline scores will be used. Additionally, no one from Cohorts TSM1 or TSM2 will be directly involved in the study.

2. All parents of (a) the 5% most improved TSM2 students and (b) the 5% least improved TSM2 students. However, parent participants are limited to those who agree to participate through a signed consent form.

3. All educators involved in implementing the SSM program for the TSM2 Cohort can considered as participants. However, educators who become participants are limited to those who agree to participate through a signed consent form.

Recruitment Process

There are eight schools involved in TSM2. Four of the eight schools have two grade-1 study groups, the rest have only one study group. Since the number of educators involved was relatively small, the Research Team believes it best to schedule meeting between the principal, grade-1 teachers, and members of the Research Team.

Research Team members will introduce the study and ask for their participation. All educators will be given verbal assurances that: (a) they are free to refuse without penalty; (b) they may stop participating at any time without penalty or obligation to provide an explanation; and (c) they will be given two weeks to decide whether or not to participate.

All educators who agree to participate will be given a consent form. A Research Team member will explain the form verbally. After that, educators will be given sufficient time to read and ask questions to the Research Team member. Once the educators are satisfied, they will sign the consent form.

The signed consent form will be photocopied. A copy will be returned to the educator. Additionally, a digital copy will be sent via email or WhatsApp, according to the educator's preference.

The TSM2 Cohort parent recruitment process is similar to the process above, except for the first step. Research Team members will work with school principals to schedule meetings with all TSM2 Cohort parents who: (a) have a first-grade student who is in the most improved 5% or the least improved 5% from the TSM2 Cohort; and (b) are interested in participating in the study. Other than that, the rest of the recruitment process will follow the same procedures.

Gaining Access to Participants

All members of the Research Team are part of the YTA staff, so the Research Team has access to the schools involved in the SSM training program. All focus groups with TSM2 educators or parents will be conducted at one of these schools (specific locations to be determined). All in-person interviews with educators or parents will be conducted at the school or another location that meets the preferences of the educator or parent interviewed .

Method of collecting data

Data collection will be carried out based on the Mixed Methods approach, a standard approach in EIS (Li, 2023).

Quantitative Data Collection. The Research Team will collect two sets of data: (a) baseline/endline data from all participants who are students in Kupang in 2022-2023, referred to as "Timor Suka Membaca Cohort 1" (TSM1 Cohort); and (b) baseline/endline data from all

participants who are students in Kupang in 2024-2025, referred to as “Timor Suka Membaca Cohort 2” (TSM2 Cohort).

Qualitative Data Collection. The Research Team will collect qualitative data from:

1. Data collected by the principals of all involved schools includes socioeconomic status, highest level of education achieved by the student's parents, and diagnosis of stunting/wasting if any.

2. Three focus groups will be held, each for parties involved in the process of implementing the SSM Program at the TSM2 student school; namely: (a) teachers; (b) parents of TSM2 students; and (c) the principal. These three focus groups will allow the Research Team to obtain: (a) multiple perspectives simultaneously that may not emerge in personal interviews; (b) a shared understanding between all participants (Fontana & Frey, 2008).

3. Preparation for the focus group will include: (a) training on leading a focus group to ensure high quality data; (b) a list of questions; (c) obtaining consent through a signed consent form.

4. Personal interviews with teachers and parents of students from the 5% of the TSM2 Cohort who experienced the highest improvement or the 5% of the TSM2 Cohort who experienced the lowest improvement. Preparation for the interviews will include: (a) training on conducting semi-structured interviews to ensure high-quality data; (b) a questionnaire; and (c) obtaining consent through a signed form.

5. Observations are conducted by YTA staff during teacher training or in the classroom. Their notes will be collected periodically by the Research Team leader.

Data analysis

The Research Team aims to gain a deeper understanding of the factors that influence the reading learning process of grade 1 elementary school students, both inside and outside the school environment. The data will enable the YTA Expert Team to improve its products, namely the SSM curriculum and its implementation. Furthermore, they hope to gain insight into the processes that support or hinder the results of the SSM program as indicated by the quantitative data.

Phase 1 : Quantitative Data Analyzed To Identify Qualitative Data Participants

1. All schools receiving SSM program training have agreed that their students’ baseline/endline scores are owned by YTA (a requirement of the contract between YTA and the school). Baseline scores from Cohorts TSM1 and TSM2 have been collected. Endline scores from Cohort TSM1 have been collected; endline scores from Cohort TSM2 will be collected in May 2025.

2. Socioeconomic data, stunting/wasting, and parental education levels of each school principal will be collected.

3. Students who are in the 5% most improved from TSM2 or the 5% least improved from TSM2 will be identified. Parents and educators of these students will be contacted for a personal interview.

    a. All TSM2 educators and parents connected with aforementioned students (10% of the TSM2 Cohort) will be contacted. Each individual must sign a consent form before they can be considered a participant in this portion of the qualitative data collection. When signed consent forms are received, they will be photocopied and a copy returned to the original owner.

    b. Each participant will schedule a personal interview that suits his/her preferences.

    c. Interviews will be conducted by members of the Research Team. The duration is 30 minutes to 45 minutes per session. Participants' responses will be recorded only with consent.

4. All participants who (also) agree to participate in the focus group will inform their availability so that the Research Team can set a date and time that allows the largest number of participants to attend. Each focus group will last 1.5 – 2 hours, depending on participant involvement. Participants' responses will be recorded only with the consent of each participant.

Phase 2: Analyzing Quantitative and Qualitative Data

5. Quantitative data will include baseline/endline results from both cohorts (TSM1 and TSM2). These data will be analyzed using a "difference-in-difference" test to measure the impact of the SSM program. The Research Team expects the results to reach a significance level of 95% (the minimum level to be considered 'statistically significant').

    The Research Team will also analyze baseline/endline results against data collected from school principals (i.e. socioeconomic status, stunting and wasting, and parental education level) to determine whether there is a correlation between literacy skills and out-of-school factors.

    The Research Team hopes that the results of the analysis will show: (a) whether basic literacy levels have increased; (b) whether there is a relationship between socio-economic factors and the development of basic literacy skills; and (c) whether the SSM program can help students overcome life difficulties that arise due to these factors.

6. The Research Team will transcribe all audio recordings. Qualitative data will include all transcripts created by the Research Team from all personal interviews and focus groups. Before the data analysis process begins, training on the coding process will be conducted for all members of the Research Team. The training aims to ensure consistency in the results of the analysis.

7. Once the coding process has been standardized, members of the Research Team will read and code their respective sections of the transcripts. A Grounded Theory approach combined with "open coding" will be used to analyze the verbatim transcripts of the interviews and focus groups. A Grounded Theory approach will allow the Research Team to avoid bias while maintaining the views of the participants (Charmaz, 2006).

   Second-level coding will include grouping emerging themes as well as "process coding" to analyze data on the processes that link SSM program implementation and its outcomes, as indicated by the quantitative data.

   The Research Team will meet every two weeks to discuss their respective findings, resulting in a shared understanding.

8. After the coding process is complete, the individual interview participants will be invited to review the findings to ensure that they are consistent with the participants' intentions. The participants can provide clarification within one week of the individual interview.

Phase 3: Triangulation and Communicating Findings

9. Quantitative data (baseline/endline scores of TSM2 students) will be triangulated with qualitative data (consisting of personal interviews, focus groups, and observation notes written by members of the Research Team to better understand the relationships among improvements in basic literacy skills, implementation of the SSM program, and factors outside of school. This approach is taken to reduce bias and ensure the validity of the study.

10. This research report will be written after the analysis process is complete. The Research Team will convey the findings to all interested parties involved.

Relevance to the Question

Quantitative data from baseline/endline scores in a quasi-experimental approach will show if the basic literacy skills of grade-1 elementary school students in NTT are improved by the SSM program.

Socioeconomic data collected by each principal will provide various perspectives on the factors that influence the reading learning process of TSM2 students, both in school and outside of school.

All personal interviews and focus groups will be recorded, transcribed verbatim, analyzed using in vivo coding and grounded theory to retain participant voice, avoid researcher bias, and analyze the implementation of the SSM program and its impact (Miles, Huberman & Saldaña, 2014). Questions pertaining to implementation will utilize process coding in the second round.

The qualitative data will be triangulated against: (a) observation notes made by the Research Team during the SSM program training; (b) observation notes made by the Research Team during mentoring visits; (c) notes written by the interviewer during and after personal or focus group interviews; and (d) quantitative data from baseline/endline scores to gain a deeper understanding of the SSM program implementation process and the factors that link program implementation to outcomes.

Output

1. The Research Team will determine whether the SSM program has a positive or negative impact, in the context of the intervention. The impact is measured through baseline/endline scores and reported as an 'effect size'.

2. Socioeconomic data collected by each principal can be used to see whether the SSM program has a more positive impact on elementary school students who are facing difficulties in their lives. The data will also complement the Research Team's knowledge of the factors that influence the learning process.

3. Focus group and personal interview data will reveal factors that facilitate or hinder the implementation of the SSM program in NTT schools.

4. The Research Team will provide recommendations regarding:

    - The possibility to increase the effectiveness of the SSM program, including its implementation, for all parties involved.

    - Strategies to help elementary school students and teachers overcome or mitigate household inhibiting factors to facilitate the learning process.

5. This research report will be submitted to the NTT Office, BPMP NTT, and the YTA Advisory Board and Management Board. Meanwhile, the report in digital form will be sent to all participants, school principals and other participants as needed.

Data Management & Ethics

Becoming a Participant

It is possible that any participant may feel discomfort, anxiety, frustration, or experience a loss of privacy during this research. Before someone agrees to participate in this research, one of the Research Team members must explain that a participant may experience these risks. Each participant will be given verbal assurances that they: (a) are free to decline without consequence; (b) may stop participating at any time without penalty or obligation to provide an explanation; and (c) will be given up to one week to decide whether or not to participate.

Regarding TSM1 Cohort and TSM2 Cohort

The Research Team will use quantitative baseline/endline test data obtained from all first-grade students in Cohort TSM1 and Cohort TSM2. Additionally, no students will interact directly with the Research Team or be involved in the study.

Feeling Discomfort, Anxiety, or Frustration

Many questions in this study are about the obstacles or difficulties faced by participants in implementing the SSM program or educating grade-1 students. One possibility of such questions is frustration, discomfort, and/or anxiety. These emotions may emerge during interviews or focus group discussions.

Before the interviews and focus groups begin, the focus group leader or interviewer will remind participants of the following: (a) participation in the study is voluntary, with no penalty for choosing not to participate; (b) participants may discontinue participation at any time without having to provide a reason and without being subject to penalty; (c) all data collected from participants who choose to discontinue participation will only be used with the participant's consent. Without such consent, the data will be destroyed and deleted; (d) just as participation in the study is voluntary, answering (or not answering) questions is also voluntary. There are no penalties for participants who choose not to respond; participants may do so at any time. Furthermore, the focus group leader or interviewer will remind participants of these points at appropriate times.

Because focus groups typically involve discussions about personal opinions, additional protocols will be implemented before the focus group begins. The Research Team member leading the focus group will remind all participants that all discussions during the focus group are confidential. He or she will then ask each participant to provide verbal consent to abide by this policy. Each participant must agree to these terms before the focus group begins. Participants who do not agree will be allowed to discontinue their participation in the focus group without penalty. Finally, all participants will be reminded again after the focus group is over not to reveal any discussions that occurred during the focus group.

Possible Loss of Privacy

Regarding the scores and data of 1st grade students from Cohorts TSM1 and TSM2 . To minimize the potential loss of privacy during this study:

1. The baseline/endline score data will be entered into KoboToolbox, a web-based platform used for data collection, management, and analysis. In this step, the names of students from TSM1 and TSM2 Cohorts will be recorded according to the registration list.

2. Baseline/endline results will be triangulated against data collected from school principals (i.e. socioeconomic status, stunting and wasting, and parental education level) to determine whether there is a correlation between literacy skills and out-of-school factors.

   The data will be matched with each student's baseline/endline scores in the Kobo Toolbox.

3. Then, all student names will be disguised with numbers before data analysis begins. The quantitative part of this research report will not use student numbers or names at all. The research data will not be separated by school or educator.

Regarding the Results of FGD and Personal Interviews. Each participant will be given the opportunity to choose a pseudonym that suits their preferences. If the participant does not wish to choose a pseudonym, the Research Team will provide them with a pseudonym. The pseudonym will be used throughout the process of (a) writing the transcription; (b) analyzing the data; and (c) writing the report of this research. Real names and information that can be used to identify participants will not be used in observation notes, transcripts of interviews and focus groups, or published or unpublished reports. Research data will not be separated by school or educator.

Data Management Planning

Quantitative data has been stored in the Kobo Toolbox online service, in accordance with the approval given by the principal when forming the partnership between YTA and the school. YTA's Kobo Toolbox account is password protected.

All audio recordings will be stored on each Research Team member’s laptop. Each laptop is password protected. Recordings will remain on the laptop until the Research Team member who owns the laptop completes the transcription. The recordings will then be deleted and the transcripts will be uploaded to YTA’s Google Drive. Only the Research Team will have access to the research data, controlled through Google Drive’s access restrictions system. All coding performed in the qualitative data analysis will be done in YTA’s Google Drive. All transcripts and qualitative analysis results (except research reports) will be destroyed upon completion of the research.

Research Implementation Time

Quantitative and qualitative data collection will be conducted during May and June 2025. Data analysis will be conducted between August 2025 – August 2026. The writing of this research report will take place between September 2026 – May 2027. After that, the Research Team will present the findings of this research to the parties involved.

Source of funds

Tunas Aksara Foundation will fund this research. The total budget of 84,000,000 Rp ($5000 USD)**,** is used to cover all costs and expenses of the research including:

- transportation for Research Team members and research participants
- accommodation
- food
- enumerator honorarium (if any)

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