Received 14 April 2023
Revised 1 September 2023
Accepted 4 September 2023

# How did the outcome of international cooperation in school-based management help schools respond to the COVID-19 pandemic in Nepal?

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## Abstract

**Purpose** – This study aims to determine how school-based management (SBM) capacity developed through international cooperation functioned to overcome challenges during the coronavirus disease 2019 (COVID-19) pandemic in Nepal.

**Design/methodology/approach** – The research structure was designed based on the success case method. The researchers conducted a questionnaire survey of head teachers to understand schools' responses during the COVID-19 pandemic period, identified likely success-case schools, held workshops at the likely success-case schools and conducted in-depth interviews with head teachers and school management committee (SMC) members to understand how SBM functioned and contributed to the success cases.

**Findings** – Storytelling from the success-case schools provided reliable evidence that the localised approaches of SBM are effective for planning and implementing suitable responses at school. The reviews of the head teachers showed that both head teachers and teachers had strong leadership and understood the importance of collaboration with teachers, SMC members, Parent Teacher Association (PTA), guardians and students. Although the research could not show clear evidence of a causal relationship between their achievement and Japan's project input, the success-case schools clearly benefited from the head teachers' appropriate execution of SBM with their strong leadership as well as the collaborative efforts of the stakeholders.

**Originality/value** – The research tries to clarify the influence of the effects of SBM capacity development projects by analysing the changes of head teachers and teachers through the storytelling aspect of the success case method with in-depth consideration of actual school responses during the emergency period of the COVID-19 pandemic.

**Keywords** School-based management, Teachers' motivation, Capacity development, Success case method, Nepal, COVID-19

**Paper type** Research paper



This paper forms part of a special section "Bridging Theory and Practices in Educational Development", guest edited by Prof. Yoko Ishida.

This research was funded by the Japan Society for the Promotion of Science (JSPS) under the Grant-in-Aid for Scientific Research (B) titled *The Research on the Development Model for Realizing Safe and Secure School Environment in Nepal.*

Journal of International Cooperation in Education
Vol. 25 No. 2, 2023
pp. 188-201
Emerald Publishing Limited
e-ISSN: 2755-0303
p-ISSN: 2755-029X
DOI 10.1108/JICE-04-2023-0012

## Introduction

### *Capacity development in school management*

The term "school management", especially "school-based management" (SBM), has rapidly gained attention in educational development in developing countries. In the public education system, SBM is the systematic and consistent decentralisation of authority and responsibility of decision-making on important matters related to school administration at the school level, within a centrally determined policy framework (Caldwell, 2009).

SBM is a practical educational activity in which each school engages in a systematic and organised manner, utilising both the resources allocated by the central or local government and its own to realise the school's goals and policies under the macro 'constraints' of educational policies and legislation. Even if the government decides on an educational policy, it is the teachers and staff at the school–the site of the educational activity–who put it into practice and the head teacher responsible for the overall leadership of the school management. For school-based educational activities to proceed smoothly and effectively, the various parties involved in the school must fulfil their respective roles and support children's learning with a common purpose. In recent years, educational developments around the world have encouraged the direct participation of not only teachers and school staff but also parents and community members in school management and educational activities.

SBM plays an important role in producing educational development outputs and outcomes in schools; however, it faces various challenges in developing countries. For example, head teachers and teaching staff may lack knowledge and skills in school administration, or they may have limited capacity or resources to develop and implement school plans. Teachers' unions may be undeveloped or politically susceptible, school-related statistics and information management may not be properly conducted, and community members may not fully understand the importance of school education or their roles to support and monitor school education.

Various international cooperation projects have been conducted to address the SBM concept. Whilst the policy of free primary education was adopted by many schools, government allocations for schools were limited and were not timely, this left schools with insufficient funding. One of the motivations for the international cooperation projects was to involve parents and community members to increase their understanding of and interest in school education and to establish a cost-sharing arrangement with them.

### *Educational development and SBM in Nepal*

In Nepal, to promote SBM as part of its basic education development, the Government of Nepal (GoN) implemented an education policy that established a school management committee (SMC) at each public school nationwide; however, SMCs did not work properly at that time. School improvement plans (SIPs) developed by SMCs failed to reflect the needs of schools and local communities, and SMCs lacked substantial SIP execution budgets. Teachers, children, parents and local community members were typically indifferent to school education improvement, leaving SIPs unimplemented (Author, 2022). Limited capacity at the school and the community levels caused the increased disparity amongst the schools and amongst the communities, which impeded the improvement in the enrolment and the dropout rate of the basic education (IDCJ, 2011).

To address this situation, the GoN requested that the Government of Japan provide technical assistance to develop the capacity for SBM to prepare, implement and monitor a SIP at the school level as well as the capacity to support schools in promoting SBM at the central and local government levels. A technical assistance project conducted by Japan International Cooperation Agency (JICA): namely, the project for "Support for Improvement of School Management" (SISM), which was implemented in two phases: the 1st phase between 2008 and 2011 and the 2nd phase between 2013 and 2016.

The author played a role of SISM project team leader. During the 1st phase, the project team, working with central and local education government officials, developed a SISM-SBM model to design, implement and monitor SIPs with community members' participation. The SISM-SBM model aims (1) to strengthen the school management by promoting the collaborative activities amongst the school and the community members; (2) to reactivate SMCs and PTAs by equipping them with the simplified and implementable SIP as a tool for diagnosing, prioritising, planning, implementing and mobilising resources; (3) to set up a platform for schools and communities to discuss and rethink their important roles and responsibilities for giving better basic education and (4) to clarify the roles and responsibilities of the central and the local administration in strengthen school management.

The effectiveness of the SISM-SBM model was confirmed by using pilot projects to conducting verification studies. The 2nd phase of the project was a national rollout with the revised model. A survey of sample schools evaluated at the time of the end-line study in 2016 revealed that 91% of the school activities with no expenditure and 71% of the activities with little expenditure were implemented either fully or partially, which is a significant improvement comparing to before the SISM situation. The outcome of the activities included improved attendance rate of pupils, students and teachers, increased efforts by schools to share the information to improve transparency and the improved school teaching and learning environments (IDCJ, 2017).

At the time when the SISM project was coming to an end in April 2015, a major earthquake hit the central and eastern part of Nepal. Two years after the earthquake, the author, for the university research work in 2017, visited the schools to find how the SBM activities contributed to school recovery from the earthquake damages. It was found that schools with stronger leadership of their head teachers received more support from domestic or international sources and recovered more quickly from the earthquake damage. However, it was not clear that how teachers or community members were involved in planning and implementing the school recovery plan. It was difficult to understand how effectively the outcome of the SISM projects had worked during the emergency period. This was mainly because there were a lot of international cooperation provided by the multilateral, bilateral agencies and NGOs in Nepal.

At the end of 2019, three and half years had passed since SISM was completed. The author intended to examine schools and determine if the initial positive changes had remained after time had passed. However, the beginning of the COVID-19 pandemic in early 2020 meant that the research plan needed to be changed. The author shifted the research objective to seeing how SBM helped schools overcome another difficulty after the earthquake in 2015. From the beginning of 2020, students in Nepal, like those in other countries, were facing a situation where schools were open one day and closed the next, that caused massive disruptions in their learning.

The GoN reported that as of 15 July 2022 a cumulative total of 980,981 people had been infected with COVID-19 and 119,952 had died. The number of new infections peaked on 10 May 2021 (9,183 infections) and 21 January 2022 (9,502 infections). The first nationwide school closure was ordered by the central government in March 2020, when the number of infections began to rise and regional school closures occurred shortly thereafter. The second and third nationwide school closures occurred in May 2021 and January 2022, respectively, when the number of infections peaked. Most schools were closed three times, for combined total of approximately 250 days between the school years of 2020/2021 and 2021/2022. Public schools were fully reopened in February 2022. A total of 60% of students failed to take the national examination because they could not participate in the online classes.

Whilst schools were closed, the central government could not directly support each school and international cooperation was limited in Nepal, which was different from the situation caused by the earthquake damages. Each school had no choice but to tackle COVID-19 in

isolation and provide as much education as possible to the children. In this difficult situation, how did schools work with SMCs to identify and implement countermeasures for their students?

To answer this question, the author with her Nepalese research partners visited public schools in rural areas of Nepal and collected data to understand how they provided education for students during the pandemic. Through detailed discussions with the SMCs about how and who to make decisions and take action and why and how they collaborated when responding to the situation, the author's team felt it was possible to find implications that would show important changes in school management and key benefits to educational outcomes from SBMs.

## Literature review

### *Benefits and driving forces for SBM*

Gamage (2009) mentioned that, through strategic planning, schools can create specific benefits, based on the report of the National Audit Office in the UK. First, undertaking strategic planning allows the school to focus on identify its overall goals and objectives. Next, ways to improve the school's educational services are identified, options are examined and tasks are prioritised. Finally, schools are enabled to communicate the plan's objectives to the different stakeholders and help them understand the objectives, get involved and, ultimately, acquire their commitment.

There are various driving forces for SBM, and they differ at the central and local government levels and at the school and community levels. At the school and community levels, the driving forces include (1) commitment to empower the community, (2) willingness to achieve higher quality of professionalism at the school level through teacher involvement in decision-making and (3) realisation that different schools have different student needs and require different responses and that a centralised decision is not possible; therefore, it is necessary for the capacity to exist for a school to make the decisions necessary to respond to their needs (Caldwell, 2009).

It is clear that participation from teachers and guardians in decision-making increases their commitment to preparing and implementing action plans designed to improve teaching and learning environments; therefore, it is relevant that the capacity development of school management and local and central governments in planning, implementing and monitoring was included in the SISM activities.

### *Evaluability of SBM projects' outcomes and impacts*

For much of the three decades that the SBM approach has been used, there has been little evidence globally that SBM had either a direct or indirect effect on students' educational achievements. Many early studies drew on information from systems in which the impact on outcomes was not a primary or a secondary objective. This was especially true when SBM was implemented as a strategy to dismantle a large, costly and unresponsive central administrative system, or to empower communities and professional (Caldwell, 2009).

Caldwell (2009) stated that some case studies had shown causal connection between SBM and learning achievements. These studies focussed on learning and teaching in local decision-making and emphasised the importance of supporting those activities, particularly in the capacity building of staff to develop and deliver curricula and pedagogies that meet the needs of students. It was also shown that understanding the local priorities, including the capacity to identify needs and monitor outcomes, was crucial. Finally, it is critical that the community's capacity for supporting the schools' efforts continue to be expanded (Caldwell, 2009).

How SBM affects students' learning has not been validly evaluated yet. However, there are some researchers who tried to investigate the impact of SBM on students' learning. Most of them have noted that the SBM approach neither a hindering nor a contributing factor to student

achievement. There are other studies which examined the psychological aspects of teachers who are teaching at decentralised schools and involved in specialised programs (Gaziel, 2009).

In the traditional school management system, where decision-making on budget planning, personnel and curriculum are made by top management, teachers are expected to implement the policies as it is given and a strict inspection and management system is in place to follow up on these decisions. Contrary to the traditional one, in the SBM style, schools can make their own decisions based on their needs, and teachers are expected to be involved in the decision-making process (Chapman, 1990).

*Evaluation of education in the context of COVID-19 school closures*

Large-scale randomised trials, to evaluate education in emergency interventions provided in the context of COVID-19 school closures across five countries including India, Kenya, Nepal, Philippines and Uganda, were conducted by the research group of the National Bureau of Economic Research (NBER) in collaboration with international agencies, universities, NGOs and the ministries of the target country governments. The data was collected from over 16,000 households in total from the five countries between December 2020 and July 2022 (Angrist *et al.*, 2023).

The evaluation includes multiple educations in emergencies programs and delivery models. For each country context, the evaluation describes the status quo learning levels and COVID-19 education context, the implementing partner and sample description and the instructor type. In each setting, learning gaps are large both before and during COVID-19, showing a need for more high-quality and scalable educational instruction. Within the results of the evaluation, it is noted that large effects on teacher perceptions that they were able to help students learn, as well as their desire to teach, with a 15.8 percentage-point gain in wanting to be a teacher if they could make the choice again. The results suggest that delivering effective programs could unlock a virtuous cycle within government education system (Angrist *et al.*, 2023). It is unclear from the quantitative analysis of the randomised trials how these positive changes of teacher perception occurred.

*Success case method*

In this study, the Success Case Method was applied to examine how schools produced good practices of SBM. The Success Case Method, developed by Robert O. Brinkerhoff, is a quick and simple process that combines analysis of extreme groups with case studies and storytelling. The essential purpose of a Success Case study is to understand out how well organisational initiatives are working. A Success Case Study also identifies and explains the contextual factors that differentiate successful and unsuccessful adopters of new initiatives (Brinkerhoff, 2002).

The Success Case Method has a two-part structure. The first part entails locating potential and likely 'success cases, i.e., individuals (or teams) that have appear to have been successful in using some new change or method. In the second part of a Success Case study, the identified success cases are interviewed to determine and document the actual nature of success that is being achieved. Some of the more specific questions that Success Case studies can be used to answer are: (1) Who is and is not using the new methods? (2) What parts of the new innovations are and are not being used? (3) How widespread is the use? (4) Which groups or subgroups are using the new technologies the least and the most? (5) When are the methods used and with whom? (Brinkerhoff, 2002).

## Research objective and research questions

This study aimed to determine how changes in SBM through SISM have been applied to overcome the challenges of providing educational opportunities for students during the COVID-19 pandemic period in Nepal.

To accomplish the research objective, the authors sought answers to the following questions:

(1) How did schools respond to difficulties during school closures and who were involved in decision-making process?

(2) What changes were observed amongst teachers and community members in the process of developing the alternative teaching methods?

(3) What factors allowed the teachers to produce positive effects? How were the outcomes or learning from SISM utilised?

## Methodology

### *Research steps*

The research structure in this paper followed the four steps of the Success Case Method. (1) A questionnaire survey was conducted with head teachers to understand schools' responses to the difficulties that occurred during the COVID-19 pandemic period. (2) Likely success-case schools were identified based on the questionnaire survey. (3) Workshops were held at the likely success-case schools. (4) In-depth interviews were conducted with head teachers and SMC members to understand how the SBM functioned and whether the positive changes and learning from SISM contributed to the success cases.

The questionnaire survey of head teachers was conducted in November and December of 2021 by the authors, including three Nepalese researchers, one local educational officer from Dhading and another one local educational officer from Gorkha. The questionnaire was developed following the questionnaire design of the UNESCO-UNICEF-World Bank (2020) Survey and covered the following questions: (1) length of school closure, (2) the process of closing schools and who made the decision to do so, (3) the status of curriculum completion, (4) teaching method during the school closure, (5) accessibility to information communication technology (ICT), (6) teachers' response, (7) students' response, (8) guardians' response and (ix) difficulties after school reopening.

Based on the results of the questionnaire survey, schools were chosen where the dropout rate remained almost the same as before the COVID-19 pandemic or had improved since the pandemic began. Three schools were chosen from the sample schools in Dhading District and another three from the sample schools in Gorkha District.

By organising a workshop of participatory evaluation using success case method with head teachers, teachers, SMC members, guardians and students, the authors expected that live voices and concrete information could be collected from the participants by facilitation of the Nepalese researchers, who have understood their cultural and socio-economic background.

At the six schools, the authors conducted workshops and focus group interviews in Dhading in October 2022 and in Gorkha in December 2022. Topics included what was a good approach and what was problematic in the schools' responses to the pandemic closures and how the good practices were produced and implemented by the school or the teachers.

The workshops took approximately 2 to 2.5 hours to complete and were facilitated by the authors, who are Nepalese researchers. In Dhading, there were 60 participants (29 students, 19 parents who were also SMC members and 12 teachers) from the three schools; and in Gorkha, 68 participants (29 students, 25 parents who were also SMC members and 14 teachers) participated in the workshop. During the workshop, participants were asked to work in a group to recall major activities, put them on paper in chronological order and discuss when, who and how they conducted those activities and what effects were produced. After sharing the group work output through a group presentation, participants were asked to rate each alternative teaching method from their own viewpoint on a 3-point scale: not good = 1, neutral = 2, good = 3.

Based on the findings of the workshops and focus group interviews, in-depth interviews with the head teachers of the schools were conducted by the authors, including three Nepalese researchers, in Dhading in January 2023 and in Gorkha in February 2023. These interviews were designed to identify the contributing factors that helped schools produce positive outcomes and how they used what they had learnt from SISM.

*Research target areas and schools*

Nepal has 77 districts that each have their own district assembly. Of the 77 districts, Dhading and Gorkha were chosen as target districts because they showed relatively good performance in the results of the SISM end-line survey.

Dhading had a population of approximately 340,000 in 2021; it is located west of Kathmandu District, which is the capital of Nepal and had a population of more than 2 million in 2021. Gorkha is located west of Dhading District and had a population of approximately 250,000 in 2021. The transnational Prithivi Highway, which connects Kathmandu and Pokhara, runs through the southern portion of the district and allows easy access to the capital city.

Dhading District was one of the two pilot districts for the first phase of SISM and the pilot project for SBM capacity development that helped develop an SISM model was implemented in the district for three years. In the second phase of SISM, both Dhading and Gorkha were part of technical assistance projects.

A questionnaire survey of head teachers was sent to 129 schools randomly chosen from 543 public schools in Dhading District and 71 schools from 335 public schools in Gorkha District.

## Findings

*Regular school education in the context of COVID-19 pandemic*

As shown in Table 1, in Gorkha District, 97.2% of the sample schools experienced between 101 and 150 days of school closure, whereas in Dhading District, 63.4% closed for between 101 and 150 days and 34.8% closed for 151–200 days. Dhading District is adjacent to the metropolitan area of Kathmandu District, and the main road runs through the south of the district, connecting it to the western part of Nepal. The Gorkha District is located entirely in a mountainous. The geographic and socioeconomic backgrounds of the two districts resulted in differences between the lengths of school closures.

Schools in Nepal are broadly divided into four types: primary schools for Grades 1–5; lower secondary schools for Grades 1–8; secondary schools for Grades 1–10; and higher secondary schools for Grades 1–12. Primary schools are located in remote rural areas, whereas schools covering higher grades are located in more urban areas. In Dhading, primary schools experienced longer period of school closure than secondary schools, whilst in Gorkha, there were no differences in school closure length. In Dhading, the proximity to urban areas may have increased the number of infected people.

Asked about the percentage of their curriculum completed in the school year of 2020/2021, seven head teachers in Dhading (5.4%) answered that 100% was completed, 71 head teachers (55.1%) answered 80% and 51 head teachers (39.5%) reported that only 50% of the curriculum was completed. In Gorkha, no school completed 100% of the curriculum; 67 schools (94.4%) completed 80% and four schools (5.6%) completed only 50% of the curriculum. To achieve these percentages, 45 schools extended the semester, 40 schools provided intensive classes and 18 schools prioritised the most important subjects.

The central government responses to school disruption, such as Wi-Fi, radio and TV, have low engagement rates, especially in the remote areas in Nepal. When head teachers were asked what percentage of children in their schools have access to Wi-Fi at home, in Dhading, 87 head teachers (67.4%) reported that no students had internet access and 29 (22.4%)

| Alternative methods | Subjects and frequency | How to conduct | (+) positive points and (−) negative points |
|---|---|---|---|
| (1) Home visit and homework provision | All subjects<br>Once a week<br>1-1.5 hours per household | Teachers visit each family, provide homework, and teach 1-3 child(ren) at home | (+) By visiting a household, parents were also involved in teaching and learning<br>(−) Teachers were overburdened because they visit each home and teach children in different grades |
| (2) Small group face-to-face teaching | All subjects<br>Every day in school like a regular class | Students were divided into small groups (not more than 15 students per class) taught each subject by their class teacher | (+) Students could learn as in the regular class and communicate with their classmates<br>(−) To cover all the groups, each class period was less with more teachers' burden<br>(−) Limited parents' involvement |
| | All subjects<br>Every day in the community | Teachers in charge of each subject rotating in a community or one teacher teach all subjects to all grade students (5-20 students/class) | (+) Students and teachers did not have to move to school with less risk of infection<br>(+) Students could learn as in the regular class close to home<br>(+) More parents' collaboration<br>(−) Each class period was less with more teachers' burden |
| (3) Homework provision | All subjects<br>Once a week | All students were asked to come to school, and to pick up and later submit their homework | (+) Teachers' burdens were less<br>(−) Students had no chance to have detailed lessons<br>(−) No parents' involvement |
| (4) Mobile (telephone) virtual class | Mathematics, English, and Science<br>Every day, one hour for each subject | Focus on Grade-9 and -10 students<br>Around 15-20 students in a group | (+) More focussed lessons provided<br>(−) Limited only to households with mobile phones<br>(−) Visual comprehension is not possible |
| (5) Hybrid classes combining (1) – (4) | All subjects<br>Every day in school like a regular class | The group size is not more than 15 students/class | (+) Positive points of each methods combined<br>(−) Teachers' burden depending on the combination of methods |

**Source(s):** Prepared by authors

**Table 1.** Subjects, frequency, how to conduct, and positive/negative points of the alternative teaching methods

reported that very limited students had access. In total, 116 out of 129 sample schools (89.9%) had difficulty accessing Wi-Fi. Seven schools (5.4%) answered that approximately half of the students had access and six schools (4.7%) reported that most children had access. Most of these schools are higher secondary or secondary schools located in the centre of the district.

In Gorkha District, 64 head teachers (90.1%) reported that no students had access to Wi-Fi. One lower secondary school (1.4%) answered that approximately half of the students had access, whilst three secondary schools and three higher secondary schools reported that very few students had access.

*Teachers' involvement in developing alternative teaching methods*

After the long period of school closure, parents, SMC members, and head teachers were worried about the children's education and tried to find some ways how to engage with

students. In urban area, where Wi-Fi facilities are available, classes were run using different online platform such as Facebook Messenger, Zoom and other, and some parents and teachers were informed by their relatives or fellow teachers and some schools applied virtual classes. But most of the case, it was not successful due to limited Wi-Fi facilities and technical problems. Rural areas where the internet facilities were not available, teachers at each school spontaneously considered alternative teaching methods, observed children's reactions, consulted with parents as well and tried to find better methods through trial and error.

The head teachers explained the progress of how the teachers developed and improved the alternative teaching methods in the trial-and-error manner in collaboration with SMC and PTA:

> To continue learning and achievement for students, teachers provided books and curricula to the students, encouraged them to self-study, and through teachers, SMC, PTA, and the local government, we requested that parents support and follow up with their children's studies at home. This approach was planned through discussions with the teachers, and head teachers explained it to the SMC, PTA, and local government and requested that they support us.

The teachers tried to find appropriate ways of teaching for students. They requested guardians to support their children to do homework at home. The teachers developed the teaching method through the "homework and home visit" approach as below:

> The schools provided textbooks to students and encouraged them to self-study at home, and also requested that parents follow up on their children's progress and help them study. This helped the children maintain their learning process. Teachers conducted a home (door-to-door) visit campaign to raise awareness of COVID-19. During these visits, teachers gave homework to the students and checked the progress of their previous homework. This helped the students and parents feel safe and confident about staying home and continuing to study. Home visits were conducted in collaboration with the teachers and SMC members. Psychological counselling related to health and education was also provided to teachers, students, and parents, which helped them feel more confident in difficult situations.

The teachers experienced the difficulties in providing online classes due to the limited access to Wi-Fi in the local communities. The teachers also talked about their findings, through their own experiences, about which method were appropriate for which grade level of students.

> Some teachers pointed out that accessing internet connections was difficult, making online classes complicated for teachers, students, and parents. Teachers also found it difficult to teach using smartphones Wi-Fi connections were problematic for students. The high cost of Wi-Fi connections and the lack of availability of electricity, mobile phones, tablets, or laptops were also serious hurdles faced by students, parents, and teachers. Based on their experiences, participants shared those online classes seemed more appropriate and effective for students in grades 8–12. In-person classes in small-group face-to-face teaching might be more effective for students in Grades 4–7, and the provision of homework or worksheets was effective for younger children in ECD and Grades 1–3.

Supporting the teachers' opinions mentioned above, the head teachers talked about how the teachers made efforts to develop more suitable ways of lessons for students in collaboration with the community members.

> Considering the students' learning achievements, we (the head teachers) had discussions with representatives of SMC, PTA, and parents about how to develop and improve alternative teaching methods and how students could learn effectively. With the support of parents, some classes were conducted in different locations; some were conducted in community spaces, some teachers visited individual students' homes to provide homework and guide students. However, we found that these mobile classes were not very effective because students from different grades got together in the same place and disturbed each other's learning. At the same time, teachers could not teach all subjects for all grades. At H-School, teachers tried to conduct classes on a rotating basis, it was not as effective as expected. This system was found to be too complicated.

Finally, the teachers figured out a suitable way of providing minimum required education for their students by protecting them from COVID-19. It was apparent, from the head teachers comments below, that throughout this process to develop a success-case at school, it was apparent that the collaboration with SMC, PTA, teachers and students was emphasised and encouraged.

> After the third wave of COVID-19, most people were vaccinated and felt safer. Subsequently, parents, SMC members, and the PTA began to worry about their children's education. Then, we planned to run small groups of face-to-face teaching (10–12 students in a class) in the morning, daytime, and evening; three shifts were found to be the most effective among the alternative teaching methods to produce good learning achievements. In a small group, they were careful to follow the health and safety protocol of COVID-19. The local government and health institutions provided sanitation and masks, and organised awareness sessions for students and teachers in their classes. Students enjoyed joining the small-group class, and the classes were more interactive than online and mobile classes.

*Head teachers and teachers' perception on alternative teaching methods*

When asked about how each school offered classes to the students as alternative teaching methods, the most common response was 'hybrid class'. However, this is different from the hybrid classes common in developed countries, where online and face-to-face classes are combined. The alternative teaching methods provided by teachers and sometimes guardians are (1) Home visit and homework provision; (2) Small group face-to-face teaching; (3) Homework provision; (4) Mobile (telephone) virtual class; and (5) Hybrid classes combining (1) – (4). The subjects and frequency of the alternative teaching methods; how was it conducted; and the positive and the negative points of each of the alternative teaching methods were summarised in Table 1 based on the data collected through the workshops conducted in the six success-schools.

The authors asked teachers about the changes in dropout rates before and after the COVID-19 pandemic in their schools. The largest number of 117 head teachers (58.5%) in Dhading and Gorkha Districts) indicated that the dropout rate remained approximately the same. A total of 63 head teachers (31.5%) reported an increase in dropout rates, whilst 20 head teachers (10.0%) reported a decrease.

When comparing Dhading and Gorkha, 16 head teachers from primary schools in Dhading (22.9%) reported an increase in dropout rates, whereas 18 head teachers from Gorkha (45%) reported an increase. Gorkha shows a larger percentage of primary schools suffering from increased dropouts than Dhading; since the primary schools are located far from each other in the mountainous areas Gorkha, and it is presumed that they may struggle to communicate or collaborate in their school communities.

Figure 1 shows the cross-analysis results of the alternative teaching methods and dropout rates.

Looking at the changes in dropout rates sorted by alternative teaching methods, amongst the schools that provided only homework, Hybrid Class I (homework and home visits) and Hybrid Class II (homework and online teaching through mobile phones), a larger percentage experienced increased dropouts than the other alternative teaching methods.

The schools that offered online classes through mobile phones, small face-to-face group teaching and hybrid class IV (a combination of small group face-to-face teaching and online teaching through mobile phones) showed the same or decreased dropout rates.

During the workshop held at the three success-case schools were in Dhading and in Gorkha, the participants were asked to rate each alternative teaching method from their own viewpoint on a 3-point scale: not good = 1, neutral = 2, good = 3. The results of the ratings (average rating points) by the participants are shown in Table 2.

| teaching method | more dropout | same | less dropout | total |
|---|---|---|---|---|
| no lessons | 11 | 12 | 2 | 25 |
| homework | 13 | 21 | 3 | 37 |
| group teaching | 4 | 10 | 2 | 16 |
| mobile class | 2 | 8 | 1 | 11 |
| hybrid I homework+home visit | 9 | 11 | 2 | 22 |
| hybrid II homework+group teaching | 10 | 23 | 6 | 39 |
| hybrid III homework+mobile class | 10 | 14 | 2 | 26 |
| hybrid IV group teaching+mobile class | 3 | 13 | 1 | 17 |
| total | 62 | 112 | 19 | 193 |

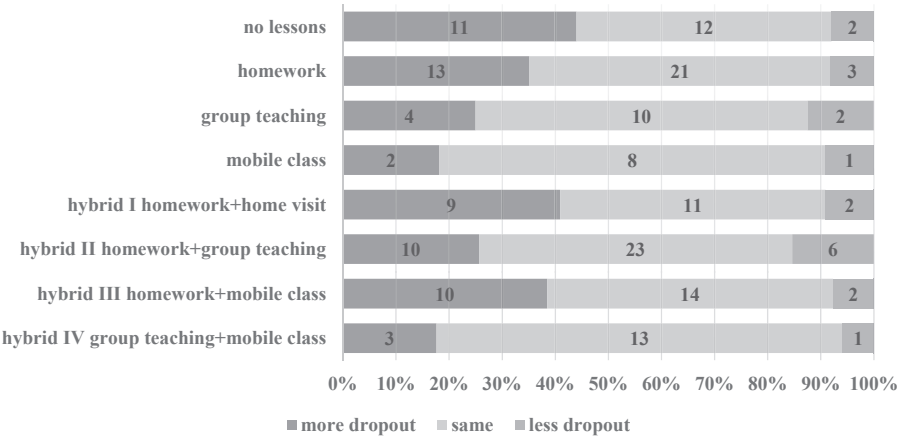


**Figure 1.**
Alternative teaching methods and status of dropout rate

**Source(s):** Prepared by authors

| Teaching method | Rating average (not good = 1, neutral = 2 and good = 3) Students | Parents/SMC | Teachers | Total |
|---|---|---|---|---|
| *Dhading* | | | | |
| Home visit | 1.70 | 1.43 | 2.60 | 1.82 |
| Online class (Zoom, Teams) | 1.76 | 1.60 | 1.73 | 1.70 |
| Group face-to-face teaching | 2.55 | 2.79 | 2.45 | 2.61 |
| Homework | 2.28 | 2.47 | 2.17 | 2.32 |
| TV and radio teaching | 1.45 | 1.14 | 1.60 | 1.39 |
| *Gorkha* | | | | |
| Home visit | 2.22 | 2.80 | 2.14 | 2.33 |
| Online class (Zoom, Teams) | 2.10 | 2.88 | 1.40 | 2.23 |
| Group face-to-face teaching | 2.79 | 2.04 | 2.64 | 2.49 |
| Homework | 2.22 | 2.00 | 1.71 | 2.00 |
| TV and radio teaching | 1.72 | 1.85 | 1.27 | 1.64 |

**Table 2.**
Rating of alternative teaching methods by stakeholders

**Source(s):** Prepared by authors

Schools that offered online classes, small-group classes, Hybrid IV (small-group classes and mobile classes) and Hybrid II (homework and small-group face-to-face teaching) had relatively fewer dropouts than schools offering other options. Alternative teaching methods that combined the homework and small face-to-face group teaching or online teaching through mobile phones might make students feel more secure or motivated.

In Dhading, students and parents who were SMC members gave higher ratings to 'group face-to-face teaching', whilst teachers preferred 'home visit' in general. In Gorkha, students and teachers gave higher ratings to 'group face-to-face teaching", while parents and SMC members preferred home visit and online class (Zoom, Teams). In Gorkha, very few students had access to Wi-Fi, but parents and SMC scored higher points to these learning methods; they may have considered the methods desirable. Based on their actual experiences during the school closure period, 'group face-to-face teaching' had the highest rating.

## Discussion and conclusion

The head teachers said that, if a similar kind of pandemic situation happens in future, they would use this small group face-to-face teaching after considering the situation and context. They obtained important lessons learnt from the experience together with teachers, SMC members, PTA, guardians and students, which they need to remember properly as an asset to their schools. Like the head teachers, the teachers showed the strong leadership at each school. The teachers were the key players of the decision-making throughout the process of developing and providing alternative teaching methods in the context of COVID-19 pandemic. Teachers voluntarily collected information through Wi-Fi and mobile phones; discussed and develop alternative teaching methods through trial and error; and practiced in the schools or in the communities, although the developed methods placed increased burden on them than the regular classes.

Teachers looked more interested in and motivated in teaching children than before the COVID-19 period, as noted in Angrist's paper about the large-scale randomised trials in five countries. The fact that they had been trained in planning and implementing SIP through SISM might have contributed to the teachers' strong leadership and active participation. The increased motivation and leadership of the teachers, besides the principal, will lead to improved SBM after the COVID-19 period.

Considering the findings from the workshops, the possible factors or driving forces that could motivate teachers to become enthusiastically engaged in 'teaching children' through the alternative methods might be listed as below:

(1) Teachers may feel motivated by the opportunity to have a say in decision-making that directly affect their 'teaching children' activities.

(2) Working closely with head teachers, peers and parents can foster a sense of community and shared purpose.

(3) Teachers may be motivated by the chance to shape or implement innovative methods of 'teaching children' in emergency settings.

(4) Teachers may be motivated to ensure diverse perspectives and considered in decision-making, particularly in schools with diverse student bodies.

It might imply that the head teachers and teachers' values and actions have already incorporated what they learnt from the SISM process or the SISM-SBM model and devising ways to respond even with limited resources. The review of the responses by the head teachers, teachers, parents, SMCs and students showed how they worked together to respond to difficult situations with limited resources. They have made efforts to develop more suitable alternative teaching methods in the context of the local and remote communities.

Although the research could not show clear evidence of a causal relationship between their achievement and the outcome produced by SISM, the success-case schools clearly benefitted from the head teachers' proper practice of SBM, with their strong leadership and collaborative efforts of the stakeholders.

The research did not choose any unsuccessful-case schools because it seemed inappropriate to choose unsuccessful schools when they had made great efforts to overcome these difficulties. To see how effective and sustainable the SISM-SBM model outcomes remain in Nepal and to identify possible approaches to make the current positive changes amongst head teachers and teachers contribute to the SBM improvement and the improvement in school education, the authors plan to conduct comparative research between successful and unsuccessful cases at the randomly chosen schools as the next research step.

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