



Education Innovations in East Java

A review and analysis of INOVASI's stocktake study

February 2019



INOVASI – Innovation for Indonesia’s School Children

Ratu Plaza Office Tower 19th Floor,

Jl. Jend. Sudirman Kav 9, Jakarta Pusat, 10270

Indonesia

Tel : (+6221) 720 6616 ext. 304

Fax : (+6221) 720 6616

<http://www.inovasi.or.id>

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This report was prepared by INOVASI education consultants Rina Arlianti and Sheldon Shaeffer.

The Governments of Australia and Indonesia are partnering through the Innovation for Indonesia’s School Children (INOVASI) program. INOVASI seeks to understand how to improve student learning outcomes in literacy and numeracy in diverse schools and districts across Indonesia. The first phase of the Program (AUD49 million) began in January 2016 and will continue until December 2019. Working with Indonesia’s Ministry of Education and Culture, INOVASI has formed partnerships with 12 districts in: West Nusa Tenggara; Sumba Island, East Nusa Tenggara; North Kalimantan; and East Java.

INOVASI is an Australia–Indonesia Government Partnership – Managed by Palladium.



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LIST OF ACRONYMS

| | |
|--------------|---|
| ABK | Children with special needs (<i>Anak berkebutuhan khusus</i>) |
| Adiwiyata | 'Green' (environmentally-sound) |
| AKIK | Active, creative, innovative, communicative (<i>Aktif, kreatif, inovatif, komunikatif</i>) |
| AKSI | Indonesian National Assessment of Student Competencies (<i>Asesmen Kompetensi Siswa Indonesia</i>) |
| APBD | Local government budget funds (<i>Anggaran Pendapatan dan Belanja Daerah</i>) |
| BAPPEDA | Agency for Regional Development Planning (in each province and district/city) (<i>Badan Perencanaan Pembangunan Daerah</i>) |
| BERMUTU | Better Education through Reformed Management and Universal Teacher Upgrading, a World Bank project |
| BOS | Schools' operational funds (<i>Bantuan operasional sekolah</i>) |
| BOSDA | Regional education operational funds (province and or district/city) (<i>Bantuan Operasional Sekolah Daerah</i>) |
| CfBT | Confederation of British Teachers |
| CLCC | Creating Learning Communities for Children |
| DBE | Decentralised Basic Education, a USAID project |
| DFAT | Department of Foreign Affairs and Trade, Australia |
| DPDR | Regional People's Representative Assembly – district legislature (<i>Dewan Perwakilan Rakyat Daerah</i>) |
| DPO | Disabled Persons' Organisation |
| EGRA | Early Grade Reading Assessment |
| GPK | Assistant teacher to help special needs children (<i>Guru pembantu khusus</i>) |
| INAP | Indonesian National Assessment Program |
| INOVASI | Innovation for Indonesian School Children |
| | Australia-Indonesia Partnership project |
| KKG | Teachers' working group (<i>Kelompok kerja guru</i>) |
| KKKS | School principals' working group (<i>Kelompok kerja kepala sekolah</i>) |
| LPMP | Agency for Educational Quality Assurance (<i>Lembaga Penjaminan Mutu Pendidikan</i>) |
| LP2KS | Agency for Development and Empowerment of School Principals (<i>Lembaga Pengembangan dan Pemberdayaan Kepala Sekolah</i>) |
| MBE | Managing Basic Education, a USAID project |
| M&E | Monitoring and evaluation |
| MEP | Mathematics Enhancement Program |
| MGT | Multi-grade teaching |
| MI | Islamic schools run by the Ministry of Religious Affairs at primary school level (<i>Madrasah Ibtidaiyah</i>) |
| MPL | Minimum proficiency levels |
| MoEC | Ministry of Education and Culture |
| NCTM | National Council of Teachers of Mathematics |
| NGO | Non-governmental organisation |
| OECD | Organisation for Economic Co-operation and Development |
| PAKEM | Active, creative, effective and joyful learning (<i>Pembelajaran aktif, kreatif, efektif dan menyenangkan</i>) |
| PAUD | Early childhood education centre (<i>Pendidikan anak usia dini</i>) |
| PDIA | Problem Driven Iterative Adaptation |
| Perbup | Regulation issued by the district head (<i>Peraturan Bupati</i>) |
| Permen | Regulation issued by the Minister (<i>Peraturan Menteri</i>) |
| Permendiknas | Regulation issued by the Minister of National Education (<i>Peraturan Menteri Pendidikan Nasional</i>) |
| Perpres | Regulation issued by the President (<i>Peraturan Presiden</i>) |
| PGRI | Association of Teachers of the Republic of Indonesia (<i>Persatuan Guru Republik Indonesia</i>) |
| PISA | Program for International Student Assessment |

| | |
|-----------|---|
| PNS | permanent, government employee (<i>Pegawai negeri sipil</i>) |
| PRIORITAS | Prioritizing Reform, Innovation, and Opportunities for Reaching Indonesia's Teachers, Administrators, and Students, a USAID project |
| SAKTI | One School, Three Innovations program (<i>Satu Sekolah Tiga Inovasi</i>) |
| SBM | School-based management |
| SD | Primary school (<i>Sekolah dasar</i>) |
| SDN | Public primary school (<i>Sekolah Dasar Negeri</i>) |
| SDIT | Integrated Islamic Primary School (<i>Sekolah Dasar Islam Terpadu</i>) |
| SI | Inclusive school (<i>Sekolah inklusif</i>) |
| SLB | Special Schools for special needs children (<i>Sekolah luar biasa</i>) |
| SMP | Junior secondary school (<i>Sekolah Menengah Pertama</i>) |
| TASS | Technical Assistance for Education System Strengthening program |
| UNESCO | United Nations Educational, Scientific, and Cultural Organisation |
| UNICEF | United Nations International Children's Emergency Fund |
| USAID | United States Agency for International Development |

EXECUTIVE SUMMARY

This stocktake study contributes to INOVASI's goal of improving student learning by providing stakeholders with a credible body of evidence of what does and does not work to improve the quality of schools and enhance learning outcomes for primary schoolchildren in East Java. The study illustrates INOVASI's responsive approach to development where local stakeholders, in this case in East Java, identify problems and find solutions (good practices and innovations) to improve learning outcomes. The study uses an approach based on problem-driven iterative adaptation (PDIA) whereby, rather than accepting solutions mandated from the top, those on the ground identify problems and work to solve these problems by following a step-by-step process that permits flexible learning and adaptation.

The specific purposes and scope of this study were: to document good practices and innovations in primary schools in East Java; understand the context in which they were developed (and, in some cases, how they were adapted and sustained); and provide recommendations to district and municipal education offices concerning how further to discover, nurture and then implement whatever works best to improve student outcomes, especially in literacy and numeracy.

East Java has the largest education system in Indonesia. At the primary level, more than 300,000 teachers educate 2.9 million primary school students in nearly 27,000 schools. A quarter of these schools are *madrasah ibtidaiyah* (Islamic primary schools) that are coordinated by the Ministry of Religious Affairs. With a net enrolment rate of 97 per cent at the primary level, school is accessible to virtually all primary school-age children. However, significant issues remain. The 2016 Assessment of Indonesian Student Competencies in Indonesia survey showed that less than 10 per cent of grade four students in East Java have good literacy skills, less than 4 per cent have good mathematics skills and only 1.3 per cent have a good understanding of science. In addition, there is wide variation in achievement between advantaged and disadvantaged districts.

The PDIA approach used as the framework for this study lends itself to qualitative research methods, using extensive observations, in-depth interviews and document analyses. The first steps in the first phase of the study were: (1) a literature review of central ministry and provincial government documents, donor reports, the results of innovations competitions and reports on social media; and (2) mapping out the promising practices. This resulted in a list of 165 candidate practices or innovations. These became the basis for visits by five teams to 38 districts and municipalities in the province in order to interview district office and school staff and other resource persons. From these visits, 27 practices from 16 districts and three municipalities were selected for further documentation by a team of researchers and a videographer.

In the second phase of the study, to enrich our understanding of the innovation process in East Java, the team reviewed the original list of 165 activities and selected another 30 for further review. As a result of this review, the team gathered additional information on ten out of these activities to determine if they should be included in the good practices featured by INOVASI. This also gave us further insight into the contexts, prerequisites and processes of designing, implementing, assessing, replicating and sustaining good practices and innovations in the province. Subsequent school visits involved lengthy discussions with school staff, supervisors, other relevant district office staff and school committee members, as well as observations of the school compound, facilities and classrooms. When our visit focused on classroom-based good practices, we also interviewed teachers and observed classes. This methodology was further enriched by visits to the East Java provincial education and religious affairs offices in Surabaya and ten district-level education offices – five of them in districts targeted for INOVASI activities in the province. These visits focused on the why and how of innovative processes, the challenges to these processes and ways to overcome them. As a result, we added eight innovations or good practices to the original 27 and these focused on: classrooms and teachers; community literacy; teacher support; district office or supervisor support; inclusive education and whole-school reform or management.

The literature review highlighted the following areas of concern and how they are reflected in the Indonesian context:

- **A comprehensive approach to change** – the need to go beyond piecemeal improvements (good practices) in school quality to changes in ‘mindset’ in schools and in the whole education system leading to fundamentally different ways of thinking and acting (innovations). Innovations are usually the result of strong leadership, empowered teachers and close collaboration within the whole school community. This leads to examples of what the PDIA approach terms ‘positive deviance’ – cases that defy expectations by excelling, often in conditions that are not conducive to excellence.
- **Literacy** – the need for a clear, systematic and stepwise approach to teaching literacy linked to children’s stages of development that allows teachers to adjust their methods to the needs and prior experiences of their students. Various studies have shown that many Indonesian students perform poorly in literacy, with large differences by region and socio-economic status. Furthermore, teachers’ training courses do not adequately cover the basic principles of literacy and the most appropriate teaching–learning approaches. This can lead to a lack of understanding of how students learn to read and what key components are necessary to teach literacy.
- **Numeracy** – the need for numeracy teaching to follow a logical sequence of understanding and skills development. The low performance of Indonesian students in various tests of numeracy indicates that this is not happening in schools. This is largely a result of inadequate training for new teachers, especially with regard to how students develop the concepts of number at the earliest levels and then move on to more advanced operations and analyses.
- **Inclusion** – the need for more focus on mitigating all the obstacles to educational access and quality that increase disparities in education between population groups almost everywhere in the world. Globally, the concept of inclusive education highlights issues such as gender, poverty, remoteness, language, ethnicity, caste and disability. In Indonesia and thus East Java, however, we tend to concentrate on disability with the result that we neglect the other obstacles to learning.

This study looked carefully at the processes involved in innovations or good practices – how they begin and how they are then implemented, assessed, replicated and sustained. In terms of **inspiration and design**, respondents suggested three ways that good practices can arise: as the result of charismatic, innovative leaders; through pragmatic problem-solving, often by a collective of teachers; or as the result of inputs from higher levels of the system or external agencies outside the system. **Implementation**, respondents said, is best done through strong support and collaboration, not only within the school community (including the school committee) but also with numerous other partners, including: the local legislature; district and village offices; school clusters and supervisors; and local community-based organisations. **Monitoring and evaluation** were considered of little importance to the respondents. The innovations reviewed had few clear objectives and even fewer identified indicators of success or failure. No baseline data had been collected prior to introducing the innovations and any evidence of success available was generally qualitative and anecdotal in nature. **Replication** of the good practices and innovations was usually limited to within the school of origin or through the monthly cluster meetings – and, at best, then replicated in some of the cluster schools. With regard to **sustainability**, examples of unsustained, fading and failed innovations were well known in many schools and offices but respondents made a number of suggestions on how to ensure innovations endure. These included: (1) ensuring the innovations work in a broader context; (2) developing a supportive structure and environment; (3) introducing accountability mechanisms; (4) encouraging continuous and collaborative innovation processes; (5) proving the impact of the innovations; (6) securing political support; (7) ensuring cultural appropriateness; and (8) garnering support from the school committee and the larger community.

A major portion of the study examined the impact of the innovations and good practices identified. Respondents often mentioned the impact on **student outcomes** – better reading habits, greater eagerness to learn, more confidence – but there was little concrete and quantitative evidence to confirm these claims. To the extent that the good practices focused on the classroom, the impact on **teacher outcomes** was clearer, especially when the activities involved explicit professional development for teachers. Where the activities focused on change to the entire institution, for example, when a new principal, in collaboration with teachers and the larger community, reversed the decline of a school and increased its quality and status, the impact was more obvious on **school improvement**.

In terms of the broader question of what works to improve outcomes in East Java, several themes emerged: (1) embedding innovation processes in long-term district education plans; (2) strong collaboration towards change among all school staff members and with the community; (3) early support for children with disabilities including those seen as slow learners; (4) the use of big books to teach reading; (5) promoting local book production and the habit of reading; (6) making practical, locally-developed activities and teaching materials or media available; (7) contracts between district offices and principals to promote school improvement; and (8) setting specific targets for new innovations for schools, clusters and district office units.

On the other hand, what does not seem to be working as well as needed includes: (1) monitoring and evaluation processes; (2) local government support; (3) programs to promote equity and inclusion; (4) a broader definition of inclusive education; and (5) promoting a mindset for reform.

One issue was to what extent the identified practices reflect INOVASI's commitment to gender, social inclusion and child protection. Girls do better than boys in academic achievement in East Java and every school visited affirmed this but such disparity was not considered a problem needing a solution. Interest in child protection was limited largely to children with special needs being bullied in regular schools. Using the narrow definition of inclusive education relating to children with disabilities, most of the district offices and schools were clearly aware of the issue and wanted to strengthen disability-inclusive education. This was especially the case in schools labelled as inclusive schools. However such inclusion was limited to children with autism and Down's syndrome, hyperactive children or 'slow learners'. Children with sensory and physical disabilities are usually enrolled in specialised schools.

The study finally identified challenges and gaps in knowledge with regard to school improvement and better learning outcomes. These included: (1) the lack of a common understanding of how to teach literacy and numeracy; (2) the absence of a strategic approach to developing, implementing, disseminating and sustaining better practices; (3) inconsistent professional support and supervision of teachers; (4) inconsistencies in the support provided by local governments; and (5) persistent inequity in access and achievement and the lack of interest in combatting it.

Conclusions

- The interest in developing better practices and promoting more comprehensive innovations appears high in East Java for a range of reasons cited by respondents and reported above.
- Many good practices are not incorporated into a comprehensive whole-school approach to innovation and change or into the process of scaling-out to more teachers, schools and districts.
- Teachers are not adequately trained during their pre-service training in a systematic, developmentally appropriate and sequenced approach to teaching literacy and numeracy, especially in the early grades.
- Although Indonesia has the components of a strong support system for school improvement and teacher development (district offices, clusters, supervisors), respondents felt that these components do not always work synergistically to provide such support.
- The processes of monitoring the implementation of new practices and innovations and evaluating their ultimate impact on school improvement and student outcomes are not well understood in East Java and not well implemented.
- The definition of inclusive education adopted in East Java is limited to disabilities and special needs and this can be linked to a general neglect of issues of inequity and disparities in access and quality among a range of disadvantaged groups.
- Although East Java schools and district offices are committed to disability-inclusive education, the implementation of the relevant presidential and ministerial regulations concerning inclusive education is inconsistent.

Recommendations for the Ministry of Education and Culture

- Seek ways to promote a greater interest in developing, implementing and disseminating good practices and more comprehensive innovations across the education system and to encourage district offices and their supervisors to identify and nurture these innovations.
- Pay more attention to the quality of early learning, especially with regard to literacy and numeracy.
- Develop systematic and comprehensive mechanisms to promote improvements in school quality. Among other things, the Ministry of Education and Culture (MoEC) should clarify the roles of the various actors focused on school quality at the local level and the relationships between them.
- Promote a stronger culture of monitoring and evaluation within the education system and all the way down to the level of the school.
- Adopt a broader definition of inclusive education – in line with ever more accepted international usage – to include all obstacles to access to and learning in school.
- Reinforce the regulations relevant to disability-inclusive education.
- Assess disparities and inequities in access to and quality of education more thoroughly and act more aggressively to reduce them.

Recommendations for district education offices

- Provide stronger, more consistent support to identify, develop and scale out good practices and innovations towards school improvement and better student outcomes.
- Promote greater collaboration among all actors involved in quality improvement.
- Provide more support and professional development, for both pre-service and in-service teachers who teach literacy and numeracy in the early grades.
- Pay greater attention to problems of inequity and other disparities.
- Continue to promote and develop disability-inclusive education.

1. BACKGROUND

1.1 Purpose, scope, objectives and importance of the stocktake study

This stocktake study¹ was designed to contribute to INOVASI'S goal of improving student learning by providing stakeholders with a credible body of evidence of what does and does not work to improve school quality and enhance learning outcomes for primary schoolchildren in East Java. The study illustrates INOVASI's responsive approach to development where local stakeholders, in this case in East Java, identify problems and solutions (good practices and innovations) leading to the improvement of these outcomes. In this regard, the study takes a problem-driven iterative adaptation (PDIA) approach in focusing not on solutions mandated from the top but rather on problems identified at the bottom and then solved via a step-by-step process that permits flexible learning and adaptation² (Andrews, Pritchett, Woolcock 2017).

The first phase of this comprehensive stocktake study in East Java probed shortlisted education innovations and promising practices by exploring, for example: how they are implemented; what contexts they occur in; how they affect teacher performance and/or student learning; the source of the practices; how sustainable they have been and why; whether they were scaled out; and where and how this happened. The second phase builds on evidence from this first phase to enrich our understanding of the innovation process in East Java and help identify specific good practices and innovations³ of potential use in future INOVASI activities.

Specifically, the purposes and scope of this study were to document good practices and innovations in primary schools in East Java, understand the context in which these have been developed (and, in some cases, adapted and sustained) and provide recommendations to district and municipal education offices concerning how further to discover and then implement whatever works best to improve student outcomes, especially in literacy and numeracy – INOVASI's fundamental program goal. The second phase was designed to review, analyze and synthesize a credible body of evidence for Indonesian educators to use, particularly in relation to the following issues embodied in INOVASI's January 2018 guiding program strategy:

- What changes in policy and practice work to improve student learning outcomes in Indonesia;
- To what extent good practices are or could be shared or scaled out to schools, districts and provincial or national stakeholders;
- Whether there is evidence of effective practices influencing district, provincial or national governments to adopt or adapt policies and practices to support learning outcomes.

The study also considered how far the practices we analysed reflect INOVASI's commitment to gender equality, social inclusion and child protection or whether they may require further attention in policy and practice. In the fieldwork, analysis, synthesis and reporting of this study, we therefore gave special consideration to these cross-cutting issues.

1.2 Context of the study

The world as a whole is suffering a serious crisis in education. The latest estimates from the UNESCO Institute of Statistics indicate that more than 617 million children and adolescents – some 60 per cent of the total age group – are not achieving minimum proficiency levels in reading and this includes 387 million children of primary school age (6–11 years). In East and Southeast Asia, 29 per cent of this age group (or 48 million

¹ The team was greatly assisted by the programmatic and logistical support supplied by Eko Purnomo and the INOVASI office in East Java. Some of the material for sections 1 and 2 is taken from the INOVASI project activity concept.

² Many of the actors who developed the innovations and good practices identified in this research unconsciously used this approach through analysing what was inefficient or ineffective in their schools and classrooms and then trying out new solutions to the problems found.

³ See a more detailed discussion in section 2.1 on the distinction between 'good practices' and 'innovations.'

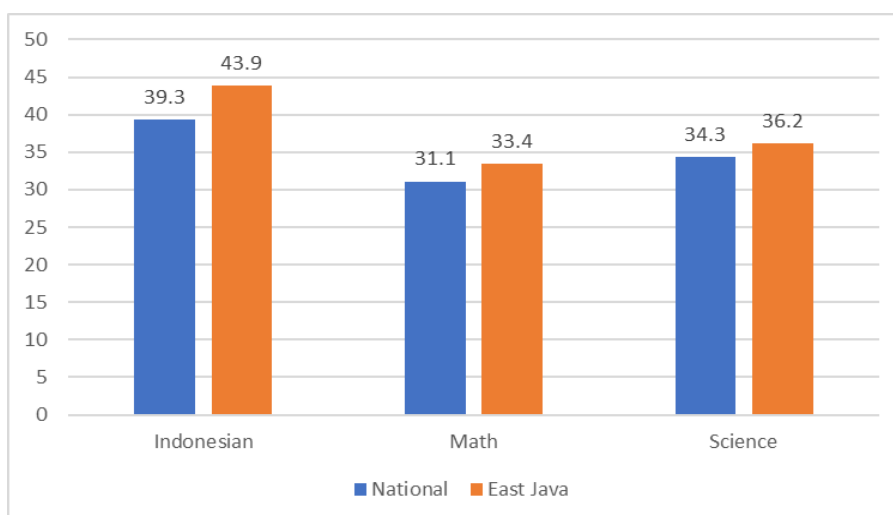
children) are similarly not achieving what they are expected to achieve (31 per cent among boys and 26 per cent among girls). More shocking is that 68 per cent of these children are in school and will complete the last grade of primary education without achieving the minimum proficiency levels. Another 20 per cent are in school but won't reach the final grade – with 60 per cent of this attrition taking place in the first three grades. In mathematics, 27 per cent of the age group are not reaching the relevant minimum proficiency levels (28 per cent boys and 27 per cent girls) (UNESCO Institute of Statistics 2017).

Many factors contributing to this situation derive from indicators that comprise the newly-developed 'End of Childhood Index 2018', including: the under-five mortality and stunting rates; the percentage of out-of-school children; the extent of child labour and adolescent marriage (and the adolescent birth rate); and the extent of forced displacement of children and child homicide. In this index, Indonesia ranks 105 out of 175 ranked countries and the percentage of children of primary and secondary school age out of school is recorded as 14.2 per cent (Geoghegan 2018: 31).

Interestingly, according to an Organisation for Economic Co-operation and Development (OECD) report, Indonesia had the second highest 'overall composite innovation index' from 2002 to 2011 (OECD 2014).⁴ Nevertheless, according to various international assessments of achievement (PISA, TIMSS) Indonesia's academic results are among the lowest out of the countries participating in these assessments (see section 2 for more details). Analysing this disparity between notional innovativeness and actual performance is one focus of this study.

East Java has the largest education system in Indonesia. At the primary level, more than 300,000 teachers educate 2.9 million primary school students in nearly 27,000 schools. A quarter of these schools are *madrasah ibtidaiyah* (Islamic primary schools) that are coordinated by the Ministry of Religious Affairs. With a 97 per cent net enrolment rate at the primary level, school is accessible to virtually all primary school-age children. However, significant issues remain. The 2016 Indonesian students' assessment (*Asesi Kompetensi Siswa Indonesia* – AKSI) showed that less than 10 per cent of grade four students in East Java have good literacy skills, less than 4 per cent have good mathematics skills and only 1.3 per cent have a good understanding of science. Despite these data, the quality of education in the province is higher than the national average (see Figure 1) although some districts have significantly lower education outcomes compared to others. Improving the overall quality of education while addressing these inequalities is therefore an agreed priority (MoEC undated).

Figure 1: Average scores in the assessment of Indonesian students' competencies, 2016



⁴ The indicators used, however, all focused on secondary education and were questionable – including criteria such as: public posting of secondary achievement data; more teacher observations of science classrooms; and more use of explanation in secondary mathematics – and apparently these were almost entirely assessed through self-reporting.

2. GENERAL METHODOLOGY AND APPROACH OF THE STUDY

The general methodology of the stocktake study was based on the demands of INOVASI's general program strategy already outlined: (1) identifying changes in policy and practice that work to improve student learning; (2) analysing the extent to which good practices are or could be shared or scaled out to schools, districts, and provincial and national stakeholders; and (3) assessing whether there is evidence of effective practices influencing district, provincial or national governments to adopt or adapt policies and practices to support learning outcomes.

The theoretical framework for the study is the problem-driven iterative adaptation (PDIA) approach. This approach does not focus on solutions designed from the top either by donors or from within the central ministry and usually linked to national issues but rather on problems identified at the bottom, by schools and local communities. These problems are then solved via a step-by-step process that permits flexible learning and adaptation (Andrews, Pritchett, Woolcock 2017). According to the PDIA approach, this process is critical to finding out what works to improve learning outcomes by identifying examples of good practices and innovations that can be scaled out and sustained, not by donor funding or central mandate but by local initiatives.

These good practices are often examples of what is termed 'positive deviance' – cases that defy expectations by excelling, often in conditions not at all conducive to excellence. Becoming a positive deviant thus involves moving from the domain of 'existing practice' (which is administratively and politically feasible but not necessarily new or technically sound) and from the domain of 'technically correct solutions' (that seek, in aggregate, the 'one best way' to do things) to the domain of positive deviance that 'relates to ideas which are already being acted upon in the change context (they are thus possible) and that yield positive results (solving the problem and thus being technically correct, but are not the norm (hence the idea of deviance)' (Andrews, Pritchett and Woolcock 2017: 174).

The PDIA approach lends itself to the qualitative research methods adopted by the stocktake study – including observations, in-depth interviews and document analyses. For the initial purpose of identifying 'positive deviants', the first steps in the first phase of the study were: (1) a literature review of central ministry and provincial government documents, donor reports, the results of competitions with regard to innovations and reports on social media; and (2) mapping out promising practices. This resulted in a list of 165 candidate practices or innovations. These became the basis for visits by five teams to 38 districts and municipalities in the province in order to interview district office and school staff and other resource persons. The innovations and practices were then assessed on their uniqueness, their use of the local context and on recommendations from the field research. The practices and innovations were then finally stratified to represent activities focusing on classroom quality, support to teachers or inclusive education as well as the different geographic or cultural divisions of the province. From this assessment, 27 practices from 16 districts and three municipalities were selected for further documentation by a team of researchers and a videographer. These practices can be categorised as follows:

- Fifteen deal largely with good teaching and learning practices with a focus on literacy and numeracy;
- Another nine focus on teacher support and professional development through broader innovations driven by principals, supervisors, clusters and district education offices; and
- Three are concerned with disability-inclusive schools.

Section 3.1 gives a more detailed and refined analysis of these categories.

The second phase of the study aimed to enrich our understanding of the innovation process in East Java. The second phase team members first reviewed the 27 innovations or good practices that we identified through the exhaustive stocktake exercise in the first phase. Given that the practices selected more often analysed

classroom or teacher activities rather than broader whole-school change, they then reviewed the original longer list of 165 activities to select another 30 for further review. These included cases of especially innovative approaches to inclusive education. Through follow-up discussions with the first phase team members and telephone interviews, the number of practices and innovations for review was eventually reduced to 15. Given time and resources limits, the study team decided to visit ten of these⁵ to gather additional information and determine if they should be included in the good practices featured by INOVASI. The visits would also enrich our understanding of the context, prerequisites and processes involved in designing, implementing, assessing, replicating and sustaining good practices and innovations in the province.

Lengthy discussions with school staff and supervisors, other relevant district office staff and school committee members took place during these visits as well as observations of the school compounds, facilities and classrooms. Where the focus of the visit was a classroom-based good practice, we also interviewed teachers and observed classes.

The second phase team visited the following schools or district offices:

- Integrated Islamic primary school (SDIT) Al Faizin (Sampang)
- SDN Mojokarang (Mojokerto district)
- SD Ar Rahman (Jombang)
- SDN Patihan (Madiun city)
- District education office, Madiun
- SDN Karangan (Ponorogo district)
- SDN Ploso (Pacitan district)
- SD Islam Al Azhaar (Tulungagung district)
- SD Alam Mutiara (Tulungagung district)
- SDN Kandangan (Kediri district)

The need for INOVASI to prioritise multi-grade teaching (MGT) emerged after the first phase of the stocktake. Therefore, in consultation with the DFAT-funded project, Technical Assistance for Education System Strengthening (TASS) and the Ministry of Education and Culture (MoEC), the team also visited SDN Suruh Wadang in Blitar district which was once one of the best multi-grade teaching programs in the district. (See Annex A and D for descriptions of the innovations or good practices observed in these schools.)

This methodology was further enriched by visits to the East Java provincial education and religious affairs offices in Surabaya and ten district-level education offices. Five of these offices are in districts targeted for INOVASI activities in the province.⁶ These visits focused on the why and how of innovative processes, challenges to these processes and ways to overcome them. (See Annex B for a full list of the institutions visited and the positions of the respondents met.)

Two interview schedules were developed for the second phase – one for the interviews at the district and provincial office level and one for the schools and programs visited (see Annex C for these schedules). Questions in these schedules were drawn largely from the content of the INOVASI program activity concept notes with some additional questions based on the particular interests of the team members and at the suggestion of INOVASI team members. The study team also reviewed documents and data relevant to the study from development agency reports, government documents (for example, guidelines and regulations), and district and school-level materials.

In the end, the second phase field data included the notes written by the two principal team members based on the questions from the interview schedules and extensive minutes of the discussions written by the team member from East Java. The three members of the study team shared and compared their assessments of

⁵ We also visited five of the 27 selected good practices located in Sumenep and the team leader visited one of the original good practices in Turen, Malang.

⁶ District offices in Sumenep, Sidoarjo, Pasuruan, Probolinggo, Blitar, Gresik and Sampang; and city offices in Batu, Malang and Madiun

the offices or schools visited after each day's activities and any issues of interest raised but not adequately covered in the original interview schedules were followed up in subsequent office and school visits. The team also consulted the often detailed descriptions of the original 165 good practices written by the first phase team members and their notes from interviews with district office staff. We derived the subsequent analysis of the data from these various sources and the resulting conclusions and recommendations from a largely qualitative process of synthesising these data, comparing results from across the offices and schools studied and drawing on the assessments and interpretations of the team members. Where possible, we included more quantitative findings but the small sample size of schools and districts and the inconsistency in who was interviewed in district offices (sometimes senior, sometimes more junior staff) made it difficult to draw more definitive quantitative conclusions.

2.1 Literature Review

A comprehensive approach to change

This study is particularly interested in literature that focuses on the need to go beyond piecemeal improvements in school quality – such as new classroom practices or cascade training of one teacher per school – to whole school community collaboration to achieve comprehensive and long-lasting change. Michael Fullan, a recognised authority on educational reform, deals with this issue by stressing the need for school principals to act as strong, visionary leaders, moving all staff and the wider community towards sustained quality improvement of the school and thus of students' learning outcomes:

'In essence, in dealing with their staff, principals should shift from focusing on one-to-one work with each individual teacher to leading collaborative work that improves quality throughout the faculty' (Fullan 2014).

Michael Fullan and his co-author Joanne Quinn subsequently describe a 'coherent culture as one that reflects a shared depth of understanding about the purpose and nature of work ... the only way to develop [this understanding] is by purposeful, specific interaction day after day by all members of the school' (Fullan and Quinn 2016). They see such collaborative work, whether in individual schools, via school clusters or even in the wider education system, as essential for better schools and better learning outcomes.

These ideas are reinforced by The Head Foundation policy brief on teacher education in Indonesia that concludes that:

'... effective change in teaching practices depends on sharing, collaboration and instructional leadership ... There is an undeniable gap between the required and current competencies of teachers and school leaders in implementing the new education policy successfully ...

... more emphasis needs to be given to the role of principals as instructional leaders; and in a context of constant change, they need to be prepared to lead change, not be led by it' (The HEAD Foundation 2018: 3, 7).

Andy Hargreaves expresses a similar view of the importance of comprehensive whole-school action for improved quality with a special focus on teacher collaboration:

'Teachers make a difference or not to students' learning, achievement and development by the impact they exert from working together, not just by the impact each may have on their own. This is the power of social capital in addition to human capital. Social capital encompasses the significant impact teachers have on their students through the accumulated effects of their professional practice. Social capital includes, among other activities, collaborative working; shared decision-making; joint teaching; collective responsibility for all students' success across grades, schools and classrooms; mutual trust and assistance; distributed leadership; data teams; professional learning communities; professional networks and federations; and many kinds of collaborative inquiry' (Hargreaves 2016).

The challenge for Indonesia in this regard, as one study indicated, is that:

‘... implementation of any education reform has proved difficult ... due to the mismatch between high demand for quality education on the one hand and low support, policy- and practice-wise, for quality teachers on the other’ (The HEAD Foundation 2018: 1).

This leads to a final note on terminology. There is considerable confusion about terms such as: ‘best practice’, ‘good practice’, ‘promising practice’ and ‘innovation’ (or ‘innovative practices’ or even ‘best practice in innovation’). The term ‘best practice’ is generally avoided now because it is difficult to assess what is best (and compared to what) in any given context. The PDIA framework uses the term ‘best fit’ but good practice and innovation are often used interchangeably. For INOVASI, the important issue, as cited in the PDIA approach embedded in INOVASI’s theory of change, is to find out ‘what works’ – whether it is a more narrowly focused good practice or a broader, more comprehensive innovation. And what works is best derived from an approach that adapts and iterates at the local level, not satisfied with what is only technically sound or politically possible but rather seeking the best fit in the local context.

Michael Fullan makes the following distinction in an interview with Manoj Chandra Handa:

‘If an institution only does improvement [better practices], it misses innovations. If an institution only moves from innovation to innovation, it doesn’t consolidate. So it is the “both ... and” that have to be brought together ... I said: We’ve worked on literacy, we’ve worked on numeracy, we’ve worked on high school improvement and retention, and we need to continue to work on that. We need to do the continuous improvement that’s necessary to keep going to raise the bar and close the gap. But I also said: As we do that, we should add a small number of, and here’s a good phrase, *focused innovations*. So, focused innovations on *deepening the learning* – not just literacy and numeracy, but critical thinking, collaboration, creativity, communication, citizenship, and character development. That is deeper. It’s innovative, it’s really pushing forward’ (Fullan 2015).

This implies that we need to see good practices as essential building blocks to more comprehensive innovations and that the latter should lead ultimately to changes in mindset – fundamentally different ways of thinking and acting leading to deeper learning. Thus the word ‘innovation’ in this report will be reserved for activities that appear to have the potential for more fundamental institutional and systemic change.

Literacy

Becoming literate – in any language but especially in our mother tongue and in the official language(s) of our country – is a prerequisite both for lifelong learning and for participating fully in our own culture and in our country’s social and economic life. Although there are many theories about child development and numerous methods for teaching literacy, one issue is clear: children should not be pushed to become literate prematurely or be made to read and write before they are ready, able and willing to do so. Prematurely pushing children to become literate risks turning naturally ‘slow learners’ into permanent illiterates. Rather, children must be led and assisted in mastering a range of pre-literacy or pre-reading skills, moving at their own pace and preferably based in their home environment or in pre-school programs, until they are prepared for literacy in the fuller sense of the term in the early grades of primary education. Ensuring that these early grades build on what children already know and can do in a logical and systematic way is a challenge in Indonesia, as in many other countries (Roskos *et al.* 2009; Segal *et al.* 2006; RTI International 2009).

This slower, more gradual approach to becoming literate is not popular for several reasons:

- Parents want their children to become literate at an early age (to many, preferably in English, skipping over literacy in their mother tongue and even in the national language);
- Pre-school and early grade teachers feel compelled to follow suit, pushed by parents and by unrealistic standards set by their ministry’s policymakers, planners and curriculum developers;

- Curriculum developers and textbook writers, many of whom publish their own materials on the market, encourage the flooding of pre-schools and primary schools with workbooks, texts, and paper and pencil tasks rather than activity sheets and more enriching art, storytelling and writing activities.
- Politicians and policymakers gain traction by introducing measures that voters assume will ensure better education – the faster mastery of literacy and the earlier introduction of English.

But more and more surveys around the world – whether secondary-level international comparisons, such as the Trends in International Mathematics and Science Study (TIMSS) and the Program for International Student Assessment (PISA) or national surveys, such as the Early Grade Reading Assessments (EGRA) – demonstrate that current approaches to literacy learning are not working (Gove and Cvelich 2010). Studies from around the world reveal shocking results with large percentages of primary schoolchildren at various grade levels being unable to read stories aimed at much lower grades. In an EGRA study in Timor Leste, for example, 40 per cent of children were not able to read a single word at the end of grade two (Amorin, Stevens and Gacougnolle 2010).

Several models describe the building blocks needed for full literacy at certain ages. One that serves as the basis for many of the early grade reading assessments shows the various stages of reading development with the first three stages focusing on the foundation (or pre-literacy) skills of learning to read (Rosko *et al.* 2009).

Table 1: Stages of reading development

| Stage | Name | The learner |
|---|-------------------------------------|---|
| Stage 0: Birth to grade one | Emergent literacy | Gains control of oral language, relies heavily on pictures in text, pretends to read, recognises rhyme |
| Stage 1: Beginning of grade one | Decoding | Grows aware of sound/symbol relationships, focuses on printed symbols, attempts to break the code of print, uses decoding to understand words |
| Stage 2: End of grade one to the end of grade three | Confirmation and fluency | Develops fluency in reading. recognises patterns in words, checks for meaning and sense, knows a stock of sight words |
| Stage 3: Grade four to grade eight | Learning the new (single viewpoint) | Uses reading as a tool for learning, applies reading strategies, expands reading vocabulary, comprehends from a singular point of view |
| Stage 4: Secondary and early higher education | Multiple viewpoints | Analyses what is read, reacts critically to texts, deals with layers of facts and concepts, comprehends from multiple points of view |
| Stage 5: Late higher education and graduate school | A Worldview | Develops a well-rounded view of the world through reading |

However, there is no universally agreed upon list by age groups of exactly what kind of pre-literacy skills children should master by stage 0 – emergent literacy. This is specific both to the child and to the language being learned. Literacy in Chinese characters is gained at a different pace from literacy in the Thai alphabet

(where there are no spaces between words in a sentence) or in the Roman alphabet (as used in Indonesia) and differences even exist among languages using the Roman alphabet, depending, for example, on the predictability of how a word is pronounced based on how it is spelled. Nevertheless there is general agreement concerning the building blocks essential for literacy development – building blocks that can begin to be put in place from an early age. According to Segal *et al.*, these include:

1. *A meaningful knowledge base* is developed through having many varied experiences with materials, places, and people. Vocabulary building occurs through talking about those experiences.
2. *Oral language* is developed through participating in back and forth communication, individual conversations and group discussions. Looking at books and having books read aloud to children also promotes their oral language skills.
3. *Phonological awareness* is developed through noticing sounds, playing with the sounds of words and noticing what sound a word begins with. Children enjoy rhyming words in songs and stories.
4. *Print awareness* is developed as children notice the usefulness of print. This occurs as they experiment with making notes and scribbling and as they find a word in a line of print.
5. *Alphabet knowledge* is developed as children recognise and name letters and name the letter that represents a certain sound' (Segal *et al.* 2006).

Based on these skills of emergent literacy, children then move into stage 1 (decoding) and then stage 2 (confirmation and fluency).

Related to these stages of literacy development, the National Reading Panel of the United States highlighted five essential steps of effective reading instruction, as follows:

1. *Phonemic awareness* – instruction designed to teach children the ability to focus on, manipulate and break apart the sounds (or phonemes) in words;
2. *Phonics* – instruction designed to help readers understand and apply the knowledge of how letters are linked to sounds (phonemes) to form letter-sound (grapheme-phoneme) correspondences and spelling patterns;
3. *Fluency* – instruction, primarily through guided oral reading, that reinforces the ability to read orally with speed, accuracy and proper expression;
4. *Vocabulary* – instruction, both explicit and implicit, in order to increase both oral and print knowledge of words, a critical component of comprehension and reading; and
5. *Comprehension* – instruction that teaches students to actively engage with and derive meaning from the texts they read' (RTI International 2009: 12).

Moving too quickly – for example, towards reading complete words before establishing phonemic awareness or pushing for greater fluency at the expense of comprehension – means that many children will be forced to skip some of these steps and never gain the essential literacy skills they need. This situation can lead to the low achievement scores in literacy found in Indonesia.

The problem in many countries is that children are not systematically taught pre-literacy or emergent literacy skills in pre-schools or in the early grades, especially in a way and at a pace that are realistic and achievable for many young children. Expectations are high that children will become literate on their own, often evident in the congested curriculums found even in the early grades. However, the steps and teaching methods required to do this – following a child's natural development, scaffolding children's learning from what they know and not giving up on children if they don't learn as quickly as their peers – are lacking.

Notwithstanding this, research also indicates that:

‘... effective literacy teaching in the early years of school is about far more than “method”. Rather it is a complex mix of philosophy, method, teacher development and school culture. Effective teachers are clearly eclectic in their approach to literacy teaching and dichotomies, such as phonics-oriented versions and literature-based approaches, seem not to be relevant to real-life contexts’ (Hall, Larson and March 2003: 11-12).

The Australian Committee for the National Inquiry into the Teaching of Literacy reached a similar conclusion:

‘Teachers require a range of teaching strategies upon which they can draw that meet the developmental and learning needs of individual children. The provision of such a repertoire of teaching skills is a challenge for teacher education institutions and to practising teachers as they assume responsibility for the literacy learning of a whole class’ (Rowe 2005).

In summary, teaching literacy should both follow a clear and systematic approach to the steps required for literacy mastery and ensure that teachers are able to adjust the methods they use to the needs and prior experience of individual students.

Indonesia demonstrates the problems that arise when the process of becoming literate does not follow a systematic, logical sequence linked to the stages of child development. In essence, teachers do not have adequate knowledge and skills relating to the mechanics of teaching reading and comprehension and to how literacy skills develop and should be introduced.⁷ The introduction to the basic principles of literacy during pre-service teacher education is limited, clarity as to the approaches most appropriate for Indonesian children is lacking and support from headteachers and supervisors is minimal since they may have even less knowledge of these principles than the teachers. This situation is far from the recommended principles and stages listed above. This conclusion is reinforced by the findings from a recent pilot project on teacher quality:

‘The literacy materials were developed as a result of the findings from the *Guru Baik* pilot, which generally concluded that while teachers could identify problems in teaching literacy, they did not have the knowledge or skills to determine effective solutions which were beyond superficial one-off lesson plans addressing one competency. This, in itself, we could see would not be enough to equip them with the understandings they need to address the literacy needs of their students. We changed their mindsets and opened their eyes to joyful learning, but the real task of improving literacy and numeracy scores of students through better teaching was not being achieved. They couldn’t find solutions because they lack the understanding of how students learn to read and the key components of reading which are necessary to teach’ (Personal communication, Lynne Hill, INOVASI’s education technical manager, 21 September 2018).

The data from several assessments in Indonesia reinforce these problems with the mastery of literacy.

Program for International Student Assessment (PISA) – The PISA 2016 definition of literacy is as follows: ‘Reading literacy is understanding, using, evaluating, reflecting on and engaging with texts in order to achieve one’s goals, to develop one’s knowledge and potential and to participate in society’ (PISA 2016: 11). Indonesia showed an absolute gain in PISA scores between 2003 and 2015 (18 points in literacy) and was one of the few countries in the world to do so. This was also despite a large increase in the number of students from lower-income families entering schools. But its rank in regard to other countries is still problematic. In PISA 2015, Indonesia was ranked last out of 44 countries and its average reading score went from 402 in 2009 to 396 in 2012 and then 397 in 2015. In addition, more than 70 per cent of the Indonesian participants answered no questions correctly in the test whereas in Vietnam, a quarter of the questions were answered correctly by

⁷ The ‘main competencies and curriculum structure for the education of primary school teachers’ for the Open University in Indonesia (the institution that awards the most bachelor’s degrees in teaching in the country) provides seven out of its 89 credits for developing ‘main competencies’ specifically related to teaching and learning Indonesian (with a few other credits for Indonesian ‘skills’ and Indonesian language and literature) and the remaining credits cover research, information technology, school management, science, social science, mathematics, arts, sports, environmental education, statistics, English, and human rights, with no credits allocated to ‘supportive competencies’.

70 per cent of the students (World Bank 2018). Overall, 75.7 per cent of students tested in Indonesia were considered 'low performers'.⁸

Indonesian national assessment of students' competencies (AKSI) – This assessment, based on a nationally representative sample tested in 2016, indicated that 46.83 per cent of children tested were considered not satisfactory (*kurang*) in reading. In East Java, the rate was 30.76 per cent, considerably better than both Central Java (41.73 per cent) and West Java (42.8 per cent) (MoEC undated).

Early Grade Reading Assessment (EGRA) – This national study in 2014 concluded that while students in Indonesia performed relatively well on the EGRA test compared to some other countries, over half of the children tested at the end of grade two were not reading fluently with comprehension (they were not ready for grade three). Another quarter could read with comprehension but not fluently and almost 6 per cent were classified as 'non-readers':

'More specifically, students did well on the majority of the subtasks, with the best performance coming from letter/name identification, oral passage reading, reading comprehension and oral vocabulary. On average, students appeared to have a more difficult time with the non-word reading and dictation subtasks. The biggest issues, however, came with initial-sound discrimination and listening comprehension' (Stern, Dubeck and Dick 2018).

There were also serious discrepancies by region with 16 per cent of tested children (at the end of grade two) in Papua-Maluku being considered ready for grade three (and 22 per cent considered as non-readers) compared to 50 per cent ready for grade three on Java-Bali (and only 3 per cent non-readers – the other categories were fluent, instructional and beginner).

In its final summary, the EGRA report, following the literature discussed above, also promotes flexible strategies appropriate to the Indonesian context:

'To respond to the varied learner profiles, classroom instruction should respond accordingly. Relevant to each profile is an instructional focus that would help to advance a student from one profile to the next. Specifically, the instruction for the non-readers should focus on letter knowledge because they have limited knowledge with this foundational skill. For beginners, who can correctly identify most letters they see, their instruction should focus on developing their decoding skills. The Instructional students are slow and accurate decoders but they are not yet automatic. To remedy this, they need practice reading grade-level texts which will contribute to them becoming fluent readers. The fluent readers are already automatic and accurate in their word recognition skills but they need support with vocabulary and comprehension skills to improve their understanding of the text. And finally, the grade three ready students are fluent and understand the grade two level texts. They should have interaction with varied texts of increasing levels of complexity' (Stern, Dubeck and Dick 2018: 67)

Thus, although achievement in literacy for Indonesian students is not as poor as in some other countries, measurements show that serious problems exist, especially in terms of disparities between different population groups relating to the students' socio-economic status, geographic location and the 'richness' of the school. One study found, for example, that the top 10 per cent of teachers are concentrated only in a few particular schools that we can then consider as 'good schools' (Rarasati *et al.* 2017: 27). Although not confirmed by quantitative data, the respondents questioned in this study clearly described the difference in quality between urban/large schools and rural/ small schools. They also admitted that a large percentage of inter-school competitions held every year favoured large/urban over small/rural schools and that the large/urban schools had a considerably higher percentage of permanent civil servant teachers (with considerable experience and tenure in their profession) while the rural/small schools often had a preponderance of less experienced, less contractually stable and less well-paid contract teachers.

We need to add that the broader definition of the 'literacies' required for life in the 21st century – information technology, citizenship, financial, environmental, scientific and cultural literacy – had received little attention in the schools visited in East Java. Only one school was a high quality 'reference school' (*sekolah rujukan*) in

⁸ The reasons for the EGRA results appearing considerably better than those of PISA and AKSI are not clear.

Sumenep and staff could recite this literacy list and describe how they were attempting to handle this broader definition.

Numeracy

In the 21st century individuals need a high level of mathematical proficiency to participate as usefully employed and well-informed citizens. Such participation derives from being able to understand major concepts of science and technology as well as many areas of the social sciences. Mathematical proficiency is especially important in a competitive global economic environment that changes constantly. We need skills in mathematics to navigate the rapidly developing landscape of available jobs and those of us who have such skills are likely to have more career opportunities and options than those who don't. However, difficulties persist in developing an education system that successfully supports all students in reaching their mathematical potential. There are several reasons for these difficulties in both developed and developing countries, including: a lack of teachers with adequate mathematical knowledge; too many part-time teaching staff; and education systems that emphasise testing rather than teaching (Burghes 2012). As with literacy, these challenges can also partly be assigned to the lack of strategic and systematic approaches to teaching mathematics.

Various frameworks have been developed to analyse the most appropriate way to teach mathematics. One framework – not yet implemented in Indonesia – uses the 'Principles and standards for school mathematics' developed by the National Council of Teachers of Mathematics (NCTM) (Van de Walle, Karp and Bay-Williams 2012). The council was founded in 1920 and is presently the largest mathematics education organisation in the United States and Canada.

In this framework, six principles are fundamental to high-quality mathematics education: equity; content/curriculum; teaching; learning; assessment; and technology. In the learning principle, for example, students must learn mathematics with understanding by using their experience and prior knowledge to build new knowledge and skills. Not only do students require computational skills in mathematics but also the ability to think and reason mathematically in order to solve new problems and learn new ideas that they will encounter in the future.

The five content standards in this framework are: numbers and operations; algebra; geometry; measurement; and data analysis and probability. According to this framework, each content standard must be included in the mathematics curriculum in primary school and adapted with regard to their depth and complexity for each grade. For example, numbers and operations should be basically taught from pre-school to grade five with the emphasis on this area gradually reducing in the higher grades.

The five process standards include: problem solving; reasoning and proof; communication; connections; and representations. These refer to the mathematical processes through which students learn, acquire and use mathematical knowledge. They are described in more detail in Table 2 (Van de Walle, Karp and Bay-Williams 2012).

Table 2: The five process standards in gaining mathematical knowledge

| The five process standards from <i>Principles and standards for school mathematics</i> | |
|--|---|
| Problem-solving standard Instructional programs from pre-kindergarten through to grade 12 should enable all students to: | <ul style="list-style-type: none"> • Build new mathematical knowledge through problem solving • Solve problems that arise in mathematics and in other contexts • Apply and adapt a variety of appropriate strategies to solve problems • Monitor and reflect on the process of mathematical problem solving |
| Reasoning and proof standard | <ul style="list-style-type: none"> • Recognise reasoning and proof as fundamental aspects of mathematics |

| | |
|---|--|
| Instructional programs from pre-kindergarten through to grade 12 should enable all students to: | <ul style="list-style-type: none"> • Make and investigate mathematical conjectures • Develop and evaluate mathematical arguments and proofs • Select and use various types of reasoning and methods of proof |
| Communication standard Instructional programs from pre-kindergarten through to grade 12 should enable all students to: | <ul style="list-style-type: none"> • Organise and consolidate their mathematical thinking through communication • Communicate their mathematical thinking coherently and clearly to peers, teachers and others • Analyse and evaluate the mathematical thinking and strategies of others • Use the language of mathematics to express mathematical ideas precisely |
| Connections standard Instructional programs from pre-kindergarten through to grade 12 should enable all students to: | <ul style="list-style-type: none"> • Recognise and use connections among mathematical ideas • Understand how mathematical ideas interconnect and build on one another to produce a coherent whole • Recognise and apply mathematics in contexts outside of mathematics |
| Representation standard Instructional programs from pre-kindergarten through to grade 12 should enable all students to: | <ul style="list-style-type: none"> • Create and use representations to organise, record and communicate mathematical ideas • Select, apply and translate among mathematical representations to solve problems • Use representations to model and interpret physical, social and mathematical phenomena |

Amanda Morin gives another example of the sequence of learning in mathematics and argues that the content of mathematics in primary school should take into consideration how people build mathematics skills throughout their lives. Children develop at their own rate but generally we expect them all to reach certain milestones. For example, the milestones for first and second grade students are: predict what comes next in a pattern and create their own patterns; know the difference between two and three dimensional shapes and name the basic ones (cubes, cones, cylinders); count to 100 by ones, twos, fives and tens; write and recognise the numerals 0 to 100 and the words for numbers from one to twenty; do basic addition and subtraction up to 20; read and create a simple bar graph; and recognise and know the value of coins (Morin undated).

More practical lessons have been learned from three countries that demonstrate excellence in mathematics teaching: Hungary, Japan and Finland. Each of these countries has its own good practices in mathematics teaching and learning. From their research on these practices, the CfBT Education Trust developed the Mathematics Enhancement Program (MEP) (Burghes 2012). Among the key recommendations for better teaching in mathematics in the program are:

1. *Lessons are well prepared* – the teacher knows the lesson plan well and is aware of any problems or difficulties that might occur, resources are at hand and students have their own resources on their desks.
2. *Whole-class interactive teaching predominates, with planned intervals of individual and paired work* – all students are on task and all are given the chance to demonstrate, answer, explain, suggest, criticise, and so on.
3. *A friendly, non-confrontational atmosphere exists where students learn from and support others* – mistakes are used as teaching points, encouragement is given to students who have difficulty and praise given when deserved.
4. *A spiral curriculum is used with continual revision* – learning by heart is encouraged with progression in small, logical steps.

5. *Visualisation and manipulatives are used in the early years and with less able students* – contexts are related to students' experiences where possible.
6. *Exercises are reviewed interactively with the whole class at the same time* – students give the solutions, not the teacher, and rest of the class agrees or disagrees or suggests alternative solutions. Students are expected to correct their own work.

As with literacy, assessments of mathematics achievement in Indonesia generally give unsatisfactory results, as the following figures show:

- In TIMSS 2015, more than 70 per cent of the students tested 'low' or 'below low' in relation to their expected scores (TASS undated).
- AKSI 2016 reported that 77.13 per cent of the students tested achieved an unsatisfactory score in mathematics (MoEC undated).
- Similar to the AKSI score, PISA in 2012 showed that 75.7 per cent of the students tested were low performers and in the PISA in 2015 this percentage had decreased only slightly to 74.6 per cent. Large differences were also shown to exist between children from rich families and children from poor families. However, the absolute scores improved 11 points from 2012 to 2015 and from 2003 to 2015, Indonesia achieved the highest rate of improvement in mathematics (27 points) among all countries participating. This is likely to be partly due to the low baseline scores that the improvement was measured against. But even with that rate of increase, it has been estimated that it will take at least another 50 years to achieve the current levels of the OECD countries (World Bank *et al.* 2018).

Also, in the 2018 junior secondary school national examination, the average score for mathematics decreased from 50.31 in 2017 to 43.32 and in science from 52.18 to 47.32. MoEC believes that these decreases were caused largely by the introduction of more computer-based (and therefore 'less corrupt') examination procedures. In 2017 schools that had a 'low integrity index' (a greater possibility of tampering with the results) scored 73.05 but among these schools that used computers in 2018 (with less opportunity for tampering), the score was much lower at 45.04. The scores of schools that used computers in both 2017 and 2018 changed less than 0.4 points (TASS undated).

Many of the problems discussed concerning the teaching of literacy also undermine the teaching of numeracy.⁹ There is inadequate systematic training in mathematics in pre-service teacher education and thus, even if teachers have mastered the subject matter (and data indicates many have not), they lack an understanding of how students develop concepts of numbers at the earliest levels and then move from these concepts into more advanced operations and analyses.

Inclusion

Social inclusion is increasingly considered one of the major challenges of global development as disparities of various kinds are growing in many countries of the world. This is most easily seen in economic terms with changes in the Gini coefficient. Increases in this coefficient signal increases in disparities and Indonesia has a higher rate than any other country of Southeast Asia (IMF 2016). But there is also more concern about other usually excluded or marginalised groups, for example: ethnic minorities whose languages and cultures are under threat; girls and women who continue to face active discrimination with regard to advantages and opportunities often available to boys and men; migrants and refugees escaping from economic privation, political persecution, conflict or natural disasters; people from rural, remote and underdeveloped regions; and people with disabilities or special needs.

⁹ The 'main competencies and curriculum structure for the education of primary school teachers' for the Open University includes courses in: the basic concepts of primary school mathematics; mathematics education in the early grades; mathematics education in the higher grades; and the development of mathematics education for primary school. However the total credits for these courses is nine out of 89 credits provided for developing 'main competencies' and no credits in mathematics are found in the remaining 56 devoted to 'supportive competencies'.

'Inclusive education' is seen as one way to mitigate these disparities. This term was initially used by disabled persons' organisations (DPO) that advocated for a more comprehensive approach to education for children with disabilities. The terms 'mainstreaming' and 'integration' seemed to promote physical inclusion in a classroom but not necessarily inclusion in learning. While many children with disabilities were enrolled in regular schools rather than special schools these organizations saw this as a cosmetic response to their demands for education. The system did little to ensure that these children had the necessary facilities and services and that the teachers were trained to identify what they needed and wanted to learn.

Proponents of education for other excluded groups began to recognise the term 'inclusive education' as useful to describe the situation of many categories of children who were also, at best, included physically in school but not included in learning. Thus, the term was redefined to cover the response to all kinds of obstacles to schooling and to learning (to the chagrin of some disabled persons' organisations) (Shaeffer 2010).

The growing commitment to this broad definition is reflected in the distance between the 1994 Salamanca World Conference on Special Needs Education: Access and Quality that paid lip service to other excluded groups but essentially focused on disabilities (Ministry of Education and Science, Spain 1994) and UNESCO's 2008 Geneva International Conference on Education on Inclusive Education: The Way of the Future. The Geneva conference clearly defined inclusive education as follows:

'A process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures and communities, and reducing exclusion within and from education. It involves changes and modifications in content, approaches, structures and strategies ... and a conviction that it is the responsibility of the regular system to educate all children' (UNESCO 2009).

This broader definition is increasingly accepted by educators, researchers, development agencies and national governments. However, in Indonesia, the Ministry of Education and Culture still promotes the narrower definition focusing on disabilities so there is no specific unit more broadly concerned with children not in school and not learning. Furthermore the issue of disabilities in Indonesia is a major problem. A recent study showed that of 25 lower-income and lower middle-income countries, the 'adjusted disability parity index' for literacy in Indonesia (the literacy rate for people with a disability divided by the literacy rate for people without a disability) was 0.49 for the population 14 years and older. This is almost the same as the rate (0.51) for the population that has never attended school. Only four countries of the first group of 25 had a lower parity index than Indonesia (UNESCO Institute of Statistics 2018).¹⁰ The definition of inclusive education also determines what local governments, education offices and schools consider to be 'inclusive schools' as these schools focus on children with disabilities while the 'special needs' of other excluded children defined by sex, ethnicity, language, wealth or poverty and location (remote and rural) are not considered

An important thrust of INOVASI's work relates to the cross-cutting issues of inclusion, gender equality and social cohesion (GESI), and child protection. Inclusion refers to: people with disabilities; girls and women, boys and men; and people from different ethnic or linguistic groups (INOVASI 2017). However, while INOVASI uses the broad definition of inclusion that is increasingly accepted globally, the most visible category of exclusion in East Java is disabilities. Thus, in the first phase of the stocktake study the compilation of noteworthy innovations and practices focused on disability-inclusive education. The larger collection of 165 good practices did not include any concerned with girls (especially in regard to access and continuing education) and children from linguistic minorities or living in remote regions. This was largely the result of education offices and schools not seeing these groups as requiring special attention. For the sake of this report, therefore, the discussion of inclusive education will focus on education for children with disabilities (*anak berkebutuhan khusus* – ABK) although issues surrounding the other categories of exclusion are discussed under section 3.6.

¹⁰ The same data from 2010 indicate that only 0.3 per cent of people aged 15–29 in Indonesia had a disability – the lowest rate of any of the 36 countries studied, compared to 0.6 per cent in Cambodia and 1.5 per cent in Vietnam – so likely to be an underestimate. It should be noted, however, that comparisons among countries in this regard are difficult to make given the various definitions of 'disability' used by different governments.

3. RESULTS

3.1 Education innovations and promising practices in East Java

In the first phase of the stocktake study INOVASI identified 27 innovations or good practices to describe and disseminate (INOVASI 2018) and in the second phase we selected eight more that are worthy of greater dissemination and promotion in our activities and elsewhere if appropriate. (These are described in more detail in Annexes A and D). An analysis follows of all these 35 innovations or practices, further categorised by theme or content.

Classroom-based or teacher-based good practices

This category included 13 practices with eight focusing on literacy and five focusing on numeracy. Only one of the practices (SDIT Al Faizin) relates directly to teaching early literacy while the rest focus more generally on cultivating a reading habit, for example, through increased use of libraries and journalistic interviewing and report writing. Virtually all of the numeracy practices are devoted to using media or materials to teach more advanced mathematical principles rather than the fundamentals of early numeracy.

Examples of the literacy practices include: SDN Pabian that emphasises library use and strict monitoring of books read and reported on; SDN Pangarangan 2 that organises a host of literacy-supporting activities – 30 minutes of reading before school, extra-curricular work linked to journalism and poetry (SDN Karangan 1 also promotes pre-school reading) and classroom reading centres; SDN Mojorejo 2 that promotes the use of story-telling (*dongeng*) to develop reading; SDI Al Abror that uses nine different strategies to promote its 'love reading movement' (*gerakan gemar baca*) with one that focuses on early grade reading; and SDN Ploso 1 that focuses on writing comics to promote better comprehension of texts and also writing skills. Other schools use various games to support sentence construction.

Examples for numeracy practices include: SD Alam Mutiara Umat that uses a 'Market day' maths activity and SD Pembangunan Jaya 2, SDN Pare 1 and SDN Sepuh Gembol 1 that use a range of local materials, games and other media related to mathematics. Schools also use various games to help students memorise their multiplication tables.



Figure 2: Market Day at SD Alam Mutiara Umat. With a theme of "Indonesia", students at Market Day organise stands representing different provinces of the country.



Figure 3: SD Alam Mutiara Umat hall of fame with student learning ideas and innovations.

Overall, in terms of good practices leading to better learning outcomes, the selected activities focus more on advanced skills rather than core early learning skills.

Community literacy

Five of the literacy practices focus on promoting literacy among the general community (sometimes parents) rather than just in school, especially in the early grades. These include the 'House of literacy' (*rumah literasi*) and *Toremaos* in Sumenep and *Sanggar Pena Ananda* in Tulungagung that has activities within but also beyond the school (public library development, community fairs and radio programs); the 'Go read' program at the community learning centre in Malang Raya; and *Teras Pintar* in Jember that focuses on mothers' socialisation rather than school activities.

Teacher support

Three of the practices focused on teacher development and support. These include the creation of a mini teachers' working group (*kelompok kerja guru* – KKG) and a teachers' workshop (*bengkel kerja guru*) at SDN 2 Kebondalem, peer teaching (*mengajar silang*) in cluster 5 in Tanjunganom district and lesson study at SDN Sidomulyo Sidayu. These practices are more concerned with promoting specific good practices in teaching. More comprehensive support to teachers is usually included in practices focusing on whole-school reform.

District office or supervisor support for good practices

We found comprehensive efforts to support the systematic development of good practices in one district office (Madiun). The Madiun district offices are committed to the innovation process in general and to the development and dissemination of specific good practices. Other cases offering comprehensive support to school improvement through the work of experienced supervisors (Probolinggo and Malang) deal largely with developing classroom-based media rather than more substantial work in guiding clusters, promoting school quality improvement and training teachers.

District offices can play a critical role in promoting good practices and, more importantly, in broader, more comprehensive innovations, within both individual schools (by mobilising all possible actors to collaborate towards school quality improvement and enhancing student outcomes) and in the district as a whole (by explicitly promoting and welcoming flexible approaches to change).¹¹

Inclusive education

Given the challenge of including children with disabilities in education systems, seven out of the 35 practices analysed in this research focused on disability-inclusive education. These covered: government schools that include relatively large numbers of children with disabilities and various special needs (at SDN Kutorenon 2 and SDN 3 Karangrejo, the core school of an inclusive school cluster); schools officially identified as inclusive schools receiving additional resources (teachers and funds) from local government; private schools (MI Amanah, SD Al Azhaar, SD Ar Rahman, SD KITA) that can work more flexibly outside the bureaucratic constraints of the district office (and also sometimes without its funding); and the more classroom-focused development of materials to support dyslexic children and so-called 'slow learners' (SDN Sawocangkring).

Innovative and inclusive

SD Ar Rahman is a small private school with 73 students and 14 of the children have disabilities – eight of whom are autistic. The school has been accepting special needs children since 2005. All new students are professionally tested to obtain a diagnosis concerning their needs. The school maintains a detailed profile of each child with disabilities which is then linked to a planning matrix for their schooling and then to an individualised learning program. The school is innovative in architecture (with large holes in classrooms walls to assuage the anxiety that some students have over closed spaces) and no set uniform or school hours. Support teachers are a mix of those hired by the school and paid for by parents, and of volunteers from the local boarding school.

¹¹ More detailed descriptions of district office activities in Probolinggo and Malang can be found in Annex E.

Whole-school reform and management

This issue relates to the conclusion drawn from the literature review that a comprehensive, collaborative approach is essential in promoting whole-school reform. The three cases – SDN Sumber Gondo 2, SDN Puntan 1 and SDN Pamolokan 3 – essentially show how innovative and committed principals reformed failing schools through various activities. These included: school renovation; the imposition of greater discipline; professional development and teacher empowerment; and closer ties with the community. Another case (SDN Patihan) focused on forming teacher–student working groups to manage and improve many aspects of school life.

3.2 Implementing education innovations and promising practices identified in East Java: key processes and structures that make them work¹²

Respondents identified a range of processes and structures that may not be essential but they help make innovations and good practices work in East Java. These are divided into: the original inspiration and design; implementation; monitoring and evaluation; replication or dissemination; and sustainability.

Inspiration and design

Innovations and good practices must have catalysts and, based on discussions at both district offices and schools, there are at least three processes that have helped generate innovations and good practices in East Java:

- **Charismatic, innovative leadership** that is often outside the mainstream of government bureaucracies and therefore frequently found in private schools, for example, an architect in Jombang (SD Ar Rahman), like-minded retired civil servants in Malang district (the *Sekolah Garasi*) or a renowned Islamic leader in Tulungagung (SD Al Azhaar). Such leaders often have a vision of a different kind of school from the ordinary, with flexible hours and fewer regulations (no standard uniform, no homework), innovative school design, graduation by achievement rather than grade six completion, and so on.¹³ This category also includes those examples of whole-school reform mentioned earlier that essentially begin with the ideals and goals of a committed principal who is able to collaborate with and empower the teachers of the school to improve quality. This kind of collaboration is more likely to lead to comprehensive innovations rather than narrowly-focused good practices.
- **Pragmatic problem solving** by an individual or a collective (among the principals and/or teachers) who identifies a problem (in some cases, systematically through a detailed SWOT exercise) and then a possible solution to that problem. For example, at SDIT Al Faizin in Sampang on Madura island, the problem was the number of slow readers in grade one and the solution was to start them on kindergarten-level books and provide extra tutoring after school hours until they reached the reading level of their cohorts. In SD Karangan in Ponorogo, a teacher with a journalistic background realised that while most students could read, they had greater difficulty in writing and presentation. She then designed a process by which her students had to develop a questionnaire, conduct an interview, write up the results in a formal report and present the findings in front of the class. This is an example of what would be considered a ‘good practice’ rather than an innovation.
- **Inspiration and ideas originating in higher levels of the system**, whether in external agencies or within the education bureaucracy. The best practices in several cases derived from donor-funded projects over the last decade – some adapted and updated, some surviving despite the lack of local support and others flourishing because of such support. These most often derived from the previous

¹² One interesting comment from Sampang was that practices are not necessarily labelled as ‘good’ or ‘innovative’ by teachers, schools, supervisors or even district offices unless someone from the outside (like an INOVASI team) does the assessment. This means that if you’re not looking for innovation, you won’t know how to recognise it. Local educators need to look proactively for good practices and innovation so they can then further develop and nurture them.

¹³ It is perhaps not by chance that all the senior staff in one of the most innovative district offices visited came from fields other than education and therefore could apply different perspectives to the challenges they faced.

work of a number of projects: the Prioritising Reform, Innovation and Opportunities for Reaching Indonesia's Teachers, Administrators and Students (PRIORITAS) project; the Decentralised Basic Education (DBE) project; the Better Education Through Reformed Management and Universal Teacher Upgrading project (BERMUTU); and the Creating Learning Communities for Children (CLCC) project, all funded variously by the World Bank, UNICEF, USAID and DFAT.

In other cases, the inspiration came from the local bureaucracy. The district offices in Madiun and Probolinggo systematically encourage the development of good practices while the district office in Sampang was said to actively look for 'seeds of innovations' in the daily, technical operations of schools in areas such as literacy, the environment, inclusion and reading fluency. In Malang, district office staff are instructed to search for and implement good practices independently, without waiting for orders from above. For example, annual workshops where all schools report on their innovations (such as in Madiun), official regulations from the district head or circular letters from the district education office that encourage innovations and monthly meetings of the principals' working group focusing on good practices were all inspirations from higher levels in the education system in designing new ways of doing things.

In addition, competitions and rewards (medals, trophies and even points credited to promotion) were often mentioned as ways to encourage new ways of doing things – whether it be for good practices in green schools, inclusive schools or, more directly, for the good performance and innovativeness of the supervisor, principal or teacher. Most stakeholders consulted considered these useful tools in inspiring better practices although the Probolinggo district office felt that competitions could do more harm than good as they promote competition rather than collaboration and take valuable time and resources away from teaching and learning.

In the best circumstances, as outlined in the literature review, these sources of inspiration for innovations are linked together with a focus on collaboration and mutual support. Thus, an innovative principal or teacher has an idea that is refined, 'owned' and applied by other teachers in the school, next it is identified as innovative by the system, then supported and nurtured and, ultimately, disseminated. This is a basic principle of the 'iterative' nature of the PDIA approach. As revealed in the literature review, this feeling of 'ownership' over something new and different, gained through strong collaboration among teachers and the principal in its development, can spell the difference between the success and failure of an innovation and help to ensure its sustainability.

Challenges

There are, however, some disincentives for trying new things. The culture of Indonesia, as in much of the region, is known for looking askance at anyone trying to rise above the crowd, thus discouraging ways of being different that are too visible. District offices and supervisors can sometimes see their role as identifying 'different' ways of doing things and then because these different practices don't follow the rules, they discourage rather than inspire and nurture them. One respondent also mentioned that some principals are afraid to seek the funds necessary to improve educational quality through new and better practices. Given the lack of clear rules as to how funds can legally be sought from parents and the community and for what purposes, some principals wish to avoid falling into the trap of being accused of collecting illegal fees:

'... sekolah memilih untuk diam dan tidak terlalu banyak berinovasi. Rutinitas akhirnya menjadi budaya dalam proses mencerdaskan anak bangsa sejak dini' (interview with district office staff).

[Schools choose to be quiet and not too innovative. In the end, routineness become the culture in the process of educating the nation's children from an early age.]

Implementation

The actual implementation of a new practice, no matter how good it might be, was not always seen as straightforward. In theory, the innovators – usually teachers – design and elaborate their new idea with the support of collaborating colleagues and, most importantly, of their principal (who may also be the originator of the idea). Principals can help ensure the support of the school committee and the larger community. School

clusters and district offices then welcome the new idea and, if appropriate, adopt or adapt it and supervisors play a crucial role as the mediator or channel for the practice from the school upward and outward or from the district office downward. With this support, the good practice gets implemented, perhaps first in a classroom, then across the school and finally (hopefully) at least within the school cluster if not beyond.

A key factor in many of the good practices described for this study is a spirit of collaboration among the teachers and their sense of commitment. This spirit is often inspired by the personality and openness of the principal and linked closely to the issue of 'ownership' discussed. These observations corroborate the views of Hargreaves and Fullan cited under the literature study. Good examples of this collaborative spirit are: the mini teachers' working group and the teachers' workshop at SDN 2 Kebondalem; the flexible rules and individualised instruction at SD Amanah and SD Ar Rahman; the desire to respond to the individual needs of children with disabilities at SD Al Azhaar; and the market day activity at SD Alam Mutiara Umat.

However, ultimately the factors necessary for most successfully implementing and sustaining innovations derive from the support of all relevant local actors. In discussions with district offices, especially in Gresik and Malang, the following actors and their roles with regard to innovation were described:

- District legislature (*Dewan Perwakilan Rakyat Daerah* – DPRD) – to sustain and increase education funding, especially for those activities not (adequately) funded by the ministry;
- District head or mayor (*bupati/walikota*) – to promote an innovative environment in the district and motivate the development of specific good practices across sectors (for example, through competitions among schools or clusters);
- District education and religious affairs offices (*Dinas Pendidikan and Dinas Agama*) – to search for, nurture, help implement, monitor and evaluate good practices and help scale out those considered successful;
- Development agencies – to introduce new approaches and provide funding support and relevant expertise;
- Agency for Educational Quality Assurance (*Lembaga Penjaminan Mutu Pendidikan* – LPMP) – to provide direction, support and socialisation in relation to improving educational quality (for example, thorough the model school program);
- School clusters and their teachers and principals' working groups – to help refine, adapt and disseminate local good practices;
- School supervisors – to map school quality, seek out, promote and disseminate good practices and to provide periodic supervision to principals, teachers and clusters as a whole, preferably focusing on those needing most assistance;
- Village government office (*Kantor desa/kelurahan*) – to recommend the establishment of new educational institutions where needed and provide support where possible (for example, through the local village funds to programs leading to greater access and better quality);
- School committees – to support and assist the institution it is responsible for;
- Non-governmental organisations (such as *Lembaga Ma-arif* and *Nahdlatul Ulama*), local foundations and professional organisations (such as the Indonesian teachers' association) – to provide input and guidance so that good practices are encouraged, designed, refined and implemented.

Challenges

Historically and globally, the challenge of implementing new and better practices derives partly from the conventional and often static nature of many pre-service teacher education programs. These are often closed to new ideas, populated by lecturers who may have little experience in the level of education they are preparing teachers for and therefore may be out of touch with or unaware of the real conditions their students will face in the classroom. One solution to this has been 'cascade' in-service training, with one teacher in a school or cluster (often the best and brightest or the one most in favour with the principal or district office) being sent for training in the expectation that what they learn will be explicitly or symbiotically spread, in its totality, to other

teachers in the schools. However, this often does not happen and the situation is sometimes complicated by the lack of parallel training in the new approaches for the principals and supervisors concerned.

In-service training in Indonesia has evolved into taking more of a whole-school approach to change, as described in the literature review, where more of the essential actors (principals, teachers, supervisors and school committees) are encouraged to share a common understanding of what is to be implemented and thus gain greater motivation and commitment to ensure this happens. The challenges to implementation can be intensified if the interests of the district legislature and the district head lie elsewhere (for example in infrastructure development), where the district office follows conventional thinking in an inflexible manner, where external financial support has dried up, where the clusters are coordinated by uninspired supervisors and where school committees are inactive, if not fictive.

Monitoring and evaluation

An essential part of any successful process of innovation and reform must be its evaluation – formatively, through monitoring the nature and quality of the implementation process but also, more summatively, by evaluating what was achieved in relation to its original objectives and targets. None of the schools visited appeared to have specific targets to reach concerning school improvement or learning outcomes. All of the school-based good practices reviewed in this study had only general objectives (better readers, more children with special needs included in school, a better understanding of specific mathematical principles). There was little reference as to whether or how the good practices fitted into school self-assessments and improvement plans (and their budgets) or into the school quality questionnaires administered by the Agency for Educational Quality Assurance (LPMP) and linked to the school's progress towards the eight national standards. In other words, there was seemingly little interest in assessing generally how the current school improvement plan worked to support the development of the next one and whether specific teaching–learning practices were having any impact on school quality or student performance.

Consequently there was no substantial quantitative evidence concerning success or failure of the practices. Most respondents seemed disinterested or puzzled by the question about the availability of concrete evidence of impact (or even the utility of some baseline data that would help prove impact), largely reverting to what was readily available – qualitative, largely anecdotal information. These observations were that students are better readers and have greater self-confidence, they are more engaged in learning and have better communication with teachers while children with special needs are more 'included' in learning. Teachers collaborate more closely and are more engaged in their work. Parents and the wider community are more supportive of the school and the school's academic reputation had improved.

Quantitative evidence was difficult to obtain even using relatively straightforward indicators, such as: enrolment; participation in extra-curricular activities; community support; and transition rates to higher levels (especially to 'favourite schools'). While these were mentioned as possible aspects to be measured, they generally were not available. School-based tests do not seem to be used to track change over time that might be assigned to a good practice. The national examination at grade six has changed in the last few years so comparisons cannot easily be made over time or before and after the innovations were introduced for the same school. Furthermore the grade four assessment tool is based on a representative sample. Therefore, there was a general lack of interest in collecting, analysing, sharing and using data – and also few attempts to do so. (This is not surprising since staff at all levels – including ministerial level – are not trained to use data for planning and decision-making.)

There was one exception to this rule. This was in Probolinggo where, for example, principals signed contracts with the district office that included targets such as specific increases in the grade six examination results and a greater degree of community satisfaction with the school (with a questionnaire designed to assess this satisfaction). Although this kind of performance agreement is a national policy related to accountability and all units and staff sign such agreements which are meant to measure their achievement, the Probolinggo case was the only example found that included explicit criteria related to school outcomes.

Challenges

The first and possibly most difficult challenge is simply getting the relevant actors to consider monitoring and evaluation as important, whether it is monitoring the process of implementation, how the new practice is progressing or finally evaluating its impact. If the actors were aware of these issues, the lack of tools to carry out these processes – either qualitative or quantitative – represents another challenge, both within and across schools. Yet, even with relevant tools, it would often be difficult to assess the impact of a particular good practice as distinct from the impact of other aspects in the school environment. The role of the LPMP in assessing school progress towards the national education standards – and how this process relates to the school self-assessments and improvement plans of the past – is critical in helping to ensure that some systematic and comparative information, useful at the school level and above, is gathered on what is happening and with what effect.

Replication

Assuming an innovation or practice appears to be useful according to the evidence that is available, it should be adopted, adapted, disseminated and replicated. The experience in this regard in the schools visited varied considerably. For example, one school felt unable to discuss its particular good practice more widely (via the cluster) because it had not yet been officially approved by the supervisor and district office. In all schools visited, however, the practice had been adopted, as relevant, elsewhere in the school. All grades, for example, were involved in some way in the market day activity (younger students as the buyers and older students as the producers and sellers) at SD Alam Mutiara Umat. Both the learning with comics activity in SDN Ploso in Pacitan and the focus on reading, writing and interviewing in SDN Karangn 1 had spread downward from the original grade (and teacher) to lower grades (and their teachers) with the expected outcomes adapted to the grade level. Where the innovation focused on reforming the whole school, disseminating the spirit and practice of the innovation within the school was essential. For example, a culture of inclusion had generally permeated throughout the inclusive schools visited – to the teachers and to the ‘normal’ students and their parents (one large school reported that new teachers who were unable to handle children with special needs in their classrooms were likely to be encouraged to leave).



Figure 4: SDN Ploso uses comic books as part of learning. Here, children work together on drawing and putting a text into a comic related to the day's lesson.



Figure 5: An example of a student comic book used at SDN Ploso.

Replication beyond the schools was more problematic – not only beyond the school cluster but even within the cluster where teachers often meet for only two hours a month. Only two schools reported that the practice in question had been actively disseminated through their clusters: SDIT Al Faizin in Sampang in regard to using kindergarten books to teach reading and SDN Patihan in regard to promoting student-led working groups. In the rest of the cases, although the new practice might have been discussed in a cluster meeting, there was no mechanism (such as a dedicated master teacher or facilitator) beyond the often-overworked supervisor to

encourage and then assist other schools to adopt or adapt it. The principals and teachers did not usually know whether the good practice had been adopted by other schools and did not seem to consider this important (like monitoring and evaluation discussed earlier). Where supervisors were not assigned to particular clusters but rotated among them, there was less likelihood of cluster-based replication. Similarly, if the good practices were developed in 'model schools' whose partner schools were not the core schools in the district clusters (as they were in one case), wide-scale replication was less likely.

Some useful ways to broaden replication had been tried – for example, comparative study visits to schools in other districts, apprenticeships in innovative schools and the temporary placement of innovative principals and teachers in less innovative schools – but not systematically enough to be assessed as to their value. The recently established monthly meeting of all heads of district offices of education in East Java could also be a useful way of replicating good practices if this is made part of every meeting's agenda.

Challenges

The numerous challenges to greater replication and scaling out include: the mixed quality, limited time and lack of follow-up of cluster meetings; inconsistent or unsystematic support from supervisors; the lack of a dedicated unit in the district office to find, nurture and disseminate good practices; and the frequent lack of financial resources to facilitate dissemination. As mentioned, one school felt unable to share its good practices within its cluster until the practices had been somehow 'approved' by the district office but it was not clear if this required something formal or merely the declared support of the supervisor. In another case, the innovation (the market day activity at SD Alam Mutiara Umat in Tulungagung) was considered part of the school's 'brand' (a word heard often during our visits) and an important factor in attracting new enrollees in competition with other nearby schools. The school therefore seemed reluctant to promote its replication because it represents a way to boost enrolment.

Sustainability

The final phase of a successful innovation process must be sustainability – good practices and innovations need to be able to endure despite changes in the conditions that support them such as the original inspirer, supportive colleagues, a sympathetic bureaucracy or adequate financing. Such changes can occur when the people most concerned with the innovation leave, retire or are transferred and replaced by others who are less aware or committed and also when external donor support is withdrawn – whether in the form of facilities, funds, external expertise or good models. Many respondents in schools and offices visited during the study cited such instances, for example, in Mojokerto, none of the PRIORITAS projects (school-based management, teachers' working groups, literacy, inclusive education) that ended in 2016 have been disseminated further despite the district office's request for funding from the regional planning and development agency (*Badan Perencanaan Pembangunan Daerah* – Bappeda). In contrast, Madiun has continued the good practices started by the USAID Managing Basic Education project (MBE) that ran from 2007 to 2011 – such as workshops and hiring resource people – through considerable local government budget funding (*Anggaran Pendapatan dan Belanja Daerah* – APBD).

When we asked respondents how to promote (if not guarantee) sustainability, they gave a range of answers, mostly envisaging some kind of system within the school or district to bring together all the components that work in tandem towards sustainability. These included the following:

Grand designs

The district education office in Madiun city, with support from Bappeda, developed a 'grand design' for education going through to 2025. The aim of this strategy document is to improve the quality of education in the district and it focuses on: school and district management; the quality of teaching-learning; school health; and community literacy. The document will guide the development of yearly activities to be funded by the local government budget. To report on and share innovations and good practices among schools, the district office conducts an annual three-day workshop for school principals from all 72 primary schools in the district. This workshop spurs schools to develop innovations and good practices to improve education quality and also creates positive competition among schools. School supervisors have a well-organised weekly plan of school visits with special attention paid to any low-performing schools.

Fitting in the larger context: Good practices or innovations need to be seen to fit with the larger policies, vision and mission of the district and of the ministry as a whole and also be consistent with ongoing school self-assessment and improvement planning priorities. Good practices perceived as coming from transparent and fair school assessments and then being incorporated in longer-term improvement plans are more likely to be sustained than those inserted from outside with no consideration of the context. Although this component seems reasonable, we found little evidence in our study of good practices being linked to self-assessments and improvement plans and these were seldom mentioned. The 'grand design' of the Madiun district office is an exception in terms of how a larger context of innovativeness can promote new practices (see box). This design – a ten-year strategy developed by the district office, Bappeda and an outside consulting firm – guides the long-term development of education in Madiun and also develops, supports and sustains better practices.

A supportive structure and environment: Although district office staff and supervisors change over time,

whether for political or personal reasons, they often have a longer tenure than the average principal. Therefore these actors need to appreciate the value of and promote an innovative environment by nurturing innovations rather than stifling them. They need to be fully socialised on the need to support and sustain specific good practices. The support that the district offices in Probolinggo and Madiun provide, described in section 3.2, demonstrates the impact of this component.

Accountability mechanisms: If mechanisms are established to hold individuals accountable for implementing innovations, these innovations will be more easily sustained. As mentioned, in Probolinggo, for example, individual principals sign annual contracts with the district office clearly stating the improvements expected in school quality over the course of the year – this often requires them to sustain and even strengthen ongoing innovations. Their tenure as a principal or their promotion might depend partly on their fulfillment of this kind of contract.

A continuous, collaborative innovation process: A useful mechanism to promote sustainability is to build continuity into the process of implementing the innovation – from the planning stage through to the final evaluation of the activity. Having innovations entrenched in a long-term plan, such as an individual school improvement plan (after the school self-assessment) or as part of a 'grand design' for education, as in Madiun, was also considered effective for sustainability. Equally, we need to ensure that all the teachers or staff in a school are involved and collaborate in developing and implementing innovations. Everyone needs to have a specific role in this process, in keeping with their tasks and functions and, where appropriate, they need continuous professional development in the competencies required. A good example of this component are the complex activities required to plan and implement the twice-yearly market day activity in Tulungagung. These involve extensive collaboration and a clear division of labour. By embedding innovations in these long-term and collaborative processes, the loss of a major actor or initiator will not negatively affect their sustainability.

Respondents suggested other aspects in the process of sustaining good practices and innovations, including:

- Communicating the essence of the innovation or practice to all new school staff and ongoing socialisation. As one respondent said: '*memahami sebuah konsep perlu waktu, oleh karenanya harus selalu didiskusikan, di ulang-ulang dan disebut-sebut sehingga semakin kenal dengan konsep yang*

sedang kita jalankan [to understand a concept requires time; because of that it must always be discussed, repeated and constantly mentioned until it is as well-known as concepts which are already being implemented];

- Documenting the good practice on hard copy and video and keeping detailed records of its implementation and results;
- Expanding its implementation as widely as possible, within and beyond the relevant cluster so that it becomes embedded in the larger system;
- Ensuring that all principals and teachers develop and implement innovations (or work to support clusters) in order to gain points towards their promotion or their retention in current posts.

Proven impact: According to the study's respondents, sustainability is also more likely if the innovation can demonstrate impact and practical value, for example, the innovation:

- links directly with increasing competency in the profession and in pedagogy;
- responds to visible challenges in the community and helps solve its problems;
- benefits all the community economically or non-economically, such as through higher prestige and cohesion;
- links to the welfare of teachers and their chances of promotion;
- produces both qualitative and quantitative evidence as to the its impact on school improvement and student outcomes;
- prioritizes academic success, community involvement and the school environment (as shown by the 'green' schools);
- promotes the development of students' good character and behaviour.

Market day

The market day activity was designed to make learning fun and effective. Teams of students from grades three to six plan the activity, supervised by their teachers. They select a theme for each market day and they choose the food and other items sold at the market according to the theme. The students learn to plan an activity and work together with support from teachers and parents who help them prepare food at home to sell at the market. They learn to calculate the cost of ingredients and the selling prices. At the end of the activity, they work out whether they have made a profit or loss. Grades one and two students are buyers at the market which teaches them the value of money. They can also calculate how much they've spent and how much they have left and what change they should receive. Children with special needs also have their roles on market day assigned according to their abilities.

As mentioned already, such impact is not usually measured quantitatively but the impressions of students, teachers, parents and the larger community about the kinds of impact listed above are often considered adequate proof of school improvement.

Political support: Sustainability can also be promoted through local government support, both administrative support (through the district and village heads) and legislative support (through the district legislature and its Committee 1 that deals with education). Although these actors may change over time since there are elections every five years, they can influence both district office appointments (the district head appoints the head of the district office who can reward supporters by appointing office staff and school principals) and the education budgets provided by the district legislature and the

village. A good example of such support comes from the mayor in Madiun and the use of local government funds to pay contract teachers.

Cultural appropriateness: Several respondents commented on the importance of ensuring that innovations and good practices do not conflict with local culture (*budaya*) and tradition (*adat*). This was especially in the more religious districts of the province where some schools had to allow time for religious instruction in or outside of school hours. This was particularly true in areas like Malang where people were opposed to full-day schools as this would take time away from religious instruction. Another school that had previously been a 'favourite' school but was losing new enrolments to the religious schools in the vicinity decided to implement and promote free, after-hours religious instruction in order to attract enrollees.

Support from the school committee and local community: A final factor in sustainability is support from the school committee and the larger community in planning, implementing, monitoring and evaluating good practices and innovations – especially more comprehensive innovations. This support ensures that any new leadership in the school will continue the work. In all stages of this process, as in the case of Probolinggo, respondents believed that to ensure the sustainability of good practices and innovations, students and parents needed to be intensely involved not just in using the school but also actively in planning, implementing and supervising teachers' performance and students' needs

Challenges

Sustaining innovations is a challenge worldwide. Examples abound of countries littered with 'white elephants': institutions, facilities and practices never locally 'owned'; schools with unused and unmaintained libraries, computer labs and teachers' resource centres; and classroom walls displaying the residue of students' work from five years before. If we bring all of the factors vital for sustainability into a single, logical and coherent system, we may have a good chance of sustaining improvements in school quality and students' learning outcomes.

One district staff member summarised which innovations are most likely to be sustained: those that are '*mudah dipahami, mudah dibuat, bahannya mudah didapat, biayanya murah, dan bermanfaat*' [easily understood, easily implemented, with easily captured content, inexpensive to implement and useful].

3.3 Evidence of the impact of innovations and good practices on students and teachers' outcomes

As discussed, there is scanty evidence of the impact of the innovations and good practices reviewed for this study, particularly in terms of quantitative data. School and office staff displayed a general lack of interest in collecting such evidence and what evidence is available is largely qualitative in nature. In terms of **students' learning outcomes**, where good practices focus on the classroom and relate to either literacy or numeracy, students were reported to be more interested and eager to learn, self-confident, motivated and curious. They understand the lessons being taught more quickly and in more depth (especially when teachers use different media in the lessons). Some good practices (market day, student-led working groups) promote leadership and management skills, and others strengthen students' reading habits. One practice improved students' story-telling skills and others used poetry and journalism assignments. In terms of children with learning difficulties, respondents reported that:

dyslexic children's reading had improved; hyperactive and autistic children were calmer and able to participate more regularly and usefully in a regular class; and there were fewer cases of children with disabilities being bullied by the other children. In at least one school (SD Al Azhaar) where one focus was to get children with disabilities to follow the national curriculum and take national examinations, some students had succeeded in achieving this, even up to the level of higher education.

Catering for special needs

SD Islam Al Azhaar accepts autistic and hyperactive children, slow learners and children who have Down's syndrome. Out of the over 800 primary school students in the school, there are 28 students with special needs. Each class of 25–28 students has about three special needs children and one support teacher. A resource room in the school is used for additional tutoring and to provide a calming environment for special-needs children who become disruptive in class. Special diets are provided at lunch to ameliorate the effects of autism and hyperactivity. The school uses the national curriculum but this also depends on the special needs of the children. These children can either take school-based examinations for a school completion certificate or, if they have followed the national curriculum, they can take the national examinations and get the regular certificate needed to move onto junior secondary school.



Figure 6: Teachers with children with disabilities in the calming environment of a resource room.

However there was little concrete evidence to prove these impacts so no direct and provable links between the good practices and students' better learning outcomes, such as higher scores in reading and mathematics. One school noted an increase in the number of books taken from the library from one semester to the next (but did not see that as impact of its efforts). Another school indicated that because of intensive work with slow readers in the first grade, all children (except those diagnosed as children with disabilities) were at the expected level by grade two. 'Favourite schools' were proud of the almost 100 per cent transition rate to lower secondary school and virtually every school had a display case (or three) showing off its trophies and medals although this was not directly linked to any particular good practice. There was no impact mentioned in relation to student welfare and health status. Increases in enrolment and attendance, on the other hand, were often

linked to the general improvement of the school's quality (but not to a particular good practice or innovation with the exception of the market day activity). Two of the schools were rapidly losing enrolment to the religious schools (*madrassah Ibtidaiyah*), reflecting, as one principal put it, a '*pola berfikir lain daripada dulu*' (a new and different way of thinking). As discussed further below, girls were almost universally seen as outperforming boys – being more industrious, persevering and organised – but there was no evidence or analysis to prove this conclusion and no real interest in doing anything to improve the boys' performance.

The evidence around **teachers' outcomes**, although also not quantitative, appears to be more clearly linked to new practices. An environment promoting innovations (such as in Madiun) has meant that teachers (or a certain subset of mostly younger teachers) appear more eager to try out new methods, develop new materials and media, participate actively in school management and cluster meetings, and compete for medals and trophies. This includes the practices related to lesson study and 'cross teaching'¹⁴ in the phase one set of good practices. In addition, several of the projects observed in this study explicitly supported teachers in this kind of professional development: extra training workshops held for teachers in Madiun; teachers trained to provide tutoring support to slow readers in SDIT Al Faizin; and teachers trained to support children with special needs in their regular classes at SDN Al Azhaar and SD Ar Rahman.

We observed no unintended consequences or outcomes of the good practices or innovations studied. The designers and implementers identified the desired outcomes and no additional, unexpected ones resulted.

3.4 Evidence of the impact of innovations and good practices on improvements in school and district quality

As reflected in the literature review with regard to **school improvement**, there was some evidence (although again mostly anecdotal) of improvement in those schools and district offices where the focus of change was the entire institution. New headteachers were able to take schools in the middle of a descending cycle of deteriorating quality and status and reverse the direction of the cycle by: instilling more discipline among students and staff; working more collaboratively with teachers to identify problems; recognising teachers' worth in helping to solve the issues; and holding teachers accountable for the quality of their work (and providing rewards when acceptable). This impact was also noted among some inclusive schools that had moved over time from reluctantly accepting children with disabilities to being more inclusive in pedagogy but also in spirit,

¹⁴ Lesson study, developed first in Japan, brings together small groups of teachers to analyse teaching problems and propose and try out possible solutions. Cross teaching arranges for teachers, supported by supervisors and peers, to teach in another school in the district, thereby sharing experiences and expertise across schools.

with all students respecting a full range of (dis)abilities and helping to genuinely include students with disabilities in learning.

There is less evidence that the good practices analysed had an impact on **district office improvement**. Certainly, the strong support for good practices in districts such as Madiun and Probolinggo must reflect synergistically on how the district itself innovates in its own work. In other words, these districts encouraging a wealth of innovations – the bubbling up of new ideas and new practices – is likely to lead to a creative environment in the district itself that encourages further innovation in the operations of the district. Understanding the dynamics of such a process would be a useful in promoting innovativeness in the education system.

What emerged clearly is that the districts visited want to be proactive in improving school quality and more assiduous in assessing their progress. This is reflected in their ever-increasing support for generating more good practices, for example, by running competitions and explicitly linking good practices with promotions. There was little evidence, however, that the school self-assessment process was helpful in this regard and school improvement plans were rarely mentioned in discussions with the district office or school staff. Nevertheless, there is an overt movement towards assessing school quality. This is done most directly by the annual internal self-assessment conducted by LPMP's education quality assurance team and based on the eight national education standards.

3.5 Broad issues emerging from the review – what does and doesn't work to improve outcomes?

In analysing the 35 innovations or good practices selected for this review and the responses from dozens of informants, a number of broad themes emerged in relation to what does and doesn't work in the process of improving school and students' learning outcomes.

What works to improve outcomes?

Embedding innovation processes in a long-term district plan for education: This is reflected best in Madiun's 'Grand design for education' that was developed collaboratively by the district office and Bappeda, assisted by an external consulting company. The document lays out desired outcomes for each level and kind of education in the district and one of the basic principles of the grand design is to promote innovation.

Strong collaboration towards change among the school staff and within the community: This is inspired by an innovative principal. For example, the charismatic, disciplined principals of SD Ar Rahman and SD Al Azhaar worked closely with their teachers to develop an environment that welcomes diversity and practices that aim to overcome the challenges created by diversity. Likewise, a major factor in turning around the quality of SDN Sumber Gondo 2, SDN Puntan 1 and SDN Pamolokan 3 was the way the new principals consciously empowered and collaborated with their teachers to improve their schools and established stronger links with the local community.

Early support for children with learning difficulties: The school in Sampang was the only school that focused on promoting early reading skills and overcoming learning difficulties – by using kindergarten texts and additional tutoring to help children master early literacy. Nevertheless, other schools, such as SDN Mojokarang in Mojokerto, recognised the need to provide support to overcome these difficulties early in the school cycle, usually through some kind of after-hours tutoring program. The best examples of these practices included careful record keeping to track individual children's progress and regular consultation with parents. However, there was no evidence in the early grade teachers' descriptions of how they were teaching that they had the knowledge or skills to implement the clearly-defined, systematic steps in teaching either literacy or numeracy that are cited in the literature review. In the 'house of literacy' activity (*Rumah Literasi*), for example,

that promotes literacy in the community and trains teachers in literacy teaching, two facilitators described two different approaches they were using in their training.

Using big books to teach reading: Although common in Indonesian primary schools, big books can be used especially creatively when combined with various other kinds of reading exercises: reading together; guided reading and independent reading; story-telling and role-playing; and for additional lessons for slow readers after school hours.

Promoting book production and the reading habit: Good practices in this regard included:

- Activities such as the national literacy movement (*Gerakan Budaya Literasi*) and Sidoarjo's 'love reading' program (*Gemar Membaca*);
- Book projects on 'one school, one book' (where every school had to produce a book each year, collaboratively written by teachers and students) and on 'one teacher, one book' (SAGU, SABU);
- Families sharing books with other students on a rotating basis via the library;
- Keeping records of all books students have read, with oral and written summaries of each of them;
- Using a set percentage of the school's operational funds for library books;
- Appointing grade six as a 'master class' in literacy, responsible for helping students in lower grades to learn to read and enjoy reading;
- Promoting reading through radio and films which was the work of two civil society organisations in Sumenep that ran Saturday fairs with an emphasis on reading and encouraged reading among both teachers and parents as a support to their students and children.

Practical, locally-developed activities and teaching materials and media: Many of the practices described involved teachers and supervisors developing or using various kinds of practical, applied activities and materials, such as: comics, games, toys, beans, cardboard boxes and large alarm clocks. The market day activity falls in this category as it is a practical activity designed to develop a number of skills. The advantage of these learning aids and activities is that they are largely based on inexpensive, local materials and can be easily recreated by other teachers and schools. The disadvantage is that, being so local, they may not be consciously promoted and could remain limited to the original designer rather than being adopted by other teachers.

Contracts between the district office and principals towards school improvement: As cited earlier, in Probolinggo the district office draws up contracts with each principal (as well as supervisors and sub-section heads in the district office) with a special focus on school improvement. Similar agreements are made elsewhere in Indonesia but in Probolinggo the contracts include precise indicators of school improvement.

Specific targets for innovations: Stipulating a quota of innovations or good practices that teachers, principals, schools or clusters need to develop and laying down clear processes for how these may be shared, selected and awarded with credits towards promotions would help stimulate teachers and generate new ideas. The most progressive of the district offices we visited had such requirements and rewarded such practices.

What does not yet seem to work?

Monitoring and evaluation: As mentioned, a culture of monitoring and evaluating the processes and outcomes of good practices, whether formative or summative, is not well developed in East Java. This reflects a lack of understanding of why the monitoring and evaluation are important but also the lack of baseline data, the absence of tools needed for these processes and an inadequate sense of what should be assessed, why and how.

Local government support: In some cases, there was strong support from the district head (for example through a district head regulation focusing on innovations or inclusion) and additional local government funds from the district legislature, for example, to pay contract teacher salary supplements and to hire and train

inclusive school teachers. In other cases, however, support was minimal. The problem is partly political with the district heads and local legislatures being elected every five years – and some being interested in education and others not – but also economic with some districts having considerably more funds than others and therefore being able and willing to provide support to ‘softer’ sectors like education.

Programs to promote equity and inclusion: Besides the often effective attention given to inclusive education, we encountered little interest in other issues of exclusion or inequity such as gender, remoteness and language. One of the districts (Blitar) that was once well-known for multi-grade teaching has now largely abandoned that approach. Creative approaches like multi-grade teaching are much needed in small, remote schools with limited per grade student numbers and thus not enough teachers. (See the case study of this school in Annex D.)

Defining inclusive education: Inclusive schools largely ignore children with sensory and physical impairments in favour of children with cognitive or intellectual and socio-emotional problems. While sensory impairments can be difficult to manage in regular schools (requiring braille texts and sign language), physical impairments often require a few additional facilities and a little funding and yet these children are almost always sent to special-needs schools rather than being integrated in regular schools.

A mindset for reform: The word ‘mindset’ arose in our discussions with the head of the provincial office for religious affairs, two district offices and two schools. This was usually in the context of why certain schools and teachers were open to, supportive of and committed to change while others were not – with most teachers tending to stick with traditional ways of teaching and not being receptive to new ideas. This was reflected in some meetings where most of the teachers from a school attended. Those most involved in the good practice were inevitably in the front row, excited about their work and eager to receive comments on what they were doing while the back rows were filled with mostly older and less interested teachers, many of whom are likely to retire soon. These teachers mostly have bachelor's degrees, have subsequently gained professional certification and receive an extra allowance equivalent to their base salary. However, they were said to not have gained the mindset necessary for change, either in the way they learn or in the way they teach (Chang, Shaeffer *et al.* 2013; de Ree 2017) and may be described as ‘experienced teachers’ but perhaps not ‘expert’ ones (Hattie 2003). This was best expressed by one respondent in relation to SDN Sawakaring: ‘*Yang senior sudah merasa puas dengan metode pembelajaran konvensional sebagaimana biasa mereka lakukan sebelumnya*’ [The senior ones are quite satisfied with the conventional teaching methods that they have always implemented].

The challenge was therefore seen in how to promote a shift in mindset through, for example: multi-stakeholder forums and collaboration; greater consistency and continuity in socialising educators towards innovation and reform; and greater stability in school and district office staff so that the mindset, once developed, could more easily be sustained. This would help prevent what one respondent mentioned as a common problem: ‘*Ganti pimpinan, ganti kebijakan, berhenti proyek, berhenti berinovasi*’ [Replace the leadership, replace the policy, replace the project, stop innovation].

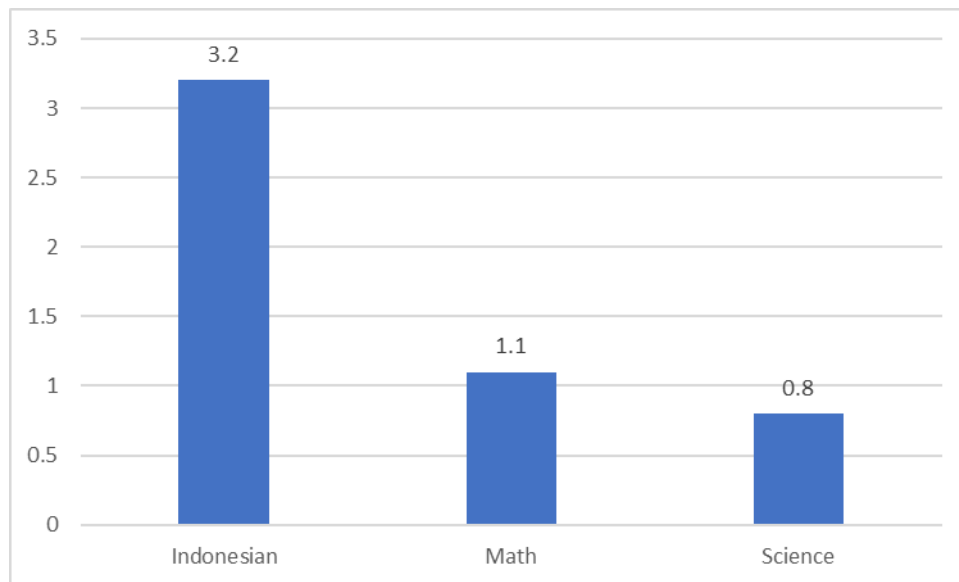
3.6 How the practices reflect INOVASI’s commitment to gender equality, social inclusion and child protection

An important thrust of INOVASI’s work relates to the cross-cutting issues of gender equality and social inclusion (GESI), including: people with disabilities; girls, women, boys and men; and people from different ethnicities – and of child protection by complying with international best practice in this area.

The following are our conclusions with regard to how far the practices in East Java reflect INOVASI’s commitment to these issues:

Gender equality: The good practices we studied and the schools or districts that support them have little interest in the issue of gender. According to the recent AKSI results (see Figure 2), girls' scores were higher than boys' scores in East Java score – by over three points in language, over one point in mathematics, and by about 0.8 points in science (MoEC undated.). Although schools and district offices usually recognised that girls do better than boys (they said girls are more 'industrious', 'persistent' and 'easier to manage') in most grades and in a range of subjects, they did not consider this disparity a problem worthy of any particular action.

Figure 7: Difference in AKSI scores between girls and boys in East Java, in language, mathematics, and science (statistically significant)



Child protection: Issues around child protection were rarely mentioned. When asked, some schools in especially poor districts agreed that many students were living in households where one or both parents had migrated for work, leaving the children to be raised usually by grandparents. There was some acknowledgement that this might have negative effects on children's wellbeing but, again, this was not seen as a problem that the school might help to resolve.

The only major issue that arose around child protection related to children with disabilities or special needs being bullied. This was not a problem in one small school with a long tradition of including children with disabilities where difference and disability were welcomed as a contribution to a 'full' education. In a much larger school, with a more diverse population and a smaller percentage of children with disabilities, teachers had to stand at the gate in the morning to ensure children with disabilities were not bullied as they arrived.

The broader issue of social inclusion arose in a variety of contexts. In theory, the issue of inclusion in education should include all obstacles that children face, both in accessing schools and in learning. These obstacles include:

- **Poverty:** Respondents felt that the problems of poverty had been resolved by the per pupil schools' operational funds (BOS) payments and the abolition of school fees or they considered it the responsibility of other entities such as the Ministry of Social Welfare. One exception was in Pasuruan where a district regulation mandated that no poor children should be out of school so the district office mapped these children and provided extra subsidies and a bus service to encourage them to enrol and remain in school. Malang city also provided 16 buses for this purpose, funded out of the local government budget.
- **Remoteness:** Small, remote schools in distant, mostly rural communities were sometimes seen as an issue but little had been done to cater for their special needs. This was evident at one school we visited in Blitar that was previously well-known for its achievements in multi-grade teaching through the

PRIORITAS program and other projects. The relatively new principal announced that on her arrival at the school, she had assessed the strengths and weaknesses of multi-grade teaching and concluded that it made the classroom too noisy for children to work. Therefore, given that the school now had enough teachers for six grades (including permanent civil servant teachers – PNS – and teachers on short-term contracts) although still not enough classrooms, she was phasing out multi-grade teaching at the school. She did not mention any strengths of the approach. Furthermore, she said this in front of the principal who had pioneered successful multi-grade teaching at the school before being transferred elsewhere. The new principal and teachers had not been trained to implement multi-grade teaching which may explain their negative attitude to it. However, the head of the district education office mentioned that funds will be allocated to support multi-grade teaching in remote schools in 2019. The only alternative solution to the problems of small schools is to regroup the schools. This would involve merging schools and lead to schools being closed and some children having to go farther to get to school.

- **Language of instruction:** Globally, one of the major factors in school failure is the difference between the language children use at home and the language used in schools. In East Java, this was not seen as a problem related to inclusion although many children in the province do not speak Bahasa Indonesia as a mother tongue (but rather Javanese, Madurese or Osing). In places like Madura, respondents admitted that they used mother tongue orally to help children learn the curriculum in Indonesian but no one saw the disjunction between home and school language as a factor of exclusion.
- **Disabilities and special needs:** Disability-inclusive education is a major concern in East Java and is based largely on Presidential regulation (Perpres) No 17 of 2010 and National education regulation (Permendiknas) No 70 of 2009 concerning inclusive education (GoI 2010; MoEC 2009). These regulations categorise special needs as: physical (including sensory), emotional, mental, intellectual and social (including gifted students). These categories are then elaborated into 13 specific disabilities that include difficulty in learning and slow learning.¹⁵ One issue that arose from the visits to education offices and schools, including schools designated as inclusive, was the lack of clarity as to what counted as a disability or a special need and which children should be included under this label. In some schools, slow learners or slow readers were considered as one category of children with disabilities without particular reference to why they were 'slow'. Most schools did not enrol children with sensory and physical impairments, leaving them to attend specialised schools for children with special needs. They believed that the extra costs of assistive devices and facilities for such children are too high for even the designated inclusive schools to meet.

Several districts (Sidoarjo, Probolinggo, Gresik, Madiun city, Tulungagung and Kediri) have declared themselves as 'inclusive districts' and this has led to special training and funding for class and subject teachers to become support teachers in special education and to attend events featuring the potential of children with disabilities. A resource centre for special needs in Sidoarjo handles all disabilities, at least at the stage of diagnosis, with parents and community also taught to be more 'disability inclusive'. There is another resource centre for inclusive education in Gresik that won MoEC's 2013 'Inclusive Education Award' and the district has issued a regulation to encourage schools that formerly refused to enrol children with disabilities to make an effort to enrol them. Schools competed to be labelled an inclusive school and there are currently 37 inclusive schools in the district with 41 support teachers. In addition, the local government in Gresik provides schools with an extra IDR115,000 per month out of the district government budget (BOSDA) for each child with disabilities enrolled.

In contrast, Pasuruan and Jombang have no inclusive schools and respondents thought this was because there has been no policy directive from above and therefore no district regulations concerning their establishment. In these instances, there is little data on children with disabilities (how many there are, whether

¹⁵ This categorisation is contrary to international professional practice that identifies 'intellectual disability' and 'specific learning disability' (Categories of Disability under the IDEA, Center for Parent Information and Resources, 2017, <https://www.parentcenterhub.org/categories/>). In the Indonesian case, labelling children with such difficulties as 'slow learners' makes it less important to diagnose why they are slow, for example, whether for intellectual reasons or due to visual or speech impairments.

they are enrolled in school and where) and those that are identified are sent to specialised schools. One reason given for this neglect was that these districts are still awaiting training in the 2013 curriculum so that teachers can gain experience in working with children with disabilities.

Some good practices observed that relate to inclusive schools include the following:

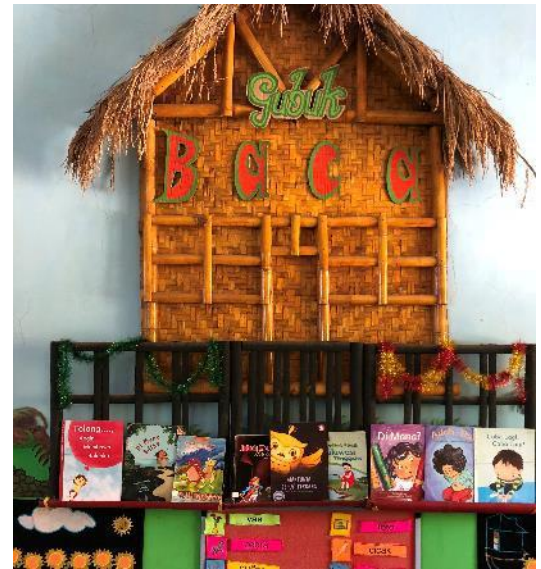
- Limiting the use of support teachers to encourage children with mild disabilities to take part in regular classes;
- Setting up a resource room just for children with disabilities that also serves as a quiet space for children disturbed by or disturbing regular classrooms;
- Having a trained therapist to support a range of motor skills and other issues;
- Having a full-day school schedule and so no homework, allowing children (including children with disabilities) the freedom to pursue their own interests and spend more time with their families;
- Pre-entry and post-graduation psychological testing to diagnose needs and determine progress;
- Individualised learning programs for children with disabilities with teachers doing detailed reports on daily progress across a range of skills and focusing on any special skills that the children with disabilities may have (music, computers, graphic design);
- Developing a guidebook for all teachers on implementing inclusive education, specific to the school;
- Ensuring special diets for autistic and hyperactive children;
- Focusing efforts on eliminating the bullying of children with disabilities by other children in the school;
- Encouraging some children with disabilities to take the official national curriculum and grade six examination and continue their education into junior secondary school.

3.7 How policy and professional practice have been influenced by the innovations and promising practices

In two areas we visited, innovations and good practices seem to have influenced district-level policies. Clearly, innovative practices in inclusive schools (officially labelled as such or not) demonstrate that inclusion can work – even in regular schools. Using support teachers for children with disabilities (some as volunteers, others paid), individualised learning plans, and training and sensitising teachers in regular schools about inclusive education seem to have made districts more willing to establish or expand their inclusive education program.

The practices that aim to create a reading habit and enhance literacy skills also seem to have inspired districts to welcome higher-level government initiatives such as the national literacy movement (*Gerakan Literasi*). This is an example of central policies combining with local practice and influencing mid-level regulations. The large number of schools and other organisations concerned with literacy in Sumenep, for example, helped to reinforce the district office's interest in this issue.

In addition, another kind of influence at the policy level derives more from the recognition that innovation, in itself, is desirable, necessary and good. The best example of this is from Madiun where all 71 primary schools have to present an innovation or good practice during the yearly three-day workshops. With this policy, schools are encouraged to be innovative and use good practices in school management and teaching–learning processes. At a higher level, the district head in Madiun has Monday meetings with all heads of district offices where each head must report on activities of the previous week and highlight at least one innovation. In addition, all principals have to develop plans and budgets based on their schools' self-assessments. Schools are encouraged to develop their own 'brand' by identifying their own good practices that they can use to attract new students, for example, identifying as a 'green' school or a 'literacy' school, or, as for SDN Pangarangan 3 in Sumenep, as an 'inspirational' school. (Districts have also branded themselves in regard to inclusiveness, school health, and so on.)



Figures 8 and 9: Examples of classroom innovation at SDN Pamalokan, Sumenep district

Current professional practice is meant to be influenced by the kinds of good practices and innovations found in the stocktake study. Some of the practices described in the study were limited to one classroom or one school while others had at least been disseminated through teachers' working groups. In the case of Madiun, for example, good practices were disseminated to all schools through the annual meeting on innovation and in two other districts, this was done through more informal comparative study visits between districts and even between provinces. However, these are exceptions as overall dissemination or replication among clusters, let alone districts, is limited. Thus these innovations do not greatly influence the teaching practices of a larger body of teachers across a district.

In terms of learning outcomes, since so few of the good practices identified focused on early learning, they have not led to the much-needed clarification of how children best become literate and numerate in Indonesia or to better practices to make this happen. More often these practices teach or reinforce more advanced skills, support wider community literacy and promote stronger reading habits.

In only two districts we found an emphasis on decreasing disparities in the quality of schools and in students' learning outcomes. There was therefore little evidence that the good practices we examined were lifting up weaker performing schools to higher levels of quality.

By definition, the good practices and innovations we assessed were home-grown and bottom-up initiatives and the best of them represented good examples of positive deviance. However, so far none of them seem to have gained the external support or even the influence needed beyond their own district (or even their own cluster) to have been scaled out. Mechanisms such as the annual workshop in Madiun featuring innovations from every school might inspire other schools to try something new but this does not mean that the best of those presented are systematically supported in the district. In other words, the mechanisms are limited for the ministry or provincial governments to scale out good practices and innovations, except within the cluster.

3.8 Education in East Java: a context for innovation?

One essential question in the stocktake study was 'why choose East Java'? What promotes innovation in the context of the province? East Java has been known as a province rich in innovation in education – one district officer (Sidoarjo) called it a 'barometer' for educational innovation. One easy rationale for this is that it has been the site for several external development programs, funded by both bilateral and multi-lateral agencies –

for example, Creating Learning Communities for Children (CLCC), PRIORITAS, MBE and Decentralised Basic Education (DBE). Thus the province has benefitted from global best practices and some of these have been sustained or adapted or have inspired the innovative mindset currently reflected throughout the province. While this is true to some extent, other crucial factors emerged, such as the ease and transparency of communication across the province and its large number of higher education institutions that can support research and promote better practices. Various factors also seem to have played a part in developing a context in East Java that ‘works’ in regard to developing and implementing (but not often scaling-out) good practices, including:

- **An ‘eco-system’ for innovation:** Such a system was described in more than one instance as characterised by: (1) open-minded principals and supervisors providing space for new ideas and promoting collaboration with and among teachers and district offices and (2) supervisors informing teachers and principals that they would proactively seek and reward innovations. One district office staff member in East Java said that innovating is a desire (*keinginan*), not a need (*kebutuhan*). In another example, the head of the provincial religious affairs office indicated that principals would be replaced if their schools did not implement innovations.
- **Education offices encouraging innovations:** There was a clear difference between education offices that seemed to be proactive and motivated in their work and those that were not. This was often reflected in the office slogans, for example: one slogan urged all principals to be ‘active, creative, communicative and innovative’ (*aktif, kreatif, inovatif, komunikatif* – AKIK), another encouraged teachers with the slogan ‘one school, three innovations’ (*satu sekolah tiga inovasi* – SAKTI); in Gresik it was ‘one agent, one innovation’; and in Malang city the slogan was called the ‘three Ms’, standing for schools being easy to find, cheap and consistent in quality (*Sekolah 3 M: Mudah mencari sekolah, Murah, dan Merata kualitasnya*).
- **An increase in the number and size of private schools:** Such schools compete with government schools and among themselves so they need visible good practices to attract enrolment (*no inovasi, mati* – ‘no innovation, dead school’, as one private school principal said). These private schools also have more freedom to develop new approaches because of they have looser ties with and less dependence on the district office. Their attempt to develop good practices as part of their ‘brand’ might in turn inspire government schools to do better.
- **A strong focus on (healthy) competition:** While competition at the national, provincial and district levels among principals, teachers, schools, students and clusters can have negative consequences, it can also encourage innovations and better practices (see the note on the trophy syndrome). Thus, strong district offices, such as in Gresik, encouraged all teachers and principals to try new and different ideas and organised competitions with rewards and recognition for the best ones; in two districts the best ideas were published and disseminated.



Figure 10: This glass cabinet full of trophies represents part of Indonesia's ‘trophy syndrome’ – a material proof of education quality, but not always accurate.

This context promoting change and innovation is, however, affected by other factors that can work against change or at least fail to support it:

Culture, tradition and socio-economic conditions:

These issues to some extent influence the nature of education and innovations in East Java. The staff in two district offices believe that Madurese culture is generally less supportive of education compared to the rest of East Java. A strong Islamic influence, not only in Madura but also in other districts along the eastern coast of East Java, can have a negative impact on girls’ education, for example, when girls leave school for early marriage. By contrast, the urban context of the Malang-Batu area, combined with the heavy presence of higher education institutions, is likely a factor in the range of good practices and innovations found in those districts. Other

related factors working against innovation were said to include the entrenched structural poverty of Situbondo and Bondowoso that leads, among other things, to little extra local funding to improve schools.

District autonomy: The extent of district autonomy, brought about by the process of decentralisation, can both support and suppress innovation. One impact of this autonomy is that each district office can choose to follow ministerial policies (such as ministerial regulations) or they can ignore them. All but one district knew about the regulation on having at least one inclusive school per district and some had reinforced it with a district regulation while others appeared to be far behind in its implementation. District autonomy has several consequences:

- The central ministry has lost much of its leverage and authority in ensuring the accuracy and timeliness of data collection and reporting and the implementation of ministry policies. Policies often become recommendations rather than obligations. Thus, for example, the national education office can do little to ensure that presidential or national education regulations on inclusive education are implemented in every district.
- Despite the pre-qualification process for potential principals through the Institute for the Development and Empowerment of Principals (*Lembaga Pengembangan dan Pemberdayaan Kepala Sekolah – LP2KS*) one district in Solo still reported on principals being replaced by provincial or district appointment and promotion boards without reference to the education offices. This means that those appointed might not be the most suitable for the post and therefore not the most likely to inspire change.
- Supervisors are assigned or allocated tasks with clusters differently within the district offices. Some are assigned more or less permanently to one or two clusters giving the cluster schools consistent support (assuming the supervisor is competent). In other areas, with fewer supervisors than clusters, supervisors move among the clusters depending on the cluster meeting program (as one respondent described it). While these differences are not necessarily negative, their relative advantages and disadvantages in regard to school quality improvement deserve further study to ultimately recommend the best way of assigning supervisors to school clusters.
- The issue of supervision for the clusters also relates to inconsistencies in the nature, activities and quality of the clusters themselves. All the district offices and schools visited appreciated the clusters but half of them seemed to fulfil the bare minimum requirements (hosting two-hour meetings of grade or subject teachers a month to discuss common problems) while the other half went much further, calling in resource persons from organisations like the LPMP for additional training, for example, and finding ways for stronger schools to support the weaker ones.
- Added to the mix of clusters and supervisors we also encountered the systems of model schools and reference schools (*sekolah model, sekolah rujukan*) but there was a lack of clarity about their function, especially in relation to improving the quality of schools. There is one model school per sub-district and these schools that are guided by the local LPMP need to have at least 12 classes (two per grade) and must fulfil the eight national standards for education. There is one reference school per district and these are guided by MoEC through the Directorate for Primary School Development and largely arise from the previous international standard schools system. The model school is meant to have partner schools (*imbis*) within its cluster. Most model schools seem to follow the ministry guidelines and choose their partner schools by geographic proximity. One model school more logically has the core schools of the clusters as their partner schools. Also, in some districts, the assumption is that model schools will somehow graduate to being reference schools. It is not clear how and to what extent this complex mix of school types is being optimally coordinated to focus their efforts on school improvement.

3.9 Challenges to improving school quality and students' learning outcomes

This study revealed several remaining challenges for both INOVASI and MoEC in regard to improving school quality and increasing student outcomes, including:

The lack of a common understanding of how to teach literacy (and to a lesser extent, numeracy):¹⁶ In many of the district offices and schools visited, staff and teachers found it difficult to explain clearly how they teach literacy in their schools. Most described a phonic approach but focusing on letter memorisation rather than sound vocalisation. In one non-governmental organisation promoting literacy, one teacher described the phonic approach while another said she used the whole-word approach. So literacy does not appear to be clearly or consistently understood as a concept (how it is defined), as a process (how it is learned) or as pedagogy (how best to teach it) and therefore literacy teaching does not generally follow international best practice in relation to systematic and sequenced steps as described in the literature review.

All schools, however, understood the problem of 'slow' readers or learners and the need to identify these issues early and provide additional support for these children. At least half the schools were willing and able to assist such children, especially in the early grades, with extra hours of instruction and, in one case, through the use of kindergarten texts as a way of developing stronger literacy skills.

The lack of a strategic approach to developing, implementing, disseminating and sustaining better practices, especially those linked to better teaching and learning and using the institutions and individuals currently available: A wide range of actors at the district level and below are meant to help improve school quality and, more specifically, enhance teaching and learning practices and therefore learning outcomes. This includes district office staff, supervisors, the LPMP, model schools, reference schools, the core schools in school clusters, the clusters themselves; the teachers and principals' meetings these clusters coordinate, as well as principals and teachers, especially the most senior and most experienced (if not always most 'expert').

Although decentralisation gives district offices the autonomy to organise themselves, this results in considerable variation in how these entities work together towards the common goal of developing good practices and innovations. Some districts assign supervisors more or less permanently to clusters while in others, they move from cluster to cluster. The capacity-building role of the reference schools supported by the ministry was not clear and little understood. The role of the model schools was clearer, with each one heading a cluster of nearby schools, but this structure provided little support to other schools in the sub-district. Only in one district the model school's partners were the core schools from all the clusters in the sub-district. This put in place a pyramid of support and communication (top–down and bottom–up) from the LPMP to the model schools and then to the core schools and their cluster members (regular schools). In general, therefore, the lack of clarity about – and complementarity among – the roles of the actors makes it more difficult to ensure the systematic support of good practices and innovations that leads to better schools and better learning outcomes.

Inconsistent professional supervision and support: Related to the lack of strategy is the inconsistent support to teachers, whether they are new and still learning or older and less willing to learn. This starts at the pre-service education stage, outside the purview of this report, and continues into ongoing, in-service training and further professional development. None of the schools questioned about how they handle new teachers had a systematic approach to induction and probation, two important parts of the recruitment and professional development processes. However, the schools selected as having good practices ensured ongoing supervision, training and support for their teachers through the principal, the cluster and the school supervisor. All but one school or office indicated that new principals had been pre-qualified through the LP2KS in Solo and that new systems of recruitment and certification now guaranteed more qualified supervisors. Generally, respondents felt that the leadership of principals and supervisors had improved and all interviewees appreciated, with varying degrees of enthusiasm, the activities of the clusters. However, this varied from Madiun where supervisors visit a different school every day for the mandated three hours (focusing on low-

¹⁶ This lesser extent here relates to two issues: (1) the relatively few cases that deal with numeracy among the 35 good practices chosen; and (2) the comparative ease with which children can gain the fundamentals of numeracy (numbers and simple calculations) in the early grades.

performing schools) to other districts where supervisors' visits are less frequent, less intense and tend to focus on administrative rather than pedagogical issues.

The lack of consistency in local government support, whether from mayors, district heads, the district legislature or village-level structures: In the worst case, there is little support from any of these functions for various reasons, with priorities reflecting an interest in infrastructure rather than human capacity development. There are therefore few district regulations focusing on education (such as universal education or inclusive education) and local government or village funding for education is often limited (apart from the district-level operational funds for schools). This leaves contract teachers, for example, with only the limited salary provided by the school through its operational funds and no real oversight of the performance of the local district education office and the schools it supports. In the best case, as in Madiun, local government funds are used to supplement teachers' contracts (up to IDR1.6 million per teacher, with Malang providing IDR500,000 per teacher).

The persistence of inequity and the lack of interest in promoting equity: Only two of the seven district offices visited in depth referred to equity or promoting equity as one of their major challenges and functions. These two districts were especially conscious of the inequities between urban and rural schools, rich and poor schools, and schools considered 'favourite schools' (a term apparently no longer acceptable) and those not. These inequities are caused by factors such as a history and reputation of poor quality, the lack of qualified teachers, inadequate facilities and materials, and a surrounding community with a higher level of poverty and a lower level of both support for the school and awareness about the importance of education.

While everyone appears to understand the problem, only a few offices or model schools acted on it. In Probolinggo, for example, there is a conscious effort, through an 'education clinic', to have a favoured school in the middle of the city to provide assistance and resources to less favoured schools at the edge of the city. More could be done, for example, by seeing one function of the cluster as not only to raise the quality of the cluster as a whole but also specifically to lessen the gap between the best and the worst performing schools. A new ministry policy to send good teachers and principals to poor schools may help in this process.

One symptom of this problem is what might be termed Indonesia's 'trophy syndrome'. Almost every school visited had at least one glass-fronted cupboard (or sometimes three) filled with trophies and medals representing competitions won by the school or its principal, teachers and students at district, provincial and national levels in areas like inclusion, innovation and the environment. These awards were clearly used as proof of quality to attract new enrolments and were sometimes featured in school publications. No one interviewed, however, had considered how such competitions were likely to reward rich, urban schools of good reputation and neglect poorer, more rural and less renowned schools (and perhaps consequently widen the gap).

Madiun, again, was an exception. In order to promote greater equity, new students are admitted to any school without being tested, no competitions are held between schools and skilled supervisors are sent to weak schools to assess how they need to be improved.

4. SUMMARY OF FINDINGS AND CONCLUSIONS

A number of conclusions can be drawn from the results of the stocktake study.

The interest in developing better practices and broader innovations appears high in East Java for a range of reasons listed by the respondents and reported in this study. These include:

- an 'eco-system' supportive of innovation;
- district education offices that encourage innovations;
- an increase in the number and size of private schools which, in the competition for new enrollees, encourages many schools to appear 'innovative';

- a strong focus on (healthy) competition.

The examples from the stocktake study of a broader whole-school approach to change, as suggested in the literature review, demonstrate that **comprehensive change can be achieved**. But they also show that this is facilitated by a combination of a strong leader—principal, teachers willing to collaborate and take chances, a supportive community, and supervisors and district offices able and willing to support this process. Such change replicates the PDIA approach where problems are identified at the bottom level by schools and local communities and then resolved in an iterative, step-by-step process that permits flexible learning and adaptation and leads to innovations and practices that work. To help in this process, a wide variety of mechanisms and procedures need to be put in place and then better coordinated to ensure that such change is sustained even after the ‘inspirers’ have moved on.

Although many good practices have been developed and implemented across East Java, designed by creative principals and teachers individually or in groups to solve particular teaching-learning problems, **many good practices do not become part of either a more comprehensive whole-school approach to innovation and change or a process of scaling-out to more teachers, more schools and beyond**.

This can be due to:

- limited support (or even interest) from principals and supervisors to promote and disseminate the practices;
- a lack of interest in and methods for assessing the impact of the practices and demonstrating their potential usefulness in other settings;
- a lack of interest or willingness of other teachers to adopt the practice (or its unsuitability to other grades and subjects);
- the absence of mechanisms beyond the school and cluster for further scaling out the practice.

Teachers are not adequately trained during their pre-service training in a systematic, developmentally appropriate and sequenced approach to teaching literacy and numeracy, especially in the early grades.

This apparent lack of attention paid to literacy and numeracy in the pre-service curriculum (although the study team did not explore this content) was reinforced by the difficulty teachers and principals had in explaining in detail how these subjects were taught – or, in one case, two teachers advocating competing approaches within the same program. Examples of better and systematic approaches to early learning may exist but in the examples we analysed and at least in regard to literacy, there generally appears to be greater interest in promoting a stronger reading habit and community literacy than in ensuring that all students gain a solid, early foundation in the basic skills needed for successful learning.

Although Indonesia has the components of a strong support system for school improvement and teacher development, the respondents in this study felt that these components do not always work synergistically to provide such support. Clusters are generally appreciated for the functions they fulfil but there is a lack of clarity concerning: (1) the roles of model schools, reference schools and core schools (as well as the LPMP and its quality assurance team); and (2) the ways in which these types of schools relate to each other, to district offices and to other schools, and how they work to support school improvement. This confusion makes it difficult to develop a strong, comprehensive support system.

The processes of monitoring the implementation of new practices and innovations and evaluating their ultimate impact on school improvement and student outcomes are not fully understood and so are weakly implemented in East Java – and this may pertain elsewhere in Indonesia as well. Educators often do not see the importance of such processes (and some respondents were even surprised to be asked the question). They generally have not developed clear indicators and gathered essential baseline data to make such processes useful and tend to refer more to anecdotal, qualitative impressions of impact rather than quantitative measures – although the latter are, admittedly, difficult to identify. This lack of interest in recording tangible impacts – echoed in the disregard for more proactive replication of these good practices – may derive from the feeling that a new good practice or innovation is a ‘terminal idea’ – in other words, it is useful in itself

(to solve one teacher's particular problem, win a trophy or gain a promotion) but not important beyond that immediate use.

The definition of inclusive education adopted in East Java is limited to disabilities and special needs.

Analyses of and efforts to deal with other obstacles to learning – gender, remoteness, language, poverty – are minimal with once pioneering activities in multi-grade teaching now being largely abandoned.

Although East Java schools and district offices are committed to disability-inclusive education, their implementation of the relevant presidential and national education regulations is inconsistent. Some districts have gone beyond the requirements of the regulations to establish and seriously fund inclusive schools while others have apparently done little to fulfil these requirements.

The limited definition of inclusive education is linked to the general neglect of issues of inequity and disparities in access and quality. In discussions with district offices, there was generally little interest shown in systematically helping to improve the quality of education delivered by lower performing schools, either in absolute terms or in comparison with higher performing schools in the district – although with notable exceptions.

5. RECOMMENDATIONS

To the Ministry of Education and Culture

Based on the information and conclusions of this study, it is recommended that the Ministry of Education and Culture:

- **Seek ways to promote a greater interest in developing, implementing and disseminating good practices and more comprehensive innovations across the education system** and to encourage district offices and their supervisors to identify and nurture these innovations. Such good practices should become one important component of a whole-school approach to change. This needs to go beyond sponsoring competitions or awarding trophies to developing mechanisms that encourage all relevant actors to work together to develop, adapt, evaluate, disseminate and scale out good practices. For example, the roles of supervisors can be better defined towards this purpose, clusters can be strengthened and better resourced, and inter-cluster and inter-district mechanisms can be developed to scale out good practices more widely.
- **Pay more attention to the quality of early learning, especially in regard to literacy and numeracy.** This should include:
 - a smoother, more seamless transition in content and pedagogy – from the pre-literacy or emergent literacy and numeracy curriculum meant to be delivered in early childhood education (PAUD)¹⁷ programs to the more advanced curriculum taught in the early grades of primary school and meant to lead to mastery of these skills;
 - clear, recommended approaches and steps that teachers should understand and use in the early grades so their students more easily gain mastery;
 - a revised pre-service education training curriculum in these subjects to provide more hours and a more systematic approach to teaching literacy and numeracy; this should include a larger proportion of time for classroom observation and teaching practice;
 - a greater variety of methods that teachers can use to provide additional support to slow readers or learners and training in these methods.

In a summary from one study of Indonesian education:

‘...teaching and learning factors have the highest pooled effect on both literacy and numeracy learning outcomes ...There is strong evidence that using teaching strategies based on students’ needs and difficulties can improve learning outcomes ... teachers should have

¹⁷ *Pendidikan Anak Usia Dini* [education for young children]

sufficient comprehension of the subject matter, pedagogical knowledge and adequate social skills to understand the problems in the classroom and to choose and implement the most appropriate teaching strategy' (Rarasati *et al.* 2017).

This conclusion is echoed more generally by Hattie's definition of 'expert teachers' as opposed to 'experienced teachers' as referred to in this study – the former are different from the latter in:

'... the way they represent their classrooms, the degree of challenges that they present to students and, most critically, in the depth of processing that their students attain. Students who are taught by expert teachers exhibit an understanding of the concept targeted in instruction that is more integrated, more coherent and at a higher level of abstraction than the understanding achieved by other students' (Hattie 2003).

This reflects the kind of 'deepening' of learning that Fullan (2015) also talks about.

- **Develop more systematic and comprehensive mechanisms to promote improvements in school quality.** Among other things, the ministry needs to **clarify the roles of – and relationships among -- the various actors focused on school quality at the local level:** the LPMP; model schools, reference schools and core schools and their clusters; district office staff and supervisors; principals and teachers; and the local community and school committee.
- **Promote a stronger culture of monitoring and evaluation within the education system, from the top down to the level of the school.** This can begin in the pre-service and then the in-service training of teachers, principals and supervisors by emphasising the importance and the various uses of monitoring and evaluation, the questions these processes might answer, and the methods, tools and indicators that are appropriate to answer these questions.
- **Adopt a broader definition of inclusive education** – in line with ever more accepted international usage – to include all obstacles to access to and learning in school. In this regard, the ministry should:
 - ensure that mechanisms are in place to guarantee school access to all children living in poverty;
 - establish and promote training programs and policies related to multi-grade teaching for small, rural and remote schools;
 - explore if the apparent differences in school achievement related to gender are significant enough to demand special attention;
 - promote initial literacy in mother tongue in early childhood education programs and the early grades of primary school.
- **Reinforce the presidential and national education regulations related to disability-inclusive education.** In doing this, the ministry should:
 - follow-up with whatever mechanisms are available to ensure that district level officers understand and comply with these regulations and allocate the additional funds to provide adequate facilities and human resources for successful inclusive education as part of their local budget planning;
 - examine whether, how and when to ensure the greater inclusion of children with physical and sensory impairments in inclusive schools, given that they currently more easily accept and manage children with socio-emotional issues (autism, hyperactivity) and those who are 'slow learners';
 - expand the number of hours devoted to identifying and teaching children with disabilities in pre-service teacher education programs so that all new teachers have basic skills in disability-inclusive education, on the assumption that more children with disabilities will enter regular schools and/or that more schools will become inclusive schools.
- **Assess disparity and inequity in the access to and quality of education more thoroughly and act more aggressively to reduce these imbalances.** This study indicated that there is inadequate concern by education offices in East Java about inequity. In a world marked by ever greater disparities in opportunities and achievements – rural-urban, poor-rich, minority-majority, able-disabled – the

ministry needs to pay more attention to reducing disparities in school access and learning outcomes. In this regard, it could:

- take into account the recommendations concerning inclusion above as one essential way to reduce disparities;
- revisit the approach to competitions, trophies and medals that tends to reward institutions and individuals who are already successful (and often from élite and urban backgrounds) in order to provide rewards for quality improvement in weaker, smaller, poorer, rural or remote schools that (as genuine positive deviants) can carry out effective self-assessments and then plan and implement ambitious school improvement plans.

To district education offices

It is also recommended that district education offices:

- **Provide stronger, more consistent support to identify, develop and scale out good practices and innovations toward school improvement and better student outcomes.** This study showed that while good practices and innovations can be promoted effectively in one district, they can also be ignored and therefore not supported in another. The important variable seems to be the openness to change and flexibility of principals, supervisors and district offices. Not all new practices and innovations prove ultimately useful or able to be adapted to different contexts or scaled out but district offices should:
 - encourage teachers and principals to collaborate to identify problems in teaching and learning and to develop and try out, in an iterative fashion, new practices to solve these problems;
 - encourage supervisors to identify, nurture and help further disseminate these practices;
 - set specific targets for schools, supervisors and principals in regard to developing good practices and ensuring their accountability for their implementation and impact;
 - support an emphasis on monitoring and evaluating among schools and clusters, both in their regular programs and for new practices and innovations;
 - support more comprehensive, whole-school innovation and reform beyond narrowly-focused good practices to ensure the greater impact and sustainability of the resulting changes.
- **Promote greater collaboration among all actors involved in quality improvement.** This study outlined the range of actors, inside and outside the education sector, who can work more collaboratively to improve the quality of education. It also showed that this often does not happen in the districts visited. Thus, more work is required and district offices could:
 - clarify the roles and strengthen the capacity of – and the collaboration among – the LPMP, district office staff, supervisors, principals, teachers and school committees in enhancing school quality;
 - explore more efficient and effective policies and mechanisms in assigning supervisors to support schools and clusters;
 - explore more efficient and effective ways to ensure that model schools, reference schools, core schools and their cluster members are structured and organised to promote better school quality and student outcomes.
- **Provide more support and professional development to teachers who are teaching literacy and numeracy in the early grades.** This should include:
 - facilitating information sharing between early childhood education programs and grade one teachers to identify students weak in literacy and numeracy and provide additional support to these students early in grade one; this could extend to workshops on early learning attended by both early childhood education and early grade teachers;
 - ensuring that teachers assigned to teach these subjects in the early grades have the requisite knowledge and skills to do so.
- **Pay greater attention to problems of inequity and disparities** and therefore ensure that an important function of district office staff, supervisors, clusters and competitions is not only to raise the

quality of all schools in the district but also to decrease the gap between the highest and the lowest performing schools.

- **Continue to promote and develop disability-inclusive education.** District offices could first ensure that the requirements of the presidential and national education regulations on inclusive schools are fulfilled but then go beyond these to guarantee that all schools are prepared and ready to accept children with disabilities. The definition of what categories of disability schools are to welcome should also be expanded over time to include children with sensory and physical disabilities, and schools should be given the resources to make this possible. This implies that the role of and enrolment in special needs schools will decrease, freeing up experienced staff to provide more support to teachers working with children with disabilities in their classes.

ANNEXES

A. Innovations and good practices identified in East Java: summary

| School/ Institution | Title | Description of innovations/good practices |
|--|--|---|
| Integrated Islamic primary school (SDIT) Al Faizin, Sampang district | Support for slow readers | Many students, although some come from a kindergarten, have not learned adequate pre-literacy skills and therefore are slow in learning to read when they start in grade one. To solve this problem, teachers use simpler kindergarten books to teach reading after school hours. Every day students who cannot read adequately get extra tutoring. The target is that after three months, these students are able to read like the other children. If this target is not achieved, the tutoring can be extended up to six months. Students get the extra tutoring for free. |
| Primary school (SD) Ar Rahman, Jombang district | Individual education programs for special needs students | This private school – a full-day, 'green' school (schools that focus on being environmentally sound are known as <i>adhiyiyata</i> schools in Indonesia) – applies flexible rules (there are no uniforms and children can come to school when they like) and uses its own curriculum as well as the ministry and Cambridge curriculum. Since 2005 the school has accepted children with special needs (autistic and hyperactive children and slow learners). All students are given a psychological examination in Surabaya on entering the school. Individualised instructional programs (including adapted worksheets) are developed – and carefully reported on – for each special needs student and they are assisted in learning by trained assistant teachers (some paid by the parents) and volunteers from the local boarding school. |
| Public primary school (SDN) Patihan, Madiun city | Setting up students' working groups to improve school environment management | <p>Objects from the environment are used for grade one counting, including toothpaste boxes and soap wrappings. These items are selected for each day, for example, depending on the theme being discussed. The teacher always tries to select items relevant to the theme discussed that day – it was personal hygiene in this case the day we observed.</p> <p>SDN Patihan is also an independent green (<i>adhiyiyata mandiri</i>) school. This means that the school has a culture centred on the environment and has successfully guided other schools to become 'green' schools. <i>Adhiyiyata</i> schools try to follow good environmental practice by keeping the grounds clean, implementing the 3Rs (Reduce, Reuse and Recycle), and promoting waste disposal and composting.</p> <p>Most notably, school improvements are sustained by setting up many working groups in the school, for example, working groups are responsible for: keeping the toilets clean; cleaning the school grounds; and collecting and sorting rubbish in the school. The groups are supervised by a teacher and members are students from grades four to six. Whenever the students have to do some work for the group, they wear a sash, showing their membership of a working group. Wearing the sash gives the students some status and they are proud of it. Every year, when the grade six students graduate, new grade four students are recruited.</p> |

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| District education office Madiun city | Promoting good practices in education | The district education office for Madiun city strongly supports schools in developing innovations. Once a year they conduct a three-day workshop where all 71 of its primary school principals must present an innovation from their school. This creates an atmosphere of innovation in the entire district. Madiun city has also developed a 'Grand design for education' until the year 2025, which was a collaboration of Bappeda, the district education office and an outside consultant. This grand design guides the development of all levels of education in Madiun city and supports the work of a well-organised set of supervisors some of whom focus on low-performing schools. |
| SDN Karangan 1, Ponorogo district | Reading, writing and interviewing skills | A teacher who has a journalism background realised that although students had basic reading skills, they lacked other skills related to literacy – they could not compose questions, carry out interviews, write a report and present the report to an audience. Starting in grade three, therefore, students are taught how to interview by first developing a list of questions. They then practise by interviewing their parents and then members of the local community after which they write up a report and present it orally to their class. They therefore gain not only writing and presentation skills but also greater self-confidence. |
| SDN Ploso, Pacitan district | Learning with comics | To stop students getting bored and make them more attentive the grade five teacher asks students to draw comics after a lesson is finished. The comics are to show – both in drawings and in the accompanying text – that they understand the content of the lesson learned. The strategy of summarising lessons in comic form has been well received by the principal and other teachers. Some teachers now implement the same strategy in their classes. Early grade students draw simpler comics than the higher grade students but they still demonstrate that the students understand the lesson. |
| SD Islam Al Azhaar, Tulungagung district | Inclusive education and character building education | The motto of this school is ' <i>melayani dengan hati</i> ' (to serve with the heart) and many children with various disabilities are accepted in the school (for example, autistic or hyperactive children, slow learners, children with Down's syndrome). The school has several support teachers for the children with disabilities (<i>guru pendamping khusus</i> – GPK) and each support teacher is responsible for three students. Out of the 800 plus primary school students, there are 28 children with disabilities. A resource room is available for special sessions with children with disabilities. Parents of autistic and hyperactive children are required to provide a strict diet for their children that they believe will help them learn better. |
| SD Alam Mutiara Umat, Tulungagung district | Market day | <p>The market day activity is conducted each semester and is planned by students with supervision from the teachers. Each class has a stand in the market selling goods and services according to the selected theme. The theme selected for the market day our study team visited was 'Indonesia'. Various classes had stands for Java, East Nusa Tenggara, Sulawesi, Papua and Maluku. The students were dressed according to the region, and region-specific food was also on sale.</p> <p>In this activity, the students learned to plan an activity and work together with support from teachers and parents. The parents prepared snacks at home that were then sold in the market. The students learn to calculate the cost of ingredients and the selling</p> |

| | | |
|-------------------------------------|-----------------------------------|---|
| | | price. At the end of the day, they calculate whether they have made a profit or loss during the sales. The younger students also learn about buying and calculating the money they have spent and assist the older children in the stands. Once a year, the community surrounding the school is invited to the market day event which is also seen as part of the 'branding' of the school that may attract new enrollees. |
| SDN Suruh Wadang 2, Blitar district | Multi-grade teaching and learning | In 2005, this school was assessed as performing well in implementing multi-grade teaching (MGT). The original principal and teachers were trained to implement multi-grade teaching. In 2017, however, the principal was transferred and the trained teachers retired. Only one teacher who was trained is still teaching in the school. The present principal has not been trained and doesn't understand the benefits of multi-grade teaching but only its challenges (overly noisy classes). Although there are enough teachers in the school to permit one per class, there are only five classrooms so grades one and two are still combined. Observation in this one remaining multi-grade class showed that the teacher did not understand the concept of multi-grade teaching. When asked, she confessed that she was new and had never been trained in multi-grade teaching. |

B. Institutions and school visited and respondents met during the visits

Institutions and schools visited

| Province | Institution |
|-----------|---|
| East Java | Provincial education office (<i>Dinas Pendidikan Provinsi</i>) |
| | Provincial religious affairs office (<i>Kanwil Kementerian Agama</i>) |

| District/City | District education office | Primary school | | Other Institutions |
|----------------------------|---------------------------------------|--|---------------------------------------|-----------------------------------|
| | | Government | Private | |
| Gresik district | Gresik district education office | -- | -- | -- |
| Sidoarjo district | Sidoarjo district education office | -- | -- | -- |
| Probolinggo district | Probolinggo district education office | -- | -- | -- |
| Pasuruan district | Pasuruan district education office | --- | -- | -- |
| Batu city | Batu city district education office | -- | -- | -- |
| Malang city | Malang city district education office | -- | -- | -- |
| Malang district | -- | -- | MI Amanah | -- |
| Sampang district | Sampang district education office | -- | SDIT Al Faizin | -- |
| Sumenep district | Sumenep district education office | SDN Pamalokan SDN Pangarangan 3 SDN Pabian 1 | -- | Rumah Literasi Komunitas Toremaos |
| Mojokerto district | -- | SDN Mojokarang | -- | -- |
| Jombang district | -- | -- | SD Ar Rahman | -- |
| Madiun city | Madiun city district education office | SDN Patihan | -- | -- |
| Ponorogo district | -- | SDN Singkil SDN Karangan 1 | -- | -- |
| Pacitan district | -- | SDN Ploso 1 | -- | -- |
| Tulungagung district | -- | -- | SDI Al Azhaar SD Alam Mutiara Umat | -- |
| Blitar district | Blitar district education office | SDN Suruh Wadang 2 | -- | -- |
| Kediri district | -- | SDN Kandangan 1 | -- | -- |
| 16 districts/cities | 10 district education offices | 10 government primary schools | 4 private primary schools | 2 other institutions |

People met during visits to institutions and schools

Gresik district education office – 2 July 2018

2 Heads of sections, district education office
1 Head of the resource centre for special-needs children
2 School supervisors
1 Junior secondary school (SMP) principals
1 Primary school (SD) teachers

East Java provincial education office – 2 July 2018

Head of the education office
Secretary of the education office

East Java provincial religious affairs office – 2 July 2018

Head of the education division
1 Head of section

Sidoarjo district education office – 3 July 2018

Secretary of the education office
2 Heads of sections
1 School supervisor
1 SD principal
1 SD teacher

Probolinggo district education office – 4 July 2018

Head of the education office
Secretary of the education office
2 Heads of divisions
6 Heads of sections
1 Head of a subdivision, the regional planning and development agency (Bappeda)
2 School supervisors
2 SD Principals
1 SD Teacher
1 SMP Teacher

Pasuruan district education office – 5 July 2018

Secretary of the education office
3 Heads of Division
2 Heads of Sections
1 School Supervisor
1 Staff
1 Operator

Batu city district education office – 6 July 2018

Acting head of the education office
1 Head of a division
12 Heads of sections

Malang city district education office – 6 July 2018

Head of the education office
Secretary of the education office
3 Heads of divisions

1 Staff member

Sampang district education office – 25 July 2018

Secretary of the education office

1 Head of section

1 SD Principal

SDIT Al Faizin, Sampang District – 25 July 2018

Principal of SDIT Al Faizin

6 Teachers

2 Members of the Al Faizin foundation management

2 School supervisors

1 Staff of the Sampang district education office

3 Principals from other schools

Principal of Al Faizin kindergarten (TK)

Sumenep district education office – 26 July 2018

Head of the education office

1 Head of a division

SDN Pamolokan, Sumenep district – 26 July 2018

School principal

12 Teachers

1 Head of a division, Sumenep district education office

1 Staff member, Sumenep district education office

Literacy House (*Rumah Literasi*), Sumenep district – 26 July 2018

Manager

Secretary

Treasurer

3 Coordinators (publications, human resources, potential development)

3 Staff members

1 Staff member of the Sumenep district education office

Toremaos Community (*Komunitas Toremaos*), Sumenep district – 26 July 2018

Coordinator

7 Members (teachers/staff)

1 Staff member, Sumenep district education office

SDN Pangarangan 3, Sumenep district – 27 July 2018

School principal

7 Teachers

1 Administration staff member

1 School supervisor

1 Staff member, Sumenep education office

1 School committee member

SDN Pabian 1, Sumenep district – 27 July 2018

School principal

5 Teachers

1 Staff member, Sumenep education office

1 School committee member

MI Amanah, Malang district – 4 July 2018

School principal

6 Teachers

SDN Mojokarang, Mojokerto district – 8 July 2018

School principal

9 Teachers

Head of the village (*Kepala desa*)

2 School committee members

1 School supervisor

SD Ar Rahman, Jombang district – 9 July 2018

School principal

Foundation chairman

3 Teachers

SDN Patihan, Madiun city – 10 August 2018

School principal

16 Teachers

1 School committee member

1 Operator

1 Head of a section, Madiun city district education office

1 School supervisor

Madiun city district education office – 10 August 2018

Head of the education office

1 Head of a section

SDN Singkil, Ponorogo district – 11 August 2018

School principal

1 Teacher

1 Head of a division, Ponorogo district education office

1 School supervisor

1 Staff member, Ponorogo district education office

SDN Karang 1, Ponorogo district- 11 August 2018

School principal

1 Teacher

1 School committee member

1 Head of a division, Ponorogo district education office

1 School supervisor

1 Staff member, Ponorogo district education office

SDN Ploso 1, Pacitan district – 13 August 2018

School principal

3 Teachers

SDI Al Azhaar, Tulungagung district – 14 August 2018

School principal

Quality manager, Al Azhaar Foundation

Manager for inclusive education, Al Azhaar Foundation

1 Head of section, Tulungagung district education office

SD Alam Mutiara Umat, Tulungagung district – 14 August 2018

School principal

Chairman of the Foundation

3 Teachers

1 Psychotherapist

1 Head of a section, Tulungagung district education office

Blitar district education office – 15 August 2018

Head of education office

2 Heads of divisions

1 Head of a section

SDN Suruh Wadang 2, Blitar district – 15 August 2018

School principal

4 Teachers

1 SD principal

3 School supervisors

1 Head of a division, Blitar district education office

1 Head of a section, Blitar district education office

1 Staff, Blitar district education office

SDN Kandangan 1, Kediri district 16 August 2018

School principal

1 Teacher

2 School supervisors

2 Staff member, Kediri district education office

9 SD principals

C. Interview schedules

[For district or provincial offices]
Pertanyaan Wawancara untuk Dinas Pendidikan

Kabupaten/kotamadya _____ Tanggal _____ Waktu _____

Nama/jabatan responden _____

1. Jawa Timur tampaknya sangat kaya dalam inovasi pendidikan dan praktik yang baik, baik yang diperkenalkan oleh program seperti PRIORITAS dan CLCC dan yang dikembangkan sendiri oleh masing-masing sekolah.
 - Menurut Anda, mengapa ada begitu banyak inovasi di provinsi ini?
 - Siapa / lembaga apa yang paling bertanggung jawab untuk merancang dan menerapkan inovasi-inovasi ini?
2. Apa peran Dinas Pendidikan Anda dalam mengidentifikasi dan memelihara inovasi dan praktik yang baik – misalnya, dengan mendorong guru dan kepala sekolah untuk mencoba sesuatu yang baru dan berbeda?
 - Apa peran unit-unit berbeda dari dinas dalam proses ini?
 - Apakah prioritas dinas masih terfokus pada infrastruktur dan akses atau lebih pada pembelajaran yang baik dan kesuksesan belajar?
 - Apakah ada unit yang hanya menangani peningkatan kualitas sekolah (mis. Tim penjamin mutu sekolah)? Bila tidak, mengapa tidak?
 - Bagaimanakah dinas dapat diubah atau diperkuat untuk mendorong lebih banyak inovasi dan praktik yang baik?
3. Apakah konteks sosial dan budaya dari kabupaten/kota ini mendorong atau menghambat inovasi – misalnya, mendorong guru dan kepala sekolah untuk mencoba berbagai hal dengan sendirinya daripada menunggu instruksi dari atas? Jika ya, bagaimana caranya?
4. Peran apa yang dilakukan lembaga / entitas berikut di kabupaten/kota ini dalam mempromosikan inovasi dan praktik yang baik untuk meningkatkan kualitas sekolah dan meningkatkan hasil belajar anak-anak? Bagaimana mereka melakukan ini?
 - DPRD
 - Kantor bupati/walikota
 - Dinas Pendidikan
 - Kandep Agama
 - Dana asing melalui proyek bantuan (UNICEF, USAID, DFAT dsb)
 - LPMP
 - Gugus/KKG/KKKS
 - Pengawas/penilik
 - Kantor desa/kelurahan
 - Komite Sekolah
 - Lembaga non pemerintah, LSM, seperti PGRI, Lembaga Ma'arif NU, dll.
5. Ada banyak strategi yang dapat digunakan untuk meningkatkan kualitas sekolah dan meningkatkan hasil belajar. Manakah dari ini yang paling bermanfaat di kabupaten/kota ini dan mengapa berhasil?
 - Manajemen Berbasis Sekolah (MBS)
 - Gugus/KKG/KKKS
 - Lomba sekolah tingkat nasional/provinsi/kabupaten-kota/ gugus
 - Olimpiade untuk siswa (matematika, sains dsb)
 - Penghargaan untuk guru perorangan (Pemilihan Guru SD Berprestasi dari tingkat kecamatan sampai nasional)
 - Pembelajaran Kelas Rangkap (PKR)
 - Sekolah imbas dan sekolah inti dalam gugus

- Sekolah model binaan LPMP
 - Sekolah rujukan binaan Direktorat Pembinaan SD
 - Gerakan Literasi Sekolah; Gerakan Literasi Keluarga; dan Gerakan Literasi Masyarakat
 - Kerjasama dengan Kementerian Kesehatan untuk kesehatan dan gizi siswa
 - Pendidikan orang tua untuk memberikan dukungan kepada sekolah dan belajar anak
 - Pendidikan inklusi
6. Banyak kepala daerah mendeklarasikan / mengeluarkan perbup dan atau perda tentang berbagai hal dalam pendidikan (misalnya, Anak Berkebutuhan Khusus/ABK). Seberapa efektif / bermanfaat / penting deklarasi/perbup/perda itu menurut Anda dalam meningkatkan kualitas sekolah dan meningkatkan hasil belajar siswa? Apakah ada contoh di kabupaten/kota ini?
 7. Salah satu fokus utama INOVASI dalam pekerjaannya dengan Kementerian adalah mengidentifikasi anak-anak yang tidak bersekolah dan memastikan agar mereka masuk sekolah dan belajar. Seberapa besar tantangan pada kategori anak di bawah ini yang tidak bersekolah di kabupaten/kota ini dan apa yang sedang dilakukan untuk mengembalikan mereka ke sekolah? Bagaimana? Apa hasilnya?
 - Perempuan (atau laki-laki)
 - Anak-anak miskin
 - Anak-anak dengan bahasa ibu yang digunakan di rumah bukan Bahasa Indonesia
 - Anak-anak yang tinggal di daerah terpencil atau perbatasan (3T)
 - Anak berkebutuhan khusus
 - Apakah ada Sekolah Inklusi di kabupaten/kota Anda?
 - Bila ada, bagaimana melayani ABK?
 8. Bagaimana inovasi lokal dan praktik yang baik biasanya dibiayai? Dari sumber biaya mana?
 - APBD, Dana desa, Bantuan asing (proyek)
 - BOS/BOSDA
 - Dukungan masyarakat
 9. Seringkali sulit untuk menilai dampak dari inovasi atau praktik yang baik pada kualitas sekolah dan belajar siswa.
 - Bagaimana dampak inovasi pada sekolah dan siswa di kabupaten ini dijelaskan dan dievaluasi?
 - Apakah dampak ini diukur secara lebih kuantitatif? Misalnya. Apakah inovasi tertentu telah meningkatkan nilai prestasi? (UN, penilaian formatif, AKSI, EGRA, persentase transisi ke jenjang pendidikan yang lebih tinggi, persentase mengulang, dll.)
 10. Banyak inovasi bergantung pada kepribadian / kewenangan satu orang (misalnya kepala sekolah) dan / atau kerjasama antara guru-guru inovatif dan / atau pejabat dinas yang inovatif dan dukungan pemerintah yang kuat. Tetapi guru, kepala sekolah, dan staf dinas akan pensiun atau dipindahkan. Banyak inovasi yang telah mereka kembangkan tidak dilanjutkan setelah mereka pergi.
 - Apakah hal ini merupakan masalah di kabupaten/kota ini?
 - Apa yang telah berhasil dilakukan, atau harus dilakukan, untuk membantu memastikan bahwa inovasi dan praktik yang baik dapat dipertahankan?
 11. Banyak inovasi berhasil karena cocok dalam konteks tertentu – lingkungan sosial-budaya yang berorientasi inovasi, komunitas yang mendukung, kepala sekolah yang menginspirasi, dan guru yang termotivasi.
 - Apa yang harus dilakukan untuk mereplikasi / mengadaptasi inovasi dan praktik-praktik yang baik di sekolah dan lokasi lain?
 12. Banyak inovasi dimulai dari proyek-proyek yang didanai oleh donor. Dalam beberapa kasus, perubahan/praktik yang baik yang diperkenalkan oleh proyek-proyek ini telah dipertahankan dan dilembagakan – dan bahkan disebarkan ke sekolah lain. Di lain pihak, ada yang nyaris hilang sama sekali. Apa yang menyebabkan dua hasil berbeda ini?

Inovasi khusus di kabupaten/kota ini:

- Menurut Anda, apakah inovasi atau praktik yang baik yang paling menjanjikan di kabupaten/kota ini?
- Bagaimana inovasi dan praktik yang baik ini dirancang dan diimplementasikan? Apakah yang menjadi motivator utama dari kegiatan ini?

- Apa buktinya, jika ada, bahwa inovasi ini telah berdampak pada peningkatan sekolah dan hasil siswa?
- Bagaimana kebijakan dan praktik di tingkat dinas dipengaruhi oleh inovasi dan praktik yang baik ini? Perubahan apa yang telah terjadi pada kebijakan dan praktik ini?

[For schools and other programs]

Pertanyaan Wawancara untuk Sekolah/Madrasah Ibtidiah/Institusi

Sekolah/institusi _____ Kabupaten/Kotamadya _____

Tanggal _____ Nama/jabatan responden2 _____

1. Jawa Timur tampaknya sangat kaya dalam inovasi pendidikan dan praktik yang baik, baik yang diperkenalkan oleh program seperti PRIORITAS dan CLCC dan yang dikembangkan sendiri oleh masing-masing sekolah.
 - iii. • Menurut Anda, mengapa ada begitu banyak inovasi di provinsi ini?
 - Apakah kabupaten/kota ini kaya dalam inovasi pendidikan? Ya atau tidak – kenapa?
 - Apakah konteks sosial dan budaya dari kabupaten/kota ini mendorong atau menghambat inovasi – misalnya, mendorong guru dan kepala sekolah untuk mencoba berbagai hal dengan sendirinya daripada menunggu instruksi dari atas? Jika ya, bagaimana caranya?
 - Apakah Dinas Pendidikan kabupaten ini sangat mendukung inovasi/praktik yang baik? Bila iya, bagaimana mendukungnya?
2. Peran apa yang dilakukan lembaga / entitas berikut di kabupaten/kota ini dalam mempromosikan inovasi dan praktik yang baik untuk meningkatkan kualitas sekolah dan meningkatkan hasil belajar anak-anak? Bagaimana mereka melakukan ini?
 - Kantor bupati/walikota
 - Dinas pendidikan
 - Kandep agama
 - Dana asing melalui proyek bantuan (UNICEF, USAID, DFAT dsb)
 - LPMP
 - Gugus/KKG/KKKS
 - Pengawas/penilik
 - Kantor desa/kelurahan
 - Komite Sekolah
 - Lembaga non pemerintah, LSM, seperti PGRI, Lembaga Ma'arif NU, dll.
 - Lainnya.....
3. Ada banyak strategi yang dapat digunakan untuk meningkatkan kualitas sekolah dan meningkatkan hasil belajar. Manakah dari ini yang paling bermanfaat di sekolah ini dan mengapa berhasil?
 - Manajemen Berbasis Sekolah (MBS)
 - Gugus/KKG/KKKS (misalnya sebagai sekolah imbas atau sekolah inti)
 - Lomba sekolah/penhargaan untuk guru tingkat nasional/provinsi/kabupaten-kota/gugus
 - Sekolah model binaan LPMP
 - Sekolah rujukan binaan Direktorat Pembinaan SD
 - Gerakan Literasi Sekolah; Gerakan Literasi Keluarga; dan Gerakan Literasi Masyarakat
 - Pendidikan orang tua untuk memberikan dukungan kepada sekolah dan belajar anak anak
 - Strategi lain
4. Apakah keberhasilan siswa-siswa Anda dalam Bahasa Indonesia dan Matematika memuaskan? Bila tidak memuaskan, mengapa?
- iv. Apa yang dilakukan sekolah Anda untuk meningkatkan hasil belajar dalam mata pelajaran tersebut?
5. Salah satu fokus utama INOVASI dalam pekerjaannya dengan Kementerian adalah mengidentifikasi anak-anak yang tidak bersekolah dan memastikan agar mereka masuk sekolah dan belajar. Seberapa besar tantangan pada kategori anak di bawah ini yang tidak bersekolah di sekolah Anda dan apa yang sedang dilakukan untuk mengembalikan mereka ke sekolah? Bagaimana? Apa hasilnya?
 - Perempuan (atau laki-laki)
 - Anak-anak miskin
 - Kalau ada, anak-anak dengan bahasa ibu yang digunakan di rumah bukan Bahasa Indonesia

- Kalau ada, anak-anak yang tinggal di daerah terpencil atau perbatasan (3T)
- Anak berkebutuhan khusus
 - Apakah sekolah ini siap untuk menerima ABK? Kalau ada, jumlahnya ABK disini berapa? Kalau tidak ada, alasannya apa?
 - Apakah ada sekolah inklusi di kabupaten/kota Anda?
 - Bila ada, bagaimana sekolah inklusi melayani ABK?

APABILA SEKOLAH YANG DIKUNJUNGI ADALAH SEKOLAH INKLUSI:

- Bagaimana sekolah ini mendapat label sebagai sekolah inklusi?
 - Dari mana ABKnya? Bagaimana mereka bisa terdaftar di sekolah Anda?
 - Bagaimana ABK dimasukkan ke dalam sekolah dan kelas?
 - Dukungan khusus (fasilitas, guru) apa yang dimiliki sekolah untuk berperan sebagai sekolah inklusi?
 - Dukungan tambahan apa yang masih diperlukan?
6. Banyak inovasi bergantung pada kepribadian / kewenangan satu orang (misalnya kepala sekolah) dan / atau kerjasama antara guru-guru inovatif dan / atau pejabat dinas yang inovatif dan dukungan pemerintah yang kuat. Tetapi guru, kepala sekolah, dan staf dinas akan pensiun atau dipindahkan. Banyak inovasi yang telah mereka kembangkan tidak dilanjutkan setelah mereka pergi.
- Apakah hal ini merupakan masalah di sekolah ini?
 - Apa yang telah berhasil dilakukan, atau harus dilakukan, untuk membantu memastikan bahwa inovasi dan praktik yang baik di sekolah ini dapat dipertahankan?

UNTUK PRAKTIK DI KELAS

1. Mengenai praktik baik di sekolah ini, yaitu _____
 - Bagaimana praktik baik ini dirancang dan diimplementasikan? Apakah yang menjadi motivator utama dari praktek ini? Dari mana ide tsb didapat?
 - Bagaimana proses/tahapan pelaksanaannya?
 - Apakah guru-guru lain, kepala sekolah dan pengawas mengetahui tentang praktik ini? Bagaimana tanggapan dan dukungan mereka?
 - Apakah paguyuban orang tua atau komite sekolah juga mengetahui tentang praktik pembelajaran yang anda lakukan? Jika iya, bagaimana tanggapan dan dukungan mereka?
2. Seringkali sulit untuk menilai dampak dari inovasi atau praktik yang baik pada kualitas sekolah dan belajar siswa.
 - Menurut Anda, bagaimana hasilnya dari praktek baik? Dampak apa yang terjadi dan sejauh mana hal tersebut dicapai? Sebagai contoh: kualitas pembelajaran, hasil belajar siswa, sistem pendukung guru, dll.
 - Apakah ada dampak khusus pada hasil literasi dan numerasi siswa?
 - Untuk memperlihatkan dampak, apa buktinya?
 - Apakah dampak praktik yang baik bisa diukur secara lebih kuantitatif? Misalnya, apakah praktik tertentu telah meningkatkan nilai prestasi? (UN, penilaian formatif, AKSI, EGRA, persentase transisi ke jenjang pendidikan yang lebih tinggi, persentase mengulang, dll.)
 - Selain dampak yang telah disebutkan tadi, apakah ada dampak lain Anda lihat dari praktik ini baik terhadap diri anda sendiri, orang lain, maupun lingkungan secara umum?
 - Apakah ada dampak yang tidak direncanakan?
3. Adakah tantangan khusus dalam menerapkan praktek baik ini? Bagaimana cara mengatasinya?
4. Bagaimana potensi keberlanjutan praktik ini di sekolah ini?
5. Sejauh mana praktik yang baik ini telah diadopsi/diadaptasi/disebarkan kepada guru lain di sekolah ini?
 - v. Ke sekolah lain?
 - vi. Di dalam gugus/KKG?
 - vii. Bagaimana replikasi/adaptasi dilakukan? Apa peran dinas, pengawas dan gugus/KKG dalam replikasi ini?
6. Bagaimana inovasi/praktik baik di sekolah ini dibiayai? Dari sumber biaya mana?

- APBD
- Dana desa
- Bantuan asing (proyek)
- BOS/BOSDA
- Dukungan masyarakat
- Lainnya....

UNTUK INOVASI TINGKAT SEKOLAH:

- Bagaimana inovasi ini dirancang dan diimplementasikan? Apakah yang menjadi motivator utama dari kegiatan ini? Dari mana ide tsb didapat?
 - Bagaimana proses/tahapan pelaksanaannya?
 - Bagaimana tanggapan dan dukungan guru-guru di sekolah dan pengawas terhadap inovasi ini?
 - Apakah paguyuban orang tua atau komite sekolah juga mengetahui tentang inovasi yang dilakukan ini di sekolah ini? Jika iya, bagaimana tanggapan mereka?
 - Adakah tantangan khusus dalam menerapkan inovasi ini? Bagaimana cara mengatasinya?
 - Sejauh mana praktik yang baik ini telah diadopsi/diadaptasi oleh sekolah lain?
 - Bagaimana replikasi/adaptasi dilakukan? Apa peran dinas, pengawas dan gugus/KKG dalam replikasi ini?
7. Seringkali sulit untuk menilai dampak dari inovasi atau praktik yang baik pada kualitas sekolah dan belajar siswa.
- Menurut Anda, bagaimana hasilnya dari inovasi ini? Dampak apa yang terjadi dan sejauh mana hal tersebut dicapai? Sebagai contoh: kualitas pembelajaran, hasil belajar siswa, sistem pendukung guru, dll.
 - Apakah ada dampak khusus pada hasil literasi dan numerasi siswa?
 - Apakah ada bukti yang menunjukkan dampak ini?
 - Apakah dampak inovasi bisa diukur secara lebih kuantitatif? Misalnya. Apakah inovasi tertentu telah meningkatkan nilai prestasi? (UN, penilaian formatif, AKSI, EGRA, persentase transisi ke jenjang pendidikan yang lebih tinggi, persentase mengulang, dll.)
 - Selain dampak yang telah disebutkan tadi, apakah ada dampak lain anda lihat dari Inovasi ini baik terhadap diri anda sendiri, orang lain, maupun lingkungan secara umum?
 - Adakah tantangan khusus dalam menerapkan Inovasi ini? Bagaimana cara mengatasinya?
 - Bagaimana potensi berlanjutnya inovasi di sekolah ini?
8. Bagaimana Inovasi/praktik baik di sekolah ini dibiayai? Dari sumber biaya mana?
- APBD
 - Dana desa
 - Bantuan asing (proyek)
 - BOS/BOSDA
 - Dukungan masyarakat

Lainnya....

D. Detailed descriptions of good practices and innovations identified for the second phase of the stocktake study

Market day

School: SD Alam Mutiara Umat, Tulungagung district

Objective:

To develop skills in entrepreneurship, leadership, mathematics and language through a focus on :

- character building (honesty, confidence, politeness)
- management training (teamwork, cooperation, division of tasks, plan implementation)
- practical application of mathematics principles

Description of the activity:

The idea was derived from the school motto – 'increase the potential and achievement of children' — to find a way to make learning more fun. This led to the development of a market day event conducted twice a year, each time with a different theme. One market day is limited to the school community and the other involves parents and the community surrounding the school. Planning of the activity is done by teams of grades three to six students and supervised by teachers. The theme for the market day event in August 2018 was Indonesia. Students prepared stalls selling goods from Sumatera, Sulawesi, Papua, Java and Eastern Indonesia. Food items were prepared by students and parents at home. They had to calculate the cost of ingredients and determine the selling price. Some students made handicrafts, such as brooches, keychains, bookmarks, and so on. One stall in the Java region did not sell any goods. Rather, they displayed some story books that could be rented by students. There was also a 'magician' who could predict the age of a person. Sometimes they had games and students could play for a small fee.

A few days prior to the event, groups of students offer their goods for sale with advertisements put in several places in the school for all to see.

Grades one and two students participate as visitors to the market and are the buyers and therefore understand the value of money and learn to calculate the change they receive when buying things. They sometimes also help the older children in watching over the tables where goods are sold. Children with special needs are also given roles at the event according to their abilities.

At the end of the day, goods not sold are distributed among the guests. The older students make lists and tables of the goods offered and how many are sold. Then they calculate how much money has been earned and whether they have a profit or loss on that day. After reporting to the teacher, the lists and tables will be discussed in the sixth grade. This becomes a good resource for learning for the students.

Extent of dissemination:

The market day concept has not been disseminated to other schools. As a private school, the SD uses it as part of the school 'branding' and they promote the activity during new student enrolment.

Conclusion:

Market day is an excellent concept for the application of multiple subjects and involves all students and teachers of the school. The activities involved are planning, preparing and implementing the event with a specific purpose of developing entrepreneurial and management skills among the students. Children also bond with their parents during this activity. The cost of producing goods helps to determine their price, and profit and loss are calculated at the end of the day so that students not only gain skills in mathematics but also understand the principles of gain or loss in an economic activity. Market day is therefore a rich experience for the students.

SD Alam Mutiara Umat is also an green (*adiwiyata*) school and therefore focuses its teaching and learning on the environment. The school yard has some big trees that can be used as learning media. It also has outdoor classrooms used during class time.

The school, although not labeled as an inclusive school by the district office, has enrolled 13 students (out of a total of 160) with special needs. Although there are no support teachers to help with these students, parents assist them in class and the school has a therapist, trained in Canada, who provides individual training to these students depending on their needs. A resource room with special training equipment and toys is used by the therapist to work with the special-needs children.

Multi-grade teaching

School: SDN Suruh Wadang 2, Blitar district

Objective:

Implementation of multi-grade teaching in a small school

Description of the activity:

Prior to the introduction of multi-grade teaching in Blitar, the district office selected an initial ten schools, based on the results of a school quality analysis and local knowledge, and conducted three days of training in active learning for these schools (known as PAKEM – *pembelajaran aktif, kreatif, efektif dan menyenangkan* which translates as active, creative, effective and joyful learning). This PAKEM training was a dissemination activity, funded by the district, using PRIORITAS module 1, with the facilitators paid for by PRIORITAS. Four schools were selected from the initial ten for the multi-grade pilot. A follow-up three days of training in multi-grade teaching was provided to these four schools. The training was designed and delivered by an independent consultant recommended by PRIORITAS (Pak Suyitno, who worked previously with MBE). This was fully paid for by the district. Five district facilitators, previously trained by PRIORITAS, were simultaneously trained in multi-grade techniques and subsequently provided mentoring to the schools.

SDN Suruh Wadang is a small school which had 45 students in 2015 and 57 students in 2018. This school was selected as one of the four schools to implement multi-grade teaching and the principal and teachers were trained to implement multi-grade teaching. When we visited in 2018, the trained principal had already been transferred to another school. From the four teachers who were trained, only one was left. The others have retired. The one remaining multi-grade class observed consisted of grade one and two students. They were sitting in different groups and the teacher went from one group to the other. She was teaching Bahasa Indonesia to one group and mathematics to the other. When asked, she said that she had never been trained to implement multi-grade teaching. The new principal indicated that when she had arrived at the school, she had done an assessment of the strengths and weaknesses of multi-grade teaching and the only conclusion she mentioned was that the technique was too noisy and made it difficult for children to learn. She was therefore phasing out multi-grade teaching, keeping it only for grades one and two because the school has only five classrooms.

Conclusion:

The new principal of the school has not been trained to implement multi-grade teaching and did not understand the concept behind it. The new teachers also did not understand that they needed to conduct a curriculum analysis and then prepare special lesson plans to implement multi-grade teaching.

The head of the Blitar district education office explained that the district is supportive of multi-grade teaching and had funded the training and implementation of multi-grade teaching with support from PRIORITAS. After the PRIORITAS project ended, there were no funds available to continue the mentoring for the multi-grade teaching teachers in the schools. The plan now is to provide funding through local government funds (APBD) in 2019 to try to revitalise multi-grade teaching in the district.

The team members learned that a similar situation is found in Batu where several schools once using multi-grade teaching have now abandoned it. Given that there are still many small schools in Indonesia and many of them have an inadequate number of teachers, the primary school development directorate in MoEC should review existing multi-grade teaching implementation and issue a new policy and guidelines for its further development.

The role of students' working groups in improving school management

School: SDN Patihan, Madiun city

Objective:

In order to improve school management and support the school's culture of environmental awareness, student-managed working groups have been established for a range of school activities and programs.

Description of the activity:

SDN Patihan is an independent green (*adiwiyata mandiri*) school. This means that the school has a strong culture of environmental awareness and practice and has successfully guided other schools to become green schools. Green schools are selected by the Ministry of Forestry and the Environment and they are required to have a teaching and learning program based on the environment. SDN Patihan's culture in this regard is shown, inter alia, by its guiding principles of SEKAM:

- **Sampah** [trash] – a clean school where trash is sorted for reuse or recycling
- **Energi** [energy] – a reduction in the use of energy sources
- **Keanekaragaman hayati** [biodiversity] – the promotion of biodiversity
- **Air** [water] – clean water
- **Makanan** [food] – healthy food provided in the school canteen

For the implementation of all the activities in the school and in order to support better school management, working groups (*kelompok kerja* = pokja) have been established; for example *Pokja MCK* – *mandi, cuci, kakus* – (to keep the toilets clean), *Pokja Hamparan* (to keep the school compound used for sports, play and ceremonies clean and ready for use), *Pokja Sampah* (to sort rubbish for compost, plastic, paper, and so on), *Pokja Perpustakaan* (to look after the library), *Pokja Mushola* (to look after the prayer room) and *Pokja Kantin* (to keep the canteen clean). There are also working groups for the school's greenhouse, waste disposal, for the 3Rs (reduce, reuse, and recycle), the curriculum and the medicine garden. Besides the work they have to do as group members, students are also expected to explain school activities to visitors to the school.

Students from grades four to six are selected to become members of the working groups according to their interests. Whenever the students do some work for the groups, they wear a sash showing their membership of the group. Wearing the sash gives the student special status and they are proud to do so. Every year, the grade six students graduate and new grade four students are recruited for the groups.

Extent of dissemination:

Dissemination has been done to ten primary schools in the cluster of SDN Patihan. These schools have a forum to communicate and share experiences called FORADIMA (*forum komunikasi adiwiyata mangunharjo*).

Dissemination has also occurred to a sister school in Papua. The principal and teachers from that school went to SDN Patihan for a comparative study and were impressed by what SDN Patihan is doing so plan to implement similar programs in their school.

Conclusion:

The establishment of the working groups is a good practice to support school management and sustain useful programs in the school, many of which are related to the school's status as an independent green school. The groups also develop students' sense of responsibility and promote teacher–student collaboration. As long as the working groups continue in the school, even if the school principal is transferred and/or teachers retire, the school's programs will be sustained. It is also a good mechanism to explore the development of other good practices and innovations in the school. The idea of developing various working groups involving students can be easily disseminated to other schools and not only to green schools.

School literacy

School: SDIT Al Faizin, Sampang district

Objective:

Students are required to be able to read in the early grades of primary school. But many students in grade one, especially those who have not attended early childhood education centres (PAUD), do not yet have the basic pre-literacy skills needed to master reading. Also, many students in grades two to four are not yet fluent readers. The teaching–learning strategy developed in this school is used to encourage a reading habit among students and especially to help slow learners who still cannot read in the early grades.

Description of the activity:

At the beginning of the school year, the grade one teacher tests whether the students have mastered pre-literacy skills and does a mapping of their reading ability. In the school year (2018) there were 14 students who could not read.

Based on this mapping and to help those students who cannot read, the school provides hour-long tutoring sessions after school hours three days a week. There are four teachers who tutor students in reading skills. One teacher tutor is responsible for two to three students. The target is that after three months, all students can read well enough to follow the lessons in Grade 1. The teachers use the books, '*Anak Islam Suka Membaca*' (1–5) that are originally written for kindergarten (pre-school) children and are provided to the school for this purpose by its sponsoring foundation. If the student is a slow learner, the tutoring can be extended up to six months. The extra tutoring sessions are given for free.

The graded readers from USAID PRIORITAS are also used for reading before lessons start each day in order to strengthen students' interest in reading.

Extent of dissemination:

This strategy to teach reading to grade one students has been disseminated through the teachers' working group and is now being implemented by two other nearby primary schools. It has also been disseminated to other sub-districts during training on the 2013 curriculum.

Conclusion:

This is a good practice because there is a clear identification of students who are behind or slow in reading, materials appropriate for their skills and needs, individualised tutoring for these students and set targets (three or six months) for these students to be able to read at the grade one level. These activities could easily be duplicated in other schools where there are grade one students who cannot read. In addition, the use of graded readers before the beginning of each school day is a useful method for encouraging a stronger reading habit.

Learning with comics

School: SDN 1 Ploso 1, Pacitan district

Objective:

This activity helps students better understand and learn through a fun process. Using comics, slow learners become more interested in school, can learn more easily and are able to explain what they have learned by designing their own comics.

Description of the activity:

A grade five teacher developed the idea of using comics at the end of a learning session so that her students could better understand what they had learned. In this activity, the teacher first explains to students about comics and how to use them for learning. Subject areas that are easily turned into comics are science, civic education, Bahasa Indonesia and arts and crafts. Not all students are good at drawing and writing their texts so students are sometimes put into groups to do the assignment. After the teacher explains the lesson content, students are asked to draw comics about the lesson. This demonstrates their understanding of the content and at the same time alerts the teacher if they have not fully understood the lesson. Students are enthusiastic when they are given an assignment to draw comics at the end of a lesson. If they cannot finish the comics in class, they continue the task at home.

The strategy of summarising a lesson in comics has been well received by the principal and other teachers in the school. Some teachers now also implement this strategy for their classes. The comics drawn by students in the early grades are simpler but they still demonstrate that students understand the lesson.

Extent of dissemination:

The strategy has been disseminated and used by other teachers in the school. The principal mentioned that the strategy of using comics is not yet approved by the supervisor and district office and so cannot be disseminated at teachers' working group meetings.

Conclusion:

This strategy where students draw comics to show that they understand a lesson encourages students to pay attention when the teacher is explaining the content of a lesson and then to explore the topic further by enriching their drawings by adding text or even context to them. Students improve their understanding as well as their drawing and writing skills during the assignment, and they appear to enjoy learning through this activity. Displaying the comics they have drawn also enhances their self-esteem.

Interview, writing and presentation skills

School: SDN Karangen 1, Ponorogo district

Objective:

The objective of this program is to strengthen a broad range of skills in students to include not only everyday reading and writing but also preparing questions, interviewing, writing a report and presenting it in front of the class. The approach is therefore using the literacy techniques of research and journalism.

Description of the activity:

The teacher who devised this activity has a journalism background and is training students in grade three to be able to conduct an interview. She starts by showing a picture on the LCD screen and putting cards with question words on the desk: *siapa, kapan, apa, mengapa, yang mana, di mana, dan bagaimana* (who, when, what, why, which, where and how). The students take turns to make up questions with the question words based on the picture cue. The second exercise is a short paragraph that students read individually. They then write a question about the story with the answer. The answer sheets are then collected by the class leader.

In grade four, the students are taught to develop questions to interview their parents. The interview is conducted at home and must be recorded. The video is then sent to the teacher as a report of the exercise. The students must also write a short summary of the interview and present its content to the class.

Grade five students develop another set of questions to use for interviews with local businessmen and farmers, for example, a *tempe* maker, a rice farmer, a shop owner, and so on. The students work in groups of four to conduct the interviews. Video recordings and photos are proof that the groups conducted the interview. After the interview, the videos are shown in the classroom for all students to see. After that, the students write a short report on what they learned from the interview and submit it to the teacher. The final exercise is to present their findings in front of the class.

Another related activity is the Bulletin ESKAR prepared by teachers and students who are members of the 'Little Journalists' team. This bulletin, containing articles written by teachers and students, is also used to promote the school.

Extent of dissemination:

This activity has been showcased during a teachers' working group meeting and at a workshop on the 2013 curriculum but other schools have not yet adopted it.

Conclusion:

In addition to strengthening skills in reading, the students' interviewing, reporting and presentation activities make them more confident in talking to other people and speaking in front of an audience. The exercise also strengthens their bond with their families and their knowledge of the local community. Their report writing skills are also enhanced during the exercise. Furthermore, the skills the students gain from this activity will be vital when they go on to secondary school, college and university.

Individual education programs for special needs children

School: SD Ar Rahman, Jombang district

Objective:

The purpose of this program is to provide individualised education for children with special needs (autistic and hyperactive children and slow learners) in an atmosphere both child-centred and environmentally friendly.

Description of the activity:

SD Ar Rahman is a small private school with 73 students and out of these, 14 are children with special needs (ABK). The school has been accepting special needs children since 2005. All new students are professionally tested in Surabaya to obtain a diagnosis concerning their disability. The school maintains a detailed profile of each special-needs child which is then linked to a planning matrix for their schooling and then to an individualised learning program (*program pembelajaran individual*). All students are treated equally in the classroom, without a distinction between special-needs and non-special-needs students, although the work assignments for the special-needs students are sometimes slightly different.

There are two special support teachers employed by the school, three volunteers from the related boarding school and three support teachers provided specially by the parents of the special-needs children. In each lesson, although all children follow the same curriculum, there are easier or adapted worksheets for the special-needs children. Fifteen minutes before the end of the lesson, the special-needs children are brought together to get additional tutoring about the content of the lesson. There is a special communication book (*buku penghubung*) for these children where the teacher reports to the parents about their children's daily activities. The parents also fill in a form to let the teacher know about their children's activities at home.

SD Ar Rahman applies the whole-day school concept for five days a week which means that each school day is longer than usual. The students get lunch at the school every day. The school itself, although physically small too, with virtually no play space, is environmentally friendly. The classroom walls also have large circles cut into them to provide a more open atmosphere for the special-needs children bothered by closed spaces. The Ketua Yayasan also regularly uses massage, focusing on certain nerves, that can ease some of the physical and other problems that the special-needs children face.

Rules are not strict at the school so students can arrive late without being punished and they do not wear a uniform to school. The school uses a 'big family' approach in the school so that students don't feel isolated or embarrassed. The students without special needs work with their special-needs peers in their classroom and do not bully them but rather show empathy towards them. Some of the special-needs children at the school actually transferred from public schools where they had often been bullied by other children.

Extent of dissemination:

The individualised education program and the other characteristics of the school have not been disseminated to other schools, although SD Ar Rahman is member of a cluster. This is partly because the school is comparatively expensive, with high entrance and annual fees and the high cost of special services such as the pre-entrance examination in Surabaya.

Conclusion:

Despite the innovative approaches to special-needs children in this school, the district office has not yet given SD Ar Rahman the label of inclusive school partly because this would require the office to provide a budget for the school. The school itself prefers to remain independent of the regulations of the education office. Although the fees required for the school may make it difficult for special-needs children from poorer families to attend, the services provided to these children who do enroll are innovative and apparently successful.

Inclusive education and character-building education

School: SD Al Azhaar, Tulungagung district

Objective:

A major objective of this large educational institution is to assist children with special needs to become independent, develop their characters and achieve their highest potential.

Description of the activity:

The Al Azhaar foundation has many types of schools: pre-schools, primary, junior-secondary, senior secondary and vocational schools, for example, in the field of pharmacy (PAUD, SD, SMP, SMA and SMK Farmasi). In 2012 SD Al Azhaar declared itself as an inclusive school. The school motto is 'to serve with the heart' (*melayani dengan hati*). They not only accept autistic children but also slow learners, hyperactive children, children who are mentally disabled (*tuna grahita*) and those who have Down's syndrome. At present they do not accept sight and hearing impaired students or children with physical disabilities because they do not have the special teachers and assistive support required for them.

The school believes that autistic children can be cured or at least their symptoms can be reduced by applying a strict diet (an approach not yet conclusively verified in the scientific literature). Hyperactive children are also provided a special diet. Since Al Azhaar is a full-day school, lunch is provided to the students which makes it possible to provide special food for selected special-needs children.

The school has several support teachers (GPK) with each one support teacher responsible for three special-needs children. Out of the more than 800 primary students at the school, 28 are special-needs children so each primary class of 25–28 students has about three special-needs children and one support teacher. The school also has a resource room used both for additional tutoring for the special-needs children and as a place where special-needs children who become disruptive in class can find a calming environment.

The special-needs children take school-based examinations and are awarded a certificate from the school when they graduate. Some participate in the national examination (USBN) and are awarded a national certificate like the other students.

Extent of dissemination:

The activities of the Al Azhaar foundation and SD Al Azhaar have been shared in the cluster but the approach of the school as a whole is difficult to transfer to other schools that have fewer human and financial resources. The teachers have good communication with the nearby special school for children with special needs so they can share experiences and learn from one another.

Conclusion:

The district office has not labelled SD Al Azhaar as an inclusive school which means that it does not get the additional funds from the local government budget to cater for the students' special needs – similar to other private schools that accept children with special needs. From observations in the field, private schools are more serious in accepting these children and are more flexible in terms of school fees and regulations. Public schools need to follow regulations issued by MoEC strictly with regard to inclusive schools. Although the entire program used by SD Al Azhaar may be difficult to adopt in other schools, many of the approach's individual components could be more widely disseminated.

Promoting good practices in education in Madiun city

Institution: District education office, Madiun city

Objective:

The goals of the district education office in Madiun city are: to explore and promote innovations and excellence in each school in the district; to disseminate good practices among all schools in the district; to improve the educational outcomes of Madiun city students; and to create 'brands' appropriate to individual schools.

Description of the activity:

Many schools have developed innovations and good practices but these are often not known to other schools and the wider community and not encouraged by the district education office and its supervisors.

In order to improve the quality of education, Madiun city developed a 'Grand design for education' that will continue up until the year 2025. This grand design strategy document is used as a guide in developing the annual activities to be funded by the local government budget. The grand design was developed by Bappeda and the district office with the assistance of a consulting company. Other sectoral offices were also involved in the process. Since the grand design is to be referred to consistently in any future planning and programming for the office, it will promote the sustainability of innovations and good practices even if the district office and school personnel change.

In sharing innovations and good practices among schools, the district education office conducts an annual three-day workshop for all primary school principals where they report on innovations and good practices developed by each school. To follow up, principals visit other schools with the best innovations and good practices for comparative study. This workshop spurs schools to improve education quality and also creates positive competition among schools. In addition, the school supervisors meet every Monday to discuss their plan of work for the week and each supervisor visits one school every day of the week, looking at both administration and school quality as well as further promoting and disseminating good practices. Some give particular attention to low-performing schools. Successful innovations help in 'branding' schools by showcasing their excellence in a specialised area of education. The Madiun mayor is also committed to innovation and each district sectoral head must report about an innovation developed by the sector office at weekly meetings.

Extent of dissemination:

The yearly workshop helps to disseminate innovations and good practices among schools and is followed by visits to the schools with the most promising activities. The various actions of the district to promote innovations have also been disseminated to other districts through the recently established monthly meetings of all heads of district education offices in East Java.

Conclusion:

The 'Grand design for education' represents a detailed and strategic approach to ensure sustainability and consistency in the development of education policy and implementation in Madiun city. The yearly workshops organised by the district encourage schools to develop innovations and good practices, and in some cases principals and teachers of several schools (in the same cluster) come together to develop and discuss an innovation or good practice and implement it in their schools. Such a long-term and comprehensive approach to education planning and the promotion of innovations could be duplicated in other districts.

E. Good practices from other district education offices

Innovations/good practices in education in Probolinggo district

Institution: Probolinggo district education office

Objective:

Probolinggo district education office has a specific goal towards actively supporting innovations and good practices in schools.

Description of the activity:

Many factors are influencing innovations and good practices in schools in Probolinggo district – some internal and some external. The internal factors are within the education system and include an emphasis from the central ministry and the district office on improving education quality. Probolinggo has become a pilot project for enriching the role of LPMP and the process is providing support for supervisors.

The external factors that support innovation in the district are related to the diversity of cultures and ethnic groups in the district – Pandalungan, Tengger, Osing, Arek, Madura and Mataraman. The geographic situation of Probolinggo which is both mountainous and coastal also creates a need to be flexible and innovative in managing schools.

The district education office also facilitates innovations through an Inobel (*Inovasi belajar* – innovations in learning) competition. Results of the competition are recorded in a book, *Bunga rampai kumpulan praktek baik* (A potpourri of good practices) written by various supervisors and including innovations from teachers, principals and supervisors. When this book is distributed to schools, it can become an inspiration for other principals and teachers to duplicate or to develop similar or better good practices.

A district-wide education quality report is derived from an education quality assurance questionnaire, managed by the LPMP, which is online from the Ministry of Education and Culture. The eight national education standards are used to determine the quality of education in every school. Results from the questionnaire will be used to develop school improvement programs.

In addition, every year all government officials must write a performance plan that will be used for their performance evaluation at the end of the year. This regulation leads to contracts between the district office and individual principals in terms of how their plan will support further school improvement in the following year – including such things as raising national examination results and increasing community satisfaction with the school, as assessed by a satisfaction survey developed by the school.

Conclusion:

The head of the district office, herself the former director of the local Bappeda office, mentioned that all the senior management at the office have no professional experience in education. They come from different backgrounds, such as finance, agriculture and health. She believes that this variety of backgrounds is useful for bringing in new perspectives on education into the district.

Quality improvement of education in Malang city

Institute: District education office, Malang city

Objective:

Based on the vision and mission of Malang city, a major objective of the district education office is to provide support to schools to improve education quality.

Description of the activity:

To be in accordance with the vision and mission of Malang city to excel in all areas, the district education office has been encouraged by the mayor to improve the quality of education and many innovations at the district and school levels are therefore focused on this goal. The proactive department head has herself developed several innovations for Malang city, among others:

- *Sekolah 3M – mudah mencari sekolah, murah, dan merata* (easy to find school, inexpensive education and equal quality in all schools)
- A Green School Festival conducted in 2014 resulting in all schools being considered 'green' schools
- Cooperation with Radar Malang (the newspaper) to enhance the visibility of school improvement activities
- Sixteen school buses provided for poor students through local government budget funds
- A full-day school policy which has led to more extra-curricular activities and an improvement of students' scores
- An education museum
- A website for comments and complaints from parents and the community

There is a strong commitment to ensure that education quality in all schools is equal. Teachers' working group members meet every month to share knowledge and skills received from training. These monthly meetings help to ensure the equality of education in all schools. The mayor of Malang has also invited all university rectors to provide input for education in Malang city.

Conclusion:

There are many innovations developed by the district education office to improve education quality. The innovations developed are meant to benefit all schools in Malang city. The practice by the district education office in Malang city can be showcased to other districts and cities in East Java. The recently instituted bi-monthly coordination meetings of all district education office heads in East Java is a perfect opportunity to disseminate these innovations and good practices to all.

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