

Analysis of The Implementation program Numeracy Literacy for Teacher Working Groups in Building a Literate Culture

Humairah*, Linaria Arofatul Ilmi Uswatun Khasanah, Daffa Maulana Riansyah
Universitas Muhammadiyah Lamongan, Indonesia

*Corresponding Author: humairah@umla.ac.id

Dikirim: 12-06-2024; Direvisi: 15-06-2024; Diterima: 16-06-2024

Abstract: This study aims to describe the analysis of the implementation programe numeracy literacy in teachers' working groups to build a culture of literacy in primary schools. This research used a qualitative method with a descriptive approach. The research subjects were six teachers who had attended literacy and numeracy training at MIM 16 Payaman and MIM 05 Palirangan. Data collection techniques were conducted using interviews, observation, and documentation. The results showed that the literacy and numeracy program in the teachers' working group can apply tactical implementation strategies to literacy and numeracy skills in the physical, socio-emotional, and academic domains so this is the starting point for creating a culture of literacy in schools. Teachers can also carry out mapping, advocacy, mentoring, monitoring, and evaluation of literacy and numeracy activities carried out at school. Teachers can carry out various activities to implement a culture of numeracy literacy at school and home, such as creating a reading corner in the classroom. Teachers can integrate literacy and numeracy skills through tasks carried out by students according to what is obtained from the teacher's working group.

Keywords: Literacy; Numeracy; Literate Culture

Abstrak: Penelitian ini bertujuan untuk menganalisis program literasi numerasi pada kelompok kerja guru untuk membangun budaya literasi di sekolah dasar. Penelitian ini menggunakan metode kualitatif dengan pendekatan deskriptif. Subjek penelitian adalah 6 orang guru yang telah mengikuti pelatihan literasi dan numerasi di MIM 16 Payaman dan MIM 05 Palirangan. Teknik pengumpulan data dilakukan dengan menggunakan wawancara, observasi dan dokumentasi. Hasil penelitian menunjukkan bahwa program literasi dan numerasi dalam kelompok kerja guru yaitu guru sudah mampu menerapkan strategi penerapan taktis terhadap kemampuan literasi dan numerasi baik pada ranah fisik, sosial emosional, dan akademik, sehingga hal inilah yang menjadi titik awal terciptanya budaya literasi di sekolah. Guru juga dapat melakukan pemetaan, advokasi, pendampingan, pemantauan dan evaluasi terhadap kegiatan literasi dan numerasi yang dilakukan di sekolah. guru dapat melakukan berbagai kegiatan untuk menerapkan budaya literasi numerasi di sekolah dan di rumah seperti membuat pojok baca di kelas, guru dapat memadukan keterampilan literasi dan numerasi melalui tugas-tugas yang dilakukan siswa sesuai dengan apa yang didapatkan dari kelompok kerja guru

Kata Kunci: Literasi; Numerasi; Budaya Literat

INTRODUCTION

Indonesia, as a country with abundant human resources, has the opportunity to produce quality generations through education (Humairah, 2022). In the context of the 21st century, literacy is not only the ability to read, write, and count (numeracy), but also the ability to read and write in the fields of science and technology, finance, culture, and citizenship. These fall under the umbrella of basic literacy and are

referred to as the dimensions of literacy in the "Roadmap for the National Literacy Movement" (MoEC, 2017). Preparing a generation of literates to face the challenges of the 21st century is the ultimate goal of the school literacy movement. In Indonesia, literacy and numeracy are now one of the main contents of the Minimum Competency Assessment (MCA), which replaces the national exam. In AKM, students' abilities are measured based on mathematical reasoning (numeracy) in addition to linguistic reasoning (literacy) and improved character education (Bao et al., 2020; Dantes & Handayani, 2021).

Since 2016, the government, through the Ministry of Education and Culture, has launched the National Literacy Movement Programme, which includes the School Literacy Movement (GLS), Family Literacy Movement, and Community Literacy Movement. The national literacy movement encourages the development of a reading culture, one of which can be realized through the implementation of GLS (Fasya & Amalia, 2015; Khakima et al., 2021). GLS is an effort or activity that involves the participation of the school community (students, teachers, principals, education personnel, school supervisors, school committees, parents/student supervisors), academics, publishers, media, the community (community leaders who can be, for example, the business world, etc.), and stakeholders under the coordination of the Directorate General of Primary and Secondary Education of the Ministry of Education and Culture (MoEC, 2019). In the context of GLS, literacy is understood not only as knowledge and skills in (1) reading and writing but also includes (2) numeracy, (3) science, (4) digital, (5) finance, (6) culture, and citizenship that lead to acceptable behavior in daily life (MoEC, 2019; Patriana et al., 2021).

The goal of the School Literacy Movement is to transform schools into literacy-cultured learning institutions and develop literacy-literacy citizens in schools in the areas of literacy, numeracy, science and engineering, digital, literacy culture, and citizenship. In its implementation, the School Literacy Movement targets the school ecosystem at the primary and secondary levels (Perdana & Suswandari, 2021). Duckworth & Brzeski (2015) believe that literacy activities in the classroom are an effective strategy for meaningful learning by developing and extending students' prior knowledge and experiences to shape and develop new knowledge so that literacy is practiced and applied by students throughout the life of Indonesian society. A reading literacy culture can be instilled in students starting in the lower grades of primary school. This is because a culture of reading literacy from an early age will have a major impact on encouraging students to be able to compete globally.

The national curriculum considers the school function as a common educational goal and the general requirements for developing students' reading and writing skills (Tavdgiridze, 2016). Reading skills are one of the six basic skills that must be central to education in order to be able to participate and work in globalization and regionalism in the 21st century. Reading literacy skills must continue to be introduced, instilled, and familiarized with the Indonesian people, especially by education stakeholders, because without good reading, writing, and numeracy skills, our lives will be limited and we may even face many obstacles. In addition, literacy and numeracy can be pursued to create learning communities that encourage literacy and numeracy behaviors by creating deep interactions between students, teachers, and learning resources.



METHOD

This research uses a qualitative approach with descriptive methods because it reveals empirical phenomena that are happening (Sugiyono, 2015). The research subjects used as the main data sources were 6 teachers from two schools who had received literacy and numeracy training in KKG, namely 3 teachers from MIM 16 Payaman and 3 teachers from MIM 05 Palirangan. For the research to be focused and conducted in-depth, the number of research subjects was limited, so it was necessary to ensure that the informants had the information needed by the researcher. The data collection techniques used were observation, interview, and documentation study.

RESULT AND DISCUSSION

Numeracy literacy skills, which are knowledge and skills closely related to understanding numbers, symbols, and analyzing quantitative information (graphs, tables, diagrams, etc.), are important for the current generation to have (Goos et al., 2020; Mallows & Litster, 2016). Strengthening students' numeracy literacy knowledge in primary schools can be done continuously and gradually, starting at the local government level, education unit level, and classroom level. Numeracy literacy skills can also be achieved through habituation, integration in learning, and development through extracurricular activities.

Students' literacy activities cannot be separated from the contribution of teachers, who must strive to be quality facilitators (Ministry of Education, Culture, 2021). Teachers are one of the factors determining the quality of education. If they have academic quality, competence, and expertise, it is expected that the education process will run optimally and provide competitive results. According to Mulyasa (2015), "teachers are also a real factor that determines the quality of education. The higher the qualifications, skills, and dedication of teachers, the more mature students will be academically, skillfully, emotionally, morally, and spiritually." Teachers and school policymakers must be role models in creating a culture of numeracy literacy in schools. Education, it is necessary to expand access at all levels of education, including improving the quality and management of education. Policies related to access to education make the Ministry of Education and Culture focus on opening access to education at all levels.

According to the Ministry of Education and Culture, to build a positive literacy culture in schools, schools can implement several strategies: 1) Create a physical environment that supports reading and writing activities; 2) Aim at a social and affective environment 3. Strive for the school to become a literacy learning environment.

Literacy activities in schools are carried out to foster students' love and culture of reading. Therefore, it is necessary to transform education and require every teacher to be more technologically competent and more creative in their learning activities (Ashri & Pujiastuti, 2021; Khairi et al., 2021). Schools must also provide sufficient time for students to learn to read, write, and count. One way is to conduct silent reading activities or have teachers read books aloud for 15 minutes before class starts. There are math installations or displays in the school garden that encourage students to play with math, for example: height gauges, room temperature thermometers, and interesting class numbers. To build the capacity of teachers and



staff, they should have the opportunity to attend training programs that improve their understanding of the literacy program and its implementation and application in the school. The development of a literacy culture in the physical and emotional environment must be accompanied by the implementation of learning strategies that strengthen students' literacy skills (Goos et al., 2020).

The strategy of strengthening literacy in the academic environment aims to make learning activities meaningful and interesting so that students can improve their literacy skills optimally (Ekowati et al., 2019). Under the leadership of school principals and accompanied by school supervisors, the strategy of strengthening the academic environment is carried out through:

1. Strategies for developing the capacity of teachers and education personnel;
2. Collaborating among school members to improve learning quality in an effective and organized manner in school literacy groups;
3. Appoint teachers or education personnel as literacy experts in charge of coordinating selection activities, preparing training reading materials and teacher professional development activities, preparing learners to receive numeracy literacy support, training teachers to apply numeracy literacy models and strategies, and so on;
4. Principals should also encourage a collaborative working environment among teachers through team teaching programs and project-based learning across subjects and grades;
5. Principals ensure literacy improvement activities (storytelling, idea generation, guided reading, reading aloud, themed writing, etc.) are planned and organized in all classes.

Ministry of Education and Culture (2019) Teachers should attend literacy and numeracy training to improve their skills in:

1. Understand and align core competencies into semester and yearly learning programs;
2. Reduce core skills to measurable indicators of learning objectives and skill acquisition;
3. Understand and be able to compile training books to enhance learning materials;
4. Books can be organized according to students' reading levels;
5. Ability to read aloud with good intonation and rhythm at the basic level;
6. The ability to model thinking to comprehend and analyze reading content and reflect and organize ideas during the writing process (think aloud);
7. Be able to choose appropriate reading strategies to improve students' ability to comprehend and analyze readings.

Implementing literacy and numeracy improvement in schools today requires coordination and collaboration among stakeholders, as described earlier. To achieve this, literacy and numeracy support teams need to be established in schools so that they can provide regular feedback on the quality of lessons. The learning management review, as the next step in student mapping, can take the form of the following mentoring strategies:

1. The principal appoints a team of teachers to teach according to the competency level of the students;
2. Teachers determine study time (at home and face-to-face);
3. Teachers select teaching materials and resources that match the students' skill grids;



4. Teachers plan how to communicate with parents;
5. Teachers manage students' learning activities at school.



Figure 1.Coordination with internal school parties

After completing the literacy and numeracy training in the teachers' working groups, teachers are able to apply tactical implementation strategies to literacy and numeracy skills in the physical, social-emotional, and academic domains, which is the starting point for creating a culture of literacy in schools. Teachers can also conduct mapping, advocacy, mentoring, monitoring, and evaluation of literacy and numeracy activities carried out in schools. Teachers can carry out various activities to implement a numeracy literacy culture at school and at home, such as creating a reading corner in the classroom. Teachers can integrate literacy and numeracy skills through tasks carried out by students according to what is obtained from the teachers' working group.

This activity, which aims to improve literacy and numeracy, will become a node of cooperation and aims to develop school members to become members of society as lifelong learners, so that it is expected that there will be an improvement in the quality of education, one of which indicators is the improvement of literacy and numeracy skills such as critical thinking, creativity, collaboration, and communication. The following is a picture of the results of the implementation of reading, writing, and counting activities carried out by teachers where each class has established a reading corner.



Figure 2. Reading Corner

For the smooth implementation of literacy, numeracy, and reading programs, schools must ensure that school members have the same awareness and understanding of the principles of reading and how to implement and manage literacy and numeracy programs in schools (Casmal & Andayani, 2022). All components of the school community must work together under the coordination of the school principal. In the school environment, teachers are expected to be able to ensure and develop a conducive and educational learning atmosphere that generates a spirit of learning in all school members. Teachers are the backbone that needs to be continuously strengthened and developed. Literacy and numeracy training activities led by teachers are expected to develop GLS and strengthen numeracy literacy knowledge in schools. The minimum tasks of the teachers' working group based on the stages are planning, implementing, reporting, and conducting assessments, as well as evaluating the implementation of GLS and strengthening numeracy literacy knowledge in their respective schools. In carrying out its duties, the teachers' working group must coordinate with class teachers, guidance and counseling (BK) teachers, principals, and staff, as well as with external parties (education office, library, other schools, parents, alumni, community network). Coordination with internal parties can be done weekly, depending on the situation and conditions of the school. Collaboration with parents can be done through contact books or scheduled meetings



Figure 3. Monitoring and evaluation of learning activities

The teachers' working group and stakeholders must sit together and take action, then communicate and coordinate with each other in carrying out tasks so that there is no overlap and no waste in carrying out tasks, so that a common goal can be achieved.

CONCLUSION

Improving students' literacy and numeracy requires the involvement of many stakeholders. Various stakeholders, ranging from classroom teachers, guidance and counseling (BK) teachers, school principals, and their staff, as well as external parties (education office, library, other schools, parents, alumni, and community networks), must ensure their participation. Make a positive contribution to student progress. This effort also strengthens all policy actors to jointly define their roles so



that effective training delivered by teachers can take place appropriately and create a culture of literacy in the school environment.

ACKNOWLEDGMENTS

Thank you to the Research and Community Service Institute (LPPM) Universitas Muhammadiyah Lamongan for providing funding for this research.

REFERENCES

- Burmeister Ashri, D. N., & Pujiastuti, H. (2021). Literasi Numerasi Pada Pembelajaran Tematik Terpadu Di Kelas Rendah Sekolah Dasar. *Jurnal Karya Pendidikan Matematika*, 8(2), 1–7.
- Bao, X., Qu, H., R, Z., & Hogan, T. (2020). Literacy loss in kindergarten children during COVID-19 school closures. *SocArXiv*, 1–16. <https://osf.io/preprints/socarxiv/gh4rv/>
- Casmat, M., & Andayani. (2022). Teacher's Profile as An Agent of Change in Preparing School And People at the New Normal Era. *Pedagogia Jurnal Ilmu Pendidikan*, 20(01), 15–20.
- Dantes, N., & Handayani, N. N. L. (2021). Peningkatan Literasi Sekolah Dan Literasi Numerasi Melalui Model Blanded Learning Pada Siswa Kelas V SD Kota Singaraja. *WIDYALAYA: Jurnal Ilmu Pendidikan*, 1(3), 269–283. <http://jurnal.ekadanta.org/index.php/Widyalaya/article/view/121>
- Duckworth, V., & Brzeski, A. (2015). Literacy, Learning and Identity: Challenging the Neo-Liberal Agenda Through Literacies, Everyday Practices and Empowerment. *Research in Post-Compulsory Education*, 20(1), 1–16. <https://doi.org/10.1080/13596748.2015.993861>
- Ekowati, D. W., Astuti, Y. P., Utami, I. W. P., Mukhlisina, I., & Suwandayani, B. I. (2019). Literasi Numerasi di SD Muhammadiyah. *ELSE (Elementary School Education Journal)*, 3(1), 93. <https://doi.org/10.30651/else.v3i1.2541>
- Fasya, M., & Amalia, F. (2015). Mimpi menjadi Bangsa Literat. *Akrab*, VI(2), 33–35.
- Goos, M., Geiger, V., Dole, S., Forgasz, H., & Bennison, A. (2020). Numeracy Across the Curriculum. In *Numeracy Across the Curriculum* (Issue June 2014). <https://doi.org/10.4324/9781003116585>
- Humairah, H., Zativalen, O., & Nurhasanah, N. (2022). Pengaruh Model Pembelajaran Kooperatif Tipe Picture and Picture Terhadap Hasil Belajar Siswa Matematika MI Muhammadiyah I Payaman. *Jurnal Jendela Pendidikan*, 2(01), 82-86.
- Kementrian Pendidikan, Kebudayaan,, D. (2019). Desain Induk Gerakan Literasi Sekolah (Direktorat Jenderal Pendidikan Dasar dan Menengah Kementrian Pendidikan dan Kebudayaan). <https://gln.kemdikbud.go.id/glnsite/wp-content/uploads/2019/07/Desain-Induk-Gerakan-Literasi-Sekolah-2019.pdf>
- Kementrian Pendidikan, Kebudayaan, R. dan T. (2021). Modul Literasi Numerasi Di Sekolah Dasar. Modul Literasi Numerasi Di Sekolah Dasar, 1, 22. [http://ditpsd.kemdikbud.go.id/upload/filemanager/2021/06/2 Modul Literasi Numerasi.pdf](http://ditpsd.kemdikbud.go.id/upload/filemanager/2021/06/2%20Modul%20Literasi%20Numerasi.pdf)
- Kementerian Pendidikan dan Kebudayaan. 2016. Gerakan Literasi Nasional Materi



- Pendukung Literasi Numerasi. Jakarta: Tim Gerakan Literasi Nasional.
- Khairi, A., Sasongko, R. N., & Kristiawan, M. (2021). Literacy of Lower Classes Students Primary School in the 2013 Curriculum during the Pandemic COVID-19. *Linguistic, English Education and Art (LEEA)*, 4(2), 375–386. <https://journal.ipm2kpe.or.id/index.php/LEEA/article/view/2237>
- Khakima, L. N., Zahra, S. F. A., Marlina, L., & Abdullah, Z. (2021). Penerapan Literasi Numerasi dalam Pembelajaran Siswa MI/SD. *Prosiding Seminar Nasional PGMI*, 775–791. <http://proceeding.iainpekalongan.ac.id/index.php/semair-775->
- Mallows, D., & Litster, J. (2016). Literacy as supply and demand. *Zeitschrift Für Weiterbildungsforschung*, 39(2), 171–182. <https://doi.org/10.1007/s40955-016-0061-1>
- Mulyasa, E. (2009). *Menjadi Guru Profesional*. Bandung: PT Remaja Rosdakarya
- Patriana, W. D., Sutama, S., & Wulandari, M. D. (2021). Pembudayaan Literasi Numerasi untuk Asesmen Kompetensi Minimum dalam Kegiatan Kurikuler pada Sekolah Dasar Muhammadiyah. *Jurnal Basicedu*, 5(5), 3413–3430.
- Perdana, R., & Suswandari, M. (2021). Literasi Numerasi Dalam Pembelajaran Tematik Siswa Kelas Atas Sekolah Dasar. *Absis: Mathematics Education Journal*, 3(1), 9. <https://doi.org/10.32585/absis.v3i1.1385>
- Sugiyono. 2015. *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung : ALFABETA.
- Tavdgiridze, L. (2016). Literacy Competence Formation of the Modern School. *Journal of Education and Practice*, 7(26), 107–110. <https://files.eric.ed.gov/fulltext/EJ1115864.pdf>
- Erfer, M., Schmidt-Jacob, S., & Eilks, I. (2013). German chemistry teachers' understanding of sustainability and education for sustainable development - An interview case study. *Chemistry Education Research and Practice*, 14(2), 169–176. <https://doi.org/10.1039/c2rp20137b>
- Shidiq, A. S., Permanasari, A., Hernani, H., & Hendayana, S. (2022). Contemporary Hybrid Laboratory Pedagogy : Construction of a Simple Spectrophotometer with STEM Project-Based Learning to Introduce Systems Thinking Skills. *Asia Pacific Journal of Educators and Education*, 37(2), 107–146.
- Yamtinah, S., Susanti VH, E., Saputro, S., Ariani, S. R. D., Shidiq, A. S., Sari, D. R., & Ilyasa, D. G. (2023). Augmented reality learning media based on tetrahedral chemical representation: How effective in learning process? *Eurasia Journal of Mathematics, Science and Technology Education*, 19(8), em2313. <https://doi.org/10.29333/ejmste/13436>

