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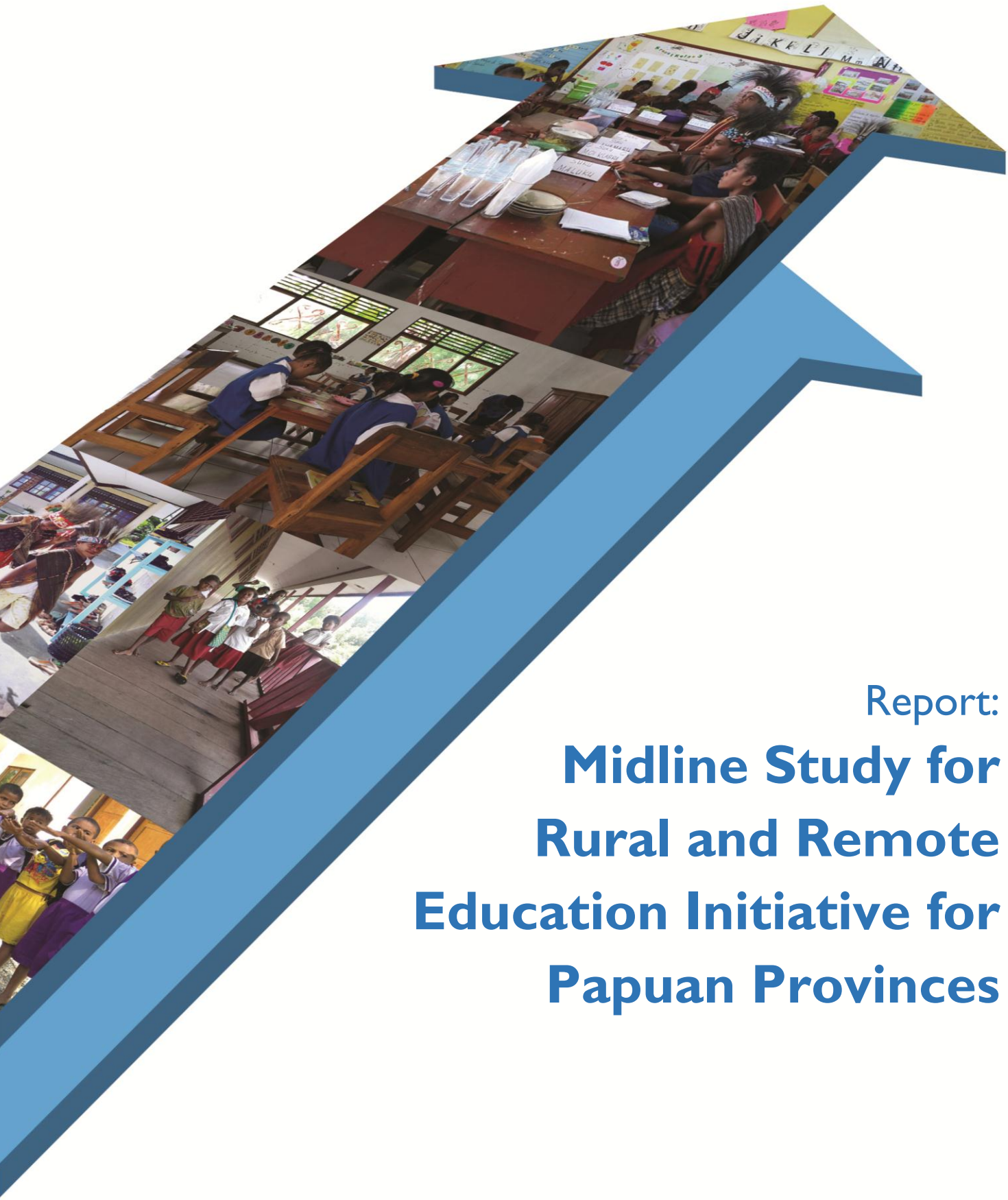

Report:

# Midline Study for Rural and Remote Education Initiative for Papuan Provinces

# Midline Study for Rural and Remote Education Initiative for Papuan Provinces

## Report of Findings

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# ABBREVIATIONS

| | |
|---|---|
| APM | Angka Partisipasi Murni: net enrollment rate |
| AUSAID | Australian Agency for International Development |
| BOS | Bantuan Operasional Sekolah: school operational assistance |
| BPS | Badan Pusat Statistik: Statistics Indonesia |
| Calistung | Tes membaca, menulis, berhitung: reading, writing, and arithmetic test |
| CAPI | Computer Assisted Personal Interview |
| DEO | District Education Office |
| EGRA | Early Grade Reading Assessment |
| KKG | Kelompok Kerja Guru: teacher's working group |
| KTSP 2006 | Kurikulum Tingkat Satuan Pendidikan 2006: name of 2006's curriculum |
| K13 | 2013's curriculum |
| MOEC | Ministry of Education and Culture |
| NGO | Non-Government Organisation |
| ORF | Oral Reading Fluency |
| PROMES | Program Semester: semester program |
| PROTA | Program Tahunan: annual program |
| RKAS | Rencana Kegiatan dan Anggaran Sekolah: school's activities and budget plan |
| RPP | Rencana Pelaksanaan Pembelajaran: Lesson plan |
| RTI | RTI International: a trade name for the Research Triangle Institute |
| SD | Sekolah Dasar: elementary school |
| SM3T | Sarjana Mendidik di Daerah Terdepan, Terluar, Tertinggal: Undergraduate degree holders who teach in the forefront, outer, and left behind areas |
| SSME | Snapshot of School Management Effectiveness |
| UAS | Ujian Akhir Semester: final exam |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| UNICEF | United Nations Children's Fund |
| USAID | United States Agency for International Development |
| UTS | Ujian Tengah Semester: Midline exam |
| YPK | Yayasan Pendidikan Kristen: Christian education foundation |

# EXECUTIVE SUMMARY

# EXECUTIVE SUMMARY

Following the baseline study of Early Grade Reading Assessment (EGRA) and Snapshot of School Management Effectiveness (SSME) conducted in March–April 2015, in rural and remote areas of Papua and West Papua, a Midline evaluation was conducted in March-April 2017.

The main objectives of the Midline study were to collect Midline data and information in the six districts of Papua & West Papua using similar tools from the baseline study, and then analyze and compare the changes in outcomes against the key program indicators with the baseline data. Relevant information was collected in intervention and non-intervention schools, in which the findings were reported by comparing the results at two different points- the baseline study and the Midline study, in order to obtain the overall impact of the program and challenges.

A triangulation research design was applied to achieve the research objectives. This methodology involved quantitative research for the EGRA & SSME instruments; qualitative in-depth interviews with parents, community leaders, school personnel, and education institutions; and finally secondary data collection via desk research on other relevant data to support and explain the findings from the qualitative and quantitative research.

In order to have a 5% margin of error at a 95% confidence level, the number of schools sampled in the Midline study was 126 schools, which were randomly selected from the 180 schools that participated in the baseline study. In each school, 20 early grade students (second and third graders) were randomly selected. For a fairer comparison, the baseline data used for the analysis only included the same 126 schools that participated in the Midline study, instead of the total 180 baseline schools.

The overall results showed that students' reading ability in both model A and model B intervention schools increased significantly. This increase was proven in all 7 of the EGRA sub-tasks which were letter-sound identification, initial sound identification, non-word reading, oral passage reading, reading comprehension, listening comprehension, oral vocabulary, and dictation. At the district level, despite the varied changes between one districts to another, the increase in each sub-task was significant for all six districts.

Although each of the EGRA sub-tasks measured slightly different aspects of reading ability, the correct words per minute on the oral reading passage sub-task – known as oral reading fluency (ORF) - arguably had the most informative individual results, as it gauged how quickly and accurately a student could read a passage and highly correlated with the other sub-tasks. In this case, the ORF score during the baseline study showed that students in the intervention schools previously read an average of 5.6 words per minute, while now it significantly increased to 12-13 words per minute.

Meanwhile, students from the non-intervention schools did not show any significant increase in any of the sub-tasks. It is also worth mentioning that students from non-intervention schools were already at a slightly higher reading ability level when the assessment was carried out in the baseline study. Non-intervention school students were constantly have reading ability at an average of 16 words per minute. The absence of any significant change amongst the non-intervention schools further supports the achievement of the program.

Another indicator that clearly shows an improvement of the students' reading ability was the reduction of the non-readers or students who could not read one single word. Prior to any intervention carried out by UNICEF, the percentage of non-readers at these schools was 62.24%, and now this number has decreased to 26.52%. At an even more basic literacy level, the percentage of students that could not identify a single letter decreased from 8% to 1%. In addition, an improvement could also be seen from the number of fluent readers that increased from 6% to 11%. Again for each of the indicators mentioned, non-intervention schools did not show any significant improvements.

A further analysis shows that the increase in reading ability highly correlates with the changes applied by the intervention schools at the classroom level. As an example, prior to the intervention, less than 20% of classrooms had a reading corner and the classroom walls did not display any learning materials or students' works. This has drastically changed as now more than 75% of classrooms have reading corners, and classroom walls display a variety of learning materials. Other activities such as training sessions for teachers and head teachers have also positively supported students in their reading outcome.

Support for other stakeholders was also highlighted. This Midline study revealed an increase in the school committees' role to support the education process at school. Although the increase did not evenly distributed at every school, but it has brought good benefits for

those that have been improved. The support given was not only in the form of material assistance such as by providing electricity, school painting, building school fences, and fulfilling other school needs, but also in the form of increasing society's awareness regarding the importance of education.

The local government, represented by the District Education Office (DEO), was also providing support for the program. Assigning principals based on their experience has assisted in engaging principals who are committed to conduct the intervention program. Nevertheless, this study found that the monitoring role of the school supervisor, which the DEO depended on, was still limited. School supervisors rarely visit schools. The lack of school supervisors' visit is due to factors which are related with school accessibility, such as transportation problems and the limited number of school supervisors compared with the number of current schools.

Despite the above improvements, one major issue that still occurs in Tanah Papua is the high rate of teacher and head teacher absenteeism. Despite the positive impact of program toward students' reading ability, it has not yet fully affected teachers' and head teachers' attendance, even though both were found to have a high correlation with students' reading ability.

In conclusion, although there are various remaining factors and challenges that were found to influence the students' reading ability, such as their socio-economic background, the program's focus on other direct factors has succeeded in changing the teaching process and learning environment, which in turn proved to positively and significantly impact early grade students' ability to read.

# INTRODUCTION

# 1 INTRODUCTION

This chapter discusses the background and the objectives of the Midline study. It begins with a brief explanation on the overall results of the baseline study and the program current status, and ends with the various objectives that this Midline study aims to achieve.

## 1.1 Research Background

Papua and West Papua provinces rank among the lowest in Indonesia in most human development indices. The poverty rates of those two provinces are also higher than the national average. In terms of illiteracy rate, Papua and West Papua are among provinces with the highest rates. As a result, Papua and West Papua are both provinces with high rate of illiteracy and poverty (UNESCO and MOEC, 2012)[1]. UNICEF *et al.* (2012)[2] revealed significant disparities in literacy rates between urban and rural Papuans; the illiteracy rate in rural areas reached 49%, while the illiteracy rate in urban areas only reached 5%. The disparities were most prominent in the highland districts where the illiteracy rate ranged from 48% to 92%. The data shows the inequality of students' access to quality education services in the rural and remote areas of the two provinces.

UNICEF Indonesia, funded by AUSAID, successfully implemented Phase I of the Papua and West Papua Education Program during 2010–2013. Following the first phase, the second phase of the program has been implemented to support the district and provincial governments and key education foundations to facilitate improved educational opportunities for children living in rural and remote areas of Papua and West Papua. To provide relevant information on early grade reading and school management, a baseline study of Early Grade Reading Assessment (EGRA) and Snapshot of School Management Effectiveness (SSME) was conducted in March–April 2015. The baseline study was conducted in six districts, namely: Biak, Jayapura, Mimika, Jayawijaya, Sorong, and Manokwari, involving 180 schools equally allocated in each district. The EGRA measured the basic skills that a student must possess to

[1] UNESCO and Ministry of Education and Culture Republic of Indonesia (2012). *Literacy: Empowerment, Development and Peace*. Jakarta: Ministry of Education and Culture.

[2] UNICEF, UNCEN, UNIPA, SMERU, & BPS (2012). *A study on teacher absenteeism in Papua and West Papua*. Research Report. Jakarta: UNICEF.

eventually be able to read fluently and comprehend; and the SSME survey captured the "best" ways in which effective schools influence the student learning.

The baseline surveys involved 2,934 of grade 2 and 3 students, 2,645 parents, 330 teachers, and 178 head teachers. In addition, 162 in-depth interviews with students and their parents, teachers, head teachers, community leaders, and district and provincial education officers were also conducted. An equal number of in-depth interviews across districts were carried out.

Overall, this baseline study revealed that the majority of early grade students in rural and remote areas of Papuan provinces were readers with limited comprehension (38.55%) or non-readers (48.47%). Only less than 15% of them were categorized as readers: reading with comprehension (5.35%) or reading fluently with comprehension (7.63%). This reading ability was far below the average range for students in Indonesia, and similarly, far below other students in Maluku, Nusa Tenggara, and Papua region (from an EGRA National Survey conducted by RTI International and USAID/Indonesia in 2014)[3]. Furthermore, the students' reading ability was inconsistent across the surveyed districts. Jayapura students significantly outperformed their counterparts from the other five districts while on the other hand, Jayawijaya students obtained the lowest performance. The baseline study revealed all the components related to the stakeholders of basic education in Papua province, including students and their families, teachers, head teachers and schools, the communities, and local education department, which contributed to the low level of reading ability.

Based on the inputs from the baseline study, UNICEF has been implementing several activities focusing on schools and key stakeholders in six districts of Papua Province since May 2015. The overall objective of the program is to improve education opportunities for children in rural and remote areas of Papua and West Papua, in Manokwari, Sorong, Biak, Timika, Jayawijaya, and Jayapura. The program has a strong evaluation and learning component. In particular, UNICEF aims to generate strong evidence on successful interventions that work for improving primary education for children in the rural and remote areas of the six districts. Therefore, UNICEF needs to conduct a Midline evaluation

[3] RTI International and USAID/Indonesia (2014). *Indonesia 2014-The National EGRA and SSME Survey.* Research Report. North Carolina: RTI International

towards the program. This Midline evaluation aims to capture the implementation of activities after one and half school years.

## 1.2 Research Objectives

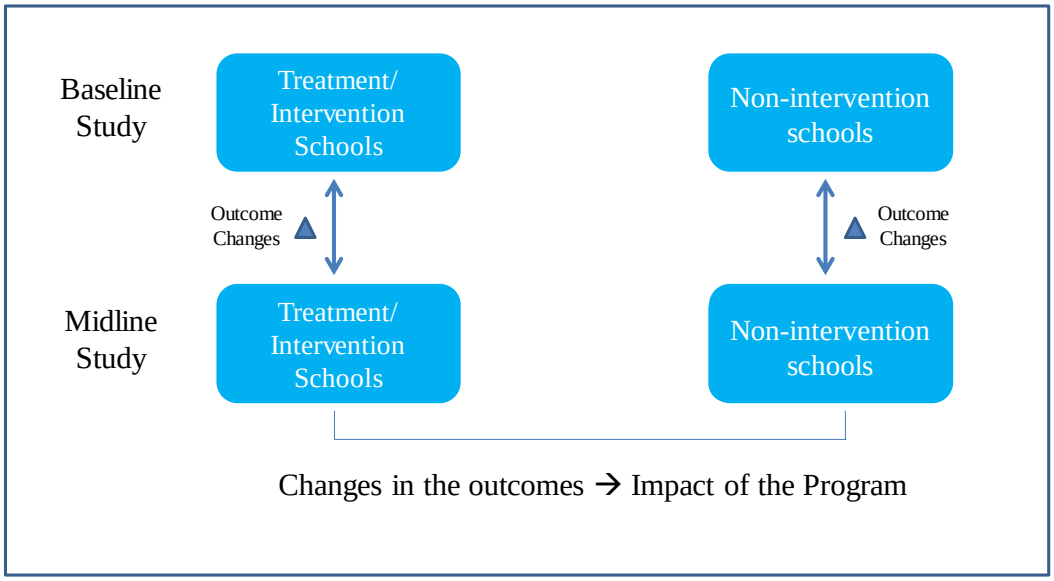
The main objectives of the Midline study are as follows:

a. **To collect Midline data and information in six target districts of Papua and West Papua**: Using the existing tools from the baseline study, the following data will be collected:
    1. learning outcomes of students in early grades
    2. quality of education
    3. school management
    4. parents' attitudes toward education
    5. information provided by education department

    The above information will be collected in treatment/intervention and control areas.

b. **To analyze the Midline data and compare the changes in outcomes against the key program indicators**: This will include data analysis about the changes, using key indicators and evaluation questions. Comparisons of the achievements in the outcomes between the baseline and Midline studies will be carried out, as shown in Figure 1.1.

**Figure 1.1: Program Impact Measurement**

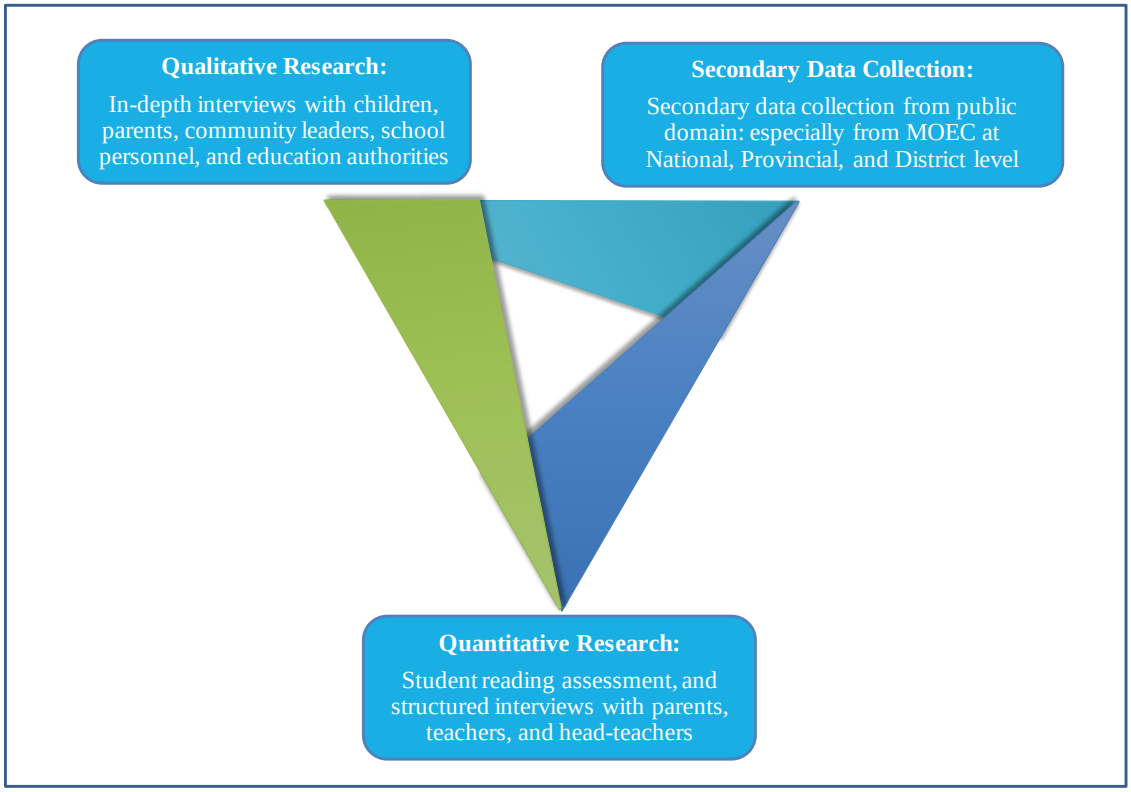


# METHODOLOGY

# 2 RESEARCH METHODOLOGY

This chapter mainly focuses on the study methodology. A triangulation research design was applied to achieve the research objectives. This involved desk research to collect secondary data, along with qualitative and quantitative research. The details about this triangulation technique are shown in Figure 2.1.

**Figure 2.1: Triangulation Research Design**




## 2.1 Desk Research

Relevant secondary data on education statistics at the local level (provincial, district, and sub-district) with results from previous studies, notes, and other information related to the program design as well as indicators were collected and analyzed to support and explain the findings from qualitative and quantitative research. The BPS (National Statistical Bureau) and *Pusat Data dan Statistik Pendidikan* (Center for Education Data and Statistics) of MOEC were the other resources of the secondary data.

## 2.2 Quantitative Research

Surveys were carried out by involving children, parents (households), school teachers, and head teachers. The surveys were conducted as one-on-one structured interviews. For children, the focus of the measurement was on reading skills, while for schools—through teachers and head teachers—the key school indicators, such as enrollment, attendance rates, school facilities, and discipline practices, were also covered in the survey. For these surveys, research instruments, in particular a reading assessment, had been developed in collaboration with different experts/sources and in consultation with the national and provincial education officials, and had been implemented in the baseline study.

The main objective of the Rural and Remote Education Initiative for Papua Provinces was to improve the reading skills of grade 2 and grade 3 students. Thus, the instrument and sample was designed to measure basic reading skills among students in early grades. The sample prioritizing grade 2 students to be selected first, while grade 3 students were then selected if there were no more grade 2 students to fulfill the school's sample quota.

Meanwhile, the parent survey captured several measurements such as: children's reading habits at home, parental and family support at home, socio-economic conditions, etc. In addition to the student reading assessment and parent interviews, the survey also covered snapshots on school management effectiveness. The snapshots including teacher and head teacher interviews, as well as observations on school and classroom facilities.

Students from second and third grade were involved, with male and female students were equally distributed. The surveys covered schools where the UNICEF program has been implemented (intervention schools) and schools without UNICEF's treatment (non-intervention schools). Based on information from UNICEF, there are two models of treatment currently being implemented, namely Model A (Cluster Model) and Model B (Mentor Model).

### 2.2.1 The Sample of the Baseline Study

In the baseline study, 180 schools were surveyed, consist of 60 schools that adapted Model A of intervention/treatment, 60 schools that adapted Model B of intervention/treatment, and 60 non-intervention schools that did not receive any treatment from UNICEF, as shown in Table 2.1.

**Table 2.1: Number of Schools Surveyed in the Baseline Study**

| Province | District | Number of Intervention Schools: Model A | Number of Intervention Schools: Model B | Number of Non-Intervention Schools |
|---|---|---|---|---|
| Papua | Biak | 10 | 10 | 10 |
| | Jayawijaya | 10 | 10 | 10 |
| | Jayapura | 10 | 10 | 10 |
| | Mimika | 10 | 10 | 10 |
| Papua Barat | Manokwari | 10 | 10 | 10 |
| | Sorong | 10 | 10 | 10 |
| **Total** | | **60** | **60** | **60** |

Based on the calculation of the sample sufficiency using the formula below, each model of intervention/treatment and non-intervention group should have at least 1,200 student samples in order to have a 5% margin of error at a 95% confidence level:

$$n = \left[\frac{Z\alpha_{/2}}{d}\right]^2 (p\ q)$$

As a result, in the baseline study, we had 2,400 samples of students from the intervention/treatment schools and 1,200 students from the non-intervention schools. To achieve 1,200 samples of students per intervention/treatment model or non-intervention school, we assessed 20 students per school. As the result, the total sample size for the student survey in the baseline study was 3,600, as shown in Table 2.2.

**Table 2.2: Number of Students Surveyed in the Baseline Study**

| Province | District | Number of Students from Intervention Schools: Model A | Number of Students from Intervention Schools: Model B | Number of Students from Non-Intervention Schools |
|---|---|---|---|---|
| Papua | Biak | 200 | 200 | 200 |
| | Jayawijaya | 200 | 200 | 200 |
| | Jayapura | 200 | 200 | 200 |
| | Mimika | 200 | 200 | 200 |
| Papua Barat | Manokwari | 200 | 200 | 200 |
| | Sorong | 200 | 200 | 200 |
| Total | | 1200 | 1200 | 1200 |

### 2.2.2 The Sample for the Midline Study

To maintain the confidence level at $\alpha = 0.05$, $Z\ \alpha/2 = 1.96$, and the margin of error (d) = 5%, we re-calculated the sample size to be required in the Midline study, using a similar formula as above. We used oral reading fluency (correct words per minute) results from the baseline study to estimate the p (proportion of students who were able to read = 0.52) and q (proportion of students who were unable to read = 0.48). From the calculation, we found that each district need to have at least 400 samples, so that the total samples across the 6 districts should be around 2400.

**Table 2.3: Number of Schools Surveyed in the Midline Study**

| Province | District | Number of Intervention Schools: Model A | Number of Intervention Schools: Model B | Number of Non-Intervention Schools | Total |
|---|---|---|---|---|---|
| Papua | Biak Numfor | 7 | 7 | 7 | 21 |
| | Jayawijaya | 7 | 7 | 7 | 21 |
| | Jayapura | 7 | 7 | 7 | 21 |
| | Mimika | 7 | 7 | 7 | 21 |
| West Papua | Manokwari | 7 | 7 | 7 | 21 |
| | Sorong | 7 | 7 | 7 | 21 |
| Total | | 42 | 42 | 42 | |
| Grand Total | | 126 | | | |

**Table 2.4: Number of Students Surveyed in the Midline Study**

| Province | District | Number of Students from Intervention Schools: Model A | Number of Students from Intervention Schools: Model B | Number of Students from Non-Intervention Schools | Total |
|---|---|---|---|---|---|
| Papua | Biak Numfor | 140 | 140 | 140 | 420 |
| | Jayawijaya | 140 | 140 | 140 | 420 |
| | Jayapura | 140 | 140 | 140 | 420 |
| | Mimika | 140 | 140 | 140 | 420 |
| West Papua | Manokwari | 140 | 140 | 140 | 420 |
| | Sorong | 140 | 140 | 140 | 420 |
| Total | | 840 | 840 | 840 | |
| Grand Total | | 2520 | | | |

As we intended to keep 20 students per school to be assessed, then in one district we had 20 schools. However, in order to allocate an equal sample size for each type of treatment and control school, we proposed to assess 21 schools per district, distributed evenly among treatment school model A, treatment school model B, and non-intervention schools, resulting in 2,520 students assessed, as shown in Table 2.3 and Table 2.4.

The schools surveyed in the Midline study were randomly selected from the targeted school list obtained from the UNICEF's team. We applied simple random sampling in order to select 14 intervention schools per district from the targeted list. A similar sampling technique was also applied in selecting 7 non-intervention schools per district from the baseline study's list.

Based on our analysis of the baseline's data deviation across schools in each district, we found that the deviation was low in all districts, except in Mimika. In other words, students' ability to read across surveyed schools in all districts- except Mimika- was relatively similar.

Pair samples of children and their parents were also applied in this Midline study, so that the same number of parents or caregivers were interviewed, unless the parents refused or failed to be interviewed. The total number of parents surveyed is shown in Table 2.5.

**Table 2.5: Number of Parents Surveyed in the Midline Study**

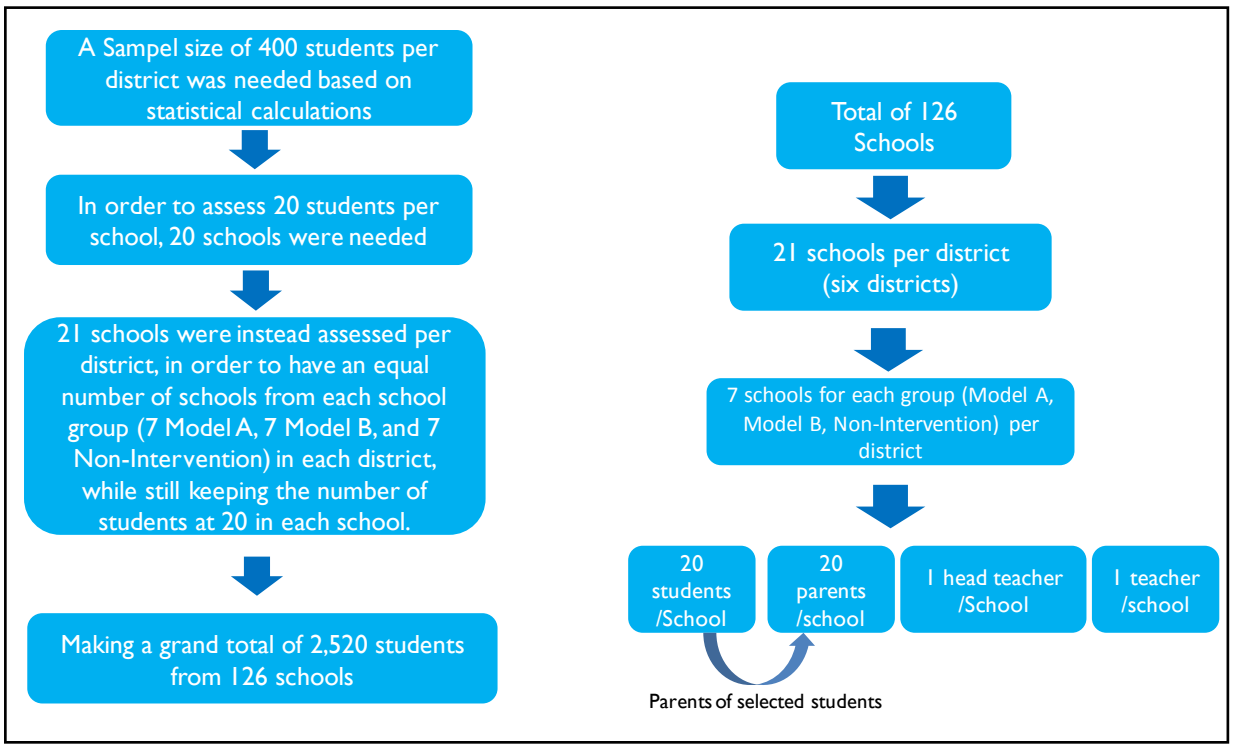
| Province | District | Number of Parents from Intervention Schools: Model A | Number of Parents from Intervention Schools: Model B | Number of Parents from Non-Intervention Schools | Total |
|---|---|---|---|---|---|
| Papua | Biak Numfor | 140 | 140 | 140 | 420 |
| | Jayawijaya | 140 | 140 | 140 | 420 |
| | Jayapura | 140 | 140 | 140 | 420 |
| | Mimika | 140 | 140 | 140 | 420 |
| West Papua | Manokwari | 140 | 140 | 140 | 420 |
| | Sorong | 140 | 140 | 140 | 420 |
| Total | | 840 | 840 | 840 | |
| Grand Total | | 2520 | | | |

In regard to the head teacher and teacher sample size, as what had been done in the baseline study, one head teacher, one teacher from second grade, and one teacher from third grade were interviewed in each selected school. As the result, there were 252 head teachers and teachers from the intervention schools and 126 from the non-intervention schools. The teacher was chosen from the selected classroom(s). The breakdown of the number of head teachers and teachers interviewed is shown in Table 2.6. In the case a head teacher refused to be interviewed or was not present during the data collection period, the senior teacher was then interviewed. On the other hand, if a teacher was not present or refused to be interviewed, then a replacement teacher for the chosen class would be interviewed, preferably another early grade teacher. In addition to the explanation above, Figure 2.2, shows a summary of the quantitative sampling method and sample size.

**Table 2.6: Number of Head Teachers & Teachers Surveyed**

| Province | District | Number of Teachers and Head Teachers from Intervention Schools: Model A | Number of Teachers and Head Teachers from Intervention Schools: Model B | Number of Teachers and Head Teachers from Non-Intervention Schools | Total |
|---|---|---|---|---|---|
| Papua | Biak Numfor | 21 | 21 | 21 | 63 |
| | Jayawijaya | 21 | 21 | 21 | 63 |
| | Jayapura | 21 | 21 | 21 | 63 |
| | Mimika | 21 | 21 | 21 | 63 |
| West Papua | Manokwari | 21 | 21 | 21 | 63 |
| | Sorong | 21 | 21 | 21 | 63 |
| Total | | 126 | 126 | 126 | 378 |

**Figure 2.2: Quantitative Sampling Summary**




As mentioned, this study focused on the changes which occurred by comparing the data to that of the baseline study. Therefore, to increase the accuracy of the results, the baseline data being used consisted of only the 126 schools selected in this Midline study rather than using all the data from 180 schools.

## 2.3 Qualitative Research

In-depth interviews with children, parents, community leaders, teachers, and head teachers, along with education officers at provincial and district levels were conducted. Specific research instruments had been developed for each type of respondent for the baseline study, and the instruments were also applied in the Midline study. To obtain insightful information during the in-depth interviews from non-education authority respondents, especially in capturing the specific barriers of education that they had faced, a projective technique[4] was applied in the form of completing statements and figure association. By applying this technique, the interviewees were encouraged to project their feelings and thoughts through pictures or a completion of statements. The number of in-depth interviews in the Midline study is shown in Table 2.7.

**Table 2.7: Number of In-depth Interviews in the Midline Study**

| Type of Respondents | Papua | | | | Papua Barat | |
|---|---|---|---|---|---|---|
| | Biak | Jayawijaya | Jayapura | Mimika | Manokwari | Sorong |
| Children | 5 | 5 | 5 | 5 | 5 | 5 |
| Parents | 5 | 5 | 5 | 5 | 5 | 5 |
| Teacher | 5 | 5 | 5 | 5 | 5 | 5 |
| Head Teacher | 5 | 5 | 5 | 5 | 5 | 5 |
| Community Leaders | 5 | 5 | 5 | 5 | 5 | 5 |
| MOEC at District & Provincial Levels | 2 | 2 | 2 | 2 | 2 | 2 |
| **Grand Total** | **162** | | | | | |

## 2.4 Research Instruments

This Midline study utilized the same baseline research instruments that the UNICEF team had developed in collaboration with the Myriad team. The EGRA and SSME research

[4] The projective technique in this study involved the usage of various pictures. Respondents were asked to reply to several questions by pointing out which picture best described their answers.

instruments had several items of measurement, as shown in Table 2.8 and Table 2.9. Meanwhile, the types of qualitative research instruments that were implemented during the midline study are shown in Table 2.10.

**Table 2.8: The EGRA Instrument**

| Subtask | Skill | Description: the student was asked to... |
|---|---|---|
| Letter sound identification (timed) | Alphabetic principle: letter-sound correspondence | ...say the sound each letter makes, while looking at a printed page of 100 letters of the alphabet in random order and in upper and lower case |
| Nonword reading (timed) | Alphabetic principle: letter-sound correspondence<br><br>Fluency- automatic decoding | ...read a list of 50 nonwords printed on a page. Words were constructed from actual orthography, but were not real words in bahasa Indonesia; such as "kone" |
| Oral passage reading (timed) | Fluency- automatic word reading in context | ... read a grade-appropriate short story out loud from a printed page |
| Reading comprehension | Comprehension | ...orally respond to 5 questions that the assesor asked about the short story |
| Listening comprehension | Oral language comprehension and vocabulary | ...listen to a story that the assessor read out loud, then orally answer 3 questions about the story |
| Oral vocabulary | Basic vocabulary and oral langauge comprehension | ...point to body parts or objects in the room as identified by the assesor; place pencil to show understanding of prepositions |
| Dictation | Oral comprehension; writing skills; alphabetic process | ...write down a sentence spoken aloud by the assessor. The sentence was read a total of three times and answers were scored both for word accuracy and for grammar |

**Table 2.9: The SSME Instrument**

| Component Level | Component Name | What is measured |
|---|---|---|
| School | Head Teacher questionnaire | School leadership, teacher characteristics and attendance, infrastructure and facilities, school closings |
| | Teacher questionnaire | Teacher characteristics and practices, pedagogical oversight |
| | School and classroom inventory | Infrastructure and facilities, repairs, safety; availability and use of teaching and learning materials |
| Student and Parent | Student and parent questionnaire | Student background, interactions with teacher, interaction with family members |

**Table 2.10: The Qualitative Research Instrument**

| | |
|---|---|
| In-depth Interviews | 1. Children's discussion guide |
| | 2. Parents' discussion guide |
| | 3. Teacher's discussion guide |
| | 4. Head teacher's discussion guide |
| | 5. Community leader's discussion guide |
| | 6. District Education Office discussion guide |

## 2.5 Data Collection Implementation

For the quantitative survey, local assessors were recruited and trained in each district. They were assigned to collect the data from children, parents, teachers, and head teachers in 3-day assessment periods per school. The assessors were recruited from local universities in Papua and West Papua. The list of higher degree institutions from which the assessors were recruited is shown in Table 2.11.

Each district was allocating three teams consisting of four assessors to cover all of the respondent segments. The number of assessor teams was 18, with total 72 assessors. The breakdown of assessors and assessor teams for the six districts is shown in Table 2.12. Each team was able to complete one school assessment in three days, resulting in around 21 days of data collection for each team. Computer Assisted Personal Interview (CAPI) was applied using Nexus and Asus Tablet. All quantitative research instruments were inputted into the electronic device.

**Table 2.11: List of Higher Degree Institutions as the Sources**

| Province | District | Source |
|---|---|---|
| Papua | Biak | Universitas Cendrawasih, STIE Amor Timika, STIE Jambatang Bulan Timika, Universitas Sains dan Teknologi Jayapura, STKIP YPPGI |
| | Jayawijaya | |
| | Jayapura | |
| | Mimika | |
| Papua Barat | Manokwari | Universitas Papua, STKIP Muhammadiyah Manokwari, Akbid Manokwari, Universitas Muhammadiyah Sorong, Universitas Victory Sorong |
| | Sorong | |

**Table 2.12: Total Number of Assessors and Assessor Teams in Each District**

| Province | District | Number of Sample Schools | Number of Assessor' Teams | Total Number of Assessors |
|---|---|---|---|---|
| Papua | Biak Numfor | 21 | 3 | 12 |
| | Jayawijaya | 21 | 3 | 12 |
| | Jayapura | 21 | 3 | 12 |
| | Mimika | 21 | 3 | 12 |
| West Papua | Manokwari | 21 | 3 | 12 |
| | Sorong | 21 | 3 | 12 |
| Total | | 126 | 18 | 72 |

The step-by-step activities that each assessor team carried out in a school are as follows:

1. Each team was assigned to visit seven schools according to the schedule.
2. Samples were first taken from second grade students. When there were less than 20 second grade students, students from third grade were then sampled to fill the gap.
3. The following mechanism was applied in selecting the classroom(s):
    a. If the school had more than one 2nd grade class, and the total number of students in each classroom was more than 20, one 2nd grade classroom was selected to achieve 20 students in a random manner.
    b. If the school only had one 2nd grade classroom, and the total number of students in the classroom was more than 20, then the students from this classroom would be randomly selected.
    c. If the school only had one 2nd grade classroom and the total number of students was less than 20, students from a third-grade classroom were selected to meet the quota.
    d. If the school only had one classroom for both second and third grade students, the students were randomly selected from that classroom.
4. The numbers of male and female students were distributed equally, unless the student population in the school could not meet this gender-balanced criteria.
5. The parent questionnaire was administered to the parents of the selected students.

6. The teacher questionnaire was administered to two teachers.
7. The head teacher questionnaire was administered to one head teacher.
8. Myriad's senior interviewers conducted the in-depth interviews with children, parents, teachers, and head teachers. The respondents were taken from the same selected school and classroom.
9. Myriad's senior interviewers also conducted in-depth interviews with community leaders and education department at provincial and district levels.
10. In general, a similar data collection method was applied across all the district. However, special attention was given to the fieldwork in very remote sub-districts/ villages such as villages in Jayawijaya and Mimika Districts. The location accessibility and safety of the enumerator were carefully assessed in these areas, as they were known to have frequent conflicts amongst villages and tribes. The teams in these districts were given more flexibility to judge if a respondent / school could or could not be approached during the data collection.
11. Due to difficulty in uploading the data, based on our previous experience in the baseline data collection, data was collected off-line on the tablets. Once the assessor team reached an area with available Internet connection, they would upload the data to Myriad's server.

**Figure 2.3: Examples of the Assessment Process**



For the in-depth interviews, the step-by-step activities procedure are as follow:

a. The key respondents were identified and then approached for an interview. Children and their parents were selected from the sample of the quantitative survey. The same procedure was applied to the teachers. Meanwhile, the head teachers were selected from the same school of the selected children and teacher.
b. The community and religious leaders were identified prior to the data collection. Advice from UNICEF was sought to determine the key respondents.
c. Similarly, the key respondents from MOEC at the provincial and district levels were also identified, and advice from UNICEF was requested.

## 2.6 Research Ethics

Children participating in this research were strictly protected under UNICEF's Guidelines (2002), the convention on the rights of the children participating in the research are:

1. All rights must be available to all children without discrimination of any kind. Equity and non-discrimination should be emphasized.
2. The best interests of the child must be a major factor in all actions concerning children.
3. Children's views must be considered and taken into account in all matters that affect them. They should not be used merely as data subjects of the investigation.

Therefore, the children were fully informed and had to understand the consequences and impact of expressing their opinions. They were free to not participate, and were not pressured in any way. Their participation was a right, not an obligation.

Interviews with other respondents such as parents and teachers were also based on these guidelines, in which the following points were implemented during the Midline data collection to ensure the respondents' rights:

1. Ensure the **confidentiality** of the sampled respondents: their names were not part of the information collected.
2. **Inform the respondents**: the sampled respondents were informed about the purpose of the interviews and the general steps of the interviews, as they should feel

free to answer or to express their opinions. They did not have to answer the questions if they did not want to, etc.

3. **Consent** from the respondents was sought by asking for an oral agreement to participate in the study.
4. **Equity and non-discrimination** were strictly applied through random selection. The socio-economic condition of the students was not a barrier to select the student as they were selected randomly. Similarly, age and gender were also allocated based on the characteristics of the population.
5. **Respect for the respondents and their views** was applied throughout the interview process. Respondents were free not to answer particular question if they chose not to. In addition, a participatory and friendly questionnaire was designed and used for the children.

Prior to the data collection, Myriad applied for an ethical clearance from a higher degree education institution, namely the University of Padjajaran in Bandung-West Jawa.

## 2.7 Final Achieved Sample

Table 2.13 below shown the sample of the schools and students in each district. In comparison to the number of schools targeted, it can be seen that the non-intervention schools were fewer than those targeted in Jayawijaya and Model B intervention schools in Mimika. The reason is that there were field situations that caused these schools to be replaced, situations such as there were no teachers or head teachers during the visit, concern about the safety of the enumerators, and difficult access to schools. Because of this, more Model A intervention schools were selected as the replacements. This table also shows the sample of students in the baseline data amongst the 126 schools sampled in the Midline study.

The final sample of the other respondents, namely the head teacher, teacher, and parents can be seen respectively in Table 2.14 and Table 2.15.

## Table 2.13: Final Sample of Schools and Students – Baseline & Midline Studies

Baseline

| District | Number of Schools | | | | Number of Students | | | |
|---|---|---|---|---|---|---|---|---|
| | TOTAL | Model A | Model B | Non-intervention | TOTAL | Model A | Model B | Non-intervention |
| Biak | 21 | 7 | 7 | 7 | 371 | 140 | 100 | 131 |
| Jayapura | 21 | 7 | 7 | 7 | 368 | 125 | 118 | 125 |
| Mimika | 21 | 10 | 4 | 7 | 317 | 155 | 55 | 107 |
| Jayawijaya | 21 | 11 | 7 | 3 | 387 | 211 | 127 | 49 |
| Manokwari | 21 | 7 | 7 | 7 | 288 | 98 | 94 | 96 |
| Sorong | 21 | 7 | 7 | 7 | 345 | 121 | 102 | 122 |
| Total | 126 | 49 | 39 | 38 | 2076 | 850 | 596 | 630 |

Midline

| District | Number of Schools | | | | Number of Students | | | |
|---|---|---|---|---|---|---|---|---|
| | TOTAL | Model A | Model B | Non-intervention | TOTAL | Model A | Model B | Non-intervention |
| Biak | 21 | 7 | 7 | 7 | 339 | 138 | 100 | 101 |
| Jayapura | 21 | 7 | 7 | 7 | 353 | 123 | 113 | 117 |
| Mimika | 21 | 10 | 4 | 7 | 225 | 111 | 50 | 64 |
| Jayawijaya | 21 | 11 | 7 | 3 | 352 | 183 | 128 | 41 |
| Manokwari | 21 | 7 | 7 | 7 | 255 | 77 | 103 | 75 |
| Sorong | 21 | 7 | 7 | 7 | 333 | 120 | 104 | 109 |
| Total | 126 | 49 | 39 | 38 | 1857 | 752 | 598 | 507 |

## Table 2.14: Final Sample of Teachers and Head Teachers – Baseline & Midline Studies

Baseline

| District | Number of Head Teachers | | | | Number of Teachers | | | |
|---|---|---|---|---|---|---|---|---|
| | TOTAL | Model A | Model B | Non-intervention | TOTAL | Model A | Model B | Non-intervention |
| Biak | 21 | 7 | 7 | 7 | 42 | 14 | 14 | 14 |
| Jayapura | 21 | 7 | 7 | 7 | 41 | 14 | 13 | 14 |
| Mimika | 20 | 9 | 4 | 7 | 40 | 19 | 8 | 13 |
| Jayawijaya | 21 | 11 | 7 | 3 | 39 | 21 | 13 | 5 |
| Manokwari | 21 | 7 | 7 | 7 | 36 | 11 | 13 | 12 |
| Sorong | 21 | 7 | 7 | 7 | 33 | 10 | 10 | 13 |
| Total | 125 | 48 | 39 | 38 | 231 | 89 | 71 | 71 |

Midline

| District | Number of Head Teachers | | | | Number of Teachers | | | |
|---|---|---|---|---|---|---|---|---|
| | TOTAL | Model A | Model B | Non-intervention | TOTAL | Model A | Model B | Non-intervention |
| Biak | 21 | 7 | 7 | 7 | 33 | 10 | 11 | 12 |
| Jayapura | 21 | 7 | 7 | 7 | 27 | 10 | 8 | 9 |
| Mimika | 21 | 10 | 4 | 7 | 22 | 11 | 4 | 7 |
| Jayawijaya | 21 | 11 | 7 | 3 | 29 | 15 | 9 | 5 |
| Manokwari | 21 | 7 | 7 | 7 | 33 | 11 | 11 | 11 |
| Sorong | 21 | 7 | 7 | 7 | 34 | 12 | 11 | 11 |
| Total | 126 | 49 | 39 | 38 | 178 | 69 | 54 | 55 |

**Table 2.15: Final Sample of Parents – Baseline & Midline Studies**

Baseline

| District | Parents | | | |
|---|---|---|---|---|
| | TOTAL | Model A | Model B | Non-intervention |
| Biak | 371 | 140 | 100 | 131 |
| Jayapura | 343 | 119 | 107 | 117 |
| Mimika | 243 | 102 | 41 | 100 |
| Jayawijaya | 337 | 173 | 121 | 43 |
| Manokwari | 260 | 81 | 91 | 88 |
| Sorong | 314 | 116 | 98 | 100 |
| Total | 1868 | 731 | 558 | 579 |

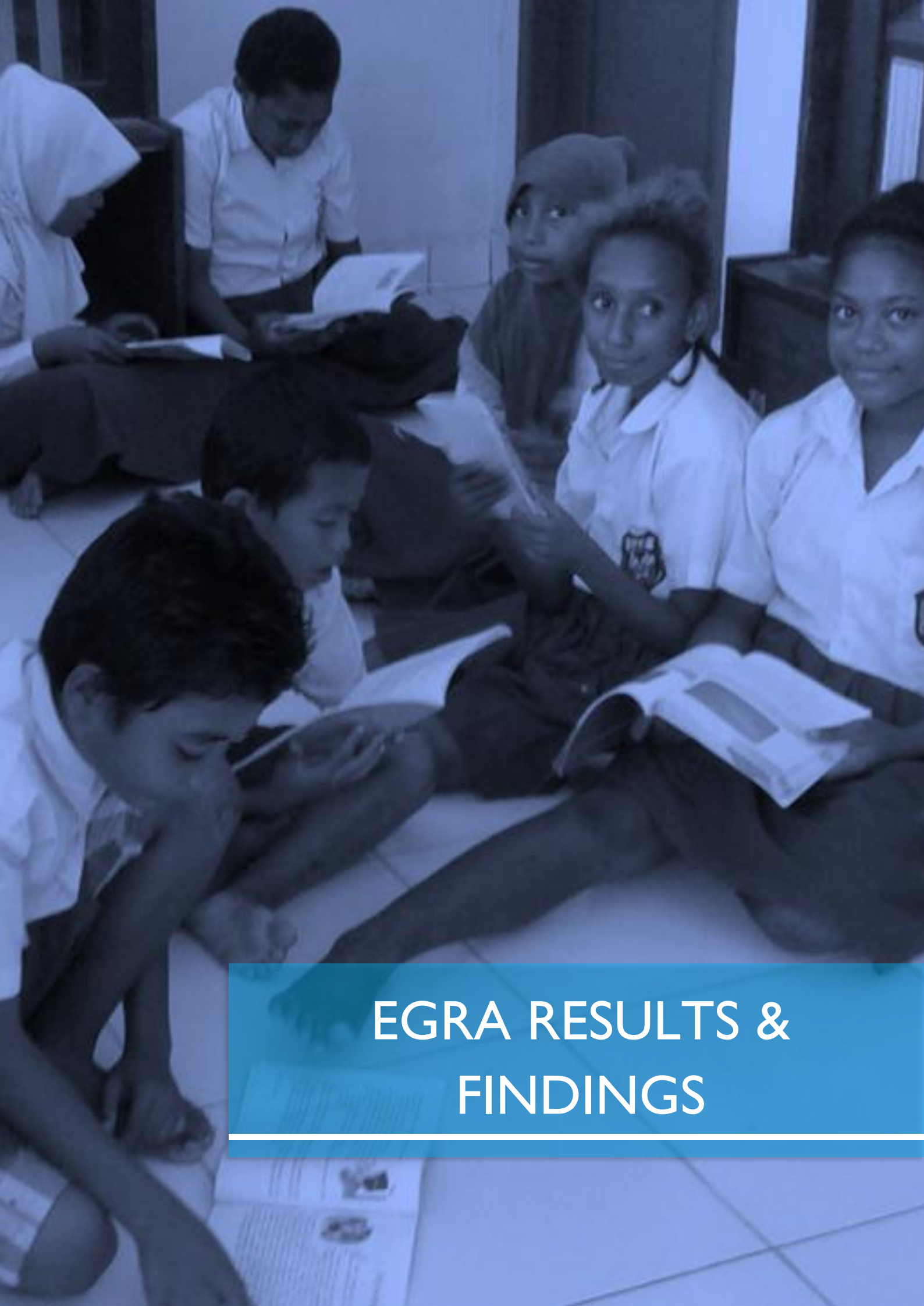
Midline

| District | Parents | | | |
|---|---|---|---|---|
| | TOTAL | Model A | Model B | Non-intervention |
| Biak | 337 | 136 | 100 | 101 |
| Jayapura | 348 | 120 | 112 | 116 |
| Mimika | 219 | 106 | 49 | 64 |
| Jayawijaya | 317 | 170 | 112 | 35 |
| Manokwari | 229 | 72 | 91 | 66 |
| Sorong | 281 | 108 | 85 | 88 |
| Total | 1731 | 712 | 549 | 470 |

## 2.8 Data Analysis

The data was cleaned prior to data analysis. This process involved checking the data on a daily basis during the fieldwork. A logic check and any missing data was addressed during this stage, so that everything went accordingly by the end of the data collection. This data check was performed centrally in Jakarta, as part of the quality control process. Once all the data collected, a final check was conducted to ensure the data sets were all consistent in structure before the analysis process.

Different software was used for the analysis. Surveycraft used for most of the data tabulations for the descriptive analysis, while SPSS was used for all the statistical analyses which included liner regressions, one way ANOVA, and bivariate correlations. Meanwhile, all the recorded interviews for qualitative data were analyzed in Jakarta. Notes and summary were made from each interview recordings. The NVivo software was used to help analyze these notes.



# EGRA RESULTS & FINDINGS

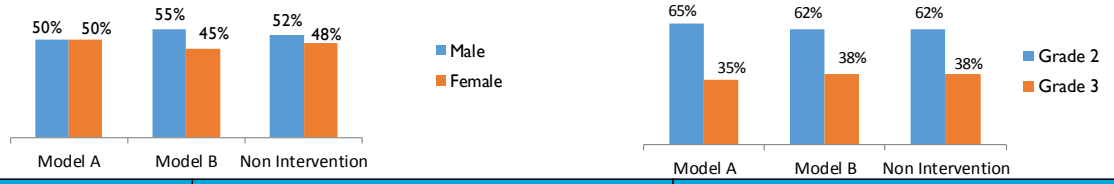
# 3 EGRA RESULTS AND FINDINGS

This chapter will explain the EGRA results, starting with a profile of the respondents, which will be compared with the results of the baseline measurements. There will also be a comparison between the types of intervention and non-intervention. It will be continued with a description on the relationships of several important variables related with the EGRA results that are taken from the SSME measurements.

## 3.1 Profile of the Respondents

The students involved in this Midline study were fairly divided between male and female students. Since the main target was grade 2 students, eventually a two-thirds sample was taken to fulfill the sample per school. If there were not enough grade 2 students to fulfill the sample for the school, the sample were taken from grade 3 students.

**Figure 3.1: Student Profiles – Gender & Grade Level**




| District | Gender | | | | | | Grade | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Male | | | Female | | | Grade 2 | | | Grade 3 | | |
| | Model A | Model B | Non-Intv | Model A | Model B | Non-Intv | Model A | Model B | Non-Intv | Model A | Model B | Non-Intv |
| Tanah Papua | 50% | 55% | 52% | 50% | 45% | 48% | 65% | 62% | 62% | 35% | 38% | 38% |
| Biak | 53% | 51% | 50% | 47% | 49% | 50% | 79% | 51% | 51% | 21% | 49% | 49% |
| Jayapura | 46% | 54% | 52% | 54% | 46% | 48% | 55% | 77% | 77% | 45% | 23% | 23% |
| Jayawijaya | 52% | 64% | 56% | 48% | 36% | 44% | 61% | 80% | 80% | 39% | 20% | 20% |
| Mimika | 48% | 56% | 50% | 52% | 44% | 50% | 68% | 64% | 64% | 32% | 36% | 36% |
| Manokwari | 43% | 55% | 56% | 57% | 45% | 44% | 61% | 49% | 49% | 39% | 51% | 51% |
| Sorong | 57% | 49% | 52% | 43% | 51% | 48% | 66% | 49% | 49% | 34% | 51% | 51% |

About half of the students' parents were selected as respondents. Among the parents, 16% were guardians. The guardians were other adults who had close relationships with the students and lived in the same residences as the students.

The majority of the parents were farmers or homemakers. Besides, the parents also worked as civil government employees, private company employees, and trader. The family income

mostly ranged from 1-3 million rupiah or less, but there were also many families who made less than 1 million per month, as can be seen in Table 3.1. Jayapura, Sorong, and Manokwari generally had more parents with incomes above 3 million rupiah as compared to the other districts.

**Figure 3.2: Profile of Students' Parents – Father/Mother Occupation**

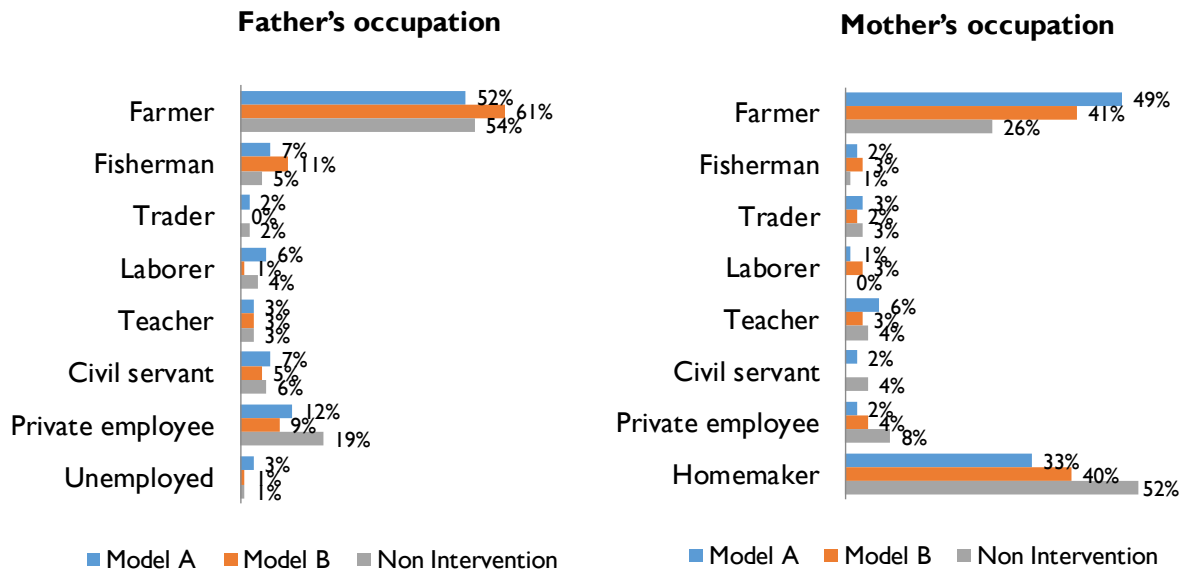



**Table 3.1: Parents' Income**

| District | School Type | Less than 500,000 | 500,000 – 999,999 | 1,000,000 – 2,999,999 | 3,000,000 – 6,000,000 | More than 6,000,000 |
|---|---|---|---|---|---|---|
| Biak | Model A | 10% | 36% | 45% | 8% | 1% |
| | Model B | 5% | 29% | 56% | 8% | 2% |
| | Non-Intv | 8% | 38% | 37% | 15% | 2% |
| Jayapura | Model A | 17% | 15% | 44% | 18% | 6% |
| | Model B | 11% | 17% | 44% | 21% | 7% |
| | Non-Intv | 16% | 11% | 34% | 25% | 14% |
| Mimika | Model A | 42% | 30% | 19% | 4% | 5% |
| | Model B | 72% | 4% | 20% | 4% | 0% |
| | Non-Intv | 39% | 9% | 35% | 17% | 0% |
| Jayawijaya | Model A | 18% | 25% | 46% | 10% | 1% |
| | Model B | 27% | 21% | 38% | 12% | 2% |
| | Non-Intv | 29% | 31% | 40% | 0% | 0% |
| Manokwari | Model A | 3% | 14% | 60% | 17% | 6% |
| | Model B | 3% | 9% | 67% | 20% | 1% |
| | Non-Intv | 5% | 11% | 54% | 25% | 5% |
| Sorong | Model A | 8% | 30% | 35% | 17% | 10% |
| | Model B | 24% | 6% | 48% | 20% | 2% |
| | Non-Intv | 22% | 10% | 37% | 24% | 7% |
| Tanah Papua | Model A | 17% | 26% | 41% | 12% | 4% |
| | Model B | 19% | 16% | 47% | 15% | 3% |
| | Non-Intv | 18% | 18% | 38% | 20% | 6% |

## 3.2 Profile of Teachers and Head Teachers

Consistent across the types of Model A and Model B intervention schools and the non-intervention schools, the main respondents' teacher were females, while the head teachers were mostly males. The head teachers and teachers had various experiences, starting from 1-3 years of experience to 20 years of experience. A complete description can be seen in Figure 3.3 and 3.4.

**Figure 3.3: Teachers' Gender and Experience as Teachers**

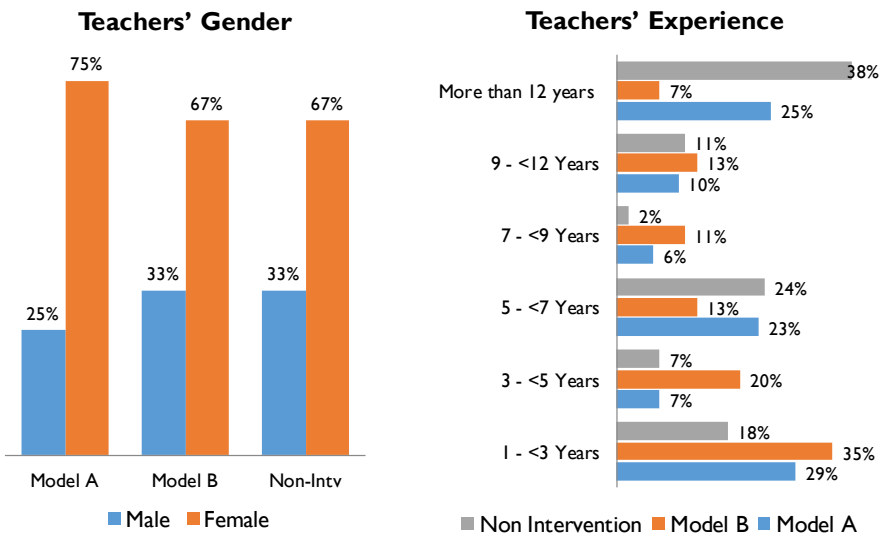
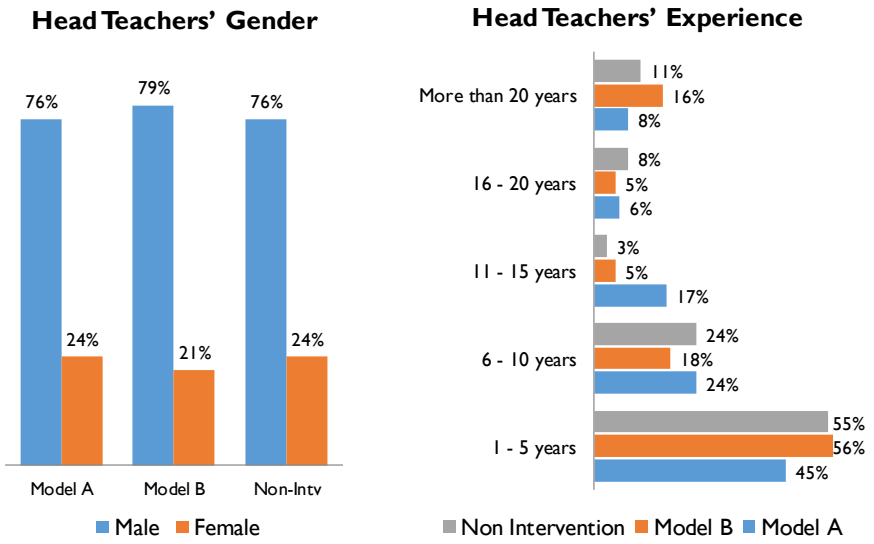



**Figure 3.4: Head Teachers' Gender and Experience as Head Teachers**



## 3.3 EGRA Results – Students' Reading Ability

To see the overall impact of intervention towards students' reading ability, a discussion of the EGRA results will start by comparing the baseline results with the Midline results in 4 reader categories classified by RTI International based on the composite measure of reading ability which was calculated as a combination of oral reading fluency (i.e correct words per minute) and reading comprehension (correct answers out of those attempted). The four categories are:

1. Reading fluently with comprehension: get 80% of correct answers for reading comprehension questions, with a note that all of the texts are completely read.
2. Reading with comprehension: get 60% of correct answers for reading comprehension questions from all of the questions asked.
3. Reading with limited comprehension: have an understanding of less than 60% of the texts, with a note that the oral reading fluency is higher than 0.
4. Non-reader: have an oral reading fluency of 0.

According to the four reader categories in the baseline study, there are significant differences between students from Tanah Papua and the national average. As seen in Figure 3.5, when the baseline study was conducted, an average of 50% of the students in Tanah Papua were classified in the non-reader category, and only about 7% of the students could read fluently with comprehension. This was in stark contrast with the national results, where the non-reader student category was only 5%, and students who could read fluently with comprehension made up to 47%.

In the Midline study, there was a significant reduction in the students' percentage in Tanah Papua who could not read after intervention was implemented by UNICEF for 2 years, as the original amount of 47% was reduced to 27%. In line with this, there was also a significant increase in the number of students who could fluently read with comprehension from 7% to 13%. West Papua had a higher increase compared to Papua, as detailed in Figure 3.6.

**Figure 3.5: Students' Reading Ability During the Baseline Study**

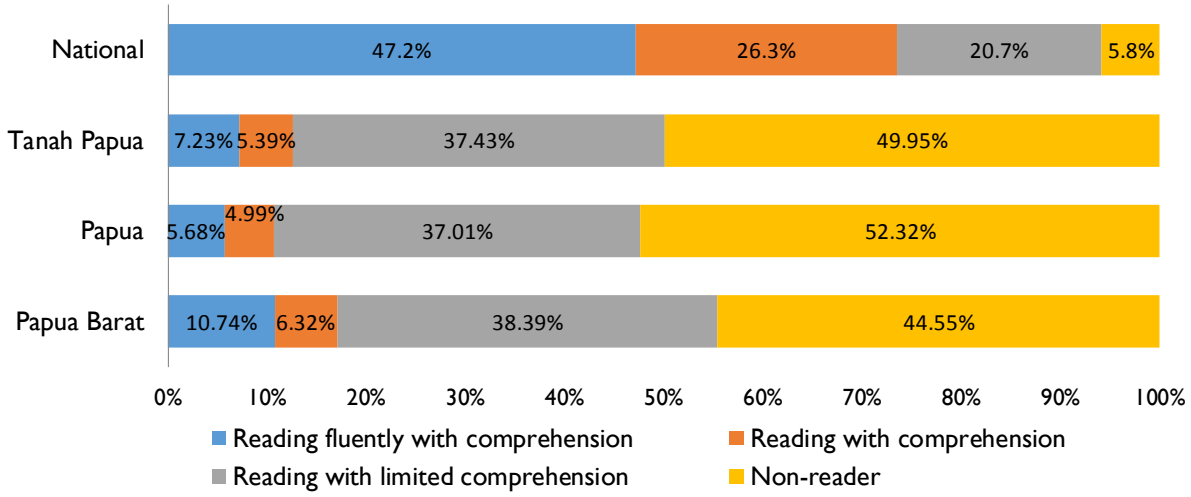
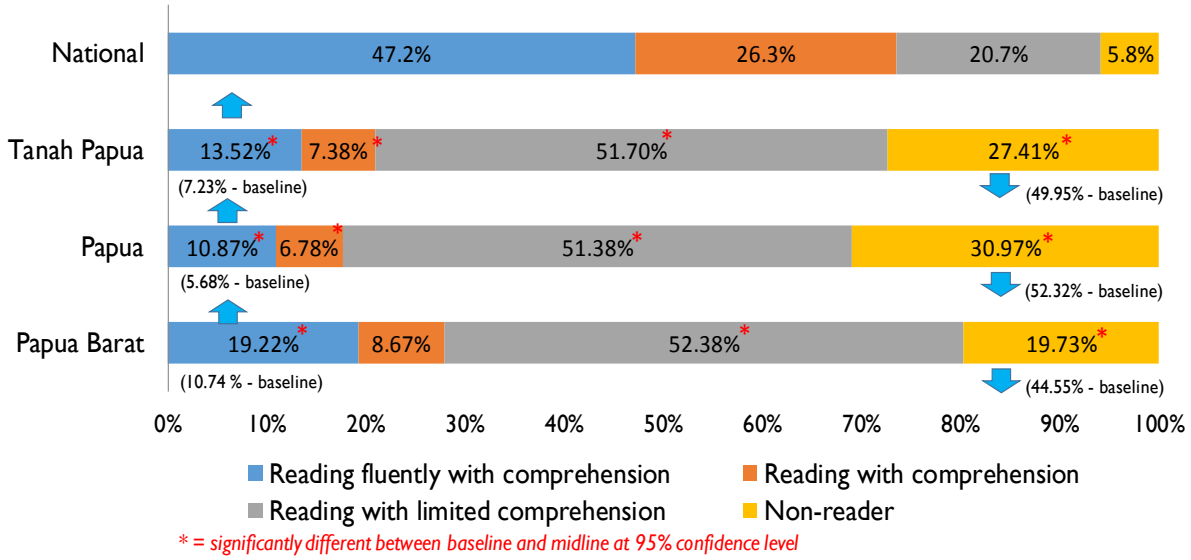


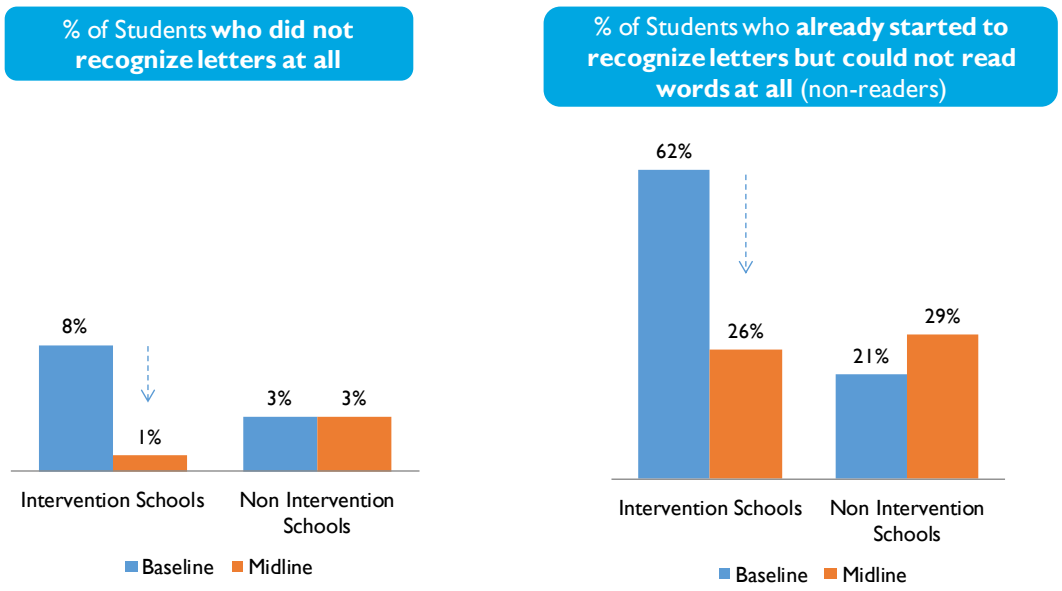

**Figure 3.6: Students' Reading Ability During the Midline Study**




Next, by separating the intervention and non-intervention schools, there was a very positive impact from the program within its two years implementation. It started with the most basic literacy level, that is students' ability to recognize letters. Currently, only 1% of students from the intervention schools were unable to recognize letters at all, which previously was at 8% when the baseline study was conducted. If compared with students from non-intervention schools, although the percentage of students who could not recognize letters was already lower, at 3% in the baseline, there was no change in the percentage from the baseline study to the Midline study as shown in Figure 3.7.

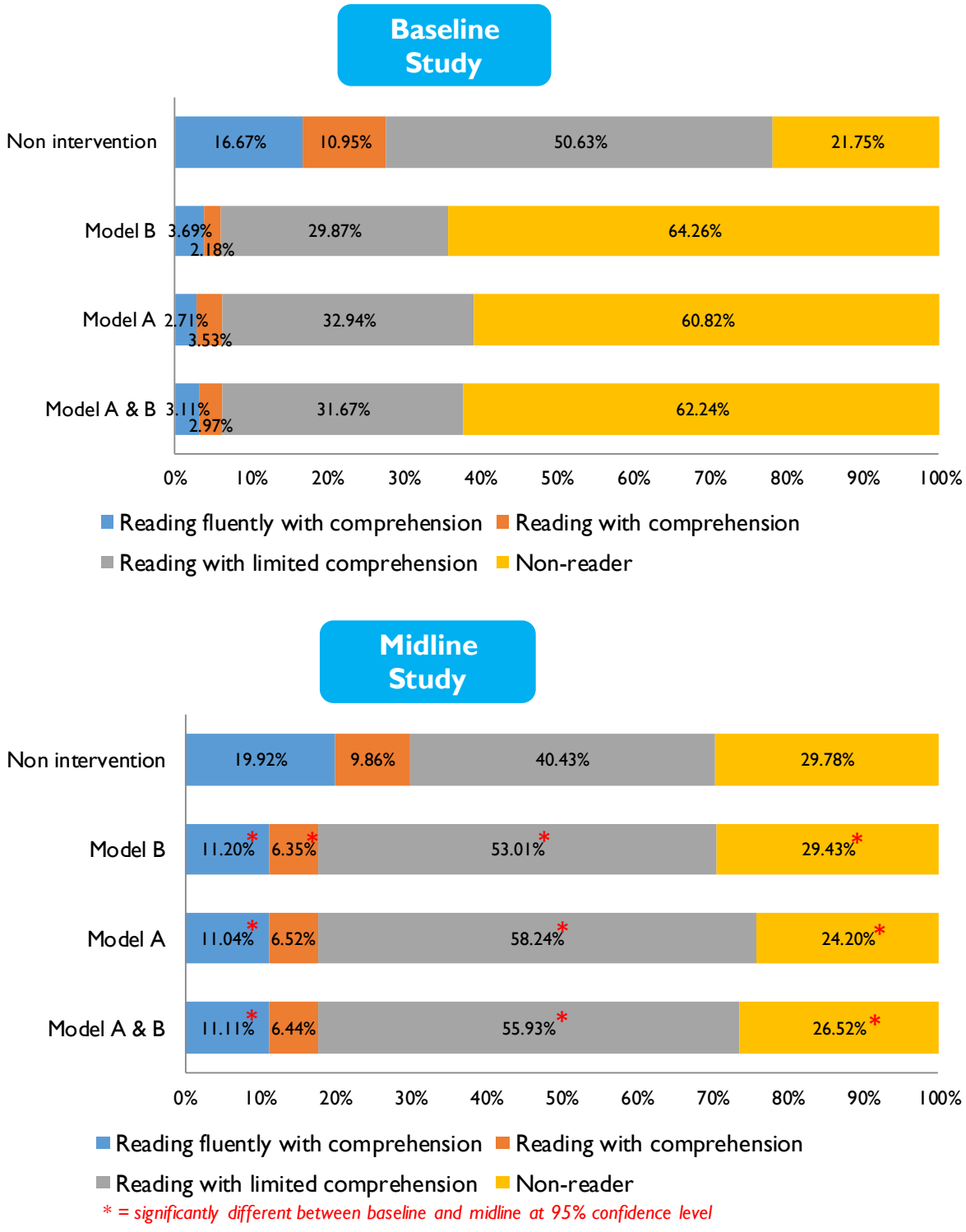
A similar trend was also seen in the change of percentage of non-reader students, referring to students who could not read even a single word. During the baseline study, 62% of students from intervention schools could not read, but that number was reduced significantly to 26%. Meanwhile, the percentage of students from the control school did not show any reduction, and there was a tendency for non-readers to increase. The gap in the percentage of students in the non-reader category between intervention schools and non-intervention schools indicates that students from non-intervention schools already had a higher reading ability.

**Figure 3.7: Basic Effects of the Program**



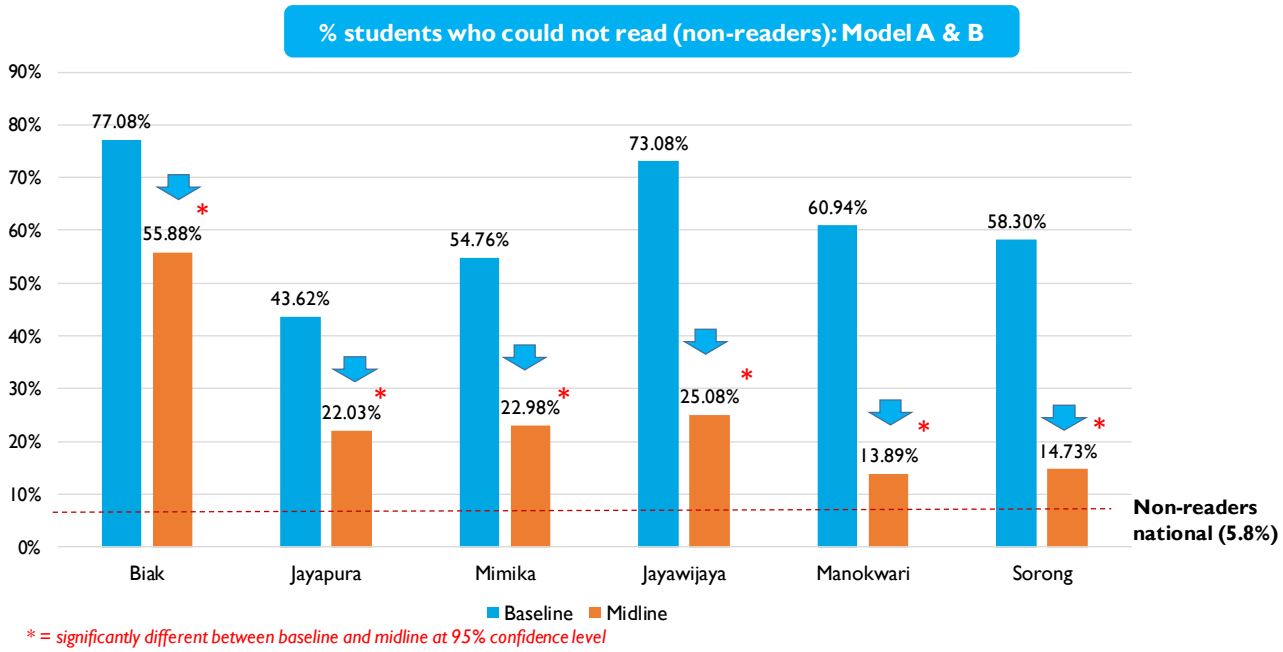

Comparing the changes that occurred in the percentages of the four reading ability categories based on intervention models, both intervention school models indicated significant positive changes. This can be seen from a reduction in the number of early grade students who could not read in the intervention schools, both using Model A and Model B. In addition, the number of students who were fluent readers increased significantly in both intervention school groups as shown in Figure 3.8. For example, it can be seen that Model B had only 2.71% fluent readers with comprehension during the baseline study, and during the Midline study it increased to 11.2%. Meanwhile, there were no significant positive changes in the non-intervention schools.

**Figure 3.8: Differences between Types of Schools**



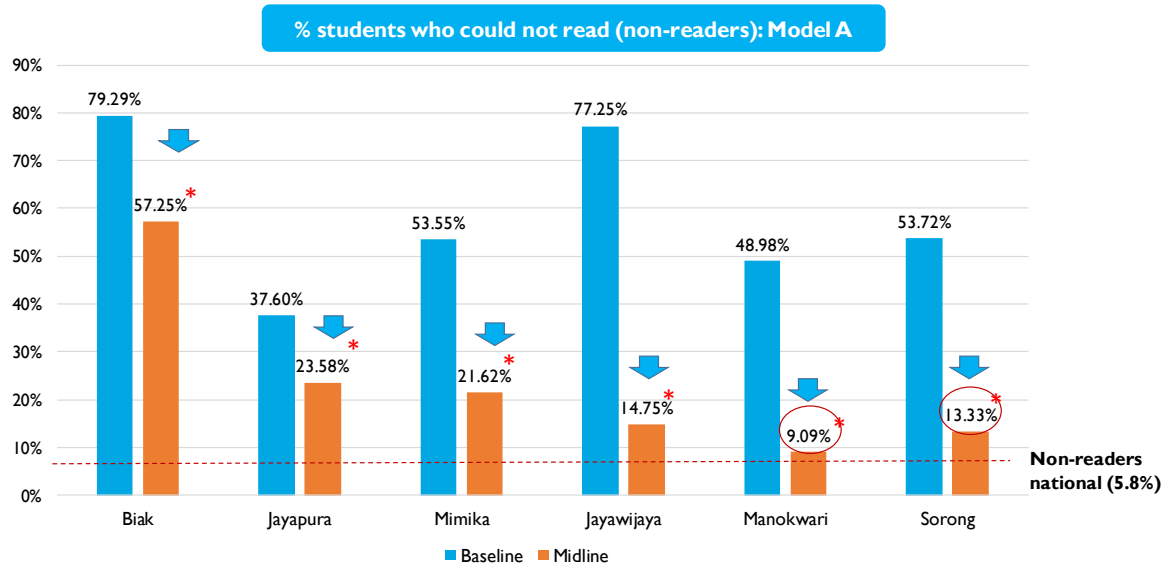
At the district level, a reduction in non-reader students was also seen in all the interventions schools. Manokwari and Sorong were now having the least number of non-readers after the intervention as seen on Figure 3.9.

**Figure 3.9. Comparing Non-Reader Students – Both Intervention (Model A & B)**




By looking specifically at the different model of Intervention, Model A intervention also succeeded in significantly reduce the number of students in the non-reader category in all districts. Manokwari and Sorong now has the lowest number of non-readers compared to other districts. Meanwhile, the changes which occurred in Biak were not as high compared to other districts. The percentage of non-readers in Biak was still at 57%, far above the average of other districts. Although Biak and Jayawijaya had the highest number of non-readers during the baseline study, the changes which occurred in Jayawijaya were considerably higher.

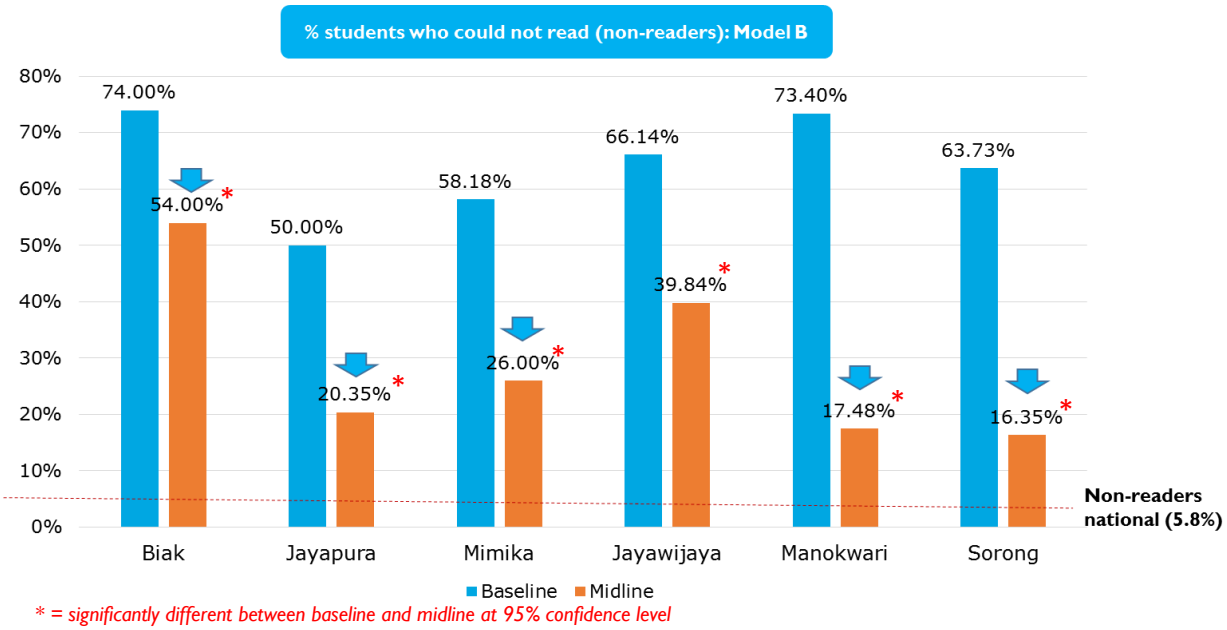
**Figure 3.10: Comparison of Non-Reader Students – Model A**




* = *significantly different between baseline and midline at 95% confidence level*

The Model B intervention schools at the district level also succeeded to reduce the number of non-reader students, especially in Manokwari and Sorong. Similar results were also found with Model A intervention schools. The number of non-reader students in Biak was still far above the averages in other districts. The percentage of non-reader students during the baseline study in Model B schools was higher than in Model A schools. This was due to the locations of Model B schools, which were located in remote and difficult access areas.

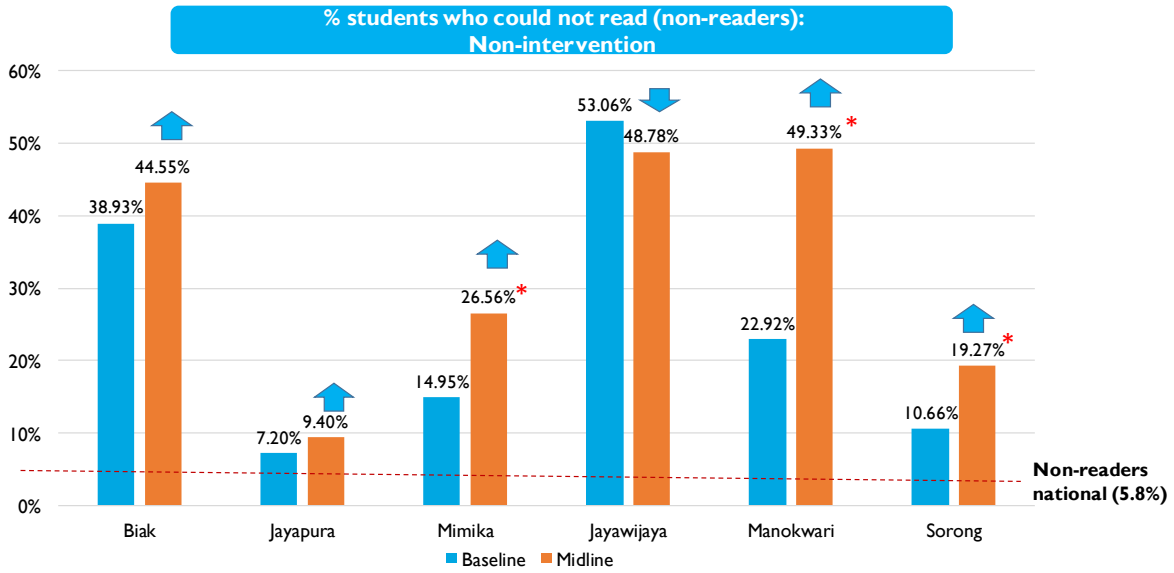
**Figure 3.11: Comparison of Non-Reader Students – Model B**




* = *significantly different between baseline and midline at 95% confidence level*

On the other hand, changes in the percentage of non-reader students in non-intervention schools did not show a strong trend as in intervention school groups. In general, the number of non-reader students in non-intervention schools increased in all of the districts except for Jayawijaya, which showed a slight decrease.

**Figure 3.12: Comparison of Non-Intervention Non-Readers**




** = significantly different between baseline and midline at 95% confidence level*

Next, by looking at the category of fluent readers with comprehension, with the reduction of non-readers amongst the intervention schools, the number of students who could read well with comprehension increased compared to the baseline, as shown in Figure 3.13.

**Figure 3.13 Comparison of Fluent Readers with Comprehension – Both Intervention (Model A & B)**

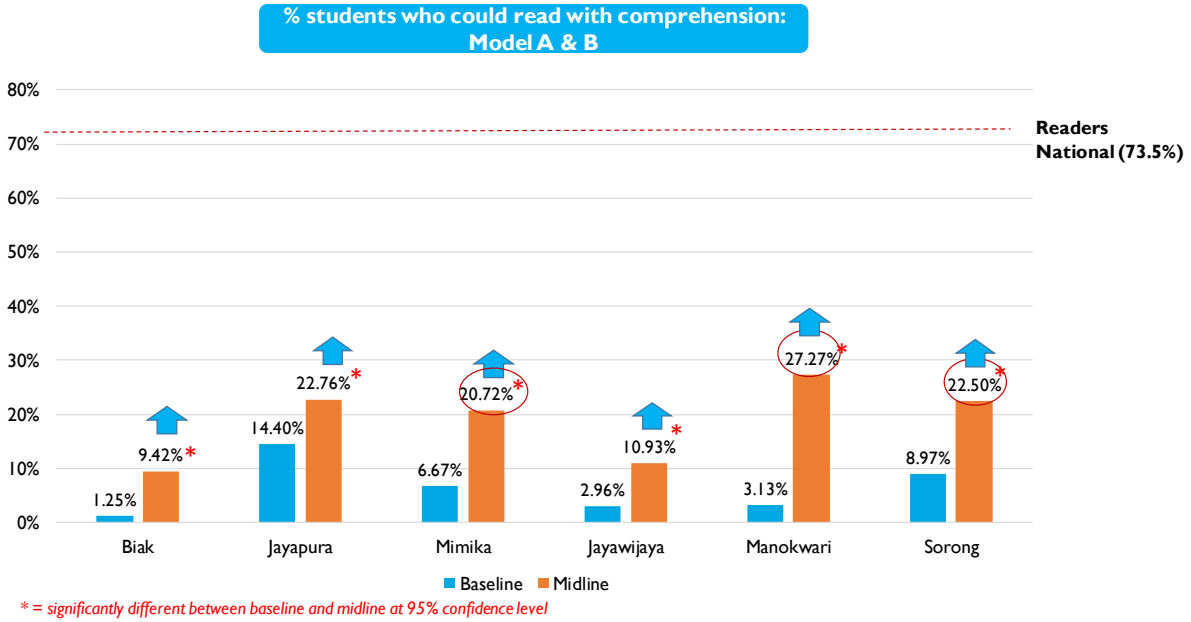
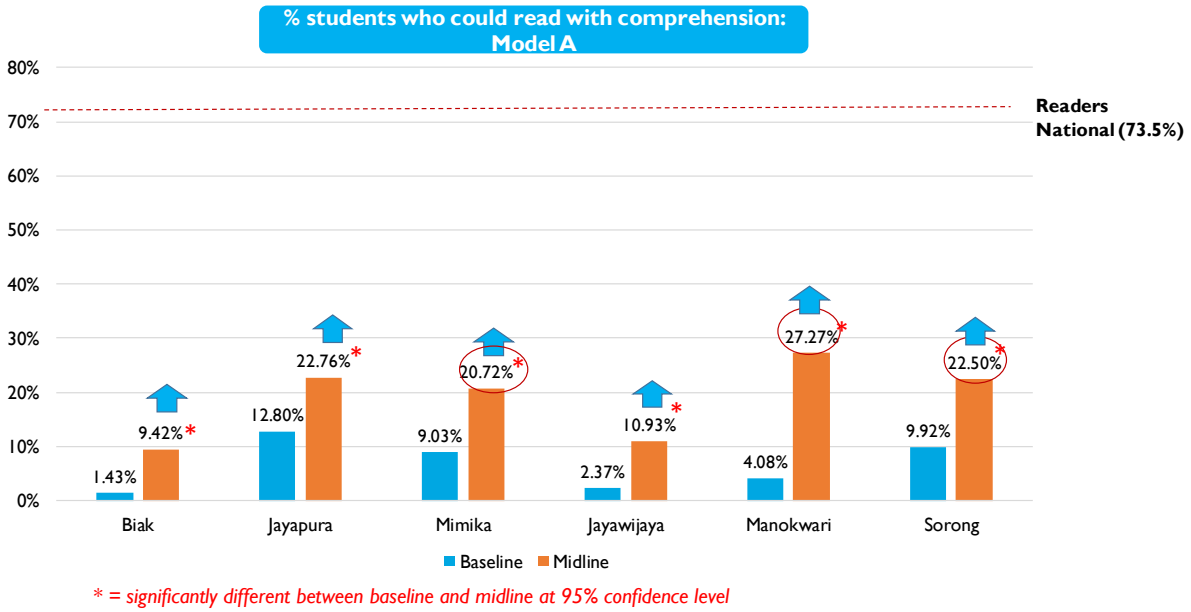


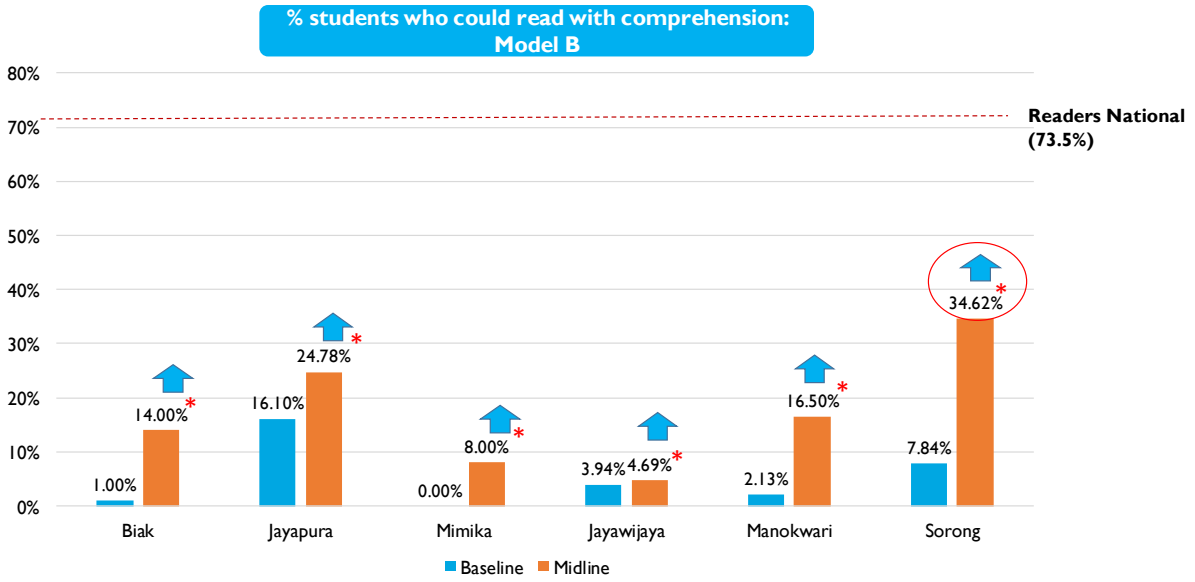

Figure 3.14 shows that by segregating the data to show the difference amongst Model A schools only, results were consistently showing an increase in the number of students who could read fluently with comprehension. Mimika, Manokwari, and Sorong showed higher increases compared with the other districts. In contrary, the lowest increases were found in Biak and Jayawijaya.

**Figure 3.14: Comparison of Fluent Readers with Comprehension – Model A**



Model B intervention schools also showed similar results, where in a reduction on the number of students who could not read at all, there was also an increase in the number of students who became more fluent in reading with comprehension. Sorong was found to have the highest number of fluent readers. Although the increase in the number of fluent readers was not too different with the non-reader group, these results reveal that the intervention program conducted not only succeeded to significantly reduce the number of students who could not read at all, but it was able to increase the reading quality of students, who became more fluent readers.

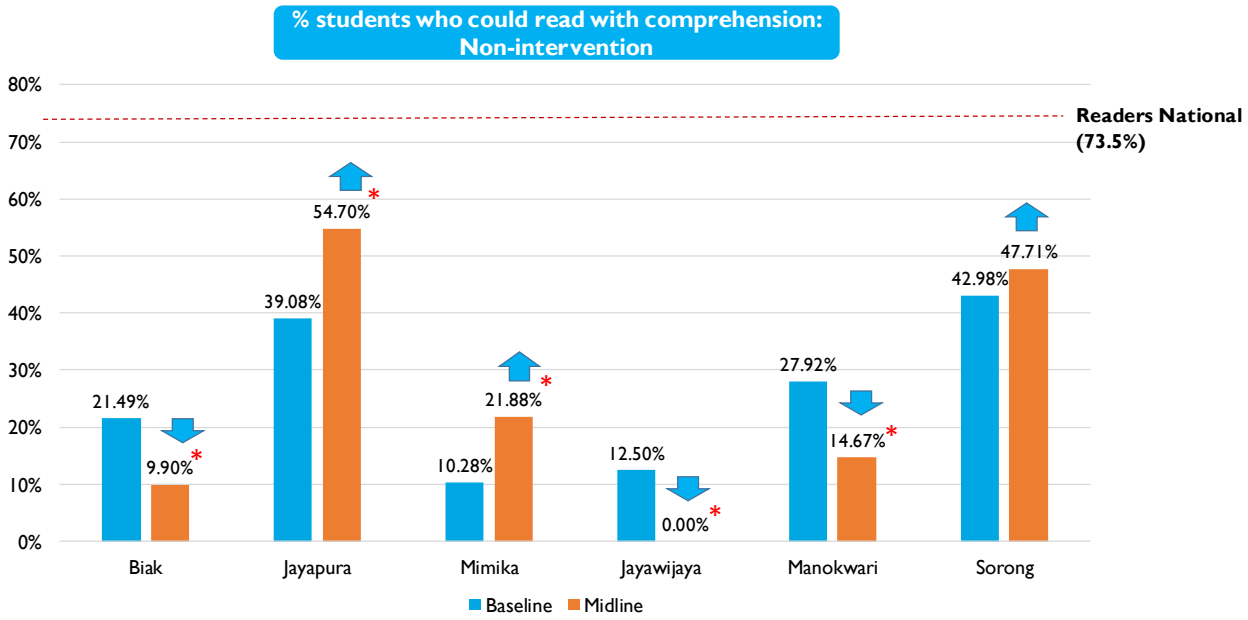
**Figure 3.15: Comparison of Fluent Readers with Comprehension – Model B**




** = significantly different between baseline and midline at 95% confidence level*

Meanwhile, there was no clear trend in the non-intervention schools between districts. Jayapura, Mimika, and Sorong revealed an increase of fluent readers with comprehension, but Biak, Jayawijaya, and Manokwari districts had the opposite trend, as shown in Figure 3.16.

**Figure 3.16: Comparison of Fluent Readers with Comprehension – Non-Intervention**




* = *significantly different between baseline and midline at 95% confidence level*

Next, by looking at the score of every EGRA sub-task in 126 schools during the baseline study, it highlighted that students who came from the control school had a higher reading ability compared to students from intervention schools. This was consistently seen in every EGRA sub-task. For instance, Table 3.2 shown that the overall average of non-intervention students in Tanah Papua were reading at 16.67 words per minute on the oral reading fluency sub-task. This rate is three times higher than in intervention schools, with students reading at 5 words per minute on average.

**Table 3.2: Reading Ability – per Sub-Task – Baseline**

| Sub-Task EGRA | Tanah Papua | | | | Papua | | | | Papua Barat | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Model A & B | Model A | Model B | Non-intervention | Model A & B | Model A | Model B | Non-intervention | Model A & B | Model A | Model B | Non-intervention |
| Letter-sound identification (letters/min) | 25.86[d] | 27.20[ac] | 23.79[b] | 42.06 | 25.69[d] | 26.15[a] | 25.14[b] | 42.29 | 25.96[d] | 28.48[ac] | 23.30[b] | 46.20 |
| Non-word reading (words/min) | 3.64[d] | 3.97[ac] | 3.10[b] | 9.94 | 3.46[d] | 3.42[a] | 3.59[b] | 9.70 | 3.85[d] | 4.82[ac] | 2.84[b] | 12.75 |
| Oral reading fluency (words/min) | 5.55[d] | 5.66[a] | 5.22[b] | 16.67 | 5.15[d] | 4.85[a] | 5.68[b] | 16.04 | 6.20[d] | 6.73[a] | 5.57[b] | 22.36 |
| Reading comprehension (%Correct) | 9%[d] | 9.31%[a] | 7.39%[b] | 25.31% | 8%[d] | 8.04%[a] | 7.82%[b] | 24.41% | 10%[d] | 10.78%[a] | 8.24%[b] | 34.22% |
| Listening comprehension (%Correct) | 24%[d] | 26.34%[ac] | 20.00%[b] | 38.42% | 20%[d] | 21.12%[a] | 19.94%[b] | 42.78% | 28%[d] | 34.41%[c] | 22.69%[b] | 39.33% |
| Oral vocabulary (%Correct) | 82%[d] | 84.27%[c] | 78.99%[b] | 85.17% | 79%[d] | 81.19%[ac] | 77.33%[b] | 88.01% | 86%[d] | 88.52%[c] | 83.52%[b] | 87.25% |
| Dictation (%Correct) | 20%[d] | 21.25%[ac] | 17.97%[b] | 42.33% | 20%[d] | 19.96%[a] | 20.10%[b] | 44.47% | 19%[d] | 22.22%[ac] | 15.87%[b] | 47.05% |

*a = significantly different between intervention a and non-intervention at 95% confidence level*
*b = significantly different between intervention b and non-intervention at 95% confidence level*
*c = significantly different between intervention a and intervention b at 95% confidence level*
*d= significantly different between intervention A&B and non-intervention at 95% confidence level*

By comparing the condition that occurred in the baseline study, Table 3.3 shows the EGRA results during the midline study. It was revealed that early grade students' reading ability in intervention schools was already close to or the same as students in non-intervention schools. For instance, by looking at the 3rd EGRA sub-task, it can be seen that now students' oral reading fluency from intervention schools had already reached 12-13 words per minute. For certain sub-tasks, intervention schools succeeded to surpass non-intervention schools. As seen in the first sub-task of recognizing letter sounds, students in Model A intervention schools far exceeded students in non-intervention schools.

**Table 3.3: Reading Ability – per Sub-Task – Midline**

| Sub-Task EGRA | Tanah Papua | | | | Papua | | | | Papua Barat | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Model A & B | Model A | Model B | Non-intervention | Model A & B | Model A | Model B | Non-intervention | Model A & B | Model A | Model B | Non-intervention |
| Letter-sound identification (letters/min) | 46.97[d] | 47.70[a] | 45.03 | 43.52 | 40.95[d] | 42.52[c] | 38.10[b] | 45.20 | 60.41[d] | 61.51[a] | 58.67[b] | 47.03 |
| Non-word reading (words/min) | 8.85[d] | 9.12 | 8.12[b] | 10.08 | 7.17[d] | 7.56[a] | 6.40[b] | 10.92 | 12.23 | 12.41 | 11.69 | 12.24 |
| Oral reading fluency (words/min) | 13.47[d] | 13.69 | 12.61[b] | 16.24 | 10.93[d] | 11.43[a] | 9.94[b] | 17.85 | 18.76 | 18.64 | 18.37 | 20.14 |
| Reading comprehension (%Correct) | 22%[d] | 22.10% | 21.07% | 23.64% | 17%[d] | 18.21%[a] | 15.34%[b] | 25.98% | 32% | 29.73% | 32.63% | 29.76% |
| Listening comprehension (%Correct) | 41%[d] | 44.02%[c] | 36.24%[b] | 41.44% | 38%[d] | 41.00%[ac] | 33.34%[b] | 46.39% | 46%[d] | 48.01% | 44.94% | 47.47% |
| Oral vocabulary (%Correct) | 86%[d] | 87.35%[ac] | 84.20%[b] | 85.96% | 83%[d] | 84.84%[ac] | 81.15%[b] | 88.13% | 91%[d] | 92.36%[ac] | 90.62%[b] | 88.76% |
| Dictation (%Correct) | 39%[d] | 40.39%[c] | 35.66%[b] | 40.25% | 37%[d] | 39.62%[ac] | 31.97%[b] | 44.97% | 44% | 42.63% | 43.65% | 42.30% |

*a = significantly different between intervention a and non-intervention at 95% confidence level*
*b = significantly different between intervention b and non-intervention at 95% confidence level*
*c = significantly different between intervention a and intervention b at 95% confidence level*
*d= significantly different between intervention A&B and non-intervention at 95% confidence level*

Based on the changes which occurred from the baseline to the midline studies in each EGRA sub-task, they were also measured by type of intervention as a delta value (Δ). Table 3.4 shows the delta value across province and Tanah Papua as a whole on the intervention schools regardless of the type of intervention. The results show that each EGRA subtask have a positive increase which is also statistically significant at a 95% confidence level. This meant that the intervention was able to increase students' reading ability. By looking at the size of changes at the provincial level, it can be seen that the average change which occurred in West Papua were higher compared to other districts. At the district level, it can be seen that the districts in West Papua had higher increases compared to Papua.

### Table 3.4: Size of Change – Model A & B – by Sub-Task

| Sub-Task EGRA | Tanah Papua | | | Papua | | | Papua Barat | | |
|---|---|---|---|---|---|---|---|---|---|
| | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ |
| Letter-sound identification (letters/min) | 25.86 | 46.97 | 21.11* | 25.69 | 40.95 | 15.26* | 25.96 | 60.41 | 34.45* |
| Non-word reading (words/min) | 3.64 | 8.85 | 5.22* | 3.46 | 7.17 | 3.71* | 3.85 | 12.23 | 8.38* |
| Oral reading fluency (words/min) | 5.55 | 13.47 | 7.91* | 5.15 | 10.93 | 5.79* | 6.20 | 18.76 | 12.56* |
| Reading comprehension (%Correct) | 8.64% | 22.06% | 13.43%* | 7.88% | 17.28% | 9.40%* | 9.56% | 31.83% | 22.27%* |
| Listening comprehension (%Correct) | 24.09% | 41.34% | 17.25%* | 20.50% | 38.04% | 17.54%* | 28.49% | 46.30% | 17.81%* |
| Oral vocabulary (%Correct) | 82.10% | 86.13% | 4.03%* | 79.49% | 83.34% | 3.85%* | 86.01% | 91.41% | 5.40%* |
| Dictation (%Correct) | 19.85% | 38.58% | 18.73%* | 19.91% | 36.58% | 16.68%* | 19.09% | 43.53% | 24.44%* |

** = significantly different between the baseline and midline at 95% confidence level*

By segregating the data to see the delta value of Intervention model A & B separately, showed similar consistent findings, where all of the EGRA sub-tasks revealed a significant increase as seen on Table 3.5 for model A, and table 3.6 for model B.

### Table 3.5: Magnitude of Change – Model A – by Sub-Task

| Sub-Task EGRA | Tanah Papua | | | Papua | | | Papua Barat | | |
|---|---|---|---|---|---|---|---|---|---|
| | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ |
| Letter-sound identification (letters/min) | 27.20 | 47.70 | 20.50* | 26.15 | 42.52 | 16.37* | 28.48 | 61.51 | 33.03* |
| Non-word reading (words/min) | 3.97 | 9.12 | 5.15* | 3.42 | 7.56 | 4.14* | 4.82 | 12.41 | 7.60* |
| Oral reading fluency (words/min) | 5.66 | 13.69 | 8.04* | 4.85 | 11.43 | 6.58* | 6.73 | 18.64 | 11.91* |
| Reading comprehension (%Correct) | 9.31% | 22.10% | 12.79%* | 8.04% | 18.21% | 10.17%* | 10.78% | 29.73% | 18.95%* |
| Listening comprehension (%Correct) | 26.34% | 44.02% | 17.68%* | 21.12% | 41.00% | 19.89%* | 34.41% | 48.01% | 13.60%* |
| Oral vocabulary (%Correct) | 84.27% | 87.35% | 3.08%* | 81.19% | 84.84% | 3.65%* | 88.52% | 92.36% | 3.85%* |
| Dictation (%Correct) | 21.25% | 40.39% | 19.15%* | 19.96% | 39.62% | 19.66%* | 22.22% | 42.63% | 20.41%* |

** = significantly different between the baseline and midline at 95% confidence level*

**Table 3.6: Magnitude of Change – Model B – by Sub-Task**

| Sub-Task EGRA | Tanah Papua | | | Papua | | | Papua Barat | | |
|---|---|---|---|---|---|---|---|---|---|
| | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ |
| Letter-sound identification (letters/min) | 23.79 | 45.03 | 21.24* | 25.14 | 38.1 | 12.96* | 23.3 | 58.67 | 35.37* |
| Non-word reading (words/min) | 3.1 | 8.12 | 5.02* | 3.59 | 6.4 | 2.81* | 2.84 | 11.69 | 8.85* |
| Oral reading fluency (words/min) | 5.22 | 12.61 | 7.39* | 5.68 | 9.94 | 4.26* | 5.57 | 18.37 | 12.80* |
| Reading comprehension (%Correct) | 7.39% | 21.07% | 13.68%* | 7.82% | 15.34% | 7.52%* | 8.24% | 32.63% | 24.39%* |
| Listening comprehension (%Correct) | 20.00% | 36.24% | 16.24%* | 19.94% | 33.34% | 13.40%* | 22.69% | 44.94% | 22.25%* |
| Oral vocabulary (%Correct) | 78.99% | 84.20% | 5.21%* | 77.33% | 81.15% | 3.82%* | 83.52% | 90.62% | 7.10%* |
| Dictation (%Correct) | 17.97% | 35.66% | 17.69%* | 20.10% | 31.97% | 11.87%* | 15.87% | 43.65% | 27.78%* |

** = significantly different between the baseline and midline at 95% confidence level*

The trend of significant changes in intervention schools was not found in non-intervention schools. Table 3.7 reveals the changes which occurred in non-intervention schools. Besides not having any significant changes, a slight reduction on 4 of the 7 EGRA sub-task can be seen in West Papua.

At this stage, the EGRA results showed two major findings. First, there was a significant increase in students' reading abilities from Model A and Model B intervention schools in all EGRA sub-tasks. Second, there were no significant changes in students' reading abilities from non-intervention schools and a tendency to remain the same.

**Table 3.7: Magnitude of Non-Intervention Changes – by Sub-Task**

| Sub-Task EGRA | Tanah Papua | | | Papua | | | Papua Barat | | |
|---|---|---|---|---|---|---|---|---|---|
| | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ |
| Letter-sound identification (letters/min) | 42.06 | 43.52 | 1.46 | 42.29 | 45.2 | 2.91 | 46.2 | 47.03 | 0.83 |
| Non-word reading (words/min) | 9.94 | 10.08 | 0.14 | 9.7 | 10.92 | 1.22 | 12.75 | 12.24 | -0.51 |
| Oral reading fluency (words/min) | 16.67 | 16.24 | -0.43 | 16.04 | 17.85 | 1.81 | 22.36 | 20.14 | -2.22 |
| Reading comprehension (%Correct) | 25.31% | 23.64% | -1.67% | 24.41% | 25.98% | 1.57% | 34.22% | 29.76% | -4.46% |
| Listening comprehension (%Correct) | 38.42% | 41.44% | 3.02% | 42.78% | 46.39% | 3.61% | 39.33% | 47.47% | 8.14%* |
| Oral vocabulary (%Correct) | 85.17% | 85.96% | 0.79% | 88.01% | 88.13% | 0.12% | 87.25% | 88.76% | 1.51% |
| Dictation (%Correct) | 42.33% | 40.25% | -2.08% | 44.47% | 44.97% | 0.50% | 47.05% | 42.30% | -4.75% |

** = significantly different between the baseline and midline at 95% confidence level*

Furthermore, based on the EGRA results at the district level we can see the contribution of each district to the overall EGRA scores. The midline findings show that the average reading

ability of students from Manokwari, Sorong, and Mimika was able to match that of students' reading ability from Jayapura, which was the district with the highest average of EGRA scores during the baseline study. As an example, students' average oral reading fluency in Manokwari and Sorong already reached 16-19 words per minute, which exceeded the same sub-task average value in Jayapura.

**Table 3.8: Magnitude of Change – Per Sub-Task, Per District – Model A & B Intervention**

| | Model A & B | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sub-Task EGRA** | **Biak** | | | **Jayapura** | | | **Mimika** | | | **Jayawijaya** | | | **Manokwari** | | | **Sorong** | | |
| | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ |
| Letter-sound identification (letters/min) | 16.63 | 33.60 | 16.98* | 36.36 | 49.48 | 13.12* | 28.13 | 43.98 | 15.84* | 24.62 | 39.01 | 14.39* | 26.88 | 54.79 | 27.91* | 26.46 | 62.95 | 36.49* |
| Non-word reading (words/min) | 1.14 | 4.91 | 3.78* | 6.93 | 10.15 | 3.22* | 3.93 | 8.95 | 5.02* | 2.57 | 5.87 | 3.30* | 3.90 | 11.69 | 7.78* | 4.20 | 11.77 | 7.56* |
| Oral reading fluency (words/min) | 1.60 | 7.64 | 6.04* | 10.78 | 16.06 | 5.27* | 5.83 | 13.80 | 7.97* | 3.55 | 8.83 | 5.28* | 5.26 | 16.10 | 10.84* | 7.32 | 19.35 | 12.03* |
| Reading comprehension (%Correct) | 2.33% | 13% | 10%* | 17.86% | 28% | 10%* | 9.81% | 21% | 11%* | 3.91% | 11% | 7%* | 6.98% | 28% | 21%* | 11.75% | 32% | 20%* |
| Listening comprehension (%Correct) | 11.81% | 37% | 25%* | 45.13% | 56% | 11%* | 26.83% | 40% | 13%* | 4.64% | 26% | 21%* | 31.60% | 48% | 16%* | 26.61% | 44% | 18%* |
| Oral vocabulary (%Correct) | 81.58% | 87% | 5%* | 92.41% | 94% | 2%* | 80.64% | 82% | 2% | 68.58% | 74% | 6%* | 81.88% | 89% | 7%* | 89.39% | 93% | 4%* |
| Dictation (%Correct) | 11.28% | 33% | 21%* | 33.82% | 44% | 11%* | 21.16% | 35% | 14%* | 17.07% | 36% | 19%* | 18.98% | 40% | 21%* | 21.33% | 45% | 24%* |

** = significantly different between the baseline and midline at 95% confidence level*

The EGRA results based on the intervention group at the district level depicting the detail changes which occurred in the program. From Table 3.9 it can be seen that every EGRA sub-task experienced a significant increase starting with the Model A intervention group. On average, the reading abilities in Jayawijaya and Biak, which had the lowest reading abilities during the baseline study, showed the greatest advancements. Jayawijaya even had a 5 times higher improvement in the oral reading fluency sub-task.

**Table 3.9: Magnitude of Change – Per Sub-Task, Per District – Model A Intervention**

Model A

| Sub-Task EGRA | Biak | | | Jayapura | | | Mimika | | | Jayawijaya | | | Manokwari | | | Sorong | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ |
| Letter-sound identification (letters/min) | 17.54 | 31.36 | 13.82* | 36.78 | 47.98 | 11.20* | 30.56 | 47.82 | 17.26* | 24.05 | 44.09 | 20.05* | 32.61 | 61.05 | 28.44* | 27.01 | 63.04 | 36.04* |
| Non-word reading (words/min) | 1.74 | 3.91 | 2.17a* | 6.16 | 9.74 | 3.58* | 4.72 | 10.58 | 5.86* | 2.11 | 6.93 | 4.82* | 5.73 | 14.66 | 8.94* | 4.51 | 11.48 | 6.97* |
| Oral reading fluency (words/min) | 2.11 | 6.56 | 4.45* | 9.50 | 15.26 | 5.76* | 6.98 | 16.65 | 9.76* | 2.40 | 10.08 | 7.67* | 7.38 | 18.95 | 11.57* | 6.47 | 18.56 | 12.09* |
| Reading comprehension (%Correct) | 3.43% | 10.14% | 6.72%* | 16.16% | 27.32% | 11.16%* | 12.13% | 25.05% | 12.92%* | 3.13% | 14.75% | 11.63%* | 9.18% | 33.25% | 24.06%* | 12.23% | 27.33% | 15.10%* |
| Listening comprehension (%Correct) | 15.00% | 36.71% | 21.71%* | 42.13% | 54.20% | 12.07%* | 32.47% | 49.55% | 17.08%* | 4.42% | 31.33% | 26.91%* | 34.69% | 48.92% | 14.22%* | 33.61% | 48.33% | 14.72%* |
| Oral vocabulary (%Correct) | 84.43% | 87.68% | 3.25%* | 93.76% | 94.88% | 1.12% | 83.58% | 85.45% | 1.87% | 69.86% | 76.91% | 7.05%* | 83.62% | 88.96% | 5.34%* | 91.65% | 94.38% | 2.72%* |
| Dictation (%Correct) | 13.26% | 32.85% | 19.59%* | 32.95% | 43.74% | 10.79%* | 22.74% | 38.26% | 15.52%* | 15.31% | 41.89% | 26.58%* | 25.00% | 44.85% | 19.85%* | 23.81% | 44.22% | 20.41%* |

** = significantly different between the baseline and midline at 95% confidence level*

Next, in Table 3.10, changes in the values of all the EGRA sub-tasks per district can be seen for the Model B intervention group. In general, the intervention managed to significantly increase all the sub-task values in Biak, Manokwari, and Sorong, with Sorong showing the highest average changes.

The oral reading fluency of Sorong students in the Model B intervention group, which was previously 7 words per minute, increased to 18 words per minute, exceeding the students' scores from Jayapura.

By reviewing the changes in value per district in Model A intervention, it can be seen that Model B is not as effective in increasing students' reading abilities in Jayawijaya. However, the Model B intervention group in Biak District showed a higher increase compared with Model A intervention group in Biak. Despite the differences of increase level that occurred in every district, it was clearly seen that Model A and Model B intervention schools revealed a positive trend increase in all the districts. This was not the case for the non-intervention schools.

## Table 3.10: Magnitude of Change – by Sub-Task, by District – Model B Intervention

**Model B**

| Sub-Task EGRA | Biak | | | Jayapura | | | Mimika | | | Jayawijaya | | | Manokwari | | | Sorong | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ |
| Letter-sound identification (letters/min) | 15.34 | 36.7 | 21.36* | 35.87 | 51.11 | 15.24* | 21.29 | 35.44 | 14.15* | 25.57 | 31.73 | 6.16* | 20.89 | 50.1 | 29.21* | 25.82 | 62.85 | 37.03* |
| Non-word reading (words/min) | 0.29 | 6.3 | 6.01* | 7.75 | 10.6 | 2.85 | 1.69 | 5.34 | 3.65* | 3.33 | 4.36 | 1.03 | 2.00 | 9.46 | 7.46* | 3.84 | 12.10 | 8.26* |
| Oral reading fluency (words/min) | 0.88 | 9.14 | 8.26* | 12.09 | 16.93 | 4.84 | 2.58 | 7.46 | 4.88* | 5.46 | 7.05 | 1.59 | 3.05 | 13.97 | 10.92* | 8.32 | 20.27 | 11.95* |
| Reading comprehension (%Correct) | 0.80% | 16.20% | 15.40%* | 19.66% | 28.50% | 8.84%* | 3.27% | 11.60% | 8.33%* | 5.20% | 6.41% | 1.21% | 4.68% | 23.69% | 19.01%* | 11.18% | 36.35% | 25.17%* |
| Listening comprehension (%Correct) | 7.33% | 36.33% | 29.00%* | 48.31% | 57.52% | 9.21%* | 10.91% | 18.00% | 7.09% | 4.99% | 18.23% | 13.24%* | 28.37% | 46.60% | 18.23%* | 18.30% | 40.06% | 21.76%* |
| Oral vocabulary (%Correct) | 77.60% | 84.95% | 7.35%* | 90.97% | 93.27% | 2.30% | 72.36% | 75.00% | 2.64% | 66.46% | 70.59% | 4.13%* | 80.05% | 89.13% | 9.08%* | 86.72% | 92.07% | 5.35%* |
| Dictation (%Correct) | 8.50% | 32.33% | 23.83%* | 34.75% | 45.25% | 10.50%* | 16.70% | 28.93% | 12.23%* | 19.98% | 26.77% | 6.79% | 12.70% | 35.79% | 23.09%* | 18.38% | 46.73% | 28.35%* |

** = significantly different between the baseline and midline at 95% confidence level*

The changes which occurred in the non-intervention schools can be seen in Table 3.11. From this table, it can be seen that amongst the non-intervention schools, there were no trends of positive changes, as seen amongst the intervention schools. Moreover, there was a tendency for a reduction which found in several districts, as shown in Manokwari.

## Table 3.11: Magnitude of Change – by Sub-Task, by District – Non-Intervention

**Non Intervention**

| Sub-Task EGRA | Biak | | | Jayapura | | | Mimika | | | Jayawijaya | | | Manokwari | | | Sorong | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ | Base | Mid | Δ |
| Letter-sound identification (letters/min) | 33.84 | 38.15 | 4.31 | 56.84 | 61.44 | 4.6 | 45.12 | 46.03 | 0.91 | 28.46 | 25.1 | -3.36 | 46.92 | 39.99 | -6.93 | 50.2 | 56.55 | 6.35 |
| Non-word reading (words/min) | 6.17 | 5.84 | -0.33 | 17.51 | 20.46 | 2.95 | 10.56 | 11.22 | 0.66 | 2.71 | 1.9 | -0.81 | 12.51 | 7.18 | -5.33* | 15.91 | 18.24 | 2.33 |
| Oral reading fluency (words/min) | 8.06 | 9.13 | 1.07 | 33.24 | 35.18 | 1.94 | 16.07 | 16.18 | 0.11 | 3.53 | 2.71 | -0.82 | 18.67 | 10.94 | -7.73* | 30.55 | 30.9 | 0.35 |
| Reading comprehension (%Correct) | 14.66% | 14.46% | -0.20% | 48.48% | 51.11% | 2.63% | 25.98% | 22.50% | -3.48% | 3.27% | 1.95% | -1.32% | 29.79% | 15.73% | -14.06%* | 45.25% | 45.14% | -0.11% |
| Listening comprehension (%Correct) | 27.99% | 45.21% | 17.22%* | 67.47% | 66.95% | -0.52% | 49.53% | 37.50% | -12.03%* | 8.84% | 8.94% | 0.10% | 49.31% | 34.67% | -14.64%* | 38.80% | 60.24% | 21.44%* |
| Oral vocabulary (%Correct) | 89.85% | 90.30% | 0.45% | 94.40% | 94.23% | -0.17% | 89.49% | 85.70% | -3.79% | 66.94% | 66.34% | -0.60% | 86.15% | 86.40% | 0.25% | 90.33% | 91.42% | 1.09% |
| Dictation (%Correct) | 34.40% | 40.73% | 6.33% | 70.35% | 65.98% | -4.37% | 43.57% | 40.52% | -3.05% | 19.39% | 18.21% | -1.18% | 43.49% | 25.16% | -18.33%* | 59.58% | 60.18% | 0.60% |

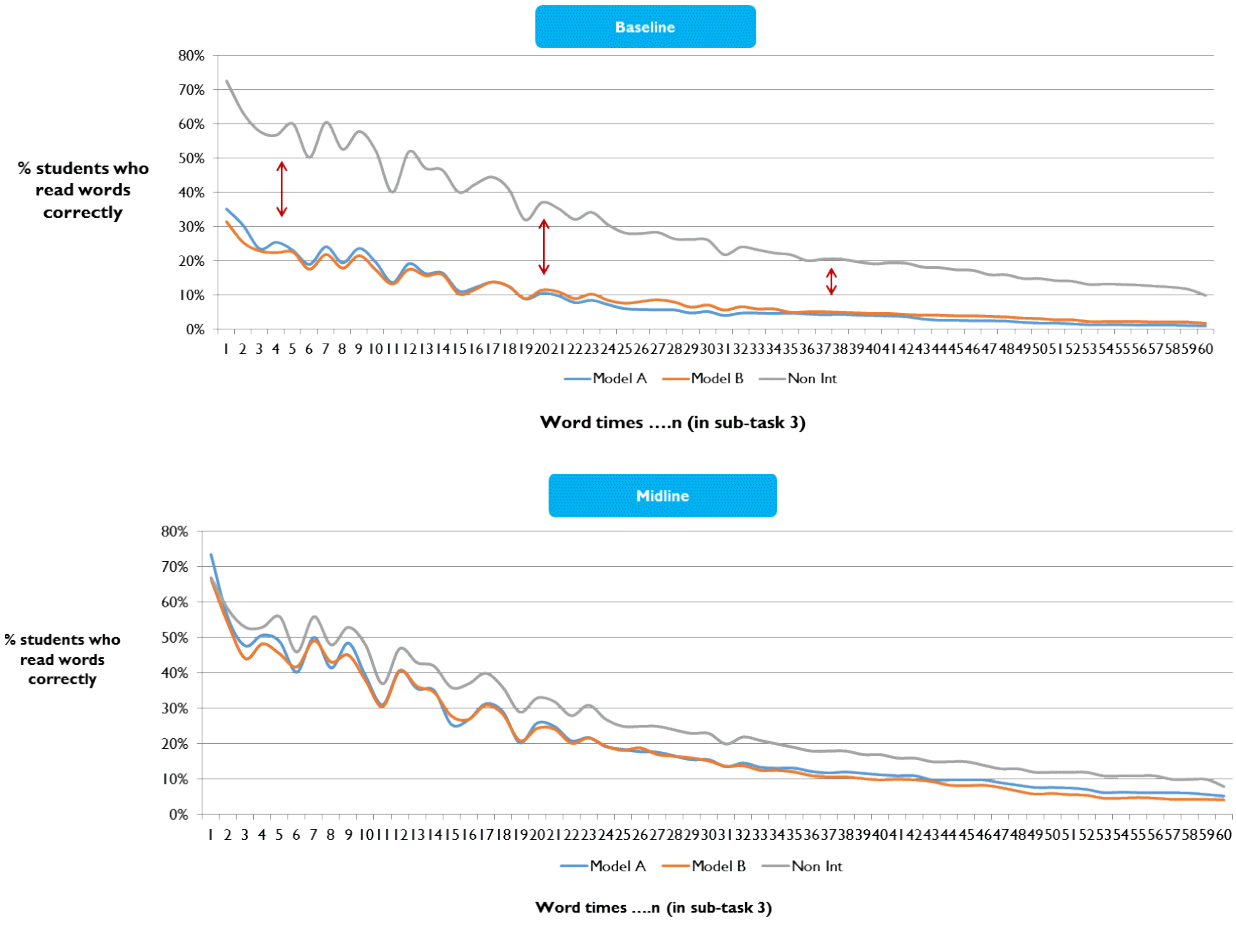
** = significantly different between the baseline and midline at 95% confidence level*

Although it cannot be completely considered as a control group, the school results from the non-intervention groups emphasized that without undertaking the intervention such as that has been done by UNICEF, students' reading abilities at schools located in village and

remote areas has not indicating any significant changes. This is illustrated in Figure 3.17. Both graphics in the figure reveal the changes that occurred in the oral reading fluency sub-task between the midline and baseline studies. It revealed the percentage of students who could read correctly words times –n, from 60 words in a minute.

A clear difference indicated by the two graphics was the increasingly less of a gap between intervention schools and non-intervention schools, which as explained previously that non-intervention schools had students with better reading abilities in the baseline study. The gap reduction can be clearly seen at the beginning of the graphic, showing that the number of students who start to read has increased significantly amongst both intervention schools.

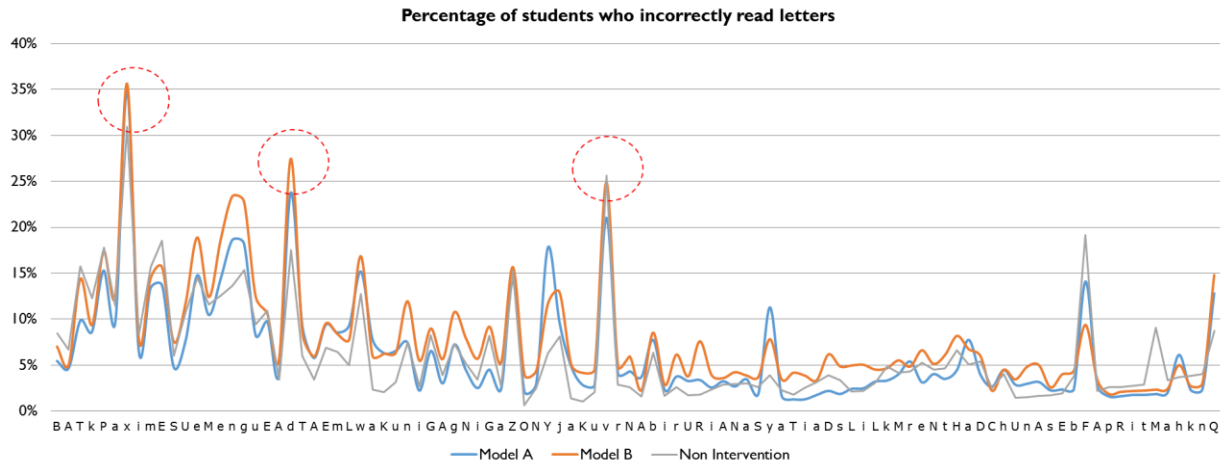
**Figure 3.17: Differences in Reading Fluency**




Letter sound identification was the first most basic EGRA sub-task. Conducting a deeper analysis in this sub-task will provide a clearer understanding of which letters are considered difficult for students in Papua.

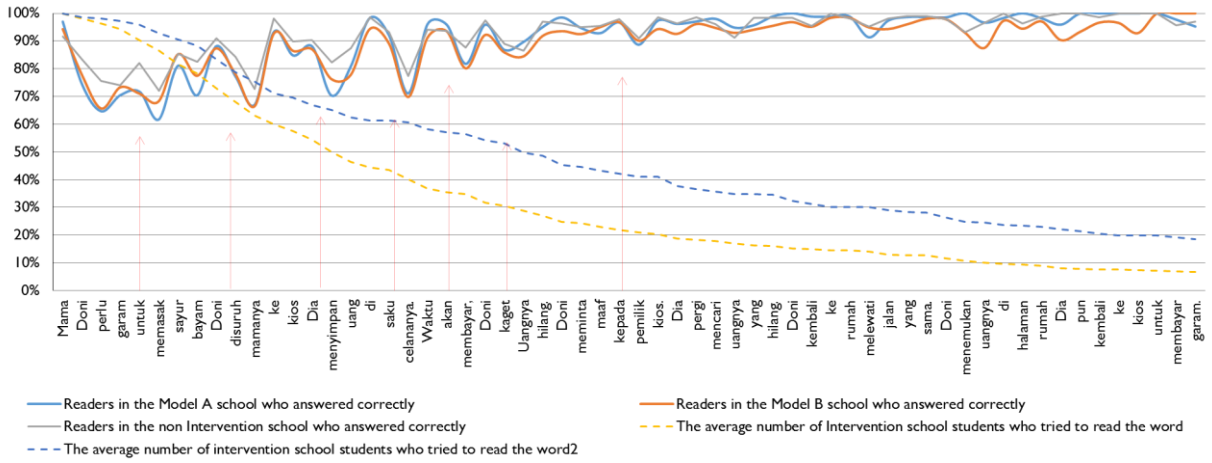
In percentage calculation on the number of students who read words in this sub-task incorrectly, the findings shows that there was difficulties for students to read letters such as *x*, *Z*, *y*, *v*, and *Q* if compared with other letters. For instance, only 30-35% who tried to read letter x read it incorrectly. This may be due to the fact that these letters are rarely used and are at the end of the alphabet. Besides that, the letter *d* seems to be one of the letters that was frequently misread. This may be due to it similar shape with the letter *b*. The pattern of incorrectly recognizing the letter was consistent within the three types of schools.

**Figure 3.18: Students Incorrectly Read Letter in the 1st Sub-Task**



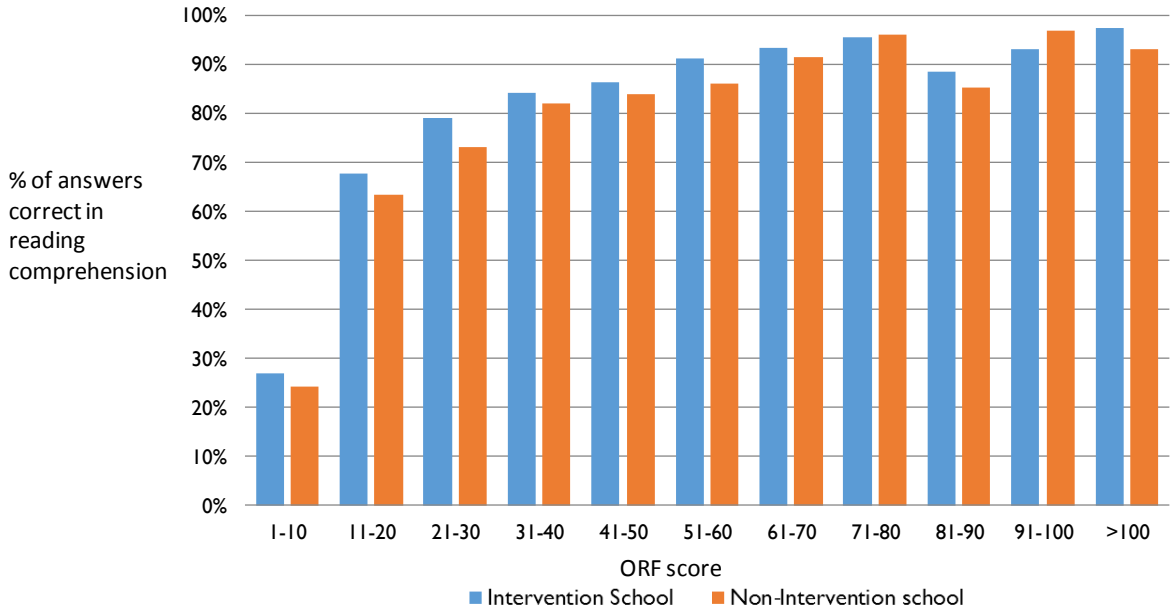

Furthermore, in the third sub-task of oral reading fluency, without considering students in the non-reader category, it can be seen that words with long prefixes like *me-* or *pe-* or a suffix like *–nya* like in the words *memasak*, *mamanya*, *celananya*, *membayar*, and *pemilik* were more difficult to read, as depicted in Figure 3.19. In that figure, it was found that less than 10% of the students were able to read until the end of the paragraph. The percentage of reading mistakes was reduced in line with a reduction in the number of students who read. This reveals that students who were able to read until the end of the paragraph were those who were more fluent in reading and had a fewer number of mistakes.

**Figure 3.19: Percentage of Correct Responses in Oral Reading Fluency per Word**




Furthermore, by combining the ORF score with the reading comprehension, Figure 3.20 shows that the more fluent a student in reading, the greater the possibility for the student to understand what is being read. This figure depicts that student who has an average ORF score of 11-20 have 70% correct answer to the questions related to the paragraph read. The same pattern was also seen both in intervention schools or non-intervention schools.

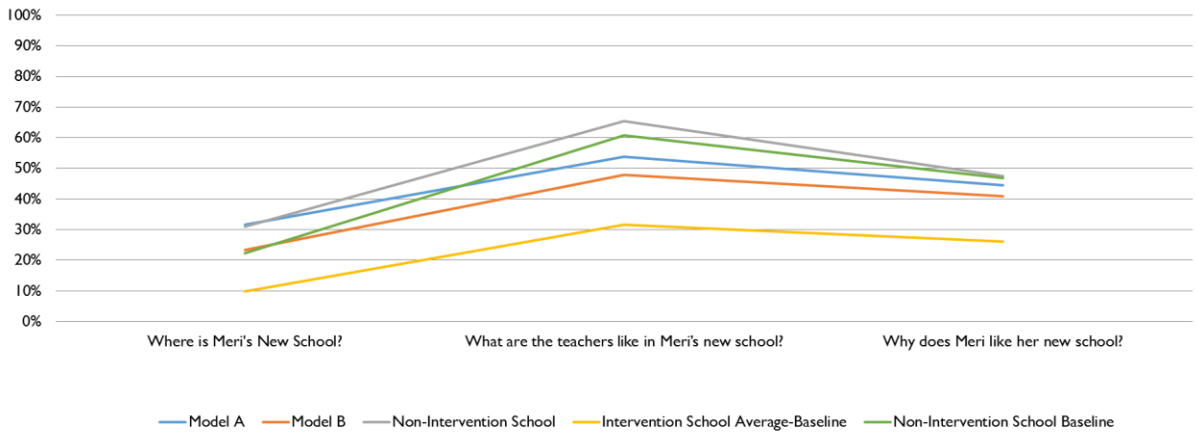
**Figure 3.20: Correlation between Reading Fluency with Reading Comprehension**




Through deeper analysis at the listening comprehension sub-task, it can be seen that there was an increase in the number of correct answers for each question at the intervention schools, as shown by the gap between the intervention baseline average and the current

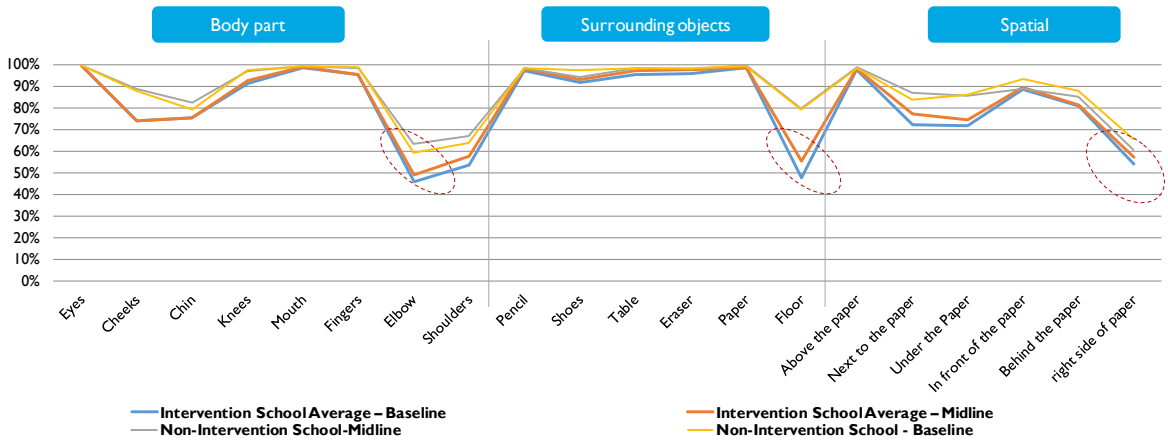
percentage of both models. However, an increase can be seen at the non-intervention school, but it is not as significant.

**Figure 3.21: Listening Comprehension Results**

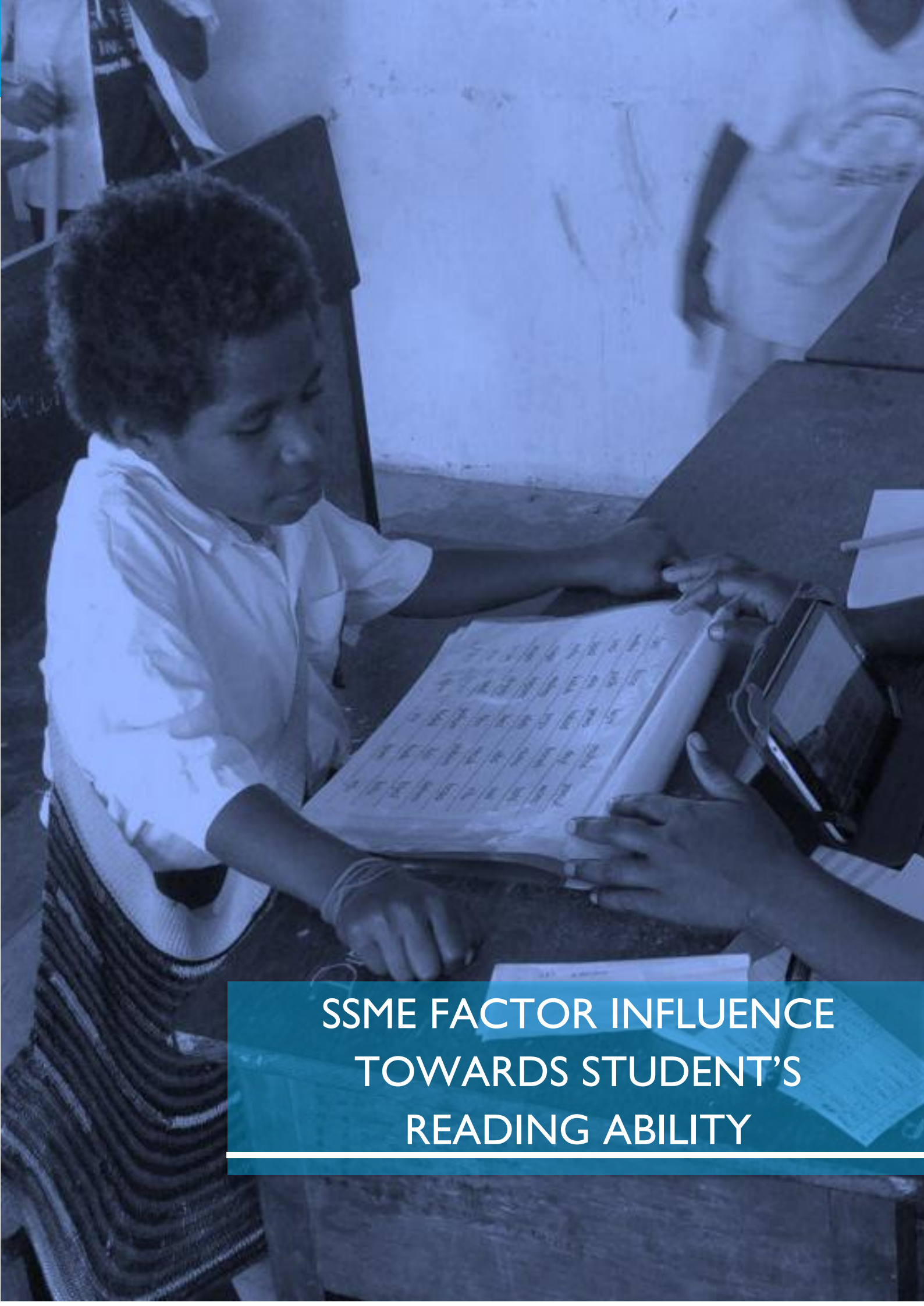



Although there was a slight increase in the oral vocabulary sub-task, the words that often misread were still the same words. The words which were relatively unknown by students in Tanah Papua were *siku*, *bahu*, and *lantai*. In regards to spatial recognition, there were still many students who incorrectly pointed to the right. The same trend was also seen between school types.

**Figure 3.22: Vocabulary Results**




Based on various EGRA studies conducted by RTI International, the third sub-task of oral reading fluency (ORF) was generally the individual sub-task which showed the most



# SSME FACTOR INFLUENCE TOWARDS STUDENT'S READING ABILITY

# 4 SSME FACTOR INFLUENCE TOWARDS STUDENT'S READING ABILITY

This chapter discusses various factors that were found to have influence on students reading ability. This started from the student's background which also included their parents, and other factors found at the school level, such as teachers, head teachers, and classrooms. Some issues regarding domestic violence and students with disabilities are also briefly discussed.

## 4.1 Influence of Students' and Parents' Background towards ORF and Reading Comprehension

The influence of various SSME variables measured will be discussed based on EGRA Results. From the various SSME variables being measured, the discussion will focus on variables which have a significant influence, including students' backgrounds that involve parents, and other variables students related variables such as the school's condition, the classroom, the teacher, and the head teacher.

Table 4.1 reveals the ORF average results and reading comprehension amogst several students based on their background profiles. As was discussed previously, although Biak and Jayawijaya has some significant improvement, but the ORF score and reading comprehension of both districts are relatively lower compared to other districts.

Female students also showed higher average of ORF values and reading comprehension compared with their male counterparts. The average differences in reading between children in grade 2 and grade 3 also revealed expected results, where students in grade 3 had an average reading ability of 10 more words per minute.

In addition, an interesting findings shows that older students actually had a lower reading ability if compared to the average age of their classmates This indicates that students who did not advance to the next class level had lower reading abilities, whether in speed and accuracy or in understanding the text.

On the other hand, the family background also revealed an influence in the student's reading ability. One factor that has been proven from other studies is related with student's family's

economic condition. In Table 4.2, the ORF averages and reading comprehension for students come from families with higher incomes will usually have higher ORF values. This is related with the parents' activities, which tend to focus on earning money, and even in village regions and remote areas, parents will ask their children to help them with their economic activities and sacrifice their children's school time.

**Table 4.1: ORF and Reading Comprehension Based on Students' Profiles**

| SSME | Category | Indicator | ORF (words/minute) | Reading comprehension (% correct) |
|---|---|---|---|---|
| Student | District | Biak | 8.09 | 13.22% |
| | | Jayapura | 22.39** | 35.58%** |
| | | Mimika | 14.48** | 21.33%** |
| | | Jayawijaya (ref) | 8.12 | 10.23% |
| | | Manokwari | 14.58** | 24.24%** |
| | | Sorong | 23.13** | 35.98%** |
| | Gender | Male | 13.44 | 20.66% |
| | | Female | 17.09** | 26.59%** |
| | Age | Age 6-7 years | 16.84 | 26.37% |
| | | Over 7 years old | 10.42** | 15.23%** |
| | Class | Class 2 | 11.90 | 18.24% |
| | | Class 3 | 21.05** | 32.87%** |

*ref : Signifies the group that becomes the reference*
*** : Significant in the level of confidence at 95%*

The most frequently used language at the home is also another factor which can potentially differentiate students' reading abilities. Consistent with what was found in the baseline study, students whose parents use local language at home tend to have lower ORF values and reading comprehension.

**Table 4.2: ORF and Reading Comprehension Based on Parents' Income and Daily Language Use**

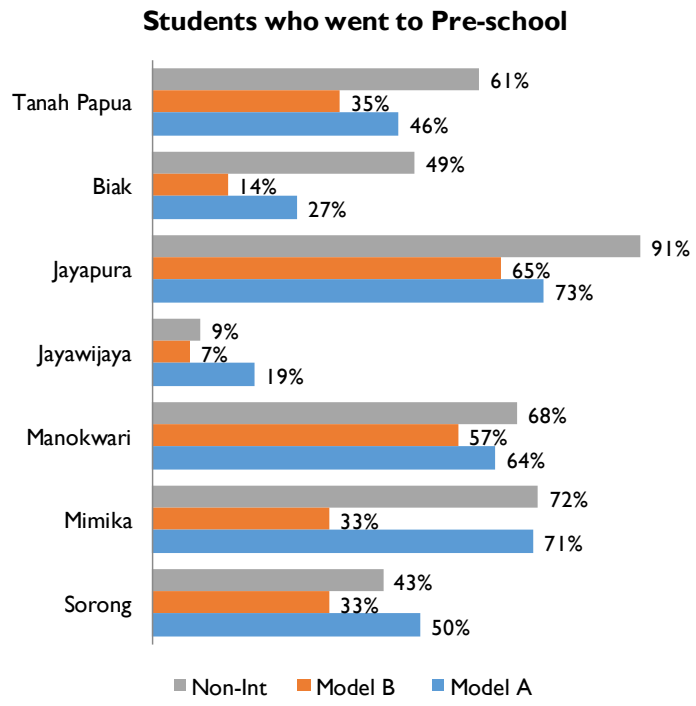
| SSME | Category | Indicator | ORF (words/minute) | Reading comprehension (% correct) |
|---|---|---|---|---|
| Parents | Parents' income | Less than 500,000 IDR (ref) | 11.70 | 19.55% |
| | | 500,000 – 999,999 IDR | 10.26 | 16.88% |
| | | 1,000,000 – 2,999,999 IDR | 13.73 | 23.34% |
| | | 3,000,000 – 6,000,000 IDR | 19.46** | 33.36%** |
| | | More than 6,000,000 IDR | 30.69** | 47.38%** |
| | Language used at home | Indonesian language | 16.59 | 28.20% |
| | | Local language | 10.83* | 17.52%** |

*ref : Signifies the group that becomes the reference*
*** : Significant in the level of confidence at 95%*

Overall, the number of students who enrolled in kindergarten can be seen in Figure 4.1. From the figure, less than 50% of Model A intervention school students or Model B intervention school students attended pre-school or kindergarten. Meanwhile 60% of non-intervention schools had attended pre-school. Between the two types of intervention schools, the percentage of students from Model B intervention schools who enrolled in pre-school or kindergarten was less than students from Model A intervention schools. This may be due to geographic reason where Model B intervention schools were mostly located in remote areas, thus may have less access to pre-schools.

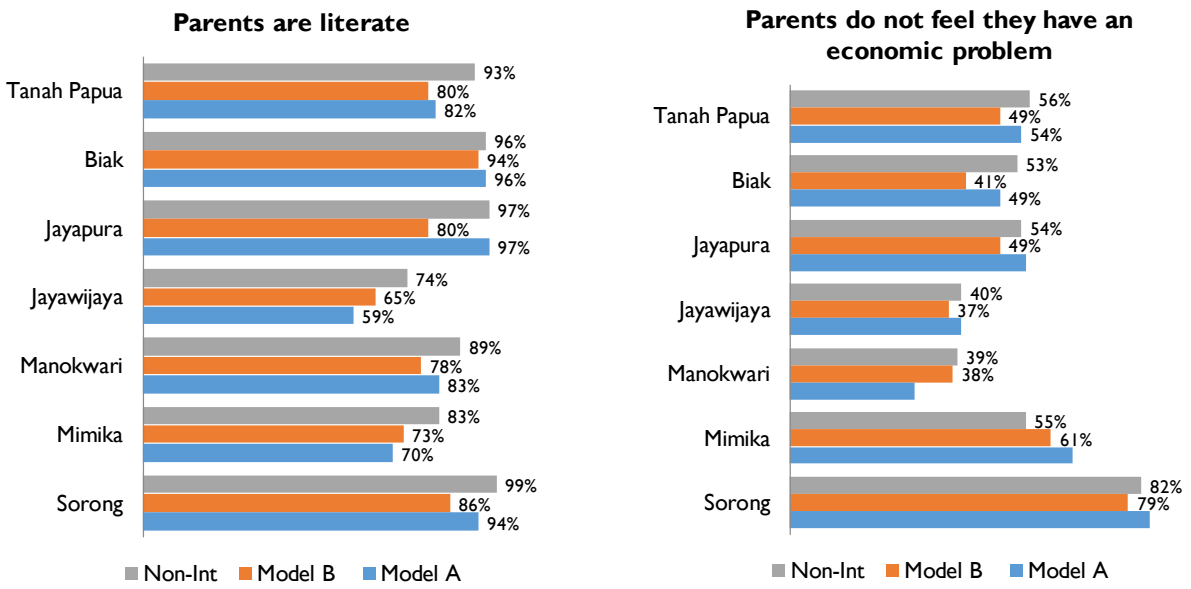
It is likely that students who had studied in pre-school or kindergarten would have different level of development with those who had not. In that regard, these study results reveal that the backgrounds of students who had joined pre-school or kindergarten tend to be able to read and understand texts better. This was also possibly one of the strong factors that differentiated EGRA values between districts. By looking at the number of students who had enrolled in pre-school or kindergarten, it can be seen that Biak and Jayawijaya had the lowest average number of students attending pre-school or kindergarten, this makes it more likely that these two districts have a lower average of ORF scores compared to the other districts.

**Figure 4.1: Students Who Went to Kindergarten/Pre-School**



This midline measurement also shows that more than 80% of students' parents from intervention schools can read, while only 90% of parents from non-intervention schools can read. Parents' literacy ability is certainly a significant factor in a child's intellectual development. Literate parents have the ability to help their children study at home. This would not be possible if the parents were illiterate. Related with ORF and students' reading comprehension, this study shows that students whose parents are literate have the ability to read about 8 words per minute faster.

**Figure 4.2 Literacy Ability & Parents' Economic Condition**




Besides, parents who felt that they did not have any economic problems during the study reached less than 50% of the parents in the sample. This means that, despite their income, parents generally felt they could fulfill their economic needs and their children's education. The perception of parents' sufficiency, which can be seen as an indicator of their economic well-being, is also shown to have a positive influence on the ORF scores and reading comprehension. A linier regression was used to see the influence of these variables, as shown in Table 4.3. Moving forward, a similar linier regression was used to see the influence of the various variables towards students ORF and reading comprehension scores.

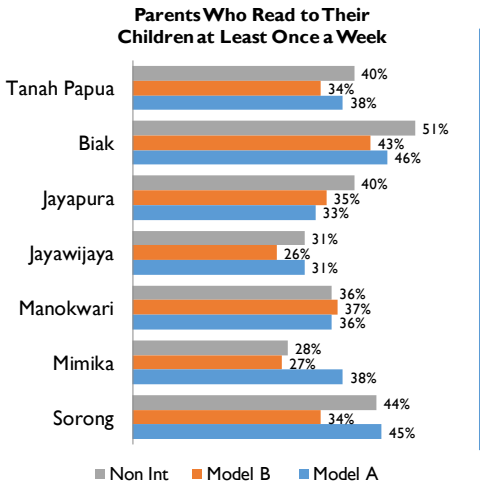
**Table 4.3: Impact of Kindergarten Enrollment, Parents' Literacy, and Welfare**

| CATEGORY | Indicator | Oral reading fluency (words/minute) | Reading comprehension (% correct) |
|---|---|---|---|
| Child went to pre-school | No (Ref) | - | - |
| | Yes | 18.40** | 19.15%** |
| Parents can read | No (Ref) | - | - |
| | Yes | 9.26** | 8.72%** |
| Income is sufficient | No (Ref) | - | - |
| | Yes | 7.31** | 5.96%** |
| Constant | | 2.31 | 5.79% |

*ref : Signifies the group that becomes the reference*
*** : Significant in the level of confidence at 95%*

One of the parents' active roles that can significantly improve students' reading ability is reading books to their children. Overall, less than 40% of parents stated that they read books to their children at least once a week. Students whose parents stated that they read to their children at least once a week had the possibility to read 7 words more than those who did not.

**Figure 4.3: Impact of Parents' Active Role at Home**




**Influence of Parents' Active Role at Home**

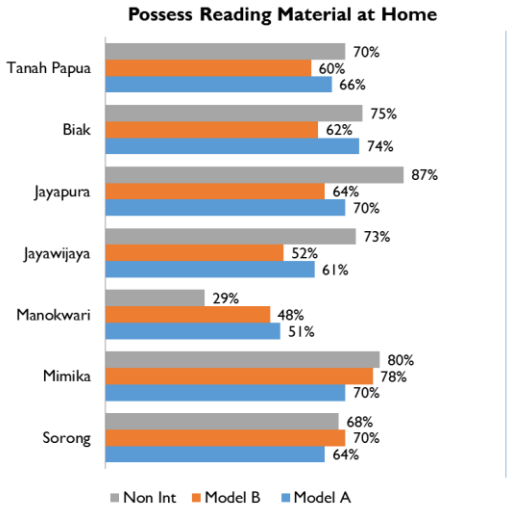
| CATEGORY | Indicator | Oral reading fluency (word/minute) | Reading comprehension (% correct) |
|---|---|---|---|
| Parents read a book to their children | No (Ref) | - | - |
| | Yes | 7.66** | 5.81%** |
| Constant | | 14.25 | 22.65% |

*ref : Signifies the group that becomes the reference*
*** : Significant in the level of confidence at 95%*

Students who read books besides school textbooks at home also tended to have a better reading ability compared with those who did not. In overall, about 60-66% of students from intervention schools stated that they had reading books at home. This amount is slightly

below non-intervention schools which reached 70%. Among the six districts, Manokwari had the lowest percentage of students who owned books.

**Figure 4.4: Impact of (Non-School) Book Ownership at Home**




**Influence of Book Ownership at Home**

| CATEGORY | Indicator | Oral reading fluency (word/minute) | Reading comprehension (% correct) |
|---|---|---|---|
| Have reading material at home | No (Ref) | - | - |
| | Yes | 14.80** | 16.69%** |
| Constant | | 10.84 | 16.11% |

*ref : Signifies the group that becomes the reference*
*** : Significant in the level of confidence at 95%*

## 4.2 Impact of School Facilities and Classroom Literate Environment towards ORF & Reading Comprehension

As in the baseline study, the school conditions and facilities were also observed. Observations were conducted on various sanitation facilities, teaching and learning facilities, and school building conditions. In general, there were only a few improvements in the school sanitation facilities that included in this midline study. The number of schools which had functional bathrooms, clean and functional water sources, and hand washing facilities has increased. Although it was not directly related with their reading ability, having basic sanitation facilities is important and can affect students' reading abilities. School attention given to basic facilities can reflect how the school is managed.

The availability of the facilities was discovered to have a positive correlation with students' reading abilities. The ORF scores of students who had functional toilets at school facilitated students to read quicker than those who did not have the facilities. A similar finding was also found at schools which had hand washing facilities, such as seen in Table 4.4. Schools that managed and were concerned about their facilities would tend to be more attentive to their students and the proceedings in the classroom.

**Figure 4.5: Availability of Sanitation Facilities**

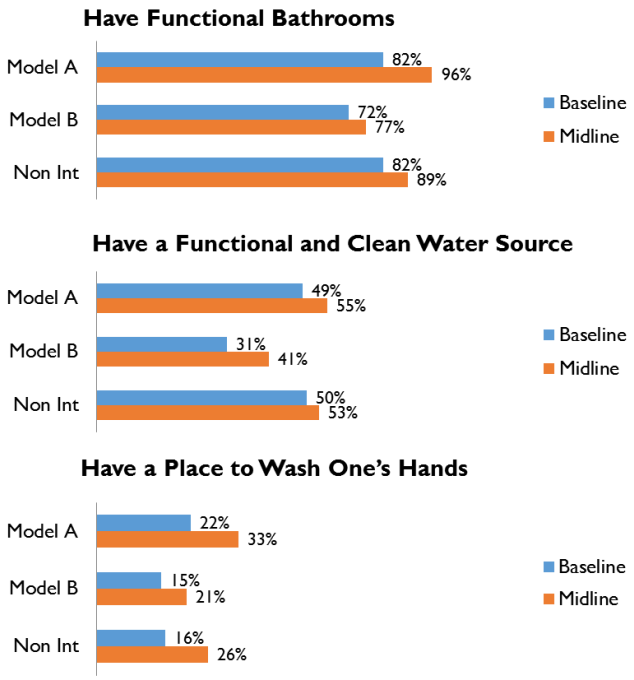


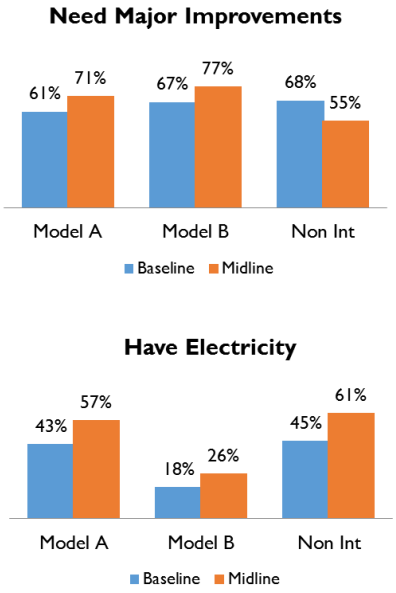

**Table 4.4: Impact of Sanitation Facilities on Reading Comprehension**

| CATEGORY | Indicator | Oral reading fluency (word/minute) | Reading comprehension (% correct) |
|---|---|---|---|
| Have functional bathrooms | No (Ref) | - | - |
| | Yes | 1.79 | 4.19%* |
| Have a functional and clean water source | No (Ref) | - | - |
| | Yes | 3.86* | 4.60%* |
| Have a place to wash one's hands | No (Ref) | - | - |
| | Yes | 7.35** | 9.22%** |
| Constant | | 19.47 | 21.87% |

ref : Signifies the group that becomes the reference
* : *Significant in the level of confidence at 90%*
** : *Significant in the level of confidence at 95%*

An observation toward the school buildings condition during this midline study showed that some of the facilities still required major improvements. Among the large renovations, the school roofs needed the most improvements. Besides the condition of the school buildings, observations were also conducted on the schools' electrical conditions. Compared with the baseline study visits, there was an increase in the number of schools which had functional electrical sources during the school visits at this midline study.

**Figure 4.6: School Buildings and Electrical Sources Conditions**




| Type of Improvement | Model A | | Model B | | Non - Intv | |
|---|---|---|---|---|---|---|
| | Base | Mid | Base | Mid | Base | Mid |
| Damaged window | 53% | 29% | 58% | 23% | 46% | 43% |
| Roof | 67% | 66% | 50% | 53% | 62% | 76% |
| Classroom wall | 33% | 17% | 62% | 10% | 46% | 48% |
| School building wall | 33% | 9% | 35% | 7% | 42% | 29% |
| Garden/yard | 50% | 31% | 46% | 47% | 54% | 48% |

In relation to reading comprehension, both of these aspects also seemed to have an impact on students' reading abilities. As seen in Table 4.5, if improvements needed to be done, it would cause negative changes in students' reading abilities. On the other hand, having electricity resulted in a very positive influence. This finding was in line with other numerous studies conducted on the educational benefits of electricity access. Other than providing better lighting conditions, which is the simplest benefit of electricity, another benefit would be to enhance staff retention. A study by UNESCO[5] confirmed that teachers were understandably reluctant to work in deprived areas which lack basic facilities, such as electricity, good housing, and health care.

**Table 4.5: Impact of School Buildings and Electrical Sources Conditions on ORF and Reading Comprehension**

| CATEGORY | Indicator | Oral reading fluency (word/minute) | Reading comprehension (% correct) |
|---|---|---|---|
| School needs major improvements | No (Ref) | - | - |
| | Yes | -6.15** | -2.9% |
| Electricity availability | No (Ref) | | |
| | Yes | 13.55** | 15.46%** |
| Constant | | 15.14 | 18.73% |

ref : Signifies the group that becomes the reference
** : *Significant in the level of confidence at 95%*

[5] UNESCO Institute for Statistics, A view inside schools in Africa: Regional education survey (Paris: UNESCO, May 2014)

Having facilities which supported direct learning like libraries that have books for early grade students also had a positive effect on students' reading abilities, as is seen in the table in Figure 4.7. The graph also reveals in the same figure that the libraries and books in Model B intervention schools was lower than Model A intervention schools and non-intervention schools.

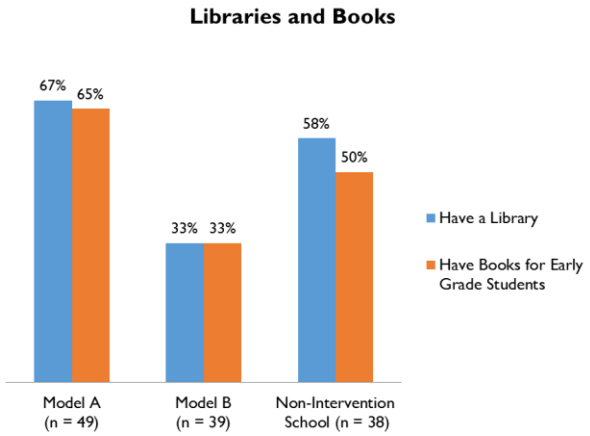
**Figure 4.7: Impact of Library and Books on ORF and Reading Comprehension**

**Influence of Library and Book Ownership**

| Indicator | Oral Reading Fluency (word/minute) | Reading Comprehension (% correct) |
|---|---|---|
| Schools that have a library | 8.27** | 7.45%** |
| Constant | 9.48 | 15.76% |

| Indicator | Oral Reading Fluency (Word/minute) | Reading Comprehension (% correct) |
|---|---|---|
| Schools that have books for early year students | 7.79** | 7.14%** |
| Constant | 9.98 | 16.32% |

ref : Signifies the group that becomes the reference
** : Significant in the level of Confidence at 95%

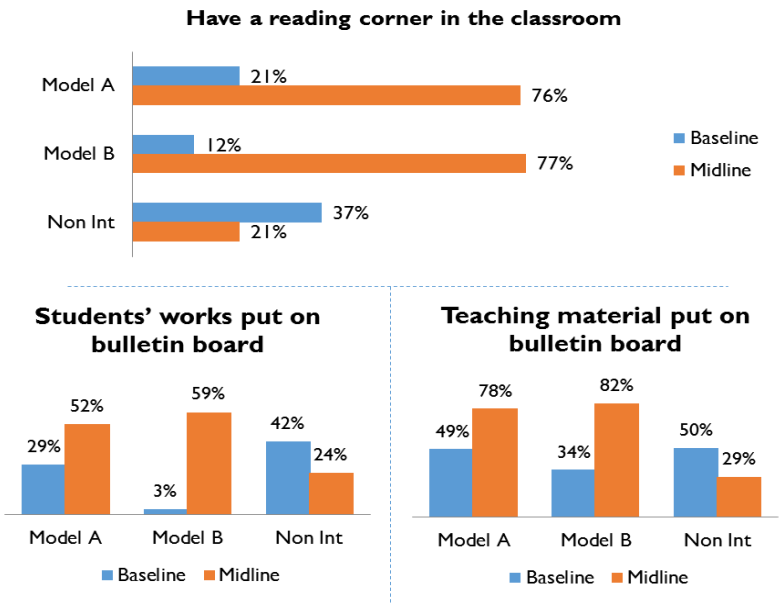



Classroom observations were also conducted which were selected as samples for every school. The intervention effect that was done showed there were significant changes in the classroom atmospheres condition among the majority of intervention schools. Compared with the baseline study, more than 75% of intervention schools had reading corners and put up teaching material, as seen in Figure 4.8. Having reading corners facilitated better access for students to get reading materials.

Hanging students' work on the classroom walls was also frequently seen among intervention schools during the midline study, where more than 50% of them did it. If students had their work hung up, it would give them more motivation to participate in teaching-learning activities.

According to the percentages between intervention schools and non-intervention schools, the condition of non-intervention classrooms did not show positive changes like in intervention schools.

**Figure 4.8: Early Grade Students' Classroom Conditions**




Also, various supplementary instruments like all the alphabet letters hung up on the wall or in front of the class made the classroom seem richer in literacy elements, so it helped students to be more familiar in recognizing letters and words. In Figure 4.9, a picture of the classroom atmosphere can be seen at an intervention schools.

**Figure 4.9: Classroom Atmosphere after Intervention**


All of the classroom improvements influenced students' reading abilities, as seen in Table 4.6, which reveals that having a reading corner, hanging up teaching material, and putting up students' works on the classroom walls had a positive effect in increasing students' reading

abilities. Based on the regression in the table and if only considering the three factors, hanging up the teaching material on the wall could increase the students potential to read 8 more words on average and 10% able to answer correctly compared with students whose classes did not hang up teaching materials on the walls.

**Table 4.6: Impact of Reading Corner, Hanging up Teaching Material, and Hanging up Students' Works on ORF and Reading Comprehension**

| CATEGORY | Indicator | Oral reading fluency (word/minute) | Reading comprehension (% correct) |
|---|---|---|---|
| Classroom has a reading corner | Yes | 6.63** | 9.97%** |
| | No (ref) | - | - |
| Constant | | 11.02 | 14.06% |

| CATEGORY | Indicator | Oral reading fluency (word/minute) | Reading comprehension (% correct) |
|---|---|---|---|
| Students' works put on the bulletin board | Yes | 7.80** | 10.16%** |
| | No (ref) | - | - |
| Teaching material put on the bulletin board | Yes | 8.12** | 10.06%** |
| | No (ref) | - | - |
| Constant | | 8.72 | 11.44% |

ref : Signifies the group that becomes the reference
** : *Significant in the level of confidence at 95%*

## 4.3 Impact of Teachers and Head Teachers

This sub-section will discuss various teacher and head teacher SSME variables as well as their influence on students' reading abilities, as seen from the ORF and reading comprehension. The factors which will be discussed in this sub-section include the impact of teachers' and head teachers' backgrounds, training experience, teacher absenteeism/attendance, as well as teachers' attitudes in the classroom, which also are related to whether there are any physical punishments or not for students, as one of the discussions subject in the sub-section.

From the teachers' backgrounds, the majority of teachers who teach in Model A intervention schools and non-intervention schools have backgrounds in elementary school education. There are more teachers with this background in non-intervention schools. If compared with teachers from Model B intervention schools, it can be seen that teachers from Model B intervention schools, only comprise about 41% with backgrounds in

elementary school education even though most of them have bachelor degrees. The majority of intervention school employees are honorary teachers, while those at non-intervention schools are mostly civil servant teachers. Teachers' education background and employment status can be seen in Figure 4.10 and Figure 4.11 respectively.

**Figure 4.10 : Education Background**

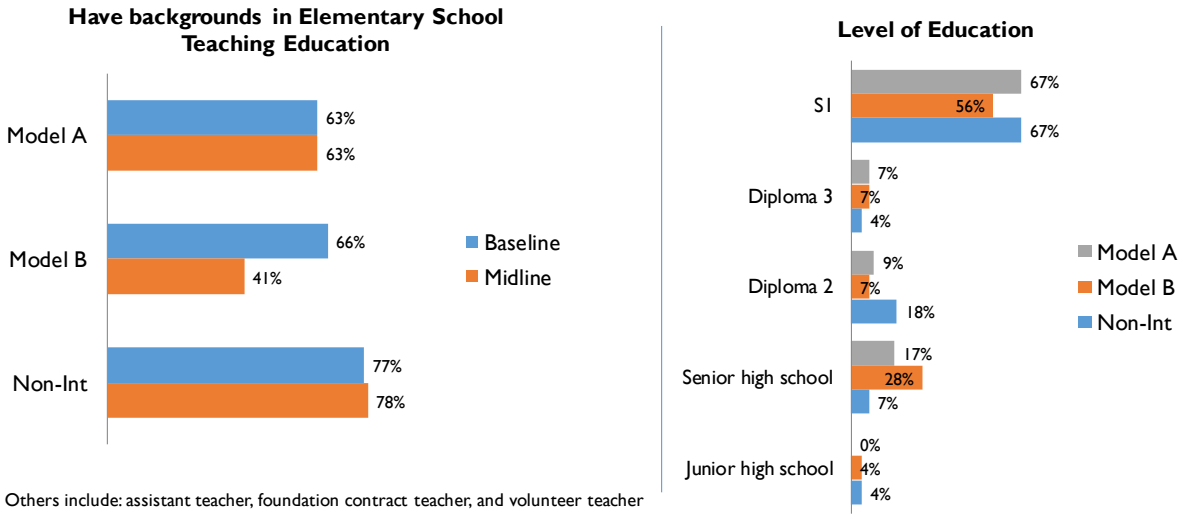
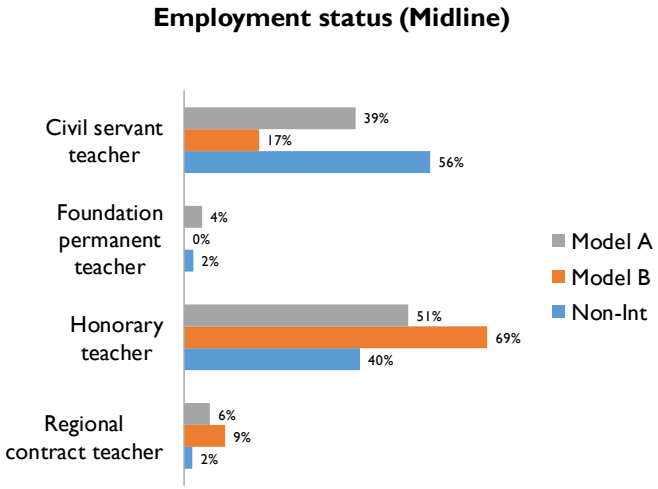



**Figure 4.11 : Teacher Employment status**




The effects of the teachers' backgrounds can be seen in Table 4.7. By considering the three background variables, the highest positive effect is seen in teachers' background on elementary school education. Students whose teachers have backgrounds in elementary school education tend to read an average of 15 words per minute with a 12% higher reading comprehension in answering the passage questions correctly.

Regarding the education level, there are no significant effects, but overall there is a tendency for teachers with bachelor degrees to have a positive effect towards students' reading abilities if compared with lower levels. Related with employment status, although the sample size was small for foundation permanent teachers, the regression analysis shows that a significant positive influence was given.

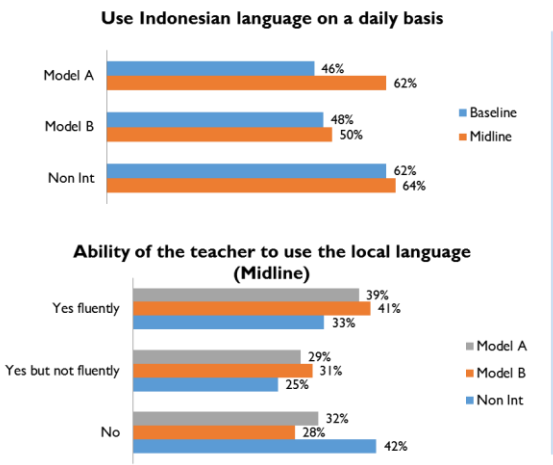
**Table 4.7: Impact of Teachers' Background towards ORF and Reading Comprehension**

| CATEGORY | Indicator | Oral Reading Fluency (words/minute) | Reading Comprehension (% correct) |
|---|---|---|---|
| Educational Background | Elementary School Teaching Education | 15.69** | 12.61%** |
| | Non Elementary School Teaching Education (ref) | - | - |
| Highest Education | Middle School (ref) | - | - |
| | High School | 3.03 | 2.64% |
| | Diploma | -2.36 | -3.38% |
| | Higher Education | 4.03 | 6.78% |
| Employee Status | Civil Servant Teacher | -2.58 | 1.47% |
| | Foundation Permanent Teacher | 6.99** | 6.87%** |
| | Honorary Teacher | -7.36 | -3.11% |
| | Regional Contract Teacher | -3.83 | -1.98% |
| | Other (Ref) | - | - |
| Constant | | 12.60 | 16.99% |

ref : Signifies the group which becomes the reference
** : *Significant in the level of confidence at 95%*

The language used by teachers also showed an impact on reading comprehension. This midline study revealed that the majority of teachers who taught how to speak Indonesian language on a daily basis, and also speak the local language or were not fluent. Related to this, students with teachers who spoke only Indonesian language on a daily basis tended to be able to read 8 words more per minute compared with teachers who used local language on a daily basis. This was also emphasized the teachers' abilities in speaking a local language. Teachers who could not speak a local language would certainly use Indonesian language for teaching instructions, so that it was also a strong variable in showing the relationship between language use and students' reading abilities. The regression results show that students with teachers who could not speak a local language had the possibility of reading 25 more words compared to those fluent in speaking a local language, which certainly is a positive influence on students' reading comprehension.

**Figure 4.12: Impact of Using Different Languages towards ORF & Reading Comprehension**




**Influence of Teachers' Use of Indonesian Language**

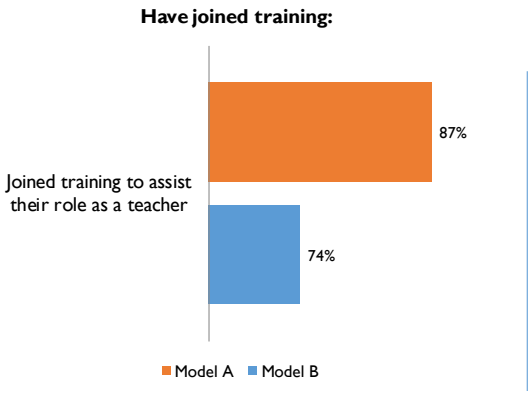
| CATEGORY | Indicator | Oral reading fluency (word/minute) | Reading comprehension (% correct) |
|---|---|---|---|
| Daily language | Indonesian Language | 7.90** | 12.40%** |
| | Local Language (ref) | - | - |
| Constant | | 13.21 | 18.87% |

| CATEGORY | Indicator | Oral reading fluency (word/minute) | Reading comprehension (% correct) |
|---|---|---|---|
| Ability of the teacher to speak the local language | Yes, fluently (ref) | - | - |
| | Yes, but not fluently | 15.04** | 15.39%** |
| | No | 25.74** | 26.45%** |
| Constant | | 9.20 | 14.25% |

ref : Signifies the group which becomes the reference
** : *Significant in the level of confidence at 95%*

By participating in training to improve a teacher's ability, it was expected to have a positive effect on students' reading abilities, both for ORF and reading comprehension. Among the intervention school teachers who participated in the survey, about 87%, stated that they had joined teachers training in Model A intervention schools, compared with teachers from Model B intervention schools with about 74%. In this study, teacher training resulted in increasing students' reading ability e by 9 more words.

**Figure 4.13: Impact of Teacher Training Experience towards ORF & Reading Comprehension**




**Influence of Experience in Joining Training**

| CATEGORY | Indicator | Oral reading fluency (words/minute) | Reading comprehension (% correct) |
|---|---|---|---|
| Joined training to assist their role as a teacher | No (Ref) | - | - |
| | Yes | 9.79** | 10.37%** |
| Constant | | 4.89 | 7.09% |

ref : Signifies the group that becomes the reference
** : *Significant in a level of trust of 95%*

Besides the teachers' background, another important factors are teacher ability to control the classroom condition and to keep the classroom conducive. Classes with conducive environment for students will certainly influence students' abilities in class. This is related with the behavior and habit of applying positive class discipline by the teacher. To see how a

teacher applied positive discipline in the class, the teacher was given a series of statements related with students discipline practice. The teacher was later asked to state how often he/she did each action on a scale of 1 to 5, where 1 was never and 5 was very often. The results can be seen in Table 4.8 below.

A clear difference can be seen between intervention schools and non-intervention schools in the attribute related with applying positive discipline, which was emphasizing positive habits in students and praising students who demonstrate positive behavior/characteristics/attitudes. The percentage of teachers who stated that they emphasized positive habits in students was 82% in Model A intervention schools and 74% in Model B intervention schools, while for non-intervention schools it was 69%. A similar comparison was also seen in the attribute of praising students, which revealed positive behavior/characteristics/attitudes. On the other hand, teachers who stated that they often have to disciplined children with corporal punishment were still found among intervention schools.

**Table 4.8: Discipline Applying Behavior by Teachers**

| Teacher's Attitude | Model A | Model B | Non-intervention school |
|---|---|---|---|
| Emphasizes positive habits for children | 82% | 74% | 69% |
| Clearly explains the undesirable behavior/characteristic/attitude | 74% | 68% | 69% |
| Gives gifts to kids who show positive attitudes/behaviors/characteristics | 30% | 31% | 29% |
| Praises kids who show positive attitudes/behaviors/characteristics | 77% | 80% | 65% |
| Asks kids to sit separately from other kids to calm down because of their aggressive behavior | 34% | 30% | 31% |
| Uses corporal punishment | 4% | 6% | 2% |
| Gives punishments/ physical reactions | 9% | 0% | 6% |
| Gives warnings with a loud voice | 39% | 58% | 40% |
| Threatens kids to be sent out of the classroom if they do not behave | 4% | 8% | 6% |
| Sends kids home due to aggressive and damaging behavior | 2% | 9% | 4% |
| Calls children's parents to report their bad behavior | 10% | 12% | 18% |
| Lets them do something bad as long as they don't bother the class | 4% | 8% | 9% |
| Warns kids that do not listen/ are not focused | 70% | 72% | 65% |
| Uses body language to warn kids who do not listen/ are not focused | 31% | 41% | 26% |

T2B = percentage of teachers who answered "often" and "very often"

By using a regression analysis in every attribute towards the ORF value and reading comprehension, it can be seen which discipline methods had a positive influence or negative influence towards both values. The first four attributes, which were related with positive discipline, had a significant impact on increasing students' reading fluency as well as their comprehension. In contrast, there were several attributes that conveyed negative effects in students' reading abilities, such as warning students with raised voices.

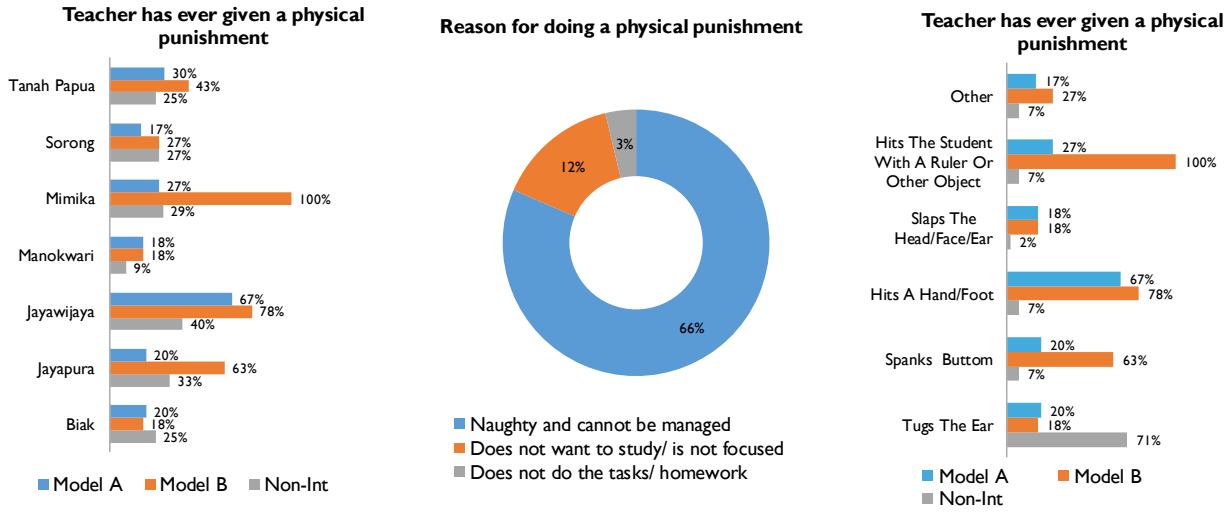
**Table 4.9: Impact of Discipline Applying Behavior by Teachers towards ORF and Reading Comprehension**

| CATEGORY | Indicator | Oral reading fluency (words/minute) | Reading comprehension (% correct) |
|---|---|---|---|
| Teacher's attitude toward students | Emphasizes positive habits for children | 4.85* | 5.59%** |
| | Explains what is undesirable behavior/attitudes/characteristics | 5.26* | 7.58%** |
| | Gives a present to kids who show positive behavior/attitudes/characteristics | 8.87** | 5.66%** |
| | Praises children who show positive behavior/characteristics/attitudes | 12.07** | 14.24%** |
| | Asks kids to sit separately from other kids to calm down because of aggressive behavior | -8.62** | -8.80%** |
| | Uses corporal punishment | 0.07 | -2.18% |
| | Gives a punishment/ physical reaction | 2.85 | 1.59% |
| | Warns with a loud voice | -15.11** | -16.25%** |
| | Threatens kids will be kicked out of the classroom if they do not behave | -2.63 | -2.63% |
| | Sends kids home because of aggressive and damaging behavior | -3.17 | -3.39% |
| | Calls children's parents to report their bad behavior | 0.00 | 2.77% |
| | Lets them do something bad as long as they do not bother the class | -2.35 | -2.86% |
| | Warns kids who do not listen/ are not focused | 1.42 | 1.92% |
| | Uses body language to warn kids who do not listen/ are not focused | 0.98 | -1.94% |
| Constant | | 6.40 | 9.44% |

Although Table 4.8 shows that only a few teachers still perform corporal punishment, Figure 4.14 reveals the percentage of teachers who stated they had given corporal punishment was rather high. Overall, 33% of teachers admitted that they had given physical punishments to students.

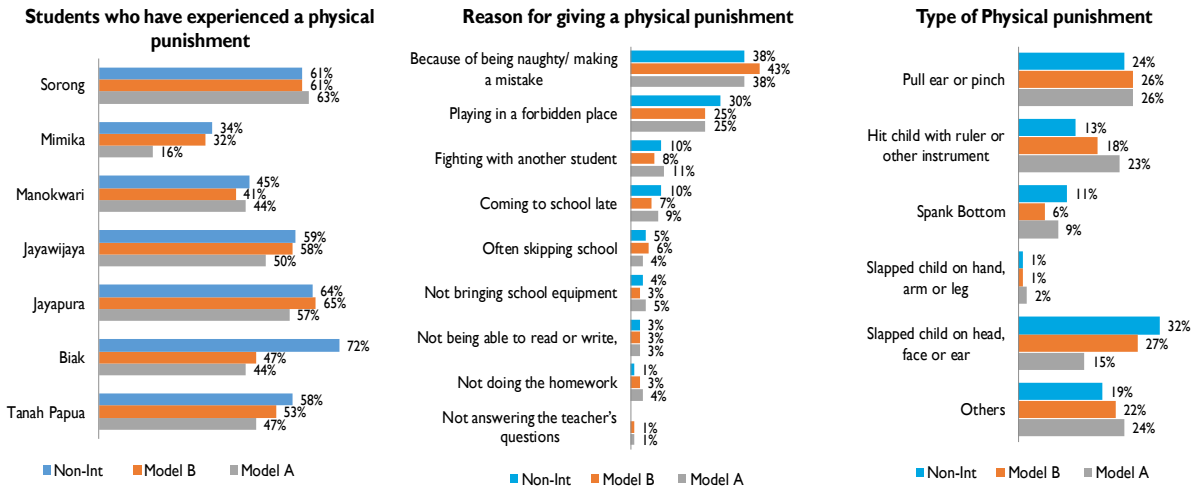
The primary reason for corporal punishment was because students were naughty or unmanageable. Meanwhile, there were various types of physical punishments. However, in Model B intervention schools, the punishment which involved objects like ruler was done by all teachers who stated that they had given physical punishment. It was found that more teachers from Model B intervention schools have engaged in corporal punishment, and it even reached 100% in Mimika.

## Figure 4.14: Teachers Who Performed Corporal Punishment



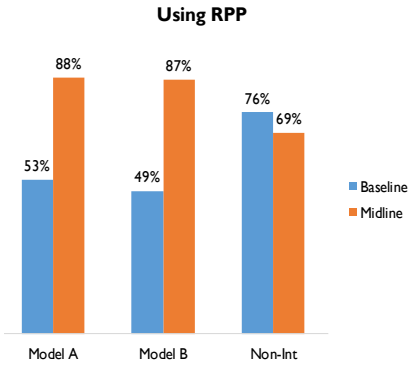

What was conveyed by teachers was also in line with students' statement. Overall, about 50% of students stated that they had received physical punishment because of their own misbehavior. However, more students from Sorong, Jayapura, and Jayawijaya stated that they had experienced corporal punishment. These student statement also indicate that one of the reason for corporal punishment was related with students' academic abilities, such as the students could not read or could not answer the teacher's questions. Furthermore, the corporal punishment given reveals that harsh physical punishments such as slapping also still occur.

## Figure 4.15: Student's Experience in receiving Corporal punishment



The effect of intervention was also seen from the increase in the number of teachers who stated that they used lesson plans (RPP) in their teaching-learning process. The percentage of Model A and Model B intervention schools which stated they used RPP was 88%. This is a rather significant increase compared with the baseline study. This increase was occur evenly across districts, both in Model A and Model B. In contrast, there was a reduction in using RPP in non-intervention schools.

**Figure 4.16: Increases use of RPP**

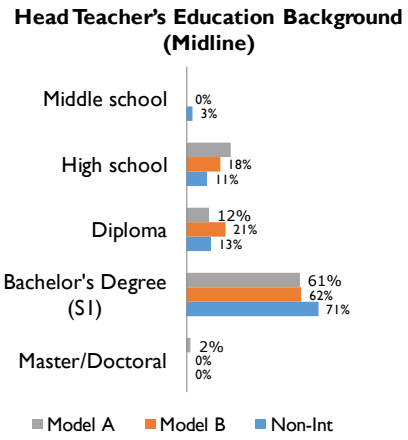



| District | Using RPP Intervensi Model A | |
|---|---|---|
| | Base | Mid |
| Biak | 93% | 100% |
| Jayapura | 64% | 100% |
| Mimika | 53% | 82% |
| Jayawijaya | 24% | 80% |
| | | |
| Manokwari | 36% | 100% |
| Sorong | 60% | 75% |

| Distirict | Using RPP Intervensi Model B | |
|---|---|---|
| | Base | Mid |
| Biak | 71% | 91% |
| Jayapura | 46% | 75% |
| Mimika | 38% | 75% |
| Jayawijaya | 23% | 100% |
| | | |
| Manokwari | 69% | 82% |
| Sorong | 40% | 91% |

More than 60% of head teachers were undergraduate degree holders, and the rest were high school graduates or diploma holders, although there were several head teachers who just completed middle school or had Master's Degrees or Doctoral Degrees. Head teachers who had diplomas or undergraduate degrees had students with higher reading abilities than those with high school education or Master's Degree/ PhD Degree holders. This can indicate that in the case of Tanah Papua, the education level of head teachers is better at the undergraduate level.

**Figure 4.17: Impact of Head Teachers' Education Background**




**Influence of Head Teacher's Education Background**

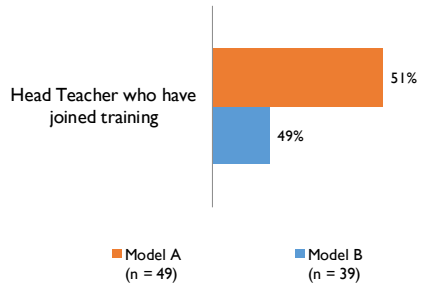
| Category | Indicator | Verbal reading fluency (words/minute) | Reading comprehension (% correct) |
|---|---|---|---|
| Education background | Middle school (ref) | - | - |
| | High school | 15.35 | 19.58% |
| | Diploma | 27.60** | 27.66%** |
| | Bachelor's degree (S1) | 32.31** | 35.66%** |
| | Master's Degree/ Doctoral Degree | 11.63** | 12.44%** |
| Constant | | 1.00 | -1.40% |

ref : Signifies the group that becomes the reference
** : *Significant in the level of confidence at 95%*

Similar with the finding for teachers, it was discovered that head teachers who did training related with their professions also had a positive effect on students' reading abilities, as seen in Figure 4.19.

**Figure 4.18: Impact of Head Teacher's Training Experience**

**Head Teachers who have joined training**




**Influence of Head Teacher Training**

| CATEGORY | Indicator | Oral reading fluency (words/minute) | Reading comprehension (% correct) |
|---|---|---|---|
| Training related with the head teacher profession | No (ref) | - | - |
| | Join literacy training held by UNICEF | 8.38** | 7.75%** |
| Constant | | 12.50 | 20.12% |

ref : Signifies the group that becomes the reference
** : *Significant in the level of confidence at 95%*

A persisting problem that has happened for a long time in Tanah Papua is related with teachers' and head teachers' absenteeism/attendance. Table 4.10 shown several variables related with the problem from the teachers and head teachers perspective. Overall, about 36% of teachers from Model A intervention schools stated that the head teachers were not present in the previous week, while in Model B intervention schools that percentage was higher at 48%. The higher percentage was seen in Jayapura district among the Model B intervention schools.

Meanwhile, according to the head teachers, the teacher absence was much higher. Among the head teachers, the percentage of them who stated that teachers were not present on the previous day reached 59% in the Model A intervention schools and 67% in the Model B intervention schools. At the district level, this percentage was rather high in every district, but Manokwari was relatively lower compared to other districts.

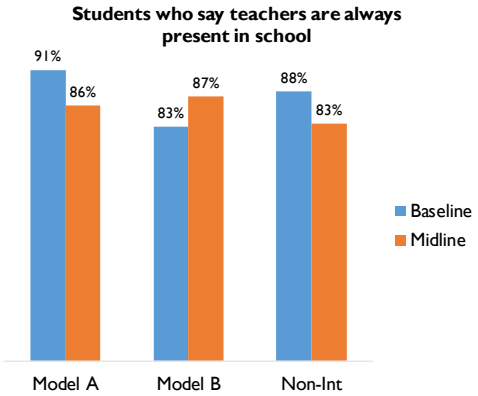
**Table 4.10: Level of Teachers' and Head Teachers' Absenteeism/Attendance According to Teachers and Head Teachers**

| District | The Head Teacher did not attend school in the previous week (Midline) | | |
|---|---|---|---|
| | Model A | Model B | Non - Intv |
| Biak | 0% | 18% | 8% |
| Jayapura | 40% | 100% | 12% |
| Mimika | 0% | 0% | 0% |
| Jayawijaya | 60% | 56% | 60% |
| | | | |
| Manokwari | 64% | 36% | 27% |
| Sorong | 42% | 64% | 82% |
| | | | |
| Tanah Papua | 36% | 48% | 33% |

| District | There were teachers who did not come to school, according to the Head Teacer on the previous day (Midline) | | |
|---|---|---|---|
| | Model A | Model B | Non - Intv |
| Biak | 43% | 86% | 72% |
| Jayapura | 71% | 71% | 43% |
| Mimika | 40% | 75% | 29% |
| Jayawijaya | 91% | 86% | 100% |
| | | | |
| Manokwari | 15% | 28% | 29% |
| Sorong | 86% | 57% | 43% |
| | | | |
| Tanah Papua | 59% | 67% | 48% |

According to students, teachers did not always come to school. Differences the midline and baseline studies data reveal that there were no significant changes, but a trend revealed that there was a reduction in the level of teacher absenteeism according to students from Model B intervention schools, and in contrast for Model A intervention schools, which showed an increase. This may be due to the fact that in the Model B intervention program, the teachers assisted the mentors while teaching, so that this could encourage teachers to be present when teaching at class. Or the children may have thought that the mentors were also school teachers, as in some cases mentors would be teaching the class when the teacher was absent.

**Figure 4.19: Level of Teachers' and Head Teachers' Attendance According to Students**




| District | Students who say Teachers are always present in school | | | | | |
|---|---|---|---|---|---|---|
| | Model A | | Model B | | Non-Int | |
| | Base | Mid | Base | Mid | Base | Mid |
| Biak | 95% | 83% | 78% | 84% | 92% | 75% |
| Jayapura | 90% | 74% | 86% | 87% | 96% | 78% |
| Mimika | 94% | 87% | 87% | 80% | 91% | 86% |
| Jayawijaya | 85% | **93%** | 84% | **90%** | 65% | **95%** |
| | | | | | | |
| Manokwari | 92% | 91% | 82% | 83% | 88% | 93% |
| Sorong | 91% | 88% | 78% | 95% | 82% | 84% |

In the end, it was clear that teachers' and head teachers' absenteeism/attendance would negatively influence students' reading abilities. In Table 4.11, teacher absenteeism/attendance

could cause students to read fewer words per minute, up to 14 fewer words, which in the context of Papua students is quite significant.

**Table 4.11: Impact of Teachers' and Head Teachers' Absenteeism/Attendance on ORF and Reading Comprehension**

| Indicator | Oral reading fluency (words/minute) | Reading comprehension (% correct) |
|---|---|---|
| Teachers' absenteeism in school | -13.97** | -13.06%** |
| **Constant** | 17.78 | 27.122% |

Note: amount of time teachers did not attend school

| Indicator | Oral reading fluency (words/minute) | Reading comprehension (% correct) |
|---|---|---|
| Head teacher absenteeism | -9.43** | -11.48%** |
| **Constant** | 20.14 | 32.55% |

Note: amount of time the head teacher did not attend school

This midline study also analyzed the integration of influences from all SSME dimensions, such as students, parents, teachers, head teachers, school characteristics, and classrooms towards EGRA results using a regression analysis. The purpose was to include all the variables which had a significant effect on the ORF value and reading comprehension all in one model. The results from this integration can be seen in Table 4.12.

From the whole model, it can be concluded that there were 12 factors which significantly contributed to ORF and reading comprehension, including: gender, age, daily language use, parents' income, parents' literacy, parents' and teachers' education background, teachers' employment status, head teachers' training, hanging up students' tasks and teaching material, and basic sanitation facilities. However, it seems that several variables had a more significant influence on one intervention group than another. If seen from Model A and Model B intervention schools separately, the level of variable influence is different between variables, where a certain variable will have a greater influence on Model A than Model B, and the other way around.

## Table 4.12: Influence of All SSME Dimensions in Reading Fluency and Reading Comprehension

| SSME | CATEGORY | Indicator | Model A | | Model B | |
|---|---|---|---|---|---|---|
| | | | Oral reading fluency (words/minute) | Reading comprehension (% correct) | Oral reading fluency (words/minute) | Reading comprehension (% correct) |
| Students | Gender | Male (ref) | - | - | - | - |
| | | Female | 8.90** | 8.85%** | 5.25 | 5.62% |
| | Age | Based on grade age | 15.61** | 18.23%** | 11.34** | 12.95%** |
| | | Age inappropriate with grade (ref) | - | - | - | - |
| | Language | Indonesian | 11.98** | 15.86%** | 6.69 | 5.07% |
| | | Local language (ref) | - | - | - | - |
| Parents | Parents' language | Indonesian | 7.70* | 7.30%* | 8.30* | 4.72% |
| | | Local language (ref) | - | - | - | - |
| | Child has enrolled in pre-school | No (ref) | - | - | - | - |
| | | Yes | 2.25 | 2.75% | -2.08 | -3.49% |
| | Parents are literate | No (ref) | - | - | - | - |
| | | Yes | 3.13 | 7.22% | 12.26** | 8.46%* |
| | Parents' income | Less than Rp 500,000 (ref) | - | - | - | - |
| | | Rp 500,000-999,999 | -5.83 | -11.74%** | -0.43 | -1.78% |
| | | Rp 1,000,000–2,999,999 | 7.00 | 10.72%** | 2.29 | -1.69% |
| | | Rp 3,000,000 – 6,000,000 | 8.61** | 10.28%** | 7.54 | 7.16% |
| | | More than Rp 6,000,000 | 11.57** | 5.43% | 0.57 | 2.38% |
| | Parents' highest education | Did not go to school (ref) | - | - | - | - |
| | | Elementary school | 5.77 | 9.18% | -14.06** | -6.86% |
| | | Middle school | 3.37 | 6.37% | -10.42 | -5.25% |
| | | High school | 11.02 | 16.67%** | -5.68 | -1.52% |
| | | University | 17.29** | 17.65%** | 12.96** | 12.11%** |

| SSME | CATEGORY | Indicator | Model A | | Model B | |
|---|---|---|---|---|---|---|
| | | | Oral reading fluency (words/minute) | Reading comprehension (% correct) | Oral reading fluency (words/minute) | Reading comprehension (% correct) |
| Teachers | Daily language | Indonesian language | 1.37 | 1.36% | 8.32 | 7.37% |
| | | Local language (ref) | - | - | - | - |
| | Teacher's highest education | Middle school | - | - | 0.33 | 0.90% |
| | | High school (ref) | - | - | - | - |
| | | Diploma | 12.74** | 10.51%** | 0.28 | -1.75% |
| | | Undergraduate | 7.66 | 4.01% | 5.26 | 0.36% |
| | Employment status | Civil servant teacher | -12.17** | -12.56%** | 16.73** | 17.86%** |
| | | Non-civil servant teacher (ref) | - | - | - | - |
| | Education background | Elementary school education | 4.07 | 2.01% | 4.75 | 7.25% |
| | | Non-elementary school education (ref) | - | - | - | - |
| | Joined special training about how to teach reading | No (ref) | - | - | - | - |
| | | Yes | 5.89 | 6.56% | 6.38 | 3.81% |
| Head teacher | Head teacher's education background | High school (ref) | - | - | - | - |
| | | Diploma | 8.98 | 3.63% | -0.33 | -4.08% |
| | | Undergraduate (S1) | 8.31 | 3.03% | - | - |
| | | Master's Degree/ PhD | 3.03 | -2.89% | 0.36 | -2.77% |
| | Training related with job as head teacher | No (ref) | - | - | - | - |
| | | Yes | 5.88 | 6.36% | -7.03 | -9.64%* |
| School | Has functional bathrooms | No (ref) | - | - | - | - |
| | | Yes | 2.61 | 4.71% | 2.90 | 8.68%* |
| | Electricity availability | No (ref) | - | - | - | - |
| | | Yes | 4.07 | 4.03% | 9.18* | 13.71%** |
| | Has a functional clean water source | No (ref) | - | - | - | - |
| | | Yes | 6.86 | 6.89% | 19.84** | 19.25%** |
| | School has a library | No (ref) | - | - | - | - |
| | | Yes | 1.77 | 0.31% | 1.35 | 5.23% |
| Classroom | Classroom has a reading corner | No (ref) | - | - | - | - |
| | | Yes | 1.20 | 4.72% | 1.51 | -0.23% |
| | Students' tasks are put on the wall | No (ref) | - | - | - | - |
| | | Yes | 11.40** | 9.70%** | 23.75** | 26.80%** |
| | Teaching material is hung on the wall | No (ref) | - | - | - | - |
| | | Yes | -2.65 | 0.21% | 11.35** | 11.66%** |
| Constant | | | 3.035 | -5.53% | 4.206 | 6.94% |

The variables in this model shows that the factors contributing to students' reading ability consisted of two groups. The first group related to student's background that was unlikely to be changed at an individual level such as gender, language, parents' literacy, and economic conditions. The second group was school related factors which consisted of variables such as teachers' educational background, employment status, training experiences, and physical condition of school facilities. Despite having factors that were beyond what the program could directly address, the results of the program have indeed helped to increase the reading ability of students.

**Figure 4.20: SSME Variables which Influence Reading Fluency and Reading Comprehension in Model A & B Intervention Schools**

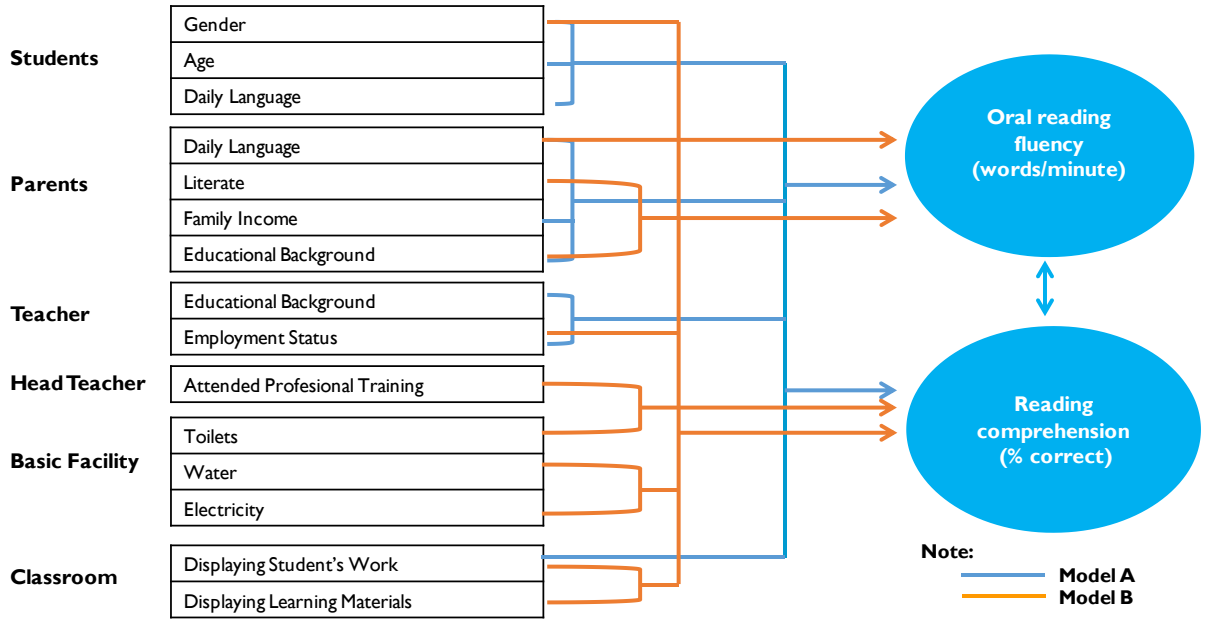



**Figure 4.21: SSME Variables which Influence Reading Fluency and Reading Comprehension in Model A Intervention Schools**

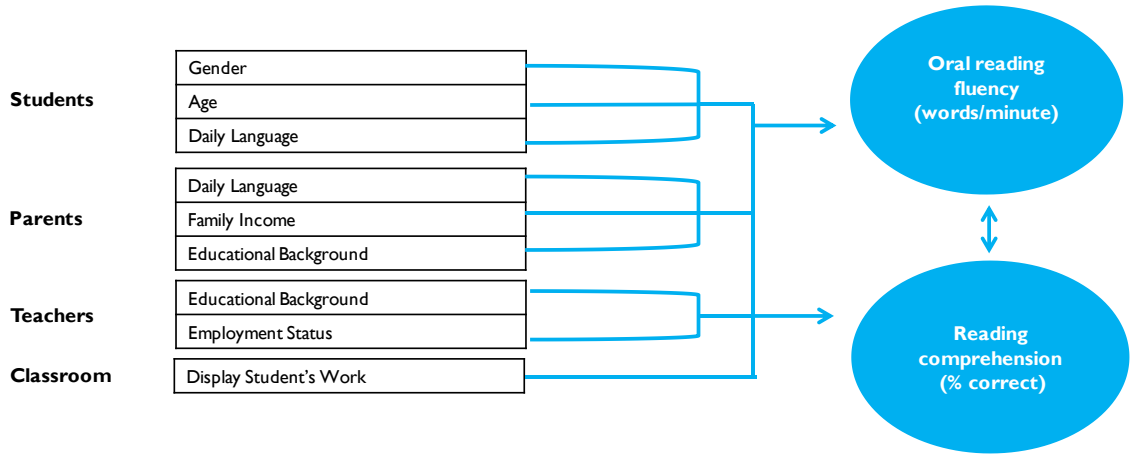
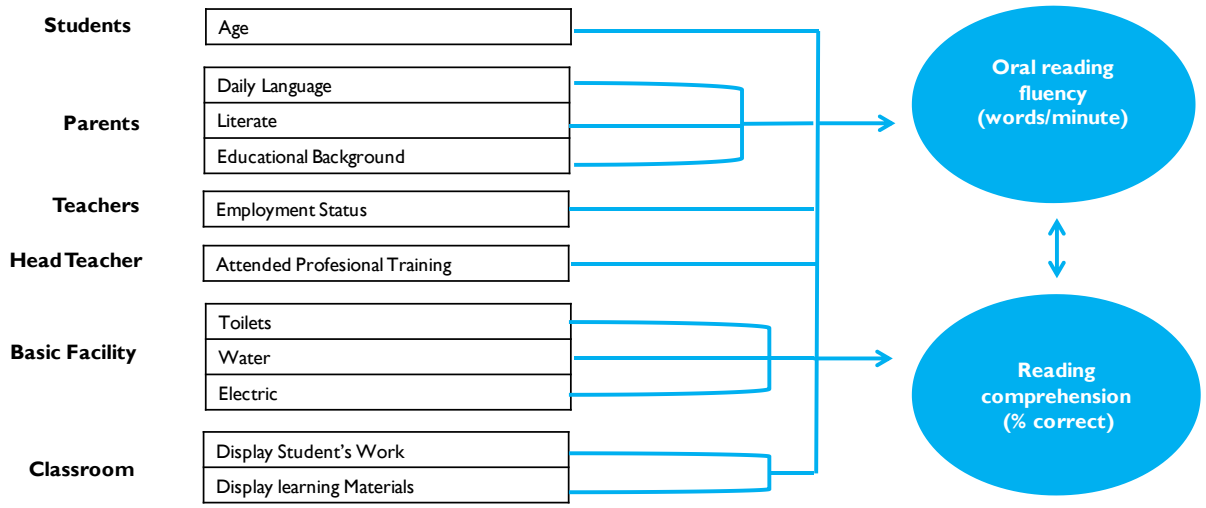


**Figure 4.22: SSME Variables which Influence Reading Fluency and Reading Comprehension in Model B Intervention Schools**




## 4.4 Corporal Punishment to Children at Home

Additional information gathered in this midline study was regarding potential domestic violence towards children at home and also about disabled students. The information obtained for these two aspects was limited and mainly focused on the current conditions.

Based on the baseline study findings, 12% of the teachers stated there were changes in students' behavior, which probably because domestic violence. By district, the highest indications of domestic violence occurred in Mimika and Jayapura. From the results of the midline study measurements, it shows an overall reduction in teachers who stated there were students who were victims of domestic violence. There was overall 5% reduction for Tanah Papua, where the majority of incidents occurred in Jayapura and Mimika. However, based on parents' statement, the percentage of domestic violence towards children seemed to be higher. This data was obtained from the number of parents who admitted that they gave physical punishments if their children did not perform well in school.

The corporal punishments by parents were rather disconcerting such as slapping and hitting, and also using objects like rattan stick. Based on the parents' data, 17% of the parents admitted that they did physical punishments. At the district level, Mimika and Jayawijaya were found as the districts with highest levels of domestic violence.

**Table 4.13: Percentage of Domestic Violence towards Children**

| District | % of teachers who suspect there are children being victims of violence at home | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | All | | Model A | | Model B | | Non Intervention | |
| | Base | Mid | Base | Mid | Base | Mid | Base | Mid |
| Biak | 14% | 9% | 14% | 0% | 21% | 18% | 7% | 0% |
| Jayapura | 20% | 7% | 29% | 10% | 8% | 0% | 0% | 0% |
| Mimika | 23% | 9% | 21% | 9% | 13% | 0% | 15% | 0% |
| Jayawijaya | 5% | 7% | 10% | 7% | 0% | 11% | 0% | 0% |
| | | | | | | | | |
| Manokwari | 0% | 3% | 0% | 9% | 0% | 0% | 8% | 9% |
| Sorong | 6% | 9% | 0% | 0% | 10% | 9% | 8% | 18% |
| | | | | | | | | |
| Tanah Papua | 12% | 7% | 13% | 6% | 8% | 7% | 7% | 5% |

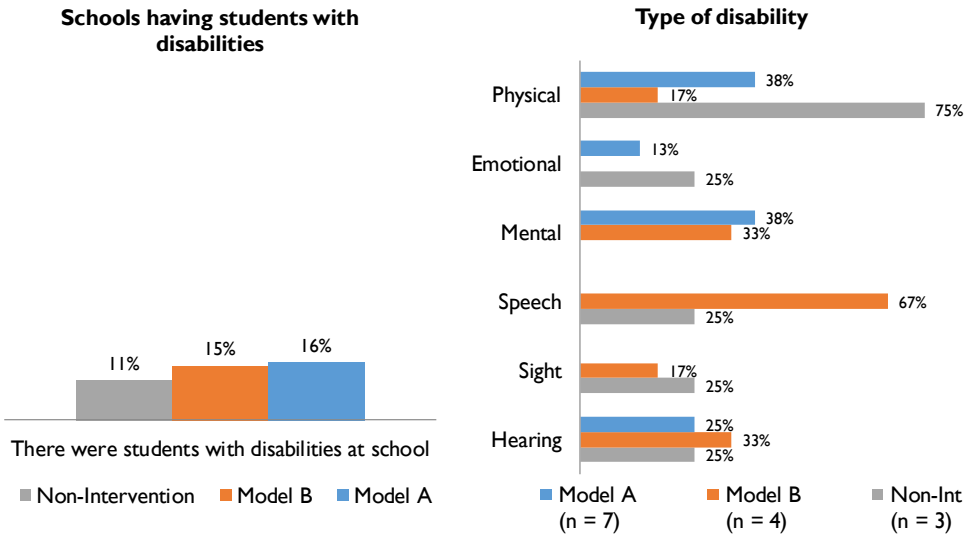
| Dirstict | % of parents who admit to giving physical punishment | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | All | | Model A | | Model B | | Non Intervention | |
| | Base | Mid | Base | Mid | Base | Mid | Base | Mid |
| Biak | 13% | 13% | 11% | 18% | 18% | 9% | 12% | 9% |
| Jayapura | 12% | 11% | 18% | 9% | 14% | 17% | 5% | 8% |
| Mimika | 25% | 21% | 30% | 22% | 22% | 27% | 21% | 16% |
| Jayawijaya | 30% | 33% | 25% | 35% | 34% | 31% | 35% | 29% |
| | | | | | | | | |
| Manokwari | 11% | 19% | 9% | 14% | 15% | 24% | 8% | 17% |
| Sorong | 7% | 7% | 3% | 9% | 12% | 12% | 7% | 1% |
| | | | | | | | | |
| Tanah Papua | 16% | 17% | 17% | 20% | 20% | 20% | 12% | 11% |

## 4.5 Students with Disabilities

In this midline study, the teachers were also asked if the schools had students with disabilities. The results revealed that among the schools which participated in this study, less than 10% had students with disabilities. The highest percentage was in Model A intervention schools. The most common types of disabilities found were physical and hearing disabilities.

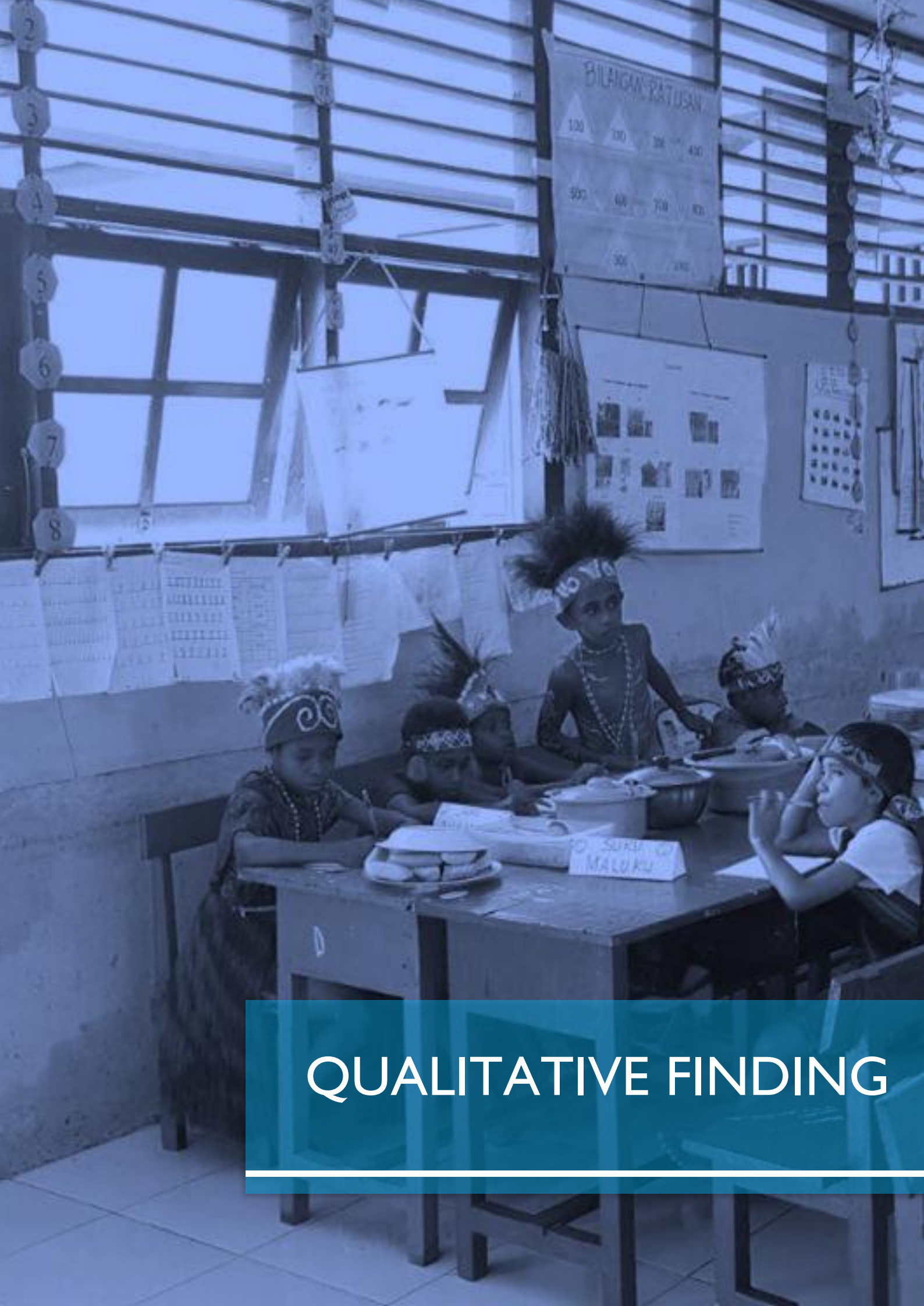
Not all children with disabilities received support from the government. Nevertheless, the schools also provided assistance to a number of the children, which could be in the form of school equipment assistance, free education, and medication. If seen from the district level, this study Jayapura had the largest percentage of students with disabilities, and the opposite trend was found for Mimika, which did not have any disabled students.

**Figure 4.23: Presence of Children with Disabilities**



## Table 4.14: Presence of Special Needs Students per District

| Children with Disability | Biak | | | Jayapura | | | Mimika | | | Jayawijaya | | | Manokwari | | | Sorong | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | Non Intv | A | B | Non | A | B | Non Intv | A | B | Non Intv | A | B | Non Intv | A | B | Non Intv |
| **There are students with disability** | | | | | | | | | | | | | | | | | | |
| Yes | 1 | 0 | 1 | 4 | 5 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| **Kind of disability** | | | | | | | | | | | | | | | | | | |
| Hearing | 0 | | 0 | 2 | 2 | 1 | | | | 0 | | | 0 | 0 | | 0 | | 0 |
| Sight | 0 | | 0 | 0 | 1 | 0 | | | | 0 | | | 0 | 0 | | 0 | | 1 |
| Speech | 0 | | 0 | 0 | 3 | 1 | | | | 0 | | | 0 | 1 | | 0 | | 0 |
| Mental | 0 | | 0 | 2 | 2 | 0 | | | | 0 | | | 0 | 0 | | 1 | | 0 |
| Emotional | 1 | | 0 | 0 | 0 | 1 | | | | 0 | | | 0 | 0 | | 0 | | 0 |
| Physical | 1 | | 1 | 0 | 0 | 1 | | | | 1 | | | 1 | 1 | | 0 | | 1 |
| **Received support from the government** | | | | | | | | | | | | | | | | | | |
| Yes | 1 | | 1 | 0 | 0 | 1 | | | | 0 | | | 0 | 0 | | 0 | | 1 |
| **Types of support from the government** | | | | | | | | | | | | | | | | | | |
| Medical assistance | 1 | | 0 | | | 1 | | | | | | | | | | | | 1 |
| Financial assistance | 1 | | 1 | | | 1 | | | | | | | | | | | | 0 |
| Educational fee | 0 | | 0 | | | 1 | | | | | | | | | | | | 1 |
| **Type of support from the school** | | | | | | | | | | | | | | | | | | |
| Free education | 0 | | 0 | 0 | 0 | 1 | | | | 0 | | | 1 | 0 | | 0 | | 1 |
| Assistance with uniforms, bags, shoes, etc. | 0 | | 1 | 2 | 2 | 1 | | | | 0 | | | 0 | 0 | | 1 | | 0 |
| Transportation | 0 | | 0 | 0 | 1 | 0 | | | | 0 | | | 0 | 0 | | 0 | | 0 |
| Don't know | 1 | | 0 | 2 | 2 | 0 | | | | 1 | | | 0 | 1 | | 0 | | 0 |

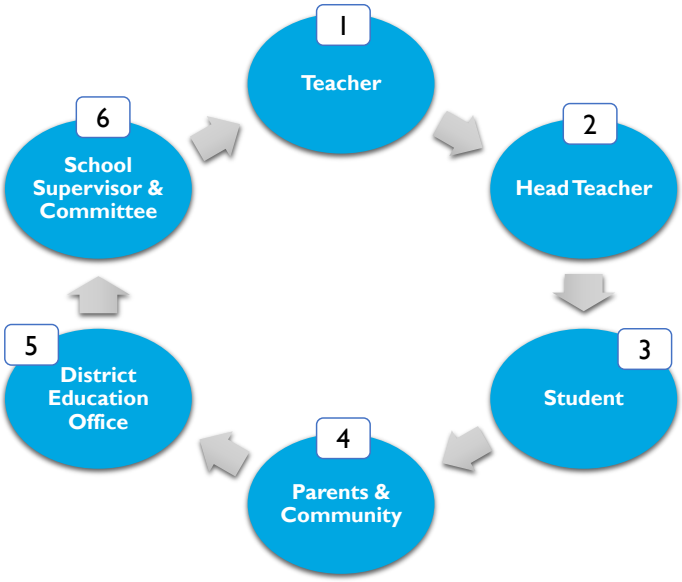


# QUALITATIVE FINDING

# 5 QUALITATIVE FINDINGS

This chapter will discuss about the findings from the qualitative interviews conducted. The qualitative findings were formulated by identifying the changes which happened between the baseline and midline studies of all involved stakeholders.

**Figure 5.1: Qualitative Findings Report Structure**

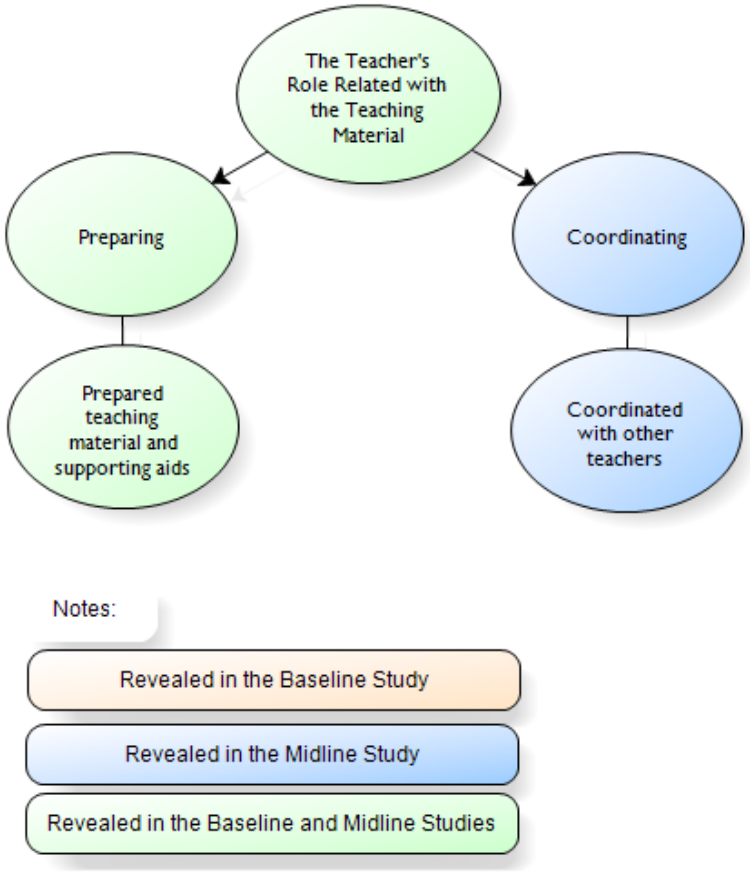



## 5.1 Teachers & Classrooms

### 5.1.1 The Teacher's Role Related with the Teaching Material

The teachers realized that they needed to have some materials for teaching the students. Therefore, the teachers performed some roles related with the teaching material. Overall, there are two roles the teachers have to perform in the baseline and midline studies. The first role was preparation and the second role was coordination. Figure 5.2 showed the teacher's role related with the teaching material. This model was developed using NVivo, a qualitative data analysis software.

**Figure 5.2 Model of the Teacher's Role Related with the Teaching Material**




The teachers did a preparation role both in the baseline and midline studies. Teachers prepared the teaching material and supporting aids before the class started. However, the baseline study showed that not all teachers thought they should prepare materials beforehand. In their opinions, they were so accustomed with teaching, so they already knew what they should do during the teaching-learning sessions. Only some of them are preparing the teaching materials, such as creating lesson plans or other supporting teaching items and preparing students mentally.

> *"I don't need a special preparation since I'm already used to teaching. The most important thing is to know what should be taught to the students. We need to especially focus on making the students able to read and write." -* ***A teacher from Mimika – Papua***

The midline study was showing different condition. After the UNICEF program, the materials, learning sets, and lesson plans are better and more structured. The teachers were able to develop learning materials since UNICEF provide several teaching materials for

them. Table 5.1 shows the improvements of the teaching materials used by the teachers to teach.

**Table 5.1: Teaching Materials in the Baseline and Midline Studies**

| No. | Teaching Materials | Baseline Study | Midline Study |
|---|---|---|---|
| 1 | Letters (alphabet) | Teachers wrote the alphabet on the blackboard | Teachers used alphabet cards given by UNICEF |
| 2 | Short texts | Teachers wrote short texts on the blackboard | Teachers used books provided by UNICEF |

In addition, the teacher used RPP (lesson plan) as guidance to develop teaching materials. The preparation was done beforehand; a day before the teaching process. It took around 30 minutes to 3 hours. To prepare the material and demonstrative tools, a method was used. They also coordinated with other teachers to prepare the teaching material. Besides that, the teachers claimed that they used modified curriculum by using the UNICEF approach.

> *"Teachers prepare the teaching materials daily for the learning guidance such as copying the lesson books to be distributed to the students."* - ***A teacher from Jayapura***

Before explaining the materials, the teacher did a pre-teaching activity as taught by UNICEF. For example, the teacher start with icebreaking activities by asking students to review the classroom rules and observed students' conditions to see whether any students were sick or have not taken their breakfast.

### 5.1.2 A Case Study of the Teacher's Role Related with the Teaching Material

An example of teacher's role improvement related with the teaching material could be seen by comparing the baseline and midline studies' conditions in the Model A intervention school; SD YPK Warombaim. In the baseline study, the teachers did not have proper skills to compile teaching materials. They did not know how to compile the RPP (lesson plan) and how to teach. They had limited knowledge about the learning subjects. The teachers never got any teaching training except from the head teacher. Moreover, they did not have any teaching materials except the ones that were written on the blackboard.

**Figure 5.3 Example of Simple Teaching Material**

***The head teacher stated that:***

*Not all the teachers come regularly to school. They are reluctant to come because they are not able to compile the RPP (lesson plan). They also do not know how to teach in the class. The teachers are actually trained by the head teacher to arrange learning media, but it does not give significant improvements. The teachers have not gotten any training from an outside party. They have limited access to training information. In fact, training is important to increase their teaching skills. Most of the homeroom teachers also have limited knowledge in each learning subject.*

After the intervention, the improvement on teachers' skills had a significant impact on the teaching material quality. The intervention was done in the form of teachers training. UNICEF was organizing the training. The training include material such as positive discipline, letter recognition, and RPP (lesson plan). It increased the teachers' knowledge about teaching materials and how to teach the students. As a result, the teachers had various teaching materials. Also, the teachers are now preparing the teaching materials for 30-60 minutes every day. The teachers' teaching methods and materials were regularly evaluated in order to understand the students' comprehension.

***The head teacher said that:***

*This year, there is training conducted by UNICEF. The training covers teaching skills such as positive discipline, letter recognition, and lesson plan compilation. This training help the teachers to support their roles. It improves the teachers' knowledge and teaching skills. After the training, the teachers always prepare the teaching materials a day before. They spend 30-60 minutes every day to prepare the materials. Basically, the teachers perform their roles well. A teacher's evaluation is done regularly to measure their teaching performance by monitoring students' progress.*

**Figure 5.4: Examples of Various Teaching Materials after the Intervention**

Besides in the Model A intervention school, the teacher's role improvement related with teaching material could also be seen in the Model B intervention school, SD Negeri 5 Puay Jayapura. In the baseline study, the teachers in SDN 5 Puay had prepared the materials before the class is started. However, they have difficulties in identifying proper reading materials for students who have reading limitation. However, with the limited reading materials the teachers have to teach the students by using outdated handbooks. Besides the learning materials, a lack of support from the head teacher, the students' poor attitudes, and the school facilities were also another factors that caused insufficient teaching and learning process.

> ***A teacher said that:***
>
> *It is impossible not to prepare the material before teaching, so I always prepare the material. However, I have difficulties in searching for proper reading material for the students who cannot read. In fact, most of them cannot read.*
>
> *As a teacher, I need to look carefully for suitable books and easy for the students to understand. So, I have to pick a proper book to be used during the teaching-learning process. Moreover, some weaknesses such as a lack of support from the head teacher, the low students' participation rate, no handbooks for students or the teacher, and a lack of school facilities to support the teaching-learning process become another barriers for the teacher.*

Meanwhile, after the teachers received training from a UNICEF companion teacher, the teachers had better understanding about their role on the teaching material. They prepared the material in a more structured manner. The training had a significant impact on the teachers and encouraged the students to read more. Furthermore, the teachers understood how to respond to students' performance. The teacher continue to use the UNICEF modified curriculum until now since they became more accustomed to it.

> ***A teacher said that:***
>
> *After joining the mentoring program with a UNICEF companion teacher, the learning media and lesson plan (RPP) became better and more structured. UNICEF held literacy training through KKG that provide significant benefits to the teachers and students. Now, the teachers are more capable to teach, organize the learning materials and media, and prepare questions used for morning tasks. The teachers also know how to respond to a student's good performance. For example, a teacher will clap one's hands or give some cookies or a sweetened iced drink when the students do well. Actually, the head teacher advises the teachers to use KTSP, but we are more familiar with the curriculum taught by UNICEF.*

From the pictures below, the teaching methods could be identified before the intervention. The teachers seemed not to have many ideas related to the teaching materials. As a result, the teaching materials were very simple, such as reading vowels: A, E, I, O, U. After reading the vowels, they combined the vowels with consonants.

**Figure 5.5: Examples of Simple Teaching Materials in the Baseline Study**

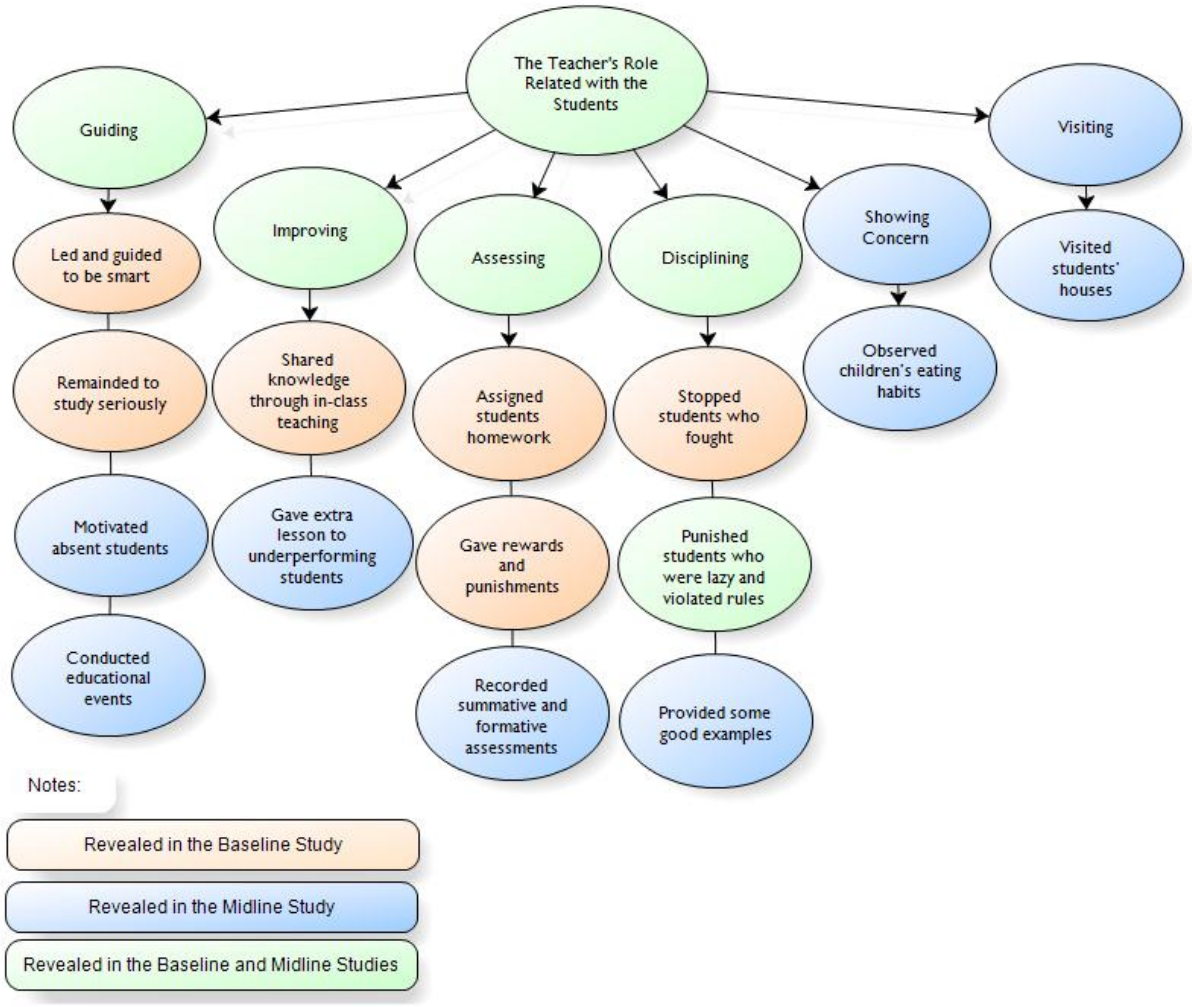
During the intervention, the teacher received some teaching materials including books from UNICEF. These books were used to teach the students. In fact, the teaching materials, including books, did not only benefit the teacher but it also motivated the students to read.

**Figure 5.6: Books from UNICEF as One of the Teaching Materials and a Student Reading a Book from UNICEF**

### 5.1.3 The Teacher's Role Related with the Students

Similar with the teacher's role with teaching material, the teacher has better role with the students after the intervention. There were six roles of the teacher in the baseline and midline studies, such as guiding, improving, assessing, disciplining, showing concern, and visiting. Figure 5.7 shows a model of the teacher's role related with the students.

**Figure 5.7: The Teacher's Role Related with the Students**




In the baseline study, the teachers had four student- related roles. The first role was guiding, in which the teachers must lead and guide the students to be intelligent. Then, they also reminded the students to study seriously. The second role was improving, in which the teachers shared knowledge with the students by teaching in the class. The third role was assessing, in which the teachers assigned students with homework and gave rewards to the students who did their homework and punished those who did not. The last role was

disciplining. In this role, the teachers preventing students to fight and punished those who were lazy and breaking the rules.

After the intervention, besides the four initial roles the teachers now had two additional roles, such as expressing concern and visiting students' homes. In the midline study, the four roles of teachers had been expanded. For the guiding role, the teachers were not only to lead, guide and remind the students but also to motivate the students when they are absence from school. They also conducted an educational event on the weekends, such as guessing alphabet letters and writing.

For the improving role, the teachers not only shared their knowledge but they also provide extra session for underperformed and students who still could not read. Furthermore, they observed the students' progress through graphs that show students' performance improvement. In the assessing role, the teachers not only assigned homework but also recorded summative and formative assessments, such as homework grades, in-class tasks, UTS/Mid-term test, and UAS/Final-term test in special books. For the disciplining role, the teachers not only stopped students' behavior and imposed punishments, but also gave additional assignments to students if they did not finish their homework. They provided some good examples of how to behave and gave motivation. Then after the UNICEF training, the corporal punishment was no longer applied.

Besides those roles, the teachers had two additional roles after the intervention. The first role was expressing concern. In this role, the teachers observed children's eating habits, especially in having breakfast, since the parents might not provide sufficient attention. Also, they created quizzes and gave cookies as a reward. The second role was visiting. The teachers visited students' houses if students did not come to school after 2-3 days. The other agendas of the teachers when visiting the students' houses were to ensure that the students were fine, informing students' parents when their children did not come to school, and motivating parents and students to learn in school.

### 5.1.4 A Case Study of the Teacher's Role Related with Students

The progress of the teacher's role related with the students in the baseline and midline studies was also proven in SD YPK Warombaim. In the baseline study, the teachers did not fully fulfill their roles toward the students, since they still lacked of skills in teaching. The teachers had limited knowledge about teaching methods. They taught the students by using a conventional method and basically acted as an information provider. Meanwhile, the students learned passively with the classroom tend to be silent. As a result, the students did not pay enough attention to the teacher and joking around with their classmates during the teaching-learning session. To stop the students from engaging in a certain behavior, the teacher had to warn them. The teacher also had limited knowledge about how to respond to the students' performance.

> ***The head teacher said that:***
>
> *The teachers do not know how to teach the students in the class, so the students pay less attention during lessons. Some students will joke or fight with their friends.*

> ***A teacher said that:***
>
> *I cannot do anything to the students who are joking or fighting with their friends except to warn the students directly.*

> ***A student said that:***
>
> *When I have good grades or do my tasks well, my teacher does not do anything. The teacher does not congratulate me, give me any reward, or free me from doing the next task.*

**Figure 5.8: The Teacher Teaching with Conventional Method in the Baseline Study**

After the intervention, the teachers did their jobs better. They could do well because the teachers received teaching skills and they are able to perform their roles related with the students as it can be observed from their attitudes and teaching method. Furthermore, the teaching process was conducted by using an active learning method. With this method, the teacher taught by involving the students more. Therefore, the students participated in the teaching and learning process and it created lively learning atmosphere. The teacher also recorded the students' summative and formative grades in a student performance book. To evaluate students' comprehension, teacher organize a teacher's meeting. Besides teaching, the teacher also motivated parents to encourage the students to go to school.

***The head teacher said that:***

*The teachers have done their jobs properly. It can be seen from their behavior, discipline, and teaching methods. If the teachers find a difficulty or the head teacher finds a weakness in the teaching-learning process, a teacher's meeting is conducted. The meeting is aimed to evaluate students' understanding toward the learning material.*

*To record student's summative and formative assessment, the teacher has a student performance book. This book can help the teacher to monitor the student's progress.*

*If the student is absent, the teacher will visit the student's house to find out why their child has been absence. The teacher also encourages the parents to send their children to school.*

**Figure 5.9: Teacher Taught with an Active Learning Method in the Midline Study**

Meanwhile, the teacher's role improvements related with the students in the non-intervention school were not too significant. In SD Inpres Depapre, the teachers are still lacked knowledge about how to teach the students both during the baseline and midline studies. In the baseline study, most of the teachers came to school and teaching every day. In fact, migrant teachers were more excited to teach the students than local teachers. However, they still taught with a simple method. The teachers only teach by inviting students to sing a modified song.

The students' laziness became another difficulty faced by the teachers in performing their roles. The students came to the school as they wished. As a result, the learning goals were difficult to achieve, since the teacher had to repeatedly explain the materials. Besides that, the teachers were threatened if any students failed to advance to the next grade level.

***A teacher said that:***

*As a teacher, we used to teach the students. So, whether or not we do teaching preparations, we still teach the students. In teaching grade 2 students, we emphasize teaching reading and writing. We want them to be able to read and write texts that can be read by themselves or other people. Now, the students are still unable to write readable texts. The teacher has joined professional training conducted by UNICEF in 2014 about K13 (Curriculum 2013). Although the training is good, it cannot be implemented since the students still are unable to write properly. Besides that, there is no handbook for K13, so the teacher still uses KTSP.*

**Figure 5.10: The Teacher Taught by Inviting the Students to Sing**

A similar condition happened in the midline study. Although they completed their duties by educating the students during the learning process, providing attention, observing the students' progress, and recapping the students' summative and formative assessments, the teacher are still lacked of knowledge in using interactive teaching methods. The teacher only taught the students by asking them to work on some exercises and discuss them after the students finished. When the students working on the exercises, the teacher seemed to be busy doing other things.

***A teacher said that:***

*Now, the teacher prepares the material for teaching the students 3 hours in a week for all the learning subjects. Besides preparing a lesson plan (RPP), the teacher prepares demonstrative tools, a problem analysis, and a blueprint task.*

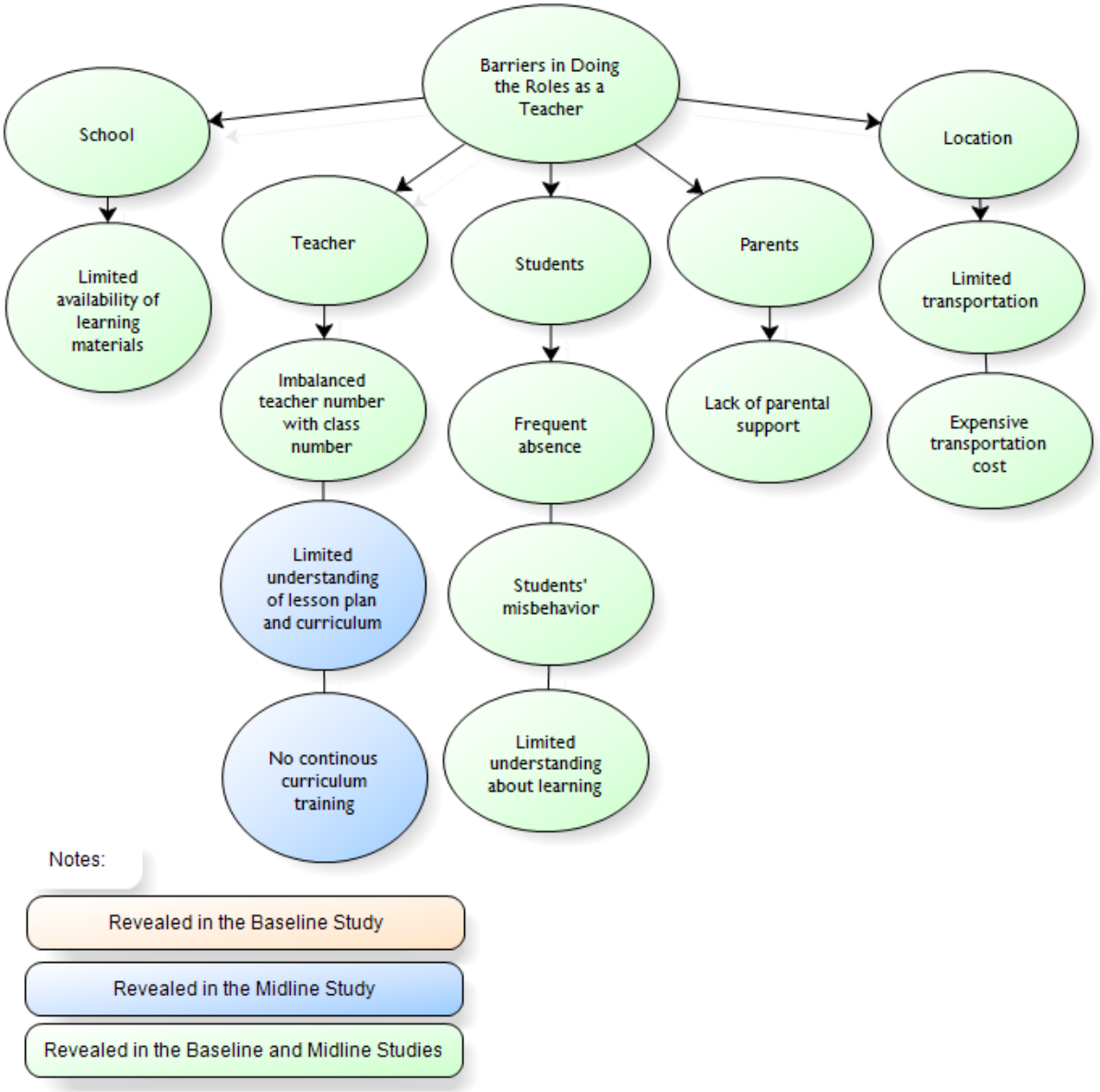
*Having no available handbooks for the teacher and students is a barrier in preparing the materials. Finally, the teacher buys the books with their personal money. So far, the teacher still uses KTSP, since there is no training for K13.*

**Figure 5.11: Teacher Taught by Asking the Students to Do Exercises**

### 5.1.5 Challenges in Implementing Teacher's Role

Overall, the teachers are facing the same challenges in the midline study as well as in the baseline study. There are five aspects that became challenges in implementing their roles as teacher, such as the school, teacher, students, parents, and location. Figure 5.12 depicts the challenges in implementing teacher's roles.

**Figure 5.12: Model of Challenges in Implementing Teacher's Roles**




On the first aspect, the school teacher still had limited availability of learning materials, teachers' books, and students' textbooks, such as LKS/exercise book, both in the baseline

and midline studies. Moreover, the current available books were align with the curriculum. The second aspect was from the teachers themselves. The number of teaching staff was not in accordance with the class numbers. Therefore, teachers had to teach multiple classes. In addition, teachers are also facing some challenges both in the baseline and midline studies, related with limited understanding on the lesson plans and curriculum, and no continuous training about the curriculum from the education office.

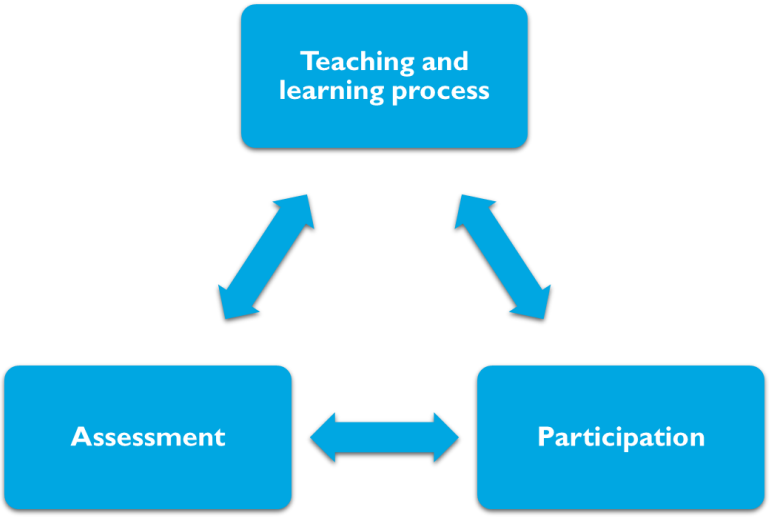
The third aspect was students as the students' participation rate still became an issue. The students were often absent because they have to help their parents, going home during break and not coming back and eventually missed many lessons. These absent students made the teacher had to always repeat similar lesson. While another issue among students in the midline study was children's misbehavior, such as fighting with classmates, making noise, coming late, etc. They also had a limited understanding about learning and mostly consider learning as about mastering writing skills. They did not consider reading and listening as part of learning.

The fourth aspect of challenges in the baseline and midline studies was the lack of parental support. The parents support to care for the students' education, to provide children's needs are met when they were going to school, such as preparing breakfast and their awareness about the importance of education, was still very limited. The fifth aspect was location. There seemed no improvement in terms of transportation for the teachers. Limited transportation caused the teachers to often come late. Moreover, the far distance from the school to the teacher's house resulted in expensive transportation costs.

### 5.1.6 Teachers Improvement after the UNICEF Program

The UNICEF program helped the teachers to overcome their challenges in implementing their roles, especially those related with teaching literacy. As the program result, students' in grades 1, 2, and 3, have better performance after the literacy program of UNICEF. There are three teachers improvement recorded after they are involved in the intervention program of UNICEF.

**Figure 5.13: Teachers Improvement after the UNICEF Program**




The first improvement was in the teaching and learning process. The teaching and learning process are now more structured and well-targeted. Moreover, the teachers targeted grade 2 students, as they could identify and read the alphabet, and grade 3 students who could read the alphabet and combine letters into words and sentences. This occurred because they were trained to develop the RPP, teaching knowledge, educative punishment, and teaching literacy for children in early grades.

The second improvement was in teachers' participation. Although the quantitative survey results showed that there was no improvement in teachers' attendance level, some schools visited during the qualitative data gathering showed an increase in teachers' participation. This happened because companion teachers/ implementers were always available in the school. So, the teachers were embarrassed if they did not come to school. The third change was in students' assessment. The assessment was conducted fairly, since they were trained in how to assess the students and give assessment books by using similar standards.

> *"The teachers admit that the training sessions done by UNICEF significantly helped them to be better teachers. Since the training sessions have better impacts toward the teachers, it should be held more often."* - ***A teacher from Jayawijaya***

> *"Teachers who have more experience will mentor the newbie teachers through some training programs and open discussions, not only discussion forums and mentoring but also there was a training program on how to teach "Bahasa Indonesia" to children properly, which was held by the government and UNICEF in 2015."* - ***A teacher from Timika***

### 5.1.7 Teacher's Performance

According to the parents, teachers are not paying attention during the baseline study. The teachers did not pay enough attention to the students who still have difficulties to read. Moreover, the teachers had low qualifications since they did not have proper qualifications to teach subjects that were not their expertise.

> *"Regarding the difficulty in studying, I think what prevents my child to study is the fact that the teacher has to give more attention to those other students who can't read."* - ***A parent from Mimika***

> *"Furthermore, the teachers here also have limited knowledge. For example, one teacher has a background in Religion, but s/he has to teach Mathematics and Indonesian language. They don't master those subjects."* - ***A parent from Manokwari***

Compared to the baseline study, the parents observed that there were improvements in the teacher's performance during the midline study and the teachers had better quality. They provided some rewards to encourage students to be more motivated in learning. Also, they succeeded to improve students' abilities in reading, writing, and counting. Besides better quality, the teachers also had better attitudes. They came to school every day and treated the students better without any corporal punishment. Because of the teachers' progress, the students were excited to go to school.

> *"Seeing from the students' progress, I think the teacher has done the job well. The teacher taught the students better and they come to the school every day."* - ***A parent from Sorong***

> *"Now, the teacher treats the students with a better manner at school, because physical punishment should not be used to educate the students at school."* - ***A parent from Manokwari***

> *"The teacher's quality and treatment are better; the students are more excited to go to the school."* - ***A parent from Jayapura***

### 5.1.8 Classroom Rules

After the intervention, the classroom rules were more disseminated and functional. The rules includes school hours, students' behaviors, and students' attitudes. The school hours were from 7 AM to 12 PM. The rules that managed students' behavior and attitude were the students had to be punctual, had to ask for permission before going out, should raise their hands before speaking up or asking a question, were required to help and respect each

other, should do the homework and assignments in class, bring their own stationary, sit quietly when the class started, listen to other students while they are expressing their opinions, and maintain classroom cleanliness.

**Figure 5.14: Example of a Classroom Agreement**


In most intervention at Model A schools, the rules were written on paper and posted on the classroom wall. Meanwhile, in some schools with Model B, the rules were written on paper or on the white/blackboard. In most intervention school, the teacher usually remind the students about the rules before the class began. The reminder was done every two days and the teachers will remind the students of early grade more often.

> *"Classroom rules were created between the teacher and students. The rules deal with how to keep the classroom clean, reminder to be punctual, pray before the class starts, etc. Because it is an early grade class, the teacher always reminds the students by reading a prayer together in the morning before the class starts. A logic consequence is applied, so the students know the impact of their attitudes and behavior." –* ***A head teacher from Manokwari***

A punishment was imposed for the students who disobeyed the rules. There were three kinds of punishment. The first was an educative punishment where the teachers would punish the students by asking them to sing the alphabet or numbers in front of the class and

forbid them to go home before finishing the homework. This kind of punishment was used by the majority of intervention schools. The second was corporal punishment where the teachers would beat the students with a stick, flick their forehead or ear, or ask them to do a physical exercise such as push-ups or run around the school yard. The third was other punishments such as warning or reminding the students without giving any punishment or asking them to stand up in the class corner.

### 5.1.9 Case Study of a Classroom Agreement

Improvements on how a classroom agreement was implemented by the teachers could be seen in SD YPK Warombaim. In the baseline study, a classroom agreement was only made as a formality. No classroom agreement was posted on the classroom wall since it was placed in the cupboard. The teachers rarely remind the students about the agreement and they did not always read the agreement before the class started. Thus, it did not result in any positive attitude changes in the students. Moreover, the teachers still imposed physical punishments. It was clear that the classroom agreement was not properly used by the teacher and the students to support the teaching and learning process.

> ***The head teacher said that:***
>
> *The teachers rarely remind the students of the classroom agreement. The agreement is not posted in the class. It is kept in the cupboard. If the teacher wants to remind students about it, the teacher takes it and reads it to the students. The teacher hopes by reading it, the students will remember it.*
>
> *Actually, there are no consequences written in the agreement. If the students have not finished their tasks, they will be the last students who stay in the class. Another punishment is that the students are asked to run in the school yard before going home.*

The improvement toward the function and how the classroom was used happened after the intervention. The teacher got training on classroom agreement by UNICEF. It benefitted both the teacher and students since the teacher knew how to create a proper agreement. The students' attitudes changed and they behave in order, while teacher was more aware to frequently remind students about the agreement. Besides that, the classroom agreement was posted on the classroom wall, so the students could access and read it anytime. Moreover, the punishments became more educational, such as by asking students to sing letters or numbers.

***A teacher said that:***

*After the UNICEF intervention, we received training to create a classroom agreement. It had extraordinary results and was impactful for us and the students. The students have been more discipline. The agreement is repeated before the class starts so the students will not forget.*

*An example of the agreement that we created is to come to school at 7 AM. The students should stay silent and listen to the one who is speaking up in the class. If the students are disobedient, we ask the students to stand up in the corner or give an educative punishment such as singing the alphabet. Then, if the students have not finished their tasks, they should finish them and the teacher will let them go home.*

**Figure 5.15: No Classroom Agreement on the Wall in the Baseline Study and Classroom Agreement on the Wall in the Midline Study**

Besides in SD YPK Warombaim, an improvement was also noticed in SD Negeri 5 Puay. In the baseline study, the agreement only listed some rules such as come to the class on time, bring stationary, respect the teacher, and finish the homework. The students were only reminded of the rules verbally, and they were not posted in the classroom. And if the students broke the rules, the teacher would give them a verbal warning or ask them to stay late after school.

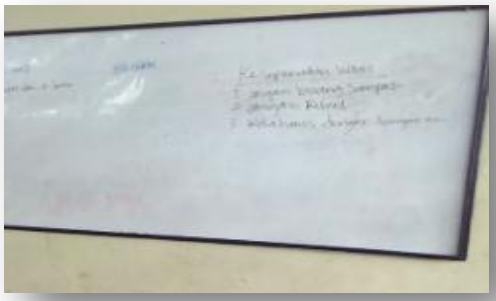
***The head teacher said that:***

*There is a classroom agreement between the teacher and students. The agreement covers rules such as being punctual, bring stationary, respect the teacher, and finish the homework. The agreement is not posted on the classroom wall. It is kept in the teacher's room. To remind the students, the teacher reads it in front of the students before the class starts. The students who disobey the agreement gets a verbal warning, and the teacher gives the students time to finish their homework. The teacher also permits the students to do their unfinished homework in their homes.*

Meanwhile, even though in the midline study the agreement still listed some simple rules, such as not making noise, listen to the other students, and throw your garbage in the trash can, the teacher already wrote the rules on the whiteboard. To remind the students, the teacher read the rules before the class began and if the students were disobedient, the teacher would remind them verbally or ask them to stand up in the corner. Unlike in SD YPK Warombaim, the classroom rules in SD Negeri 5 Puay were still not used to improve students' performance. The rules were only conveyed to improve students' behavior.

> ***The head teacher said that:***
>
> *There is a classroom agreement between the teacher and students. For example, when another student express his/her opinion, other students must be silent. The agreement is reminded by the teacher verbally. Then, if the students break the agreement, the teacher will give them a verbal warning or ask them to stand up in the corner. The punishment is usually called as corner punishment.*

**Figure 5.16: No Classroom Agreement on the Wall in the Baseline Study and Classroom Agreement Written on the Whiteboard in the Midline Study**



### 5.1.10 Teacher Testimony about Students' Progress

The teachers agreed that the intervention done by UNICEF gave significant improvements in students' academic performance and behavior. One student could be an example of how successful the intervention was. In the baseline study, one of the female students could not read and made her rarely come to school. After the literacy program, she could read and became an active student in the class.

### Baseline Study Condition:

*"In the beginning, Martince could not read. She rarely came to school. She came for a day and was absent for three days." -* ***A teacher***

### Midline Study Condition:

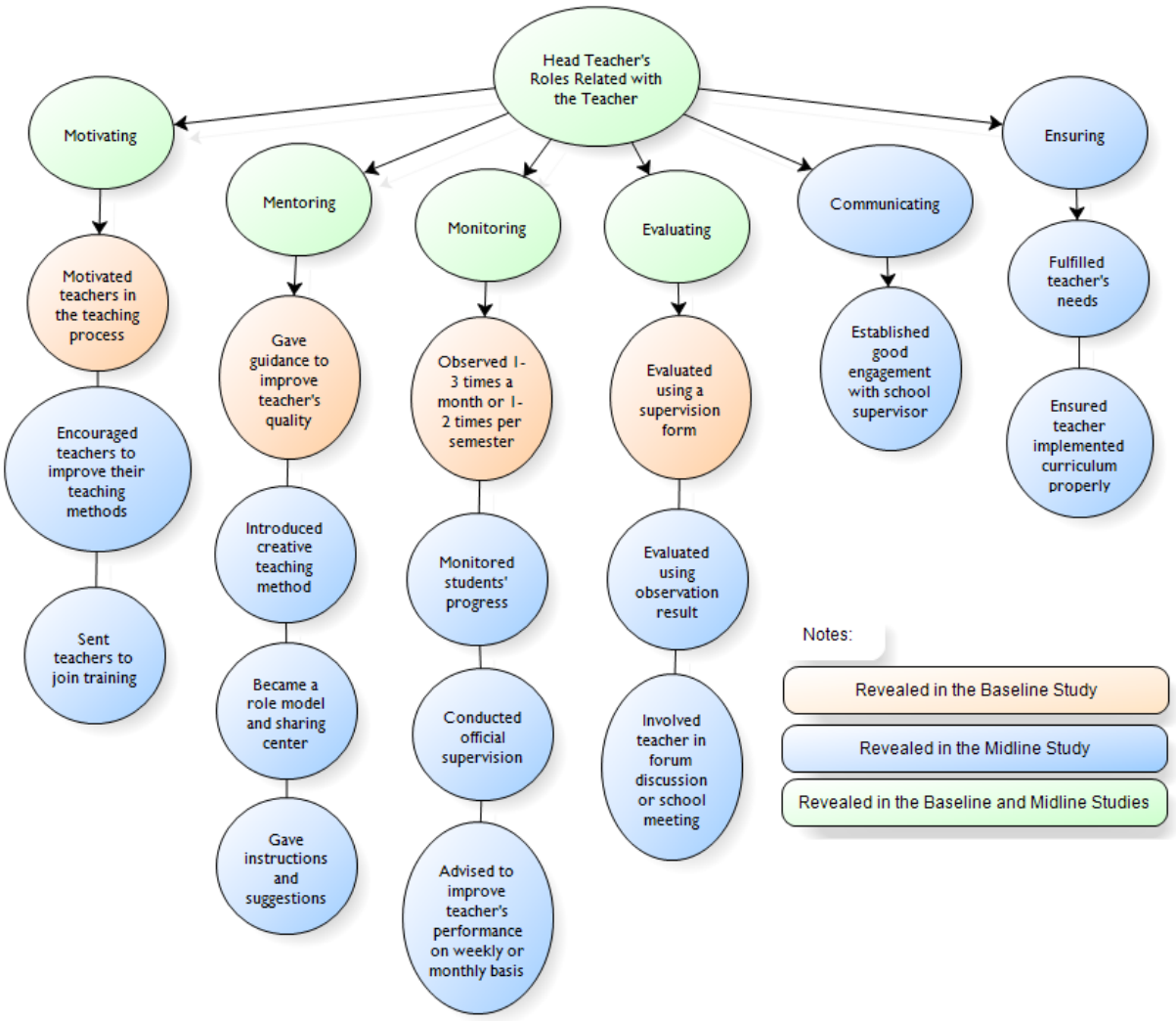
*"However, after the literacy program she joined for an additional school hour, Martince knew the alphabet. She could read and became active in the class. In the past, she was a passive student." -* ***A teacher***

## 5.2 The Head Teachers

### 5.2.1 The Head Teacher's Teacher Related Roles

The head teacher have several roles related with teachers in the baseline study as well as in the midline study. Overall, there were six roles of the head teacher, including motivating, mentoring, monitoring, evaluating, communicating, and ensuring. Figure 5.17 shows the head teacher's role related with the teacher.

**Figure 5.17: Model of Head Teacher's Teacher Related Roles**




After the intervention, the head teacher expanded his/her work in each teacher related role. They also perform the communicating and ensuring roles that did not exist in the baseline study. The head teacher had four teacher related roles both in the baseline and midline studies. The first role was motivating. In the baseline study, the head teacher acted

as a motivator for the teachers in the teaching-learning process. Meanwhile, in the midline study, the head teacher not only acted as a motivator but also encouraged the teachers to improve their teaching methods and sent the teachers for training, especially training related with K13 implementation, Calistung, and Teacher Working Group (KKG) from UNICEF.

The second role was mentoring. In the baseline study, the head teacher gave guidance to improve the quality of the teachers at the school. While in the midline study, the head teacher did three actions such as introduced creative teaching methods to the teacher, became a role model and sharing center for the teachers in the school, and gave instructions and suggestions to solve problems faced by the teacher. The third role was monitoring. In the baseline study, the head teacher supervised the classroom by observing 1-3 times a month or 1-2 times per semester. Meanwhile, the head teacher observed the teaching and learning process in the class at least once a week and saw the students' progress during the midline study. In addition, he/she conducted official supervision once or twice a year as well as advising the teachers to improve their performance on a weekly or monthly basis; 3 times a week or once or twice a month.

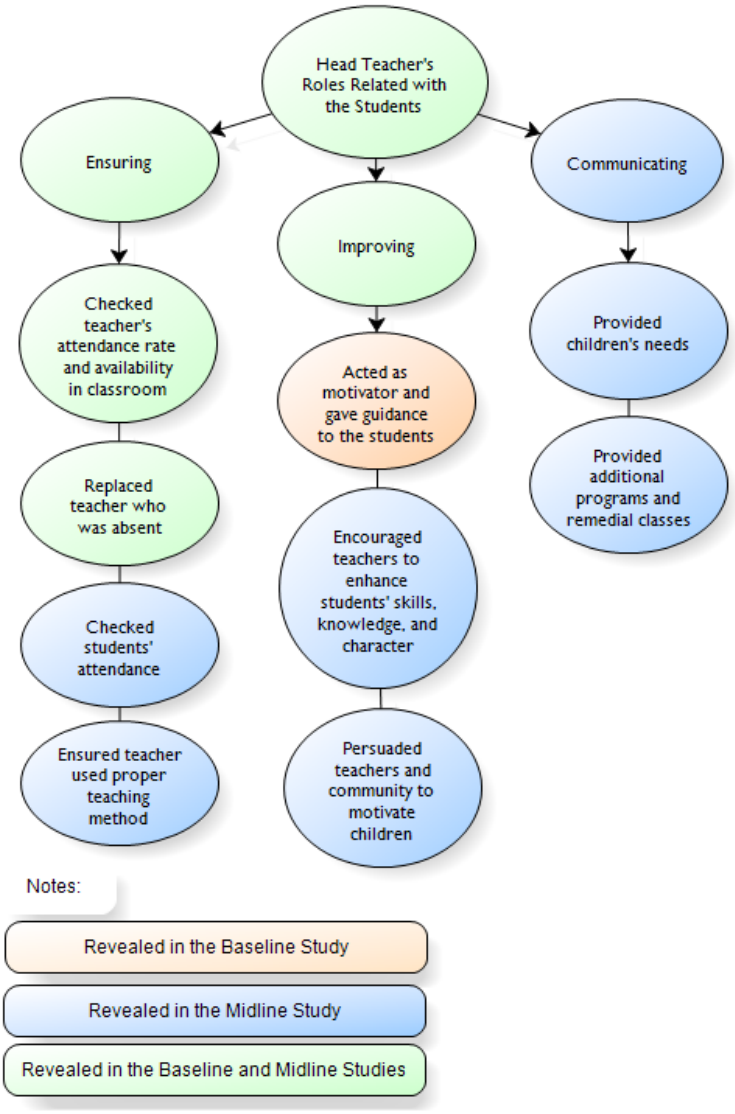
The forth role was evaluating. In the baseline study, the head teacher evaluated the teacher using a supervision form from the education office. In the midline study, the head teacher created teacher's performance evaluation based on the observation results and involved the teacher in a forum discussion or school meeting. Besides those four roles, the head teacher also perform the communication and ensuring roles during the midline study. For the communicating role, the head teacher established good engagement with the school supervisors so they would convey the school problems to the education department. The head teacher also met the teacher's needs and ensured the teacher implemented the curriculum in the class properly for his/her ensuring roles.

> *"Some head teachers are undertaking several efforts, like buying cigarettes for the teacher and having some discussions about their attitudes in teaching or what are their challenges in teaching. They believe that as a head teacher, they also need to be able to provide what the teachers need, in order to achieve a good teaching and learning situation. Above all, they need to attend school every day to set a good example to the teachers about attending classes and stop making excuses and being lazy."*
> - ***A head teacher from Jayawijaya***

### 5.2.2 The Head Teacher's Students Related Roles

Similar with the head teacher's role related with the teachers, the head teacher was engaged in ensuring and improving their student related roles in the baseline and midline studies. Moreover, the head teacher perform wider and more practical tasks during the midline study, in each role and also perform new role that is communicating. Figure 5.18 reveals the head teacher's role related with the students.

**Figure 5.18: Model of Head Teacher's Students Related Roles**




In the baseline study, the head teacher had to replace teachers who are absent and checked teachers' attendance rate at school in performing their ensuring role. Meanwhile, the head teacher had to undertake four actions as an ensuring role in the midline study. The first was to ensure that teachers were always available in the classroom to teach. The second was

substituting teachers when a teacher was absent. The third was checking students' attendance as a basis to hold a parents' meeting. The fourth was ensuring that teachers used a proper method when teaching.

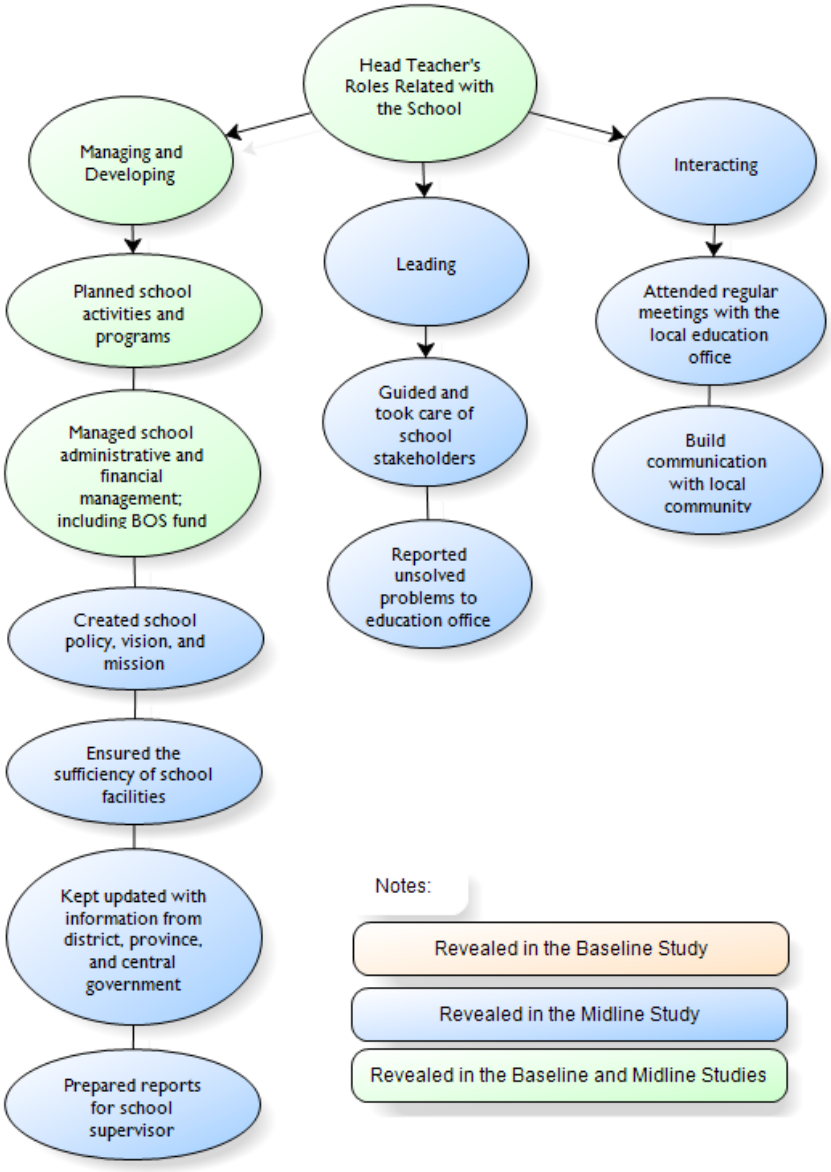
The next head teacher's role was improving. In the baseline study, the head teacher acted as a motivator for the students in the teaching-learning process and gave guidance to the students to improve their quality. While in the midline study, the head teacher has to encourage teachers to enhance students' skills, knowledge, and character. He/she also persuaded the teachers and community to motivate the children to go to the school.

To do the communicating role in the midline study, the head teacher provided students' needs related with the learning process such as books, stationary, and uniforms. Furthermore, he/she provided additional programs and remedial classes to ensure all students passed the competency standard. Moreover, head teacher have to improve the students' quality and motivation through several approaches. The first approach is by giving students their favorite sweets. The head teacher gave something like favorite sweets or cookies so the students will be motivated to go to school. The second is by visiting students' homes. The head teacher visiting the students' houses if they were absent for 10 days or more. The third was by conducting remedial classes. The head teacher provided remedial classes to make sure all the students passed the competency standard.

### 5.2.3 The Head Teacher's School Related Roles

Besides the teachers and students related roles, the head teacher also had some other roles related with the school as a leader. The first role was in managing and developing the school as the head teacher during the baseline and midline studies. The second role was leading. Then, the third role was interacting. Both the second and third roles were done in the midline study. Figure 5.19 shows the head teacher's school related roles.

**Figure 5.19: Model of the Head Teacher's School Related Roles**




The managing and developing role was performed by the head teacher both during the baseline and midline studies. In the baseline study, the work include the head teacher managing and developing role in the school's administrative activities, the planned school activities, and the school financial management. Meanwhile, the head teacher had eight different jobs did in the midline study such as managing the BOS (School Operational Fund)budget; developing RKAPR (school budget) with the headmaster, school committee, and teachers; created a school policy, vision, and mission; prepared a school program; ensuring that the school facilities were sufficient enough to support the teaching and learning process; kept updated with all the information and programs from the district,

province, and central government; and prepared reports for the school supervisors to develop the schools and education in their areas.

In fact, after the intervention, the head teacher did more tangible roles such as in leading and interacting. In the leading role, the head teacher have to guide and serve the school stakeholders, including teachers, students, and parents. Also, they have to report unresolved problems to the education office to find a solution. In the interacting role, the head teacher attended regular meetings with the local education office and built communication with the local community.

### 5.2.4 A Case Study of the Head Teacher's Role

The improvements of the head teacher's role between the baseline and midline studies can be seen in SD YPK Warombaim. During the baseline study, the head teacher was responsible for her duties. She came to the school every day since she stayed in her official residence and she always reminded the teachers to come to the school on time. She encouraged the teachers by becoming the role model for punctuality and be motivated to teach the students. Although the head teacher had fullfilled the responsibilities, especially in time management and teacher motivation, the head teacher still managed the school in a simple way.

> ***A teacher said that:***
>
> *The head teacher comes to the school every day because she chooses to stay in her official residence rather than in her far away home. She does not come to school if she needs to take care of school matters outside the school such as fulfilling teachers' and students' welfare. She also often reminds the teachers to be punctual. She shares overviews and advise to the teachers to be punctual and motivates us to be passionate in teaching. Besides that, she holds teacher meetings to discuss any teaching and learning related activities. In the last 10 years, the head teacher has done her roles well. She has strong leadership and discipline in time management.*

In the midline study, the head teacher's role is increased. The head teacher's scope of responsibilities was broader after the intervention. The head teacher was not only concerned about disciplinary items, but also the teaching materials and methods. The head teacher undertake several activities to ensure the teaching materials and methods, such as motivating the teachers to improve their teaching quality. There were regular monthly

evaluations to measure how the teachers teaching in the class and regular classroom observations every week to observe the teaching and learning process. The head teacher also established good networking with the school supervisor to develop the school's quality. Besides working on the teaching materials and methods, the head teacher also created school information media that could be accessed by any party after the intervention.

***A teacher said that:***

*The support from the head teacher has been increased compared with the previous years. It has happened since the mentor from UNICEF helped to improve the teaching method. Similar with the previous years, the head teacher always comes to the school every day. If the head teacher was absent, it means she is ill or doing an out-of-office service. The head teacher also motivates the teachers to increase and improve the school's quality by evaluating each teacher's teaching methods monthly. Besides that, the head teacher establishes good relationships with the school committee to develop the school's quality by training the teacher about creative teaching methods to attract the students' attention. Overall, the role of the head teacher is pretty good. The head teacher also observes the teaching and learning process once a week. After that, an evaluation is conducted if the students still have difficulties to understand the learning process.*

**Figure 5.20: Simple School Management in the Baseline Study**

**Figure 5.21: A More Structured School Management in the Midline Study**


The improvements in the head teacher's implementation role also happened in the non-intervention school SD Inpres Depapre as the improvement in the intervention school of SD YPK Warombaim. According to field observations, SD Inpres Depapre was one of the schools that had proper management. It was proven in the baseline study, where the head teacher had supported the teachers by preparing a syllabus framework, lesson plan (RPP), annual program (PROTA), and semester program (PROMES). She did classroom observations once a month. While observing the class, she filled in a supervision form provided by the education office. After observing, she conducted a teacher's meeting to give feedback related with the teacher's teaching method and learning syllabus. Furthermore, a cohort was used to monitor the students' progress.

***The head teacher said that:***

*The role of the head teacher is to increase the teacher's quality by preparing a syllabus framework, PROTA (annual program), and PROMES (semester program) at the beginning of the school year. Besides that, the head teacher conduct direct observations in classroom activities from grade 1 to grade 6 by using a supervision form prepared by the education office. The observations could last 15-20 minutes twice a week. Then, the head teacher gives feedback to the teacher in the teacher's meeting. There is also a meeting to evaluate the learning process every semester.*

Therefore, the head teacher did his role better by doing more frequent observations and monitoring during the midline study. Besides that, the head teacher gave guidance and support to the teachers in the midline study. She prepared the handbook and learning needs as well as monitored the school activities, visited the class, and observed the learning process. She conducted an observation based evaluation every Saturday in the teacher's meeting. Lastly, she managed the school in a structured way; created school information media that could be easily accessed by anybody.

***The head teacher said that:***

*As the leader of all the teachers, the head teacher gives guidance to the teachers. The head teacher also prepares the school program, guidance book, and learning needs, as well as gives support to the teachers during the teaching-learning process.*

***A teacher said that:***

*The head teacher has perform his role better because he always monitors all the school activities. The head teacher visits and observes the class almost every day when the teaching-learning process is conducted. Then, he gives an evaluation based on the observations every Saturday in the teacher's meeting.*

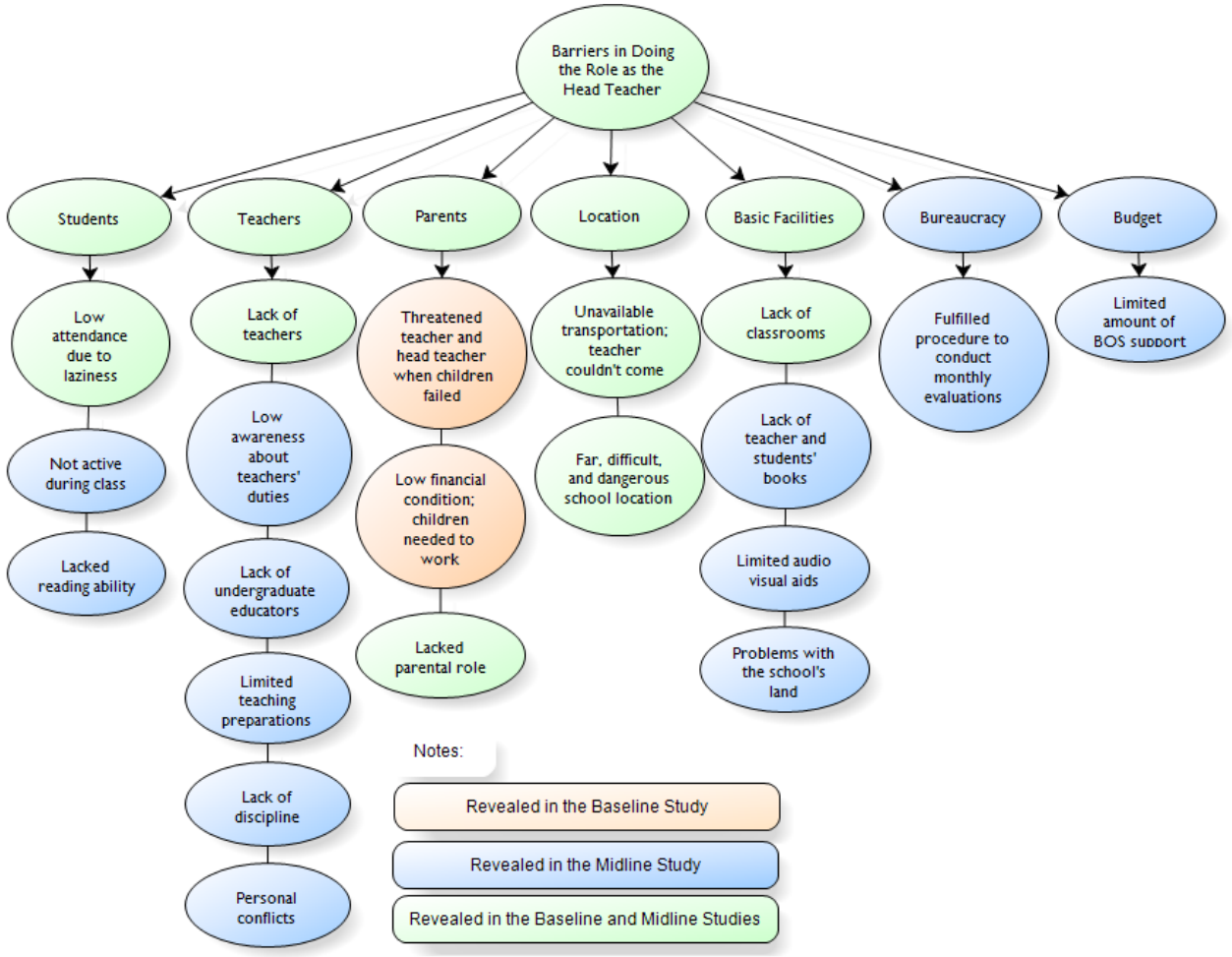
**Figure 5.22: Learning Materials and Cohort Created by the Head Teacher in the Baseline Study**


**Figure 5.23: School Information Media Created by the Head Teacher in the Midline Study**


### 5.2.5 Challenges in Implementing the Head Teacher's role

While implementing the role, the head teacher faced several challenges. In fact, the head teacher still faced quite similar challenges during the midline study as in the baseline study. The challenges during both the baseline and midline studies were from the students, the teachers, the parents, the location, and the basic facilities. Meanwhile, the head teacher faced some challenges in the bureaucracy and budget during the midline study. Figure 5.24 depicts the challenges in performing the role as the head teacher.

**Figure 5.24: Model of Challenges in Implementing Head Teacher's role**




Despite the similar factors that caused the challenges in the baseline and midline study, the challenges during the midline study were relatively more complex. The first factor is the students, where during the baseline study the head teacher only dealt with students' low attendance due to students' laziness. In the midline study, besides dealing with students' low participation, the head teacher also need to deal with passive students and limited reading ability, since the teacher have to focus on teaching them how to read.

The second factor was the teacher. The limited number of teachers still became an issue both in the baseline and midline studies. On top of that, low awareness about teachers' duties, lack of undergraduate educators, limited teaching preparations, lack of discipline, teacher often came late due to the far distance between the house and school, and personal

conflicts which distracted the teaching process were the other challenges faced by the head teacher during the midline study.

The third factor was the parents. In the baseline study, parents made threats when their children did not pass, and they had low financial status so the children needed to help their parents, which became challenges from the parents. In the midline study, a similar issue also emerged. There was a lack of parental role in education for the children since most of them had a low reading and writing ability. Moreover, they were busy with their jobs.

The fourth factor was the location. In the baseline study, the head teacher rarely come to school since transportation was unavailable in certain areas. In the midline study, the problem of limited transportation still became an issue. The head teacher faced some barriers due to location issues such as schools had difficult and dangerous access, the far locations raised the costs, and the far distance between the government office and school.

The fifth factor was the basic facilities. There were limited number of classrooms during the baseline study. A class was once used for two grades at once, which was a challenge. In the midline study, the challenge were not only in the number of classrooms but also limited teacher and student books, limited audio visual aids, limited space for classrooms, and problems with the school land.

> *"They have to deal with the land issues where their school is located. In this case, the district said that the land was the province's project and they had to pay a certain amount of money to the citizens who owned it, but on the other hand, the province said that it was the government's project which made it difficult to build a new school on that particular land."* - ***A head teacher from Timika***

Later, due to bureaucracy factor in the midline study, the head teacher found difficulties to fulfill the procedure to conduct monthly evaluations that should be submitted to receive funding support from the government. In the budget factor, the head teacher have to overcome the challenges due to limited amount of BOS fund, which caused small payments allocation for the teachers and insufficient funds to implement the plan in fulfilling the school facility's and children's needs. Indeed, it was a tough decision for the head teacher to decide whether or not he should ask the parents to contribute when the school needed it.

### 5.2.6 Testimony of Students' Progress from the Head Teacher

Similar with the teachers' perception, the head teacher overall shared a similar experience on how the intervention benefitted the teachers and students. According to the head teacher, not all teachers are actively teaching the students before the literacy program. After the intervention, the teachers encouraged the students to perform their best and they are now teaching the students how to read and write every day.

> **Baseline Study Condition:**
>
> *"Before the literacy program, some teachers were active and some were not."* ***- A head teacher***

> **Midline Study Condition:**
>
> *"With the literacy program, it encourages us to strive for the best performance. Every day, we teach the students how to read and write."* - ***A head teacher***

## 5.3 The Students

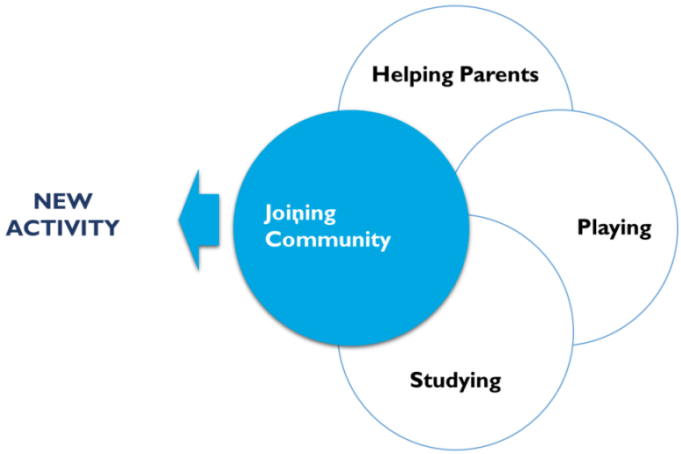
### 5.3.1 Students' Activities at Home

Both in the baseline and midline studies, the students still helped their parents. In the baseline and midline studies, the students had three activities at home. Students usually help their parents by doing household chores and working in the fields, carrying taro roots, washing the dishes, doing laundry, chopping wood, and cooking. The other activity is playing. They played with their siblings and friends after school time like playing soccer. Lastly, studying. They studied at home in the evenings, did homework, and practiced writing (30 minutes - 1 hour each day).

In the midline study, they also joined a community. For children aged 7-15, they joined some communities palm oil fruits. They recited the Quran for Muslim children and attended Sunday school for Christian children.

> *"At home, all the students would do some work (e.g. collecting wood, pulling out wild grass, harvesting crops, etc.) and household chores (e.g. washing dishes, washing clothes, etc.) with their parents. They usually spent three hours in the field and at home doing their daily duties. Once they finished, they could play outside or watch football games. Many of them would head home by around 5 or 6 in the evening and study at home until night."* - ***A parent from Jayawijaya***

**Figure 5.25: Students' Activities at Home**

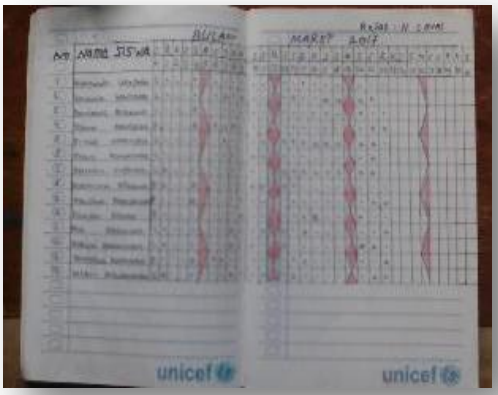



### 5.3.2 Students' Participation in School

In the baseline study, the APM (pure participation rate) had reached 90%. However, despite the high participation rate, it did not guarantee the students always went to school. Actually, seeing their siblings going to school would likely to influence the students, but students have various challenges. For example, the parents asked the students to help them in the field so the students have to skip their classes. Besides, the teachers rarely came to school. Moreover, the learning process could not increase students' intention to go to school. Therefore, the students were not too excited to come to the school. No wonder that the basic ability of the students measured with Calistung (reading, writing and counting ability) was very low; less than 50%.

> *"In some areas, the students are actually passionate to go to school and have better future. However, there are some challenges such as no teachers and the teachers who did not attend the class. The far distance and natural disasters which often block their access to school also become obstacles for them to attend school. In some other areas, especially in the Umpakalo elementary school, the children did not have the urge to go to school due to the lack of support from parents and bad influence of their social circles."* - ***A community leader from Jayawijaya***

**Figure 5.26: Increasing Participation Rate**

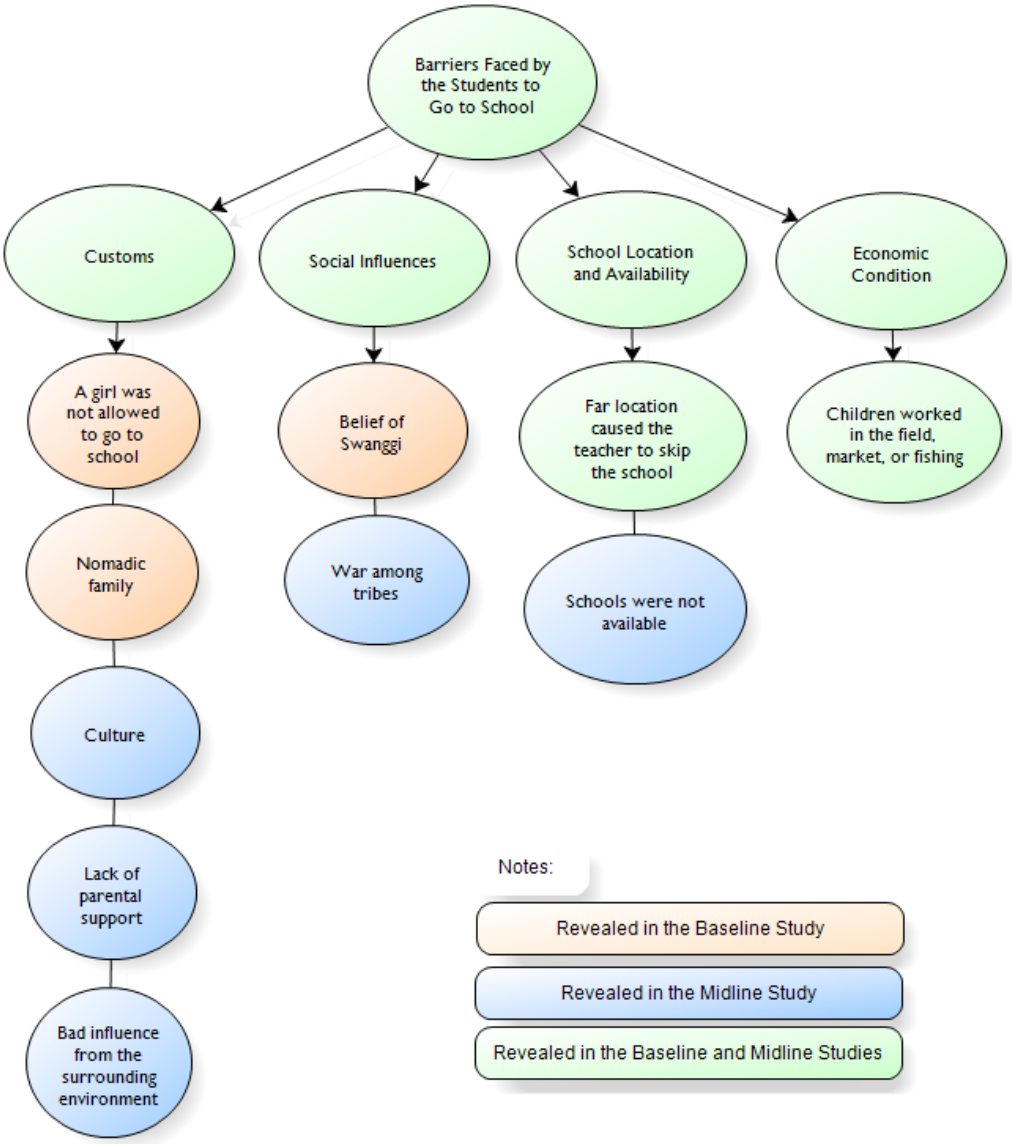



After the UNICEF program, students are now more passionate to go to school since the class was made more fun. UNICEF program increased the participation rate since there was better and more significant progress in terms of the teaching-learning process and its outcome. The participation rate was higher in urban area. The urban people had a better understanding about the importance of education than those living in rural area. Moreover, there was an increasing rate in rural areas since intervention reached schools in rural areas, creating a better

### 5.3.3 Students Challenges

Similar with the baseline study, some students, especially those who lived in remote areas, are still facing some challenges in going to school. There were four challenges faced by the students such as customs, social influences, school location and availability, and also economic condition. Figure 5.27 reveals the challenges faced by the students.

**Figure 5.27: Model of Students Challenges**




The first barrier was customs. In the baseline study, girls were not allowed to go to school; the parents would marry off their children at a young age. Also, some families still preserve nomadic lifestyle which made it difficult for the children to go to school. Meanwhile, in the midline study, the children who lived in remote areas are facing challenges from the custom factors. They were affected by the culture, a lack of parental support, and bad influence from the surrounding environment.

The second barrier was social influences. In the baseline study, there was the belief that Swanggi would harm the children when they wanted to go to school. So, it discouraged the children to go to the school. In the midline study, the war tribes created an unsafe situation

for the children to go to school. These factors caused the children's attendance rates in remote areas to be very low compared to those in the urban areas.

> *"The war tribes creates an unsafe situation for the children to go to school. These factors caused the children's attendance rates in remote area to be very low compared to those in urban areas." -* ***A District Education Office in Jayawijaya***

The third factor was the school location and accessibility. In the baseline study, the school distance became a challenges for teacher thus they often had to skip the class, especially schools located in rural and remote areas. In the midline study, beside the far distance from home to the school, it was also time and energy consuming, and there were a lot of obstacles along the journey. Even worse, some areas did not have any schools, so the children who lived in these regions would not get the same education opportunities as others in better areas.

> *"The children are passionate to go to school. However, there are some areas that do not have any schools. Hence, the children who live in these regions will not get the same education opportunities as others in better areas." -* ***A District Education Office employee in Sorong***

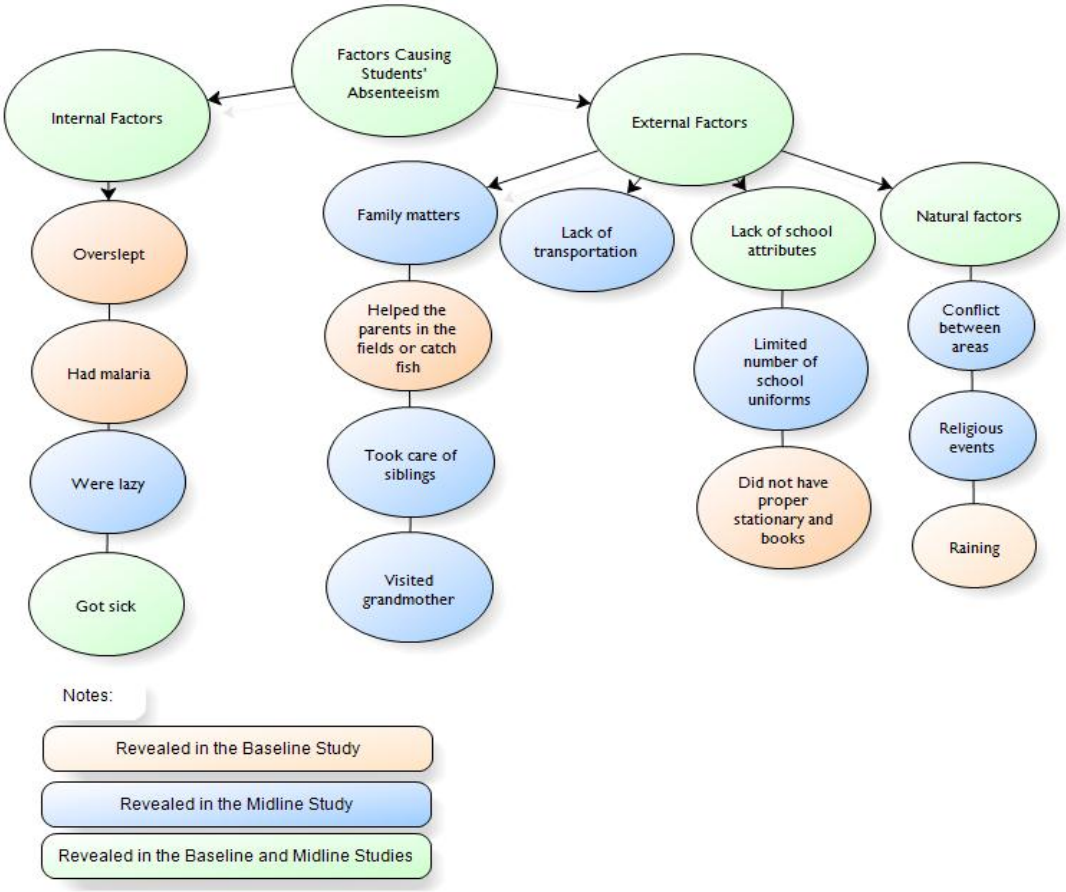
The fourth factor was the economic condition. In the baseline study, the children had to work in the field or market so they would miss the class. In the midline study, the low financial family condition still became the barrier. Economic conditions forced some of the children living in rural area and most from isolated societies to help their parents for fishing and farming.

> *"The economic condition forces some of the children from the rural and isolated societies to help their parents for fishing and farming. This condition is in stark contrast with the urban children with their surprisingly high participation in education, around 80% in the attendance rate." -* ***A District Education Office employee in Timika***

### 5.3.4 Factors for Students Absence

Both in the baseline and midline studies, students mostly absent to school due to external and internal factors. There are four external factors, such as family problems, limited transportation, lack of school attributes, and natural factors. While for internal factors, it was from the students themselves. Figure 5.28 shows the factors for students absence.

**Figure 5.28: Model of the Factors for Students Absence**




The first external factors was family matters. The students have to help their parents working in the fields or fishing and take care of their siblings. Some of them even had to join their parents to visit their grandmothers in another district. The second aspect was limited transportation. The distance from home to school was too far, and no public transportation was available.

**Figure 5.29: Classroom with Absence Students**

The third aspect was a limited number of school uniforms. The wet uniforms made the students reluctant to go to school. Besides that, natural factors such as rain, conflicts between areas, and religious events discouraged the students to come to the school.

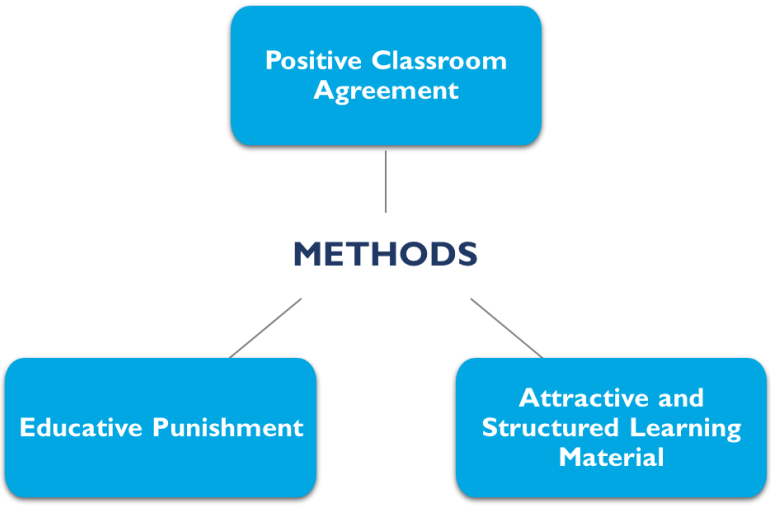
Meanwhile, the internal factors were when students gets ill or lazy. Usually, some parents would come to the school to inform the teacher whenever the students were sick. Even worse, staying at home, smoking, and getting drunk with friends also became another negative factors that caused the students for being absent.

> *"Some of the students were actually stuck in a bad environment. Some students believed that education was not important. In addition to that, their parents did not support them to go to school either. Their time which should have been used for school time was wasted by drinking alcohol in bad social circles. Not only did it drag them away from education and a brighter future, some of them even turn into criminals. Some of the community leaders really took this issue into their consideration."* ***– A community leader from Jayawijaya***

### 5.3.5 Students' Performance at School

Several methods have been used in the implementation to trigger students' performance transformation. Therefore, after the intervention, the students' performance became better. Below are three methods that triggered students' performance transformation.

**Figure 5.30: Methods to Trigger Students' Performance Transformation**




The first method was a positive classroom agreement. A classroom agreement between the teacher and students lead to an increase in discipline in doing assignments and having a good attitude with classmates and the teacher, such as listening to classmates who were asking or sharing their opinion.

**Figure 5.31: Discipline in Doing Assignments**

The second method was attractive and structured learning material. It encourage the students to come to school more often because the learning process became more fun. The third method was an educative punishment. It lead to improved understanding about the alphabet and numbers because they have to sing the alphabet and numbers whenever they violated the agreement.

**Figure 5.32: Attractive and Structured Learning Materials**

### 5.3.6 School Activities to Boost Students' Performance

After the intervention, the schools conducted more structured and regular activities to boost students' performance. The first activity conducted was remedial. The remedial is implemented to specifically teach CALIS (reading and writing). The second activity was additional lessons. The additional lessons focused on underperformance students and need to take remedial. In addition, it was also used for semester test preparations. The third activity was extracurricular activities. For instance sports activities on Fridays, scout activities on Saturdays, and handcrafting such as weaving Noken (woven bags), making arrows, and designing bracelets.

**Figure 5.33: Teaching Reading**

The last activity was home program. Teacher would visit the student's house if they did not come to the school after more than 10 times. This program aimed to recognize and identify families' social and financial conditions, and also the challenges faced by the parents and students. There were two steps in implementing this program. The first was by approaching and communicating with parents and students to educate them about the importance of education. The second was by involving school committees and the surrounding society to increase their awareness. The success rate was proven to be high with an increase in students' participation.

> *"This school has a remedial program to help the students having difficulties in studying, even though the implementation is not regular. It is conducted depends on the students' needs and progress."* - ***A head teacher from Manokwari***

## 5.4 The Parents and Community

### 5.4.1 Parents' Perception toward Education

Compared to the condition in the baseline study, there was no significant changes in the parents' perception toward education during the midline study. The perception was still influenced by two factors: economic and financial issues. In the economic factor, there were

significant differences on how the parents with different financial conditions perceived education for their children. The parents with a stable financial condition understood that education was important to gain better future. So, they would enroll their children to school. Meanwhile, the parents with poor financial condition were not aware of the importance of education and would involve their children to support their family needs. Thus, the children would have to skip school.

Similar with the economic condition, geographically there were different perceptions toward education between the parents who lived in an urban area and the parents who lived in rural and isolated areas. Most parents living in the city agreed that education is important for their children. The parents understood that by having a good education, their children would have better and brighter future. Thus, they were excited to send their children to school and demonstrate huge support.

Parents who were aware of the importance of an education were involved to supervise their kids studied at home. They checked and helped the children in finishing their homework. Moreover, they enhanced the children's reading and writing abilities. Besides that, they cooperated with the teachers by attending the school invitations and meet with teachers. The meetings discussed the students' progress, the school fees, the scholarships, the school's condition and asked for a solution, and the students' achievements.

**Figure 5.34: Low Income Family Condition of Those Who Lived in**

On the other side, most parents living in rural and isolated areas were unaware of the importance of an education. Most of them did not urge their children to study at home. In fact, they asked their children to join them in the fields to help them.

### 5.4.2 Testimony of Students' Progress from Parents

The parents who were aware of the UNICEF program claimed that the program improve their children's academic progress. In the baseline study, the parents saw that their 4th grade children still could not read since they did not recognize letters. Since they could not read, they were also not able to write. However, after the program, there were improvements in the children's reading and writing abilities. Perhaps, it was because the different teaching methods. The children were taught reading by connecting letters. Eventually, the children were able to tell stories, write, and do arithmetic.

**Baseline Study Condition:**

*"The children were already in grade 4 but they could not read well. They also did not know the alphabet. They still have to spell the letters to read a word." A parent*

*"They read with many interruptions and they could not write numbers."* - ***A parent***

**Midline Study Condition:**

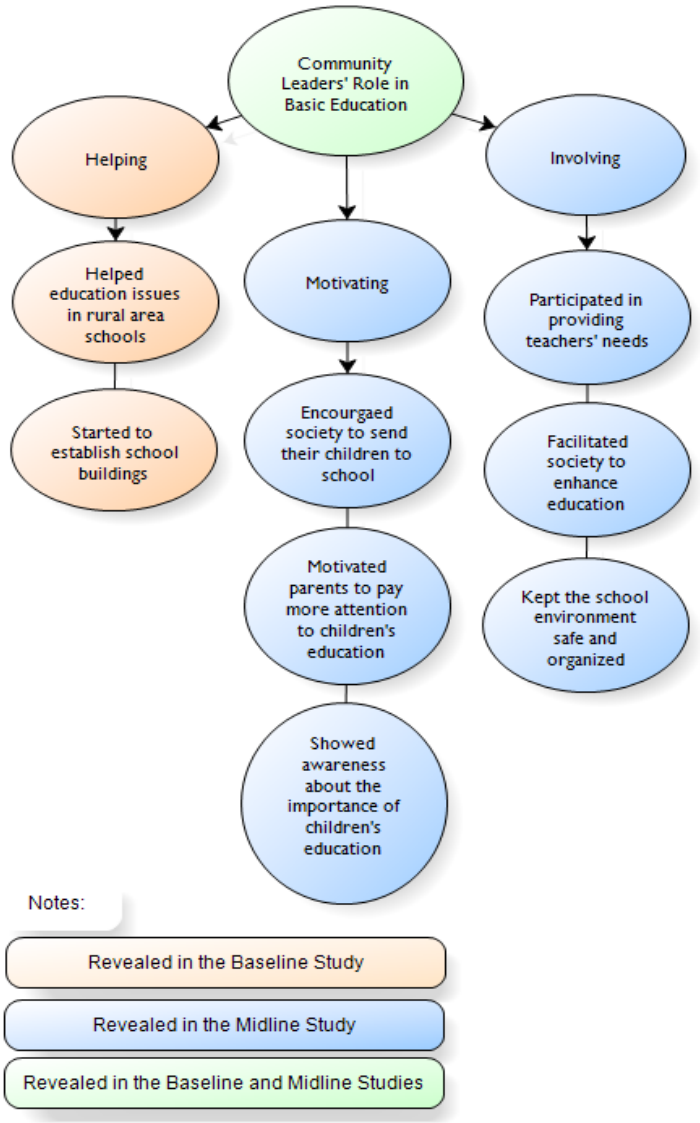
*"The program is good. The children are given words to be connected by using a box."* - ***A parent***

*"The progress can be seen from the children ability to read. Those who could not read started to read by connecting letters. They were able to tell stories, write, and do arithmetic. They could answer questions."* - ***A parent***

## 5.5 Community Leaders' Role in Basic Education

Community leaders were one group of stakeholders who played an important role in basic education. They were involved in managing the schools. In the baseline study, the role of the community leaders was to assist. Meanwhile, in the midline study their role was more than just assisting. They performed a motivating and involving role. Figure 5.35 depicts the community leaders' role in basic education.

**Figure 5.35: Model of Community Leaders' Role in Basic Education**




Formerly in the baseline study, the community leader are helping the educational issues in schools related to the rural areas and started to establish school buildings in Sor and Mos villages. Meanwhile, in doing the motivating role in midline study, the community leaders encouraged the society to send their children to school, motivated the parents to pay more attention to their children and their education, and showed awareness about the importance of children's education. Then, in performing their involving role, they participated in providing teachers' needs, including housing, electricity, and water. Also, they facilitated the society to find a solution to enhance the education in their areas and kept the school environment safe and organized. Unfortunately, although the community leaders had

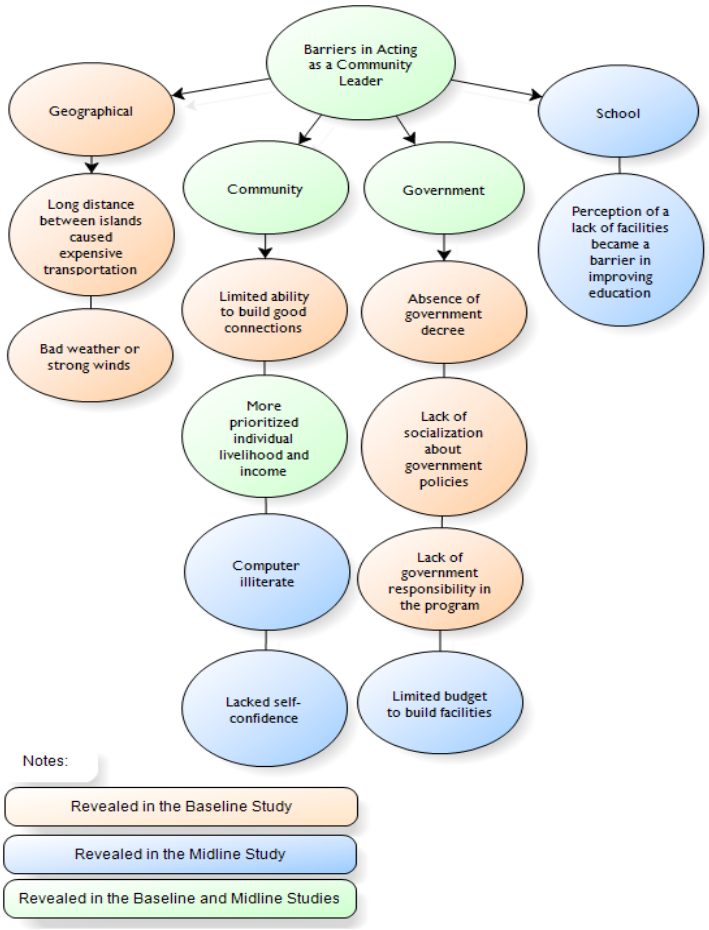
improved their role in the midline study, overall, they still did not record any significant improvements in basic education.

> *"The community's role in basic education is simply to keep the environment safe and organized. This means that the community support children's education in a different way by keeping the environment safe and organized. There will be no wild animals wandering along the children's way to school, and there will be no wars between tribes."* ***– A community leader from Timika***

### 5.5.1 Challenges in Acting as a Community Leader

In doing their role, the community leaders faced several challenges because of some factors. There are three factors in the baseline study: geographical, community, and government became challenges to act as community leaders. In fact, in the midline study the community and government still became challenges faced by the community leaders. Figure 5.36 showed the challenges in acting as a community leader.

**Figure 5.36: Model of Challenges in Acting as a Community Leader**



The first aspect was the geographical factor. In the baseline study, the geographical factor made it difficult for community leaders to visit another island. The long distance between islands caused problems with the transportation that required huge expense. Besides transportation, bad weather or strong winds prevented the community leaders from doing their roles.

The second aspect was the community factor. In the baseline study, the community leaders have problems because the community had a limited ability to build good connections to the school. The society also prioritized their livelihood and income, so the community leaders get less support. In the midline study, the community factor still appeared to be a challenge. It was because the community was computer illiterate and lacked of self-confidence about their own capabilities in enforcing education in the first place. Besides that, economic problems faced by the community and their perception toward education became difficulties in doing their roles.

The third challenges was the government. In the baseline study, the barrier was because the absence of a government decree in regards to the roles of the village head, the lack of socialization regarding the government's policies for the society, and the lack of the government's responsibility for the programs they ran. Meanwhile, in the baseline study, the challenges from the government factor was because of the limited budget to help in building facilities. As a result, community leaders urged the central government not only to implement the policy but also to pay more attention to rural areas. In the midline study, the school factor also became a barrier. The school's perception about the facilities was that there was a lack of support in the teaching and learning process, which always became a reason for improving the education quality.

### 5.5.2 Testimony of Students' Progress from the Community

The community leaders agreed that the UNICEF program has benefitted their community, especially for the children. They mentioned that before the program, there was no significant progress in education development. After having the program, the community understood how the education should be. They could see that there were improvements in children's academic ability. The children were able to read and write. There was also an education campaign that directly involved the parents.

**Baseline Study Condition:**

*"In 2010-2015, no one could read in this village."*

*"Before the UNICEF program, the education development was not as good as the current condition."*

**Midline Study Condition:**

*"By having the program, our children can read and write on their own."*

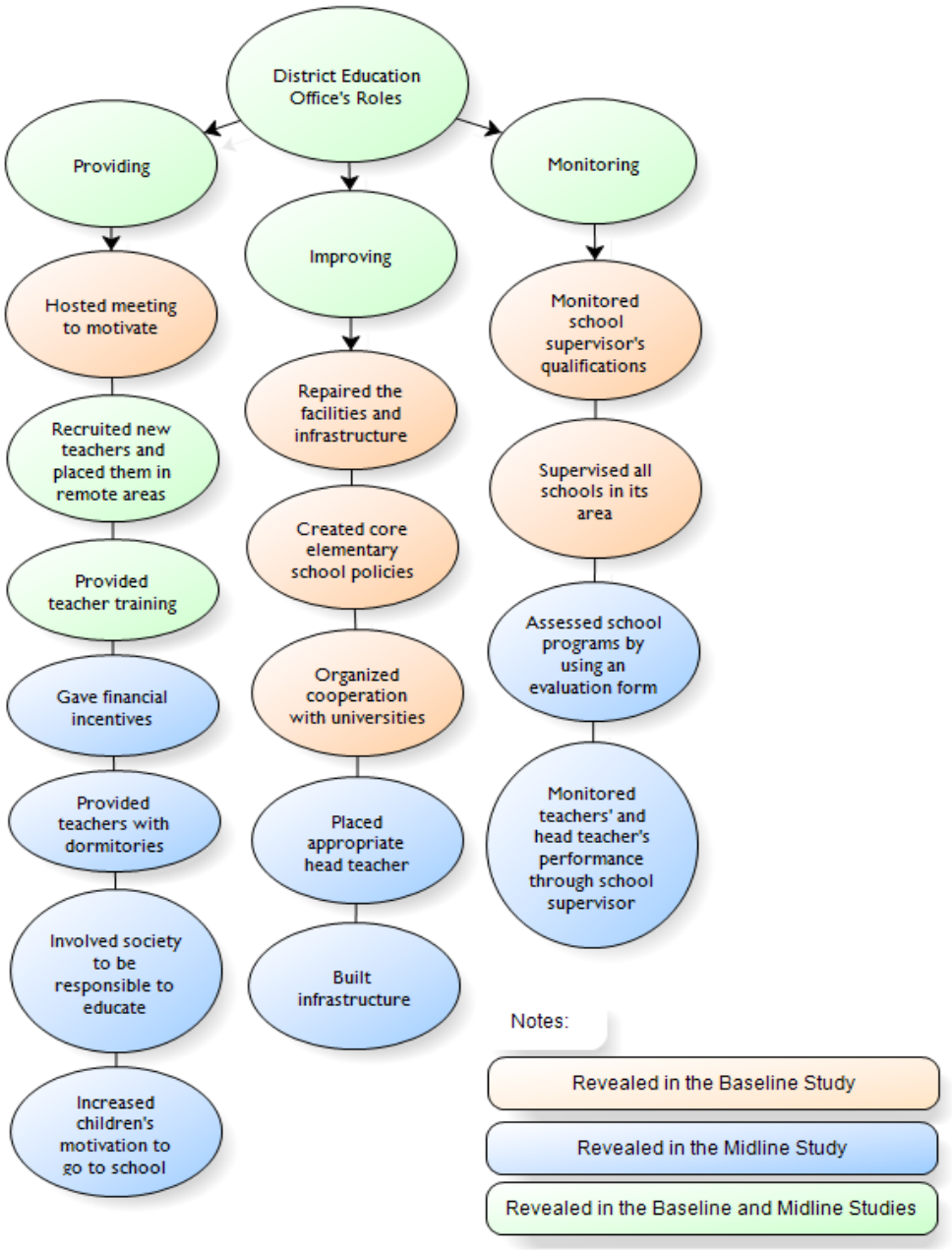
*"The presence of the UNICEF team for around 2 years gives us significant improvements, especially for our children. There is an education campaign for our children, and the parents are directly involved."*

## 5.6 The District Education Office (DEO)

### 5.6.1 District Education Office's Roles

In the baseline study, the District Education Office (DEO) had three roles such as providing, improving, and monitoring the education. In line with the roles of the baseline study, the DEO continued and expanded its role in the midline study. Figure 5.37 shows the district education office's roles.

**Figure 5.37: Model of the District Education Office's Roles**



To carry out the providing role in the baseline study, the DEO hosted a meeting to motivate school committee members and parents, provided teacher with training related to the curriculum, and recruited new teachers to be placed in rural and remote areas. Then, to do the same role in the midline study, the DEO provided training for teachers to develop their performance and become role models, gave financial incentives to teachers, placed teachers in rural and remote areas and provided dormitories, involved the society to be responsible for the education conditions in their areas, and increased children's motivation to go to school.

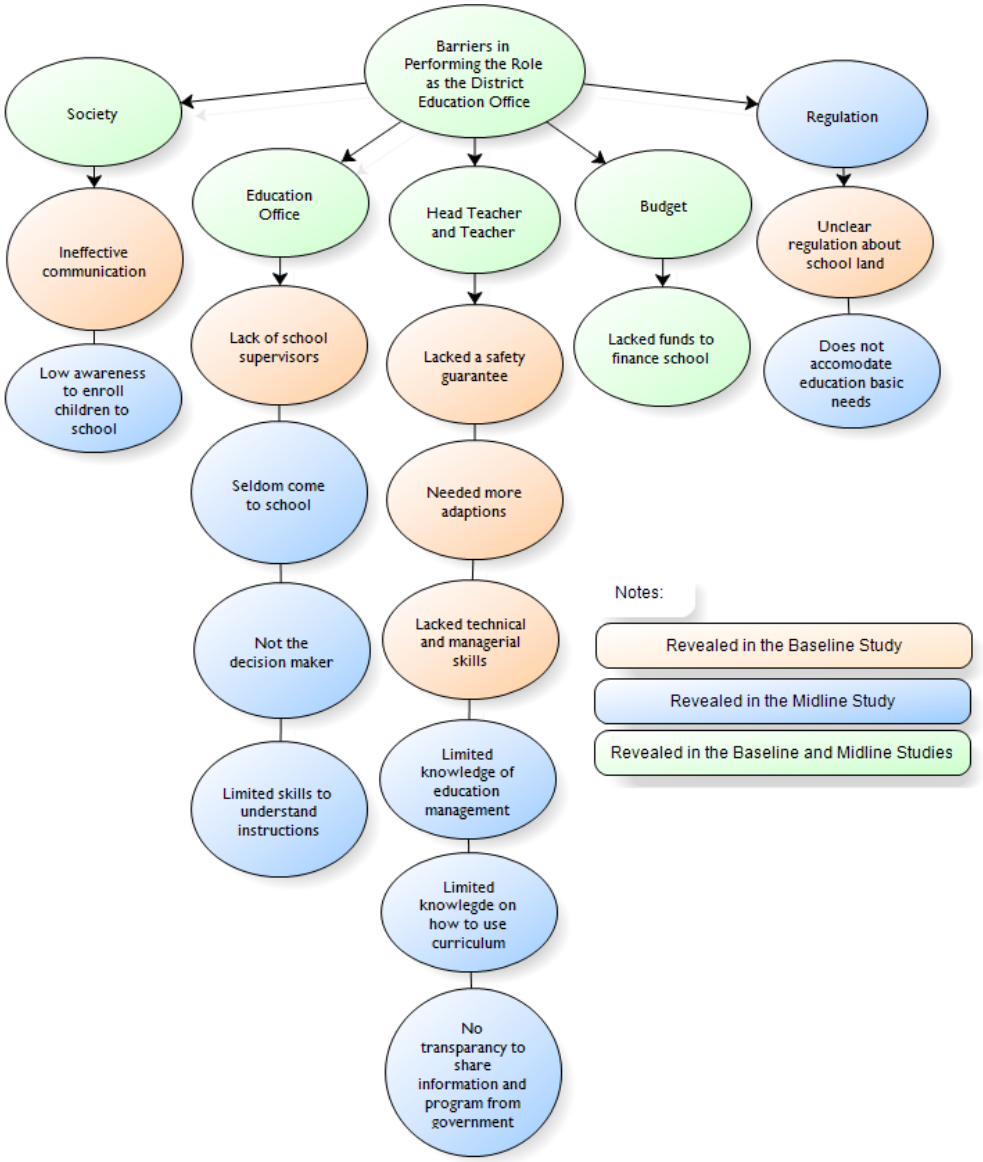
The second role was to improve the education. In improving the role in the baseline study, the DEO repaired the facilities and infrastructure, created core elementary school policies, and organized cooperation with universities in charge of the Bachelor Teaching Program in Rural and Remote Areas (Sarjana Mendidik di Daerah Terluar, Terdepan dan Tertinggal/SM3T) and UNICEF. Meanwhile, in the midline study, the DEO placed an experienced head teacher based on his or her experience to get better outcome and built infrastructure and schools in remote and rural areas to create equal education access for all children. The third role was monitoring. In doing the monitoring role in the baseline study, the DEO monitored school supervisor's qualifications and supervised all schools in its area. Then, in the midline study, the DEO expanded the monitoring role by supervising school programs from forms filled in by the head teacher and monitoring teachers' and head teachers' performance from the school supervisor.

> *"The district education office of Jayawijaya has a role to accommodate facilities and development, especially in rural and remote areas. Their main concern is to be able to fulfill the minimum standard service through the available funds, so that they know what the facilities & developments needed and how to provide access to the rural and remote areas." -* ***District Education Office employee from Jayawijaya***

### 5.6.2 Challenges in Performing the Role as the District Education Office

Both in the baseline and midline studies, the DEO faced five barriers, especially related with its own institution and school stakeholders. The five barriers were society, education office, head teacher and teacher, budget, and regulation. Figure 5.38 shows the barriers in performing the role as the DEO.

**Figure 5.38: Model of Barriers in Performing the Role as the DEO**




The first barrier was society. In the baseline study, ineffective communication with the society created confusion thus the school did not know who led the village. In the midline study, the society had low awareness to get their children to participate in basic education. The second barrier was from the education office itself. In the baseline study, the DEO had limited number of school supervisors to monitor issues faced by schools. Then, in the midline study, the DEO rarely came to school because of time and transportation matters. They were not the decision maker, so they could not handle and solve problems right away because they had no authority. Also, they had limited skills to understand instructions from the central government. As a result, it created a misperception thus the implementation was not in line with the central government's direction.

*"Sometimes education officials do not fully understand the instructions from the central government, and it creates a misconception by having their own perceptions. This leads to a problem in which the district education officials are not congruent with the central government education office and hinder the development in Jayawijaya. Another difficulty is that the policies made by the provincial education office or even central government do not accommodate the basic needs of education in Jayawijaya due to funding problems. Lastly, the society still has a minimum awareness to participate in enforcing basic education for the children of Jayawijaya." -* ***District Education Office employee from Jayawijaya***

The third barrier was the head teacher and teachers. In the baseline study, the head teacher and teachers are lacked of safety guarantee for teachers working in rural and remote areas, it require more adaptions toward the internal organizational structure, and lacked technical and managerial skills for the head teacher. In the midline study, the barrier from the head teacher and teachers still occur because they had little knowledge about education management, so the development progress was slow and stagnant. They did not fully understand the curriculum used to teach the children. The head teacher was not transparent to share the information and program from the government to the teachers, especially about funding. They also lacked teacher distribution, especially in remote and rural areas.

The fourth barrier was the budget. In the baseline study, the DEO have limited funds to finance organizations for elementary schools. Then, in the midline study, the DEO still have limited budget allocated for education, so it became the main barrier to develop and solve all the problems. The last barrier was regulations. In the baseline study, the DEO faced a problem related with regulations because the school was built on traditional land. In the midline study, the DEO had to face frequent changes in regulations. Moreover, both regulations from the central and provincial governments did not accommodate the basic needs of education, especially for funding.

### 5.6.3 The District Education Office's Opinion toward the UNICEF Program

According to the district education office, the UNICEF program could overcome literacy issues in basic education. In the past, students' reading and writing abilities were very poor. Most of them were illiterate due to many factors, such as lack of teachers and lack of motivation. Then, by having a facilitator from UNICEF, the teachers were always accompanied and guided by the facilitator, so their participation rate was also higher. The

facilitator from UNICEF created a better teaching and learning process that was impactful towards teaching reading and writing. Therefore, if previously the teachers in some schools were not active in teaching and learning process, they are now more active classes.

**Figure 5.39: UNICEF Program Banner in the School**

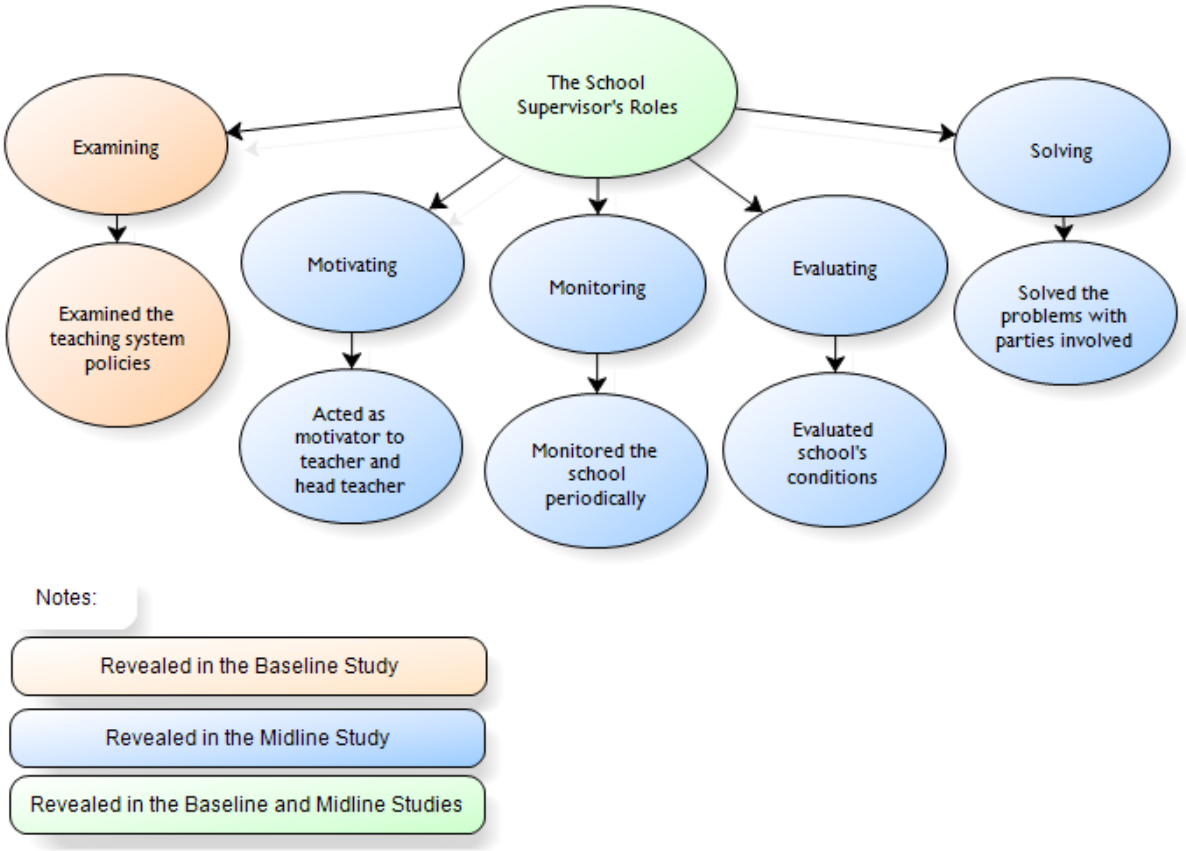

*"The students came to school but teachers were not coming. So they only came to school to play with their friends. As a result, the parents did not send their children to school. They preferred to ask their children to go to the forest with them. Then because the teacher was always available in the school and they made the parents understand that going to school was important, the participation rate of the community who supported education increased to 60%-70%."* - ***District Education Office employee from Jayapura***

## 5.7 The School Supervisor and Committee

### 5.7.1 The School Supervisor's Roles

The school supervisor acted as a bridge between the schools and district education office. They played significant roles in the schools' sustainability. Therefore, during the baseline and midline studies, they did five roles, such as examining, motivating, monitoring, evaluating, and solving. Figure 5.40 illustrate the school supervisor's roles.

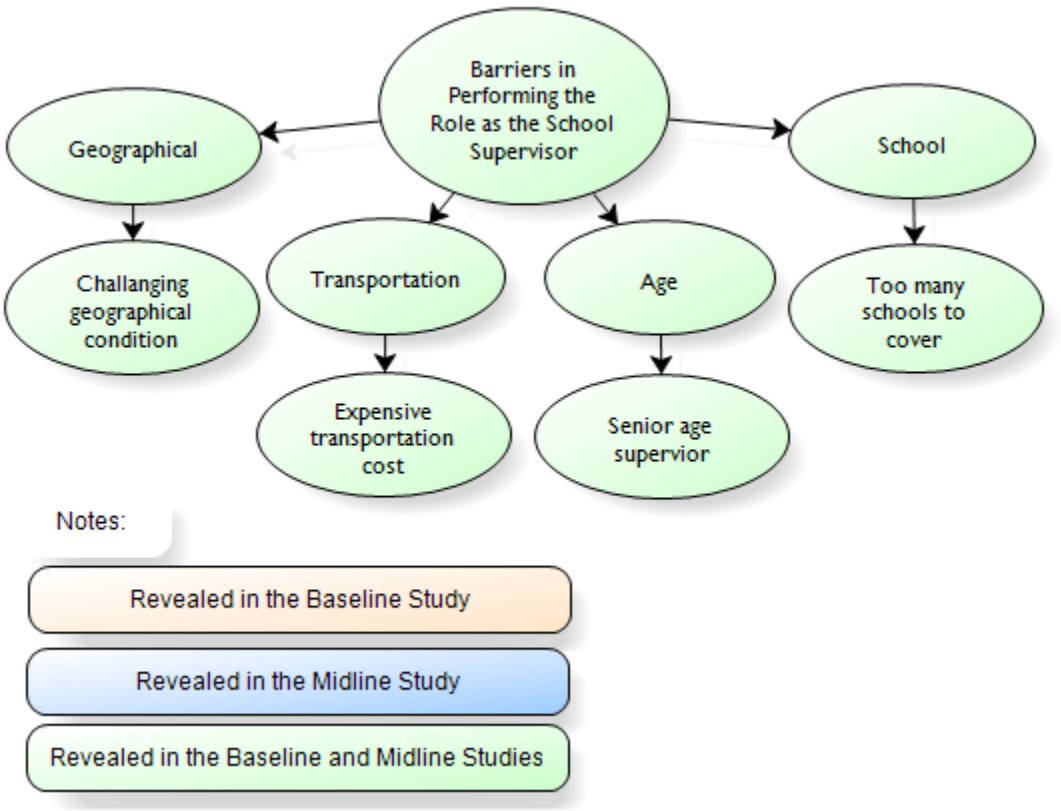
**Figure 5.40: Model of the School Supervisor's Roles**




In the baseline study, the school supervisor examining role is to examine how the policies in the teaching system were carried out, whether these policies worked well and helped to solve the emerging issues. In the midline study this roles were improving. The school supervisor had four new roles such as motivating, monitoring, evaluating, and solving. In the first role, motivating, the school supervisor acted as a motivator for the teacher and head teacher.

In the second role, monitoring, the school supervisor monitored the school periodically. In the third role, evaluating, the school supervisor evaluated schools' conditions, such as the management system, the teaching and learning process, and problems which occurred and its stakeholders by creating a report. Then, in the fourth role, the school supervisor solved the problems with the stakeholders involved, such as the school, community, and education office.

**Figure 5.41: Model of Barriers in Performing the Role as the School Supervisor**




As shown in Figure 5.41, both in the baseline and midline studies, the supervisor have to face some barriers to do the roles. The first barrier was the challenging geographical conditions. To reach the school, they need to pass mountain, lake, and forest. The second barrier was expensive transportation costs. Although the government provided a budget allocation, it was insufficient to cover the transportation costs. The third barrier was senior age supervisor that caused limitations in the physical condition and limited knowledge about how to use current technology. The last barrier was too many schools to cover. The

supervisors could not work properly because they have to monitor more schools than they were assigned.

### 5.7.2 School Supervisor's Performance

The performance of school supervisors in the baseline study was not that good. Some supervisors came to visit 2-3 times, while some never came. In general, most supervisors did not carry out their duties maximally. It was proven that no solution was given by the supervisor when the school was facing a problem. The supervisor's performance in the midline study actually was not different with the performance in the baseline study. Most of the supervisors even did not come to the school this year. Even worse, the school supervisor only came to get a stamp and signature for the SPD (official travel document). The reports were made only by observational results or by a teacher's report without visiting the location directly.

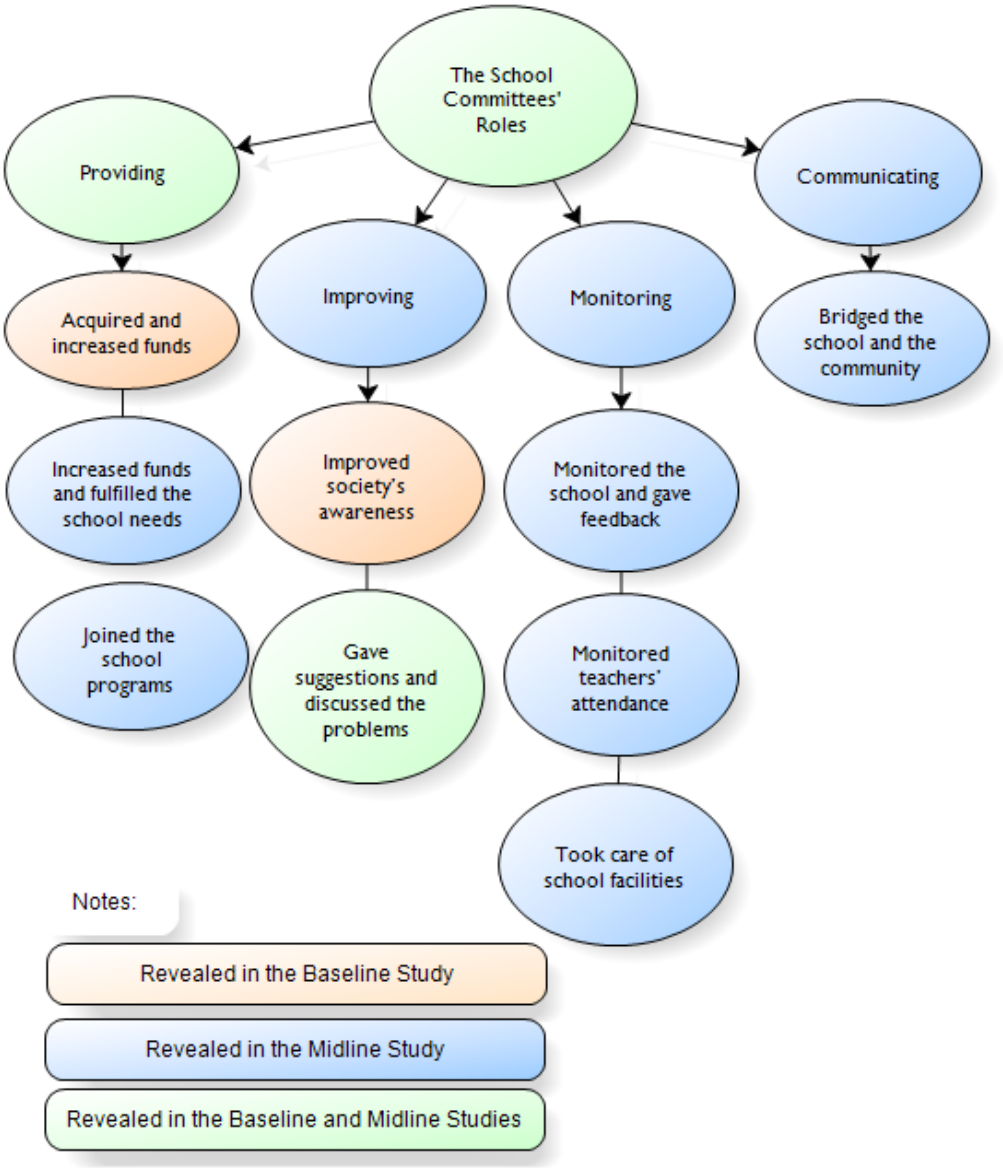
However, isolated schools in remote areas has benefited from supervisor visits, such as school facility improvements. Students received uniforms, shoes, stationary, and books, and teachers could join training to prepare for the teaching process. To improve the supervisors' quality, some efforts were done by the education office. The first was by recruiting new supervisors. The second was by giving more funds to visit the schools. The third was by pushing supervisors to conduct annual plans. The last was by sending them to join training held by NGO and UNICEF.

> *"Schools in remote areas in Timika are able to enjoy the support from school supervisors through the schools' facility improvements. Every year, schools receive uniforms, shoes, stationary, and books for the children, and teachers are also able to join the multi-training method. This method enables them to prepare materials for teaching together to be tested and taught to the children and not only to prepare the materials, but also the teachers are trained to measure children's ability in learning. These improvements would not have been achieved without school supervisors' reports and suggestions to the government."* ***– A school supervisor from Timika***

### 5.7.3 The School Committees' Roles

The school committees did four roles, such as providing, improving, monitoring, and communicating. The providing role was done by the school committees in the baseline study. Meanwhile, the other three roles were done in the midline study. Figure 5.42 shows the school committees' roles.

**Figure 5.42: The School Committees' Roles**




To perform their providing role in the baseline study, the committees acquired and increased funds to pay the teachers, class administrative needs, offices, and school buildings. In the midline study, although not all the schools had school committees, their roles were more expanded than in the baseline study. The committees' roles were not only in providing

role but also in improving, monitoring, and communicating roles. In the midline study, the committees did their providing role by increasing funds and fulfilling the school needs for the learning process and joining the school programs like painting the school building and creating a green school.

Then, in doing the improving role, the committees improved society's awareness toward the importance of education and gave suggestions and discussed the problem to find a solution. The monitoring role was done by monitoring the school and giving feedback for the school, monitoring teachers' attendance, and taking care of school facilities such as building fences. In undertaking their communicating role, the committees bridged the school and the community to improve the education.

Nevertheless, they faced two barriers while carrying their roles. The first barrier was money-oriented mindset. The committee was focusing on BOS disbursement every time the school had an event involving a school committee. The second barrier was limited time. They were busy with their own activities to earn money.

### 5.7.4 School Committees' Performance

In the midline study, the school committees' performance was varied. There were schools which thought that they had no significant support from the school committees in terms of school development. On the other side, some schools agreed that school committees gave benefits to the schools, especially to get electricity for the schools.

> *"In this school, there is a school committee that functions to involve parents in developing the school. Actually, the school committee's role is to bridge the school and parents in running the school's program. However, until now, the school committee does not give significant help toward the school's development. Perhaps, the school committee members are busy with their own activities so the committee is no longer active."* ***– A head teacher from Manokwari***

> *"Although the school committee was only formed a year ago, the committee really helps the school. One of their good contributions is getting electrical power for the school."* ***– A head teacher***

## 5.8 Comparison of Stakeholders' Roles in the Baseline and Midline Studies

After comparing the roles of all basic education's stakeholders in the baseline and midline studies, it is clear that the stakeholders enacted broader roles in the midline study. The stakeholders added many actions in completing their roles. Table 5.2 and Table 5.3 explain the improvement of school stakeholders' roles in a more structured way.

**Table 5.2: Comparison of Key Stakeholders' Roles in the Baseline and Midline Studies**

| Roles | Related to | Attributes | Baseline Study | Midline Study |
|---|---|---|---|---|
| Teacher | Teaching material | **Preparing** | Prepare teaching materials and supporting aids | Prepare teaching materials and supporting aids |
| | | **Coordinating** | None/not available | Coordinate with other teachers |
| | Students | **Guiding** | Lead and guide to be smart | Motivate absent students |
| | | | Remind students to study seriously | Conduct educational events |
| | | **Improving** | Share knowledge in the class teaching | Provide extra lessons for underperforming students |
| | | **Assessing** | Assign students with homework | Record summative and formative assessments |
| | | | Give rewards and punishment | Very few/very limited |
| | | **Disciplining** | Stop students who fight | Punish lazy students and those who violated the rules |
| | | | Punish lazy students and those violated the rules | Provide some good examples |
| | | **Showing Concern** | None/not available | Observe children's eating habits |
| | | **Visiting** | None/not available | Visit students' houses |

| Roles | Related to | Attributes | Baseline Study | Midline Study |
|---|---|---|---|---|
| **Head Teacher** | **Teacher** | **Training** | None | Sent teachers to join training |
| | | **Mentoring** | Give guidance to improve teachers' quality | Introduce creative teaching methods |
| | | | Not available | Became a role model and sharing center |
| | | | Not available | Give instructions and suggestions |
| | | **Monitoring** | Observe 1-3 times a month or 1-2 times per semester | Monitored students' progress |
| | | | Not available | Conduct official supervisions |
| | | | Not available | Advise teachers to improve their performance on a weekly or monthly basis |
| | | **Evaluating** | Evaluate using a supervision form | Evaluate using an observation result |
| | | | None | Involve teachers in a forum discussion or school meeting |
| | | **Communicating** | None | Established good engagement with the school supervisor |
| | | **Ensuring** | Not available | Fulfill teachers' needs |
| | | | Cannot be seen | Ensure teachers implementing the curriculum properly |
| | **Students** | **Ensuring** | Check the teachers' attendance rate and availability in the classroom | Check the teachers' attendance rate and availability in the classroom |
| | | | Replace the absent teacher | Replace the absent teacher |
| | | | Not available | Check students' attendance |
| | | | Not available | Ensure teachers used a proper teaching method |
| | | **Improving** | Act as motivator and give guidance to the students | Encourage teachers to enhance students' skills, knowledge, and character |
| | | | Not available | Persuade teachers and the community to motivate children |

| Roles | Related to | Attributes | Baseline Study | Midline Study |
|---|---|---|---|---|
| **Head Teacher** | | **Communicating** | Not available | Provide children's needs |
| | | | Not available | Provide additional programs and a remedial class |
| | **School** | **Managing and Developing** | Plan school activities and programs | Plan school activities and programs |
| | | | Manage school administrative and financial management; including BOS funds | Manage school administrative and financial management; including BOS funds |
| | | | Not available | Create school policies, vision, and mission |
| | | | Not available | Ensure the sufficiency of school facilities |
| | | | Not available | Kept updated with information from the district, province, and central government |
| | | | Not available | Prepare reports for the school supervisor |
| | | **Leading** | Not available | Guide and manage school stakeholders |
| | | | Not available | Report unsolved problems to the education office |
| | | **Interacting** | Not available | Attend regular meetings with the local educational office |
| | | | Not available | Build communication with the local community |

**Table 5.3: Comparison of Other Stakeholders' Roles in the Baseline and Midline Studies**

| Roles | Attributes | Baseline Study | Midline Study |
|---|---|---|---|
| **Community Leader** | **Helping** | Help in solving education issues in rural area schools | Help in solving education issues in rural area schools |
| | | Start to establish school buildings | Not available |
| | **Motivating** | Not available | Encourage society to send their children to school |
| | | Not available | Motivate parents to pay more attention to their children's education |
| | | Not available | Show an awareness on the importance of children's education |
| **Roles** | **Attributes** | **Baseline Study** | **Midline Study** |
| **Community Leader** | **Involving** | Not available | Participate in providing teachers' needs |
| | | Not available | Facilitate society to enhance education |
| | | Not available | Keep the school environment safe and organized |
| | | | |
| **District Education Office** | **Providing** | Hosted meetings to motivate | Recruit new teachers and placed them in remote areas |
| | | Recruit new teachers and placed them in remote areas | Provided teacher training |
| | | Provided teacher training | Give financial incentives |
| | | None | Provided teachers with dormitories |
| | | Not available | Involved society to be responsible for the education condition |
| | | Not available | Increased children's motivation to go to school |
| | **Improving** | Repair the facilities and infrastructure | Placed an appropriate head teacher |
| | | Create core elementary school policies | Built infrastructure |
| | | Organize cooperation with universities | Not available |
| | **Monitoring** | Monitor the school supervisor's qualifications | Assess school programs by using certain forms |
| | | Supervise all schools in its area | Monitor teachers' and head teacher's performance through the school supervisor |

| Roles | Attributes | Baseline Study | Midline Study |
|---|---|---|---|
| **School Supervisor** | **Examining** | Examine the teaching system policies | Not available |
| | **Motivating** | Not available | Act as a motivator for the teacher and head teacher |
| | **Monitoring** | Not available | Monitor the school periodically |
| | **Evaluating** | Not available | Evaluate the school's conditions |
| | **Solving** | Not available | Solve the problems with the parties involved |
| **School Committee** | **Providing** | Acquire and increase funds | Increase funds and fulfill the school needs |
| | | Not available | Join the school programs |
| | **Improving** | Improved society's awareness | Give suggestions and discuss the problems |
| | | Give suggestions and discuss the problems | N/A |
| | **Monitoring** | Not available | Monitor the school and give feedback |
| | | Not available | Monitor teachers' attendance |
| | | Not available | Maintain of the school facilities |
| | **Communicating** | Not available | Bridged the school and the community |

## 5.9 Factors Impacting the Basic Education Quality in Papuan Provinces

Finally, based on the whole findings from the baseline and midline studies, it was revealed that the quality of basic education in Papuan provinces has been improved. In the baseline study, it was revealed that the core problems that might hinder the quality of basic education in rural and remote areas of Papuan provinces are summarized in Figure 5.43. From the figure, it can be seen that all stakeholders contributed significantly to the low quality of basic education in the two provinces.

However, in the midline study, several improvements have been identified across stakeholders so that the quality of basic education in the two provinces has been enhanced, as shown in Figure 5.44.

**Figure 5.43: Factors Impacting the Basic Education Quality in Papuan Provinces: Baseline**

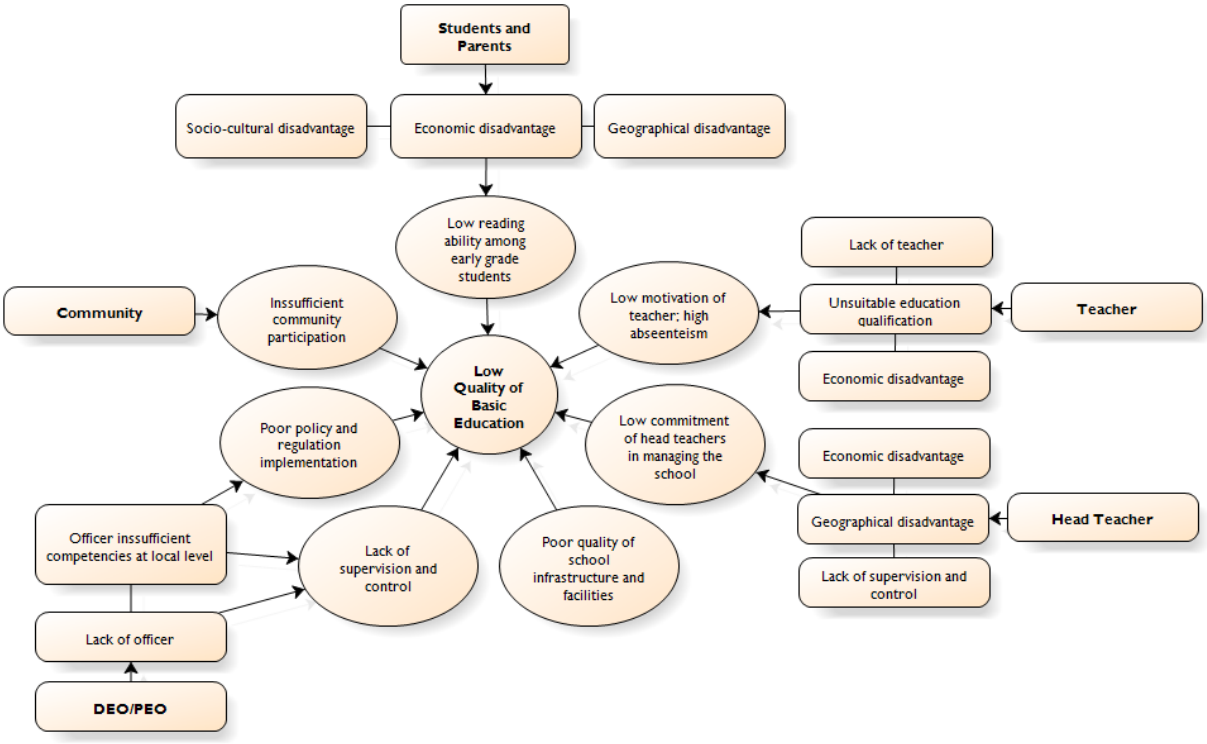
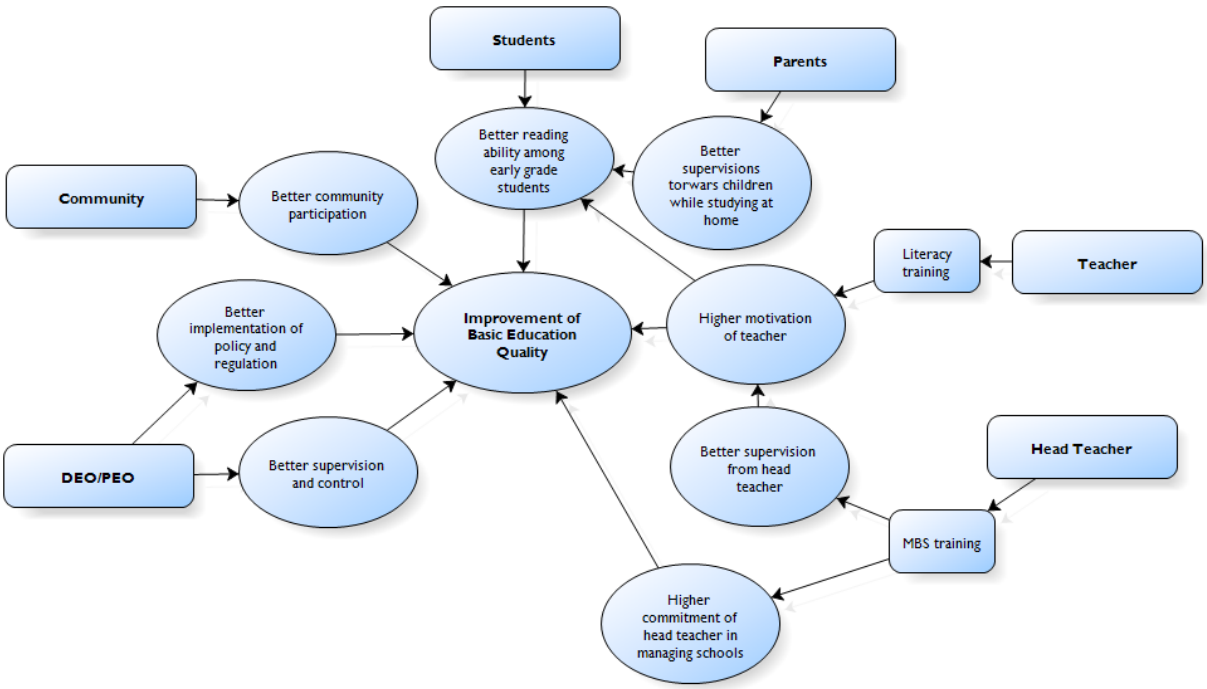



**Figure 5.44: Factors Impacting the Basic Education Quality in Papuan Provinces: Midline**



## 5.10 Barriers for Future Improvement

Although many improvements were made on the basic education has been performed by stakeholders, some barriers remained. After analyzing each stakeholder's barriers both in the baseline and midline studies, it was concluded that the factors that caused the barriers came from inside and outside the school. Table 5.4 and Table 5.5 describe the external and internal factors.

**Table 5.4: Internal School Barriers**

| Factors | No. | Internal School Barriers |
|---|---|---|
| **Teacher** | 1 | Imbalanced number of teachers with the number of students |
| | 2 | Limited understanding of K13 curriculum |
| | 3 | No continuous curriculum training |
| | 4 | Lack of safety guarantee especially for those who teach in remote and rural areas |
| | | |
| **Students** | 1 | Frequently absent |
| | 2 | Students' misbehavior |
| | 3 | Limited understanding about learning |
| | 4 | Low attendance due to laziness |
| | 5 | Not active during the class |
| | | |
| **Parents** | 1 | Threatened when children failed |
| | 2 | Low financial and education condition |
| | | |
| **School Committee** | 1 | Perception of the lack of facilities became a barrier in improving the education |
| | 2 | Money-oriented mindset |
| | | |
| **Basic Facilities** | 1 | Lack of classrooms |
| | 2 | Lack of teacher and students' books |
| | 3 | Limited audio visual aids |
| | 4 | Problems with the school's land |
| | 5 | Limited availability of learning materials |

**Table 5.5: External School Barriers**

| Factors | No. | External School Barriers |
|---|---|---|
| **Geographical** | 1 | Unavailable transportation |
| | 2 | Far, difficult, and dangerous school location |
| | 3 | Far location caused teachers to skip going to the school |
| | 4 | Schools were not available |
| | 5 | Long distance between islands caused expensive transportation |
| | 6 | Bad weather or strong winds |
| | 7 | Challenging geographical condition |
| | 8 | Expensive transportation cost |
| | | |
| **Regulation** | 1 | Unclear regulation about school land |
| | 2 | Senior age school supervisor |
| | 3 | Lack of school supervisors |
| | 4 | Too many schools to cover by school supervisors |
| | | |
| **Budget** | 1 | Limited amount of BOS support |
| | 2 | Limited funds to finance the school |
| | 3 | Limited budget to build facilities |
| | | |
| **Culture** | 1 | A girl was not allowed to go to school |
| | 2 | Nomadic family |
| | 3 | Bad influence from the surrounding environment |
| | 4 | Belief of Swanggi |
| | 5 | Tribes war |
| | | |
| **Economic Condition** | 1 | Poor family; children worked in the field, market, and shore (fishing) |
| | 2 | School committee had limited time; busy to earn money |
| | | |
| **Community** | 1 | Limited ability to build good connections |
| | 2 | Prioritizing individual livelihood and income |
| | 3 | Computer illiterate |
| | 4 | Lacked self-confidence |
| | 5 | Ineffective communication |
| | 6 | Low awareness to enroll children to school |
| | | |
| **Government** | 1 | District Education Office rarely came to school |
| | 2 | District Education Office had limited skills to perform their tasks |
| | 3 | Lack of socialization for government policies |
| | 4 | Lack of government accountability in the program |


# CONCLUSIONS AND IMPLICATIONS

# 6 CONCLUSIONS AND IMPLICATIONS

Overall, these midline study results reveal a significant increase in students' reading abilities amongst the intervention schools. First, based on the four reading ability categories, which were a combination of the oral reading fluency and reading comprehension sub-tasks, a reduction was seen in the number of students who could not read at all or also known as non-readers. In the baseline study, 62.24% of students were categorized in this category, and now this number was reduced to 26.52%. On the other hand, the percentage of students who could read and had an understanding about what they read had increased from 6% to 18%. Therefore, the majority (56%) of students from intervention schools are now categorized as readers with limited comprehension group. As seen from the type of intervention, either Model A or Model B was relatively having similar improvement.

Next, an analysis of the intervention schools revealed that an increase occurred in all EGRA sub-tasks. The seven EGRA sub-tasks tested which were letter-sound identification, non-word reading, oral reading fluency, reading comprehension, listening comprehension, oral vocabulary, and dictation showed significant positive changes in both intervention models. Among the various EGRA sub-tasks, the oral reading fluency results were the strongest indicator in evaluating students' reading ability. The results showed that students in Tanah Papua could read 7-8 more words compared to during the baseline study, where on average the students were only able to read 5 words per minute more. This ORF score shows a bigger increase in West Papua Province, for both Model A and Model B schools at each district. This conveys that Manokwari and Sorong had the biggest increase compared to other districts. In contrast, although during the baseline study Jayapura had the highest ORF score, the midline study showed that it had the lowest increase.

The EGRA results also reveal differences between intervention models at the same districts. Model A intervention schools were seen to be able to have higher increase in Manokwari, Jayawijaya, and Mimika. Meanwhile, the Model B intervention schools were able to have higher increase in Biak and Jayapura.

The finding that shows a significant increase in intervention school students' reading abilities was also supported by results which were demonstrated by non-intervention schools, which

in this study functioned as the control group at a specific level. The results found in non-intervention schools revealed that there was no significant increase in students' reading abilities. The results are consistent across each EGRA sub-task that has been measured. Across districts, there was no significant improvement shown. This emphasizes that without any intervention, students' reading abilities will not change.

Of course, many factors can influence improvements in students' reading abilities. One of the factors is students' backgrounds. The different students' conditions causes students to be in a relatively disadvantageous position compared to other students. As in the baseline study, factors such as parents' income rather significantly influenced students' reading abilities. For example, students whose parents earned sufficient income and understood the importance of education had better possibility to enroll their children into pre-school. This would have a positive contribution in students' reading performance at the elementary school level.

Besides that, parents' education and literacy level also significantly affected students' reading abilities. About 20% of students' parents from intervention schools could not read. However, when parents have an active role at home, such as reading books to their children, it will also be an important factor in increasing students' reading abilities.

Comparing what happens in the classroom level during the midline and the baseline study provides a clear picture as to why students now have better reading abilities. Various training and mentoring programs for teachers have provide various tangible results. Teachers are now teaching with better planned and structured approaches. Using RPP as guideline, teachers are now able to develop learning materials and demonstrative supplementary instruments which they prepared a day before. Teachers also have peer coordination to prepare the teaching materials. This reveals that the knowledge sharing process amongst teachers have improved. Significant changes have also been found in the number of teachers using RPP, where during the baseline study the majority of teachers did not even know how to develop one.

Visually, the classrooms have also changed. The number of teaching materials, supplementary learning instruments, and students' work being displayed on classroom walls

have made the classroom atmosphere richer in a literary aspect. This is also proven to be one of the factors which support improvements in students' reading abilities. Besides that, there are now more reading corners which facilitate students to have easier access to books.

The changes in the classroom are also related with the head teachers' role. Now, the head teachers are actively involved with the teachers and activities in the classroom. The head teachers look after the discipline aspect, but also regarding teaching materials and teaching methods. The monitoring aspect from head teachers has also improved by conducting classroom observations and routine evaluations with teachers, so that the teaching-learning process standards can be met.

Despite this, the head teachers admitted one of the problems were teacher absence in class. Obviously, no matter the effort that has been taken, if there is no teaching-learning process in class the expected results will not be maximal. During the data collection, approximately 86% of head teachers from Model A intervention schools stated that there were teachers who were not present the previous day, and 56% stated the same thing in Model B intervention schools. Students also admit that their teachers were not always present. Some parents also complained about this, which was one of the causes of their dissatisfaction towards the school. This midline study also revealed that teacher absence had a negative influence on students' reading abilities.

The intervention results are also related with the role of the District Education Office, which plays a rather significant role in supporting the intervention program to be successfully implemented. Assigning experienced head teachers has been very helpful in deploying head teachers who are committed in conducting the intervention program.

Another role of the District Education Office is monitoring, which is connected with the role of the school supervisors. Unfortunately, the monitoring role implemented by school supervisors has not changed much, and school visits have been declined. However, the District Education Office depend on reports from the school supervisors in providing school assistance. As for the assistance provided by the District Education Office, which can be in the form of facility improvements, have occurred in several schools as school buildings

improvement as well as sanitation facilities improvements. The rare school supervisor visits are due to factors related with school accessibility, such as transportation problems and the lack of school supervisors compared with the number of current schools.

This midline study also revealed an increase in the school committee role to support education process at school, although it did not evenly found in every school. There were schools which did not receive significant support, and there were also those that gained advantages from having school committees. The support given was not only in the form of material assistance such as support to provide electricity, painting school, building school fences, and fulfill other school needs, but also by increasing society's awareness regarding the importance of education. Now, monitoring aspects are also conducted by the school committees, such as monitoring the level of teacher absence.

This study also found that corporal punishments still occur both at home and at school. The kinds of physical punishments done by parents at home including slapping, and some even stated that they hit their children with object like rattan stick. Even worse, about 20% of parents gave their children corporal punishments for not performing well in school.

More than 50% of students in Tanah Papua stated that they had received physical punishments from their teachers at school. On the other hand, more than 25% of teachers also admit that they had given physical punishments, and 9% of them stated that they did it often, and even admit that it was one of the ways to discipline students.

Corporal punishments to students as discipline method have no positive effect on students' reading abilities. This midline study discovered that students whose teachers used a positive discipline approach actually had better reading abilities.

Despite the various challenges and obstacles faced in elementary school education in Tanah Papua, the UNICEF intervention program, which focuses on increasing students' literacy, has produced very significant results for both intervention models during its two years implementation.

In the future, the focus of this program will be related to sustainability. The support provided by various early education stakeholders is a positive sign for the program sustainability.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