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# **School Improvement in Multi-grade Situation (SIMS): An Innovation of the PDCC**

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## **Abstract**

*Professional Development Center, Chitral (PDCC), since its establishment in Chitral, is committed to work with its partner education providers for the improvement of quality of teaching and learning in schools. PDCC believes that effective teaching and learning in primary, acts as a foundation stone for higher education, but currently it does not happen in majority of our primary schools. Multi-grade situation in primary schools is one of the many reasons of low quality education. School Improvement in Multi-grade Situation (SIMS) was piloted in five schools aiming to improve the current Multi-grade Teaching (MGT) situation in schools. This study intended to explore some of the successes, challenges and lessons learned as a result of the SIMS intervention.*

*The focus of the study was to assess the effectiveness of the in multi-grade situation. For gathering information a number of inquiry tools were used. For example, ongoing assessment of teachers during workshop, field visit reports(field notes) of the Professional Development Teachers (PDTs) who facilitated the teachers of pilot schools, classroom observations of teaching and learning, formal (interviews) and informal discussion with students and teachers, and teacher reflective journals. The collected data was brought together in order to develop themes. Through the comparison of the data collected from various sources, it was found that SIMS creates better teaching and learning environment in the classroom, makes school happy place for the students to be in and provides opportunity of sharing resources. However, MGT demands for both the capacity and will of all the stakeholders especially the teachers.*

## **Introduction**

This paper gives a short history of developing and implementing a school improvement model called, “School Improvement in Multi-grade Situation SIMS”. It also briefly discusses the main components of the SIMS model. At the same time it highlights some of the success stories, as well as pointing out some of the challenges in the way of effective teaching and learning in Multi-grade situations as a result of the SIMS intervention in one of the primary schools. The paper

further shares some recommendations for the effective implementation of the SIMS model in schools where there is a multi-grade situation exists.

## **Background**

Since the establishment of the Professional Development Center in Chitral (PDCC), it has been committed to working with its partner education providers such as the AKES, P Chitral, Government Educational Department and the Private Educational Sector. The objective of the PDCC is improving the quality of teaching and learning in schools through the professional development of teachers, head-teachers and other stakeholders.

Aiming to meet some of the professional training needs of teachers in Chitral, the PDCC conducts short as well as longer certificate courses for teachers, head-teachers and managers from time to time. Besides the short courses, it is intended to develop some sort of school improvement models that could be replicable and would work towards the long term objectives of overcoming the educational impediments in Chitral.

A multi-grade situation in primary schools is one impediment in quality education. It arose during our need analysis survey, as well as during the stakeholders' conference. Most of the schools both in the AKES and the Government Education System and the major partners of the PDCC in Chitral have a multi-grade setting. Some surveys conducted in Chitral and Northern Area show that although in some schools students' learning achievements were better than some of the mono-grade schools, no effective learning was reported in the majority of the multi-grade settings. As reflected in the report on MGT by professional development team of AKES, P Chitral, July 2003, "No worthwhile tasks are given to the students who are not focused during MGT. As a result, students sit idle and hence, no effective learning takes place" Similarly, a teacher of a government primary school mentioned, "No teaching and learning takes place if one of us is absent, as one teacher can only control the students". By control he meant keeping the students quiet so that they would not misbehave. Approximately 90% of both the AKES and government primary schools are running in a multi-grade situation. Two to three teachers teach six classes having an overall enrollment from a minimum of 70 students to 180 students in a primary school (Annual Report AKES, P. 2003)

## **Aim of the SIMS Model Developed by PDCC**

SIMS aims to improve the current multi-grade teaching situation in schools through enhancing teachers' content knowledge and improving their pedagogical skills especially in multi-grade teaching. It also aims to enhance students' learning achievements and create awareness among communities regarding their roles and responsibilities in child education.

## **The Model**

School Improvement in Multi-grade Situation is embedded in four major components;

1. Negotiation with the partner organizations;
2. Professional development of primary school teachers;
3. Providing support to the teachers for the implementation of learning from the workshop in their actual classroom situation;
4. Exploring ways for on going support mechanism through their respective school management/parent Teacher Associations for the sustainability of the changes and for further improvement.

## **The SIMS Intervention**

After negotiation with our partner organizations, that is the first component of the model, SIMS was piloted in five schools, which included 2 government schools, 2 AKES - P and 1 private school. The reason of taking the five schools was that they represented our partner organizations and were easily accessible to PDCC. Each of these schools had a different setup and culture, but had a multi-grade setting/situation. The teachers went through an intensive workshop before starting MGT in the schools. After getting training at PDCC, the teachers went back to their respective schools where they were followed up by the PDTs from time to time as a part of the third and fourth component of the model.

The focus of the study was to assess the effectiveness of the intervention. For the data gathering, a number of inquiry tools were used. For example, on going assessment of teachers during workshop, field visit reports(field notes) of the (PDTs) who worked with the teachers, classroom observations, formal

(interviews) and informal discussion with students and teachers, and teacher reflective journals.

## **Tamer-e-Sirat Model School (TMS) Seen, Chitral**

### **School Profile**

The TMS is an English medium school situated at a distance of about eight kilometers from PDCC. Textbooks of Afaq publishers, which are in English, are used in the schools. There are four classrooms surrounded by a small boundary wall and a small assembly court where the students assemble for morning assembly and play during short break. There are five classes (Nursery, K-G, I, II & V), and grades III & IV are missing. Nursery and K-G classes are made sit in one room; while classes I, II & V have separate rooms prior to the SIMS intervention. Three classrooms were carpeted while there were desks and benches in one of the classrooms. There were four teachers to teach eighty two students.

### **Class-wise enrolment**

<b>Classes</b>	Nursery	KG	I	II	V
<b>Enrolment</b>	13	11	18	24	16

Though Nursery class and K-G would sit in one room, no Multi-grade Teaching (MGT) was happening. Teachers were found busy with one class without engaging the other class in meaningful learning.

The school used a time table that allocated periods of thirty-five to forty minutes for each lesson and observed a total of five to five-and-half hours of teaching a day. No time was allocated for Arts & Craft or for physical education in the daily timetable. Although TMS is an English medium school, most of the teaching is done in Khowar (mother tongue). Student-student interaction was almost all in Khowar.

Teachers used more or less activity based teaching. The students seemed to be confident enough, and they would try to answer the questions asked in Urdu but would hardly ask any questions.

# **SIMS Intervention and Achievement Analysis**

## **Professional Development of Teachers**

In the first phase of the SIMS Model, a four week workshop was organized for the teachers during summer vacations in order to save the students' learning time. Before conducting the workshop, a need analysis survey was conducted in some of the schools. This survey report helped the workshop facilitators to work with the teachers rather than working for them. Although the blue print of the workshop plan was developed, the process followed the constructivist approach looking at the emerging issues from the classroom. It started with elicitation of teachers' current practices in their respective schools. The facilitators tried to build on teachers' own current practices and linked it with different concepts and models of MGT.

## **Improvement in Teachers' Pedagogical Content Knowledge**

At the beginning of the workshop the participants came out with the understanding of Multi-grade Teaching as teaching of more than two grades one by one. "Teaching more than one classes by one teacher is MGT", (composite quote, group work presentation). The facilitators tried to add to the previous understanding of the CPs of MGT, and shared Miller's model of Multi-grade Teaching with the CPs. As a result of the discussions on MGT, they came out with different understandings of MGT. One of the CPs mentioned in their reflection, "Keeping more than one classes in meaningful learning activities at one time by a single teacher is MGT and is very challenging". These types of discussions led to the discussing of different strategies regarding MGT. For example, reframing class-wise timetable, putting concepts in a sequential order, and developing unit plans were some strategies discussed by the CPs. Discussions on the mentioned strategies and techniques resulted in getting insight on both the positive and challenging aspects of MGT. A CP reflected, "Now I can teach easily in a multi-grade situation as unit planning and putting concepts into sequential order have helped me a lot". Another CP mentioned her views, "To me MGT seemed to be impossible, now although it still challenging, it's no more impossible".

Re-organization of the curriculum, especially putting concepts given in the textbooks in a sequential order (concept blocks) was one of the major components of the SIMS teacher workshop. The CPs found the activity very helpful. They reflected, "Now we understand how these concepts that are to be

taught at different level are interrelated. Now we can easily teach using concept blocks” (composite quote, reflective journals of CPs)

### **Improvement in Teachers’ Subject Content Knowledge**

Content knowledge and pedagogical content knowledge are clearly linked. One can hardly know how to teach a subject with ignorance of content. Miller, K (1997) also argues that just knowing the subject matter is not sufficient for teaching it. In order to enhance the CPs’ content knowledge and improve their pedagogical skills, a number of new ways of teaching were introduced during the workshop. Most of them shared their reflections saying, “We enjoyed working in groups. It is not only a good way of learning but also develops our confidence especially when we present our work” (composite quote, reflective journals of CPs). Their beliefs about teaching of different subject were changed as a CP shared her reflection, “I got the idea that science can be taught with simple things which are available everywhere in the environment”. “Now I know that science is not a boring subject. It is we the teachers who can make it either boring by teaching it the way we are teaching or choose to make it interesting by teaching it in a better way” (composite quote, reflective journals of CPs). Similarly, reflecting on the teaching of Social Studies in a primary school, a CP said, “Now I realize how important it to teach social studies in primary classes”. Reflecting on their own learning of mathematics and then their current teaching practices with regards to the subject, they perceived mathematics as a boring, difficult and dry subject both for students and teachers. During the workshop when they were introduced to some thinking activities like pattern seeking, problem solving, magic squares they said, “The boring math is becoming interesting” (composite quote, CPs informal discussion). Reflecting on language games and story telling in language teaching, especially in a multi-grade classroom, the CPs mentioned, “Story telling plays a vital role in the teaching of Language”, (composite quote, reflection of CPs)

### **Improvement as a Result of Changes Brought at School Level**

The teachers have initiated the following changes after receiving MGT training with the help of the PDTs during their visit to the school. They helped and guided the teachers in framing the changes in even more appropriate ways during the field visits to the school. Some of the visible changes and their results are discussed as under.

## **Structural Arrangements**

The teachers made Nursery class and K-G sit in one room and Class I & II in another room. This structural change allowed the teachers to teach four classes in a Multi-grade Situation (MGS). As a result, two teachers remained busy at a time, while one teacher was free to check home tasks of the students, lesson preparation and or to help teachers if there was any need. Another benefit of the changed seating arrangement was that one room was spared to be developed into a resource room and library. They also replaced the small classroom of grade V with a bigger one for MGS. This replacement made the classroom movement of students and the teachers easier. Now teachers could reach every student for guidance and facilitation. Since two classes sit in the same room, they helped each other. A student mentioned, “We are learning from our seniors”.

A new one hour timetable instead of the 40 minute time-table was introduced without disturbing the total school hours. The teachers found this new timetable helpful in doing sufficient activities in the classroom for effective learning. It became possible for the teachers to get sufficient time for giving individual attention to the students of both the classes in MGT situation. “40 minutes timetable was not appropriate to perform activity based teaching” (interview of the head-teacher)

Each teacher started developing unit planning based on concept blocks developed by the teachers. It was a challenging task, but the teachers seemed to be enthusiastic and they sat for late hours to develop such type of activities. “At the beginning we had to sit after school but it made our teaching easy. We put the similar concept of both the classes in a sequence. It helped us in planning lessons effectively” (Composite quote, informal discussion).

The school had no library and the students did not have access to reading materials other than textbooks before the SIMS intervention, and the introduction of mobile library service. A student said very enthusiastically, “Thank you very much for story books”. The students were not only reading story books, but also reproduced them in their own words both verbally and in writing. A student produced the story in pictorial form after reading the text.

## **Positive Attitude towards Teaching and Learning**

Answering to a question about what changes the students were noticing regarding the attitude of teachers after the SIMS workshop, one of the students did a role play showing how the teacher entered their classroom before and after the SIMS workshop and this was quite interesting. “Now, we feel shame

reflecting on our act of using stick”, said the teachers. Teachers were sharing the comments of the students saying, “Miss! What happened to you? You are now laughing and not beating us if we misbehave” This type of attitude not only lowered the absenteeism rate, but also developed a visible confidence among the students. Practice of basic social skills in school also improved students’ attitude towards learning. Sometimes students misbehave due to a lack of social skills and they have very little idea how to interact appropriately with their classmates.

### **Enhanced Teaching and Learning**

The students seemed to be more confident and motivated to learn. This appeared during the classroom teaching and learning observation by the PDTs, “Students were more interactive and took interest in activities. The students now perform better in weekly and monthly tests given to them. They do home tasks regularly,” (document analysis). Answering a question about the comparison before and after the SIMS intervention, the students mentioned, “We enjoy learning as teachers are now friendly and give us books to read, tell us stories, and allow us to play.” Students work-displays in the classroom, talking about the displays, writing on the notebooks and answering simple questions; are also a testament to the positive impact of the SIMS on students’ learning. Another student mentioned, “We are learning from our senior friends”.

Using low cost/no cost teaching material is an essential component of the SIMS model. Alvi (1992, p.2) sees the use of teaching material from the local environment as, “Low cost, no cost materials or in other words, teacher made materials should play a very important role in education”. Teachers have initiated improvising and using low cost/ no cost teaching materials. For example, they were making charts, drawing maps, making thermometers from plastic bottles, making card badges etc. “We enjoy drawing, coloring and making story using wall pocket-board (teachers have developed pocket board from cloth. They use picture cards, number cards, word cards for different purposes and it leads to student self learning facilitation)” (informal discussion with the students).

The introduction of a wall magazine made from old magazines, newspapers collected by the students and teachers has had a great impact not only on students’ learning, but also on the developing of healthy competition among the students and the subsequent sharing of information. Hoyle (1994) argues that a classroom that works for equality in which pupils and teachers are working together enable the learning process to occur successfully.

Student work-displays in the classroom received less importance before the intervention of the SIMS. Similarly, there was no time allocated for Art & craft (A&C) in the weekly timetable. With the inclusion of a 40 minute A&C class for each grade in the weekly timetable, numerous creative works were produced by the students. The students not only took interest in making dolls, animals from old pieces of cloths and mud, but also presented their work with confidence. Students could draw, color the drawings and display them and feel proud to do so. “I never thought that young children could do such creative work”, noted in the reflective journal of a teacher.

## **Challenges**

Although a number of improvements were observed, there were challenges with the SIMS model and some of them are highlighted.

“Iss MGT nay nak Mey dam kar dia”, reflection of a teacher. (It is too difficult to continue). This was the initial feeling of the teacher but it changed at later stage, “this MGT is becoming interesting as students enjoy it, taking interest in learning and coming to school happily”.

## **Lacking Pedagogical Skills with Reference to Multi-grade Teaching**

Teachers found the professional training given not sufficient to be skillful in putting concepts into sequential order, developing scheme of work, framing meaningful unit planning and being skillful to involve parents in students’ learning. To keep the students in meaningful learning activities, teachers need to plan challenging activities. This planning demands for skills, commitment and time which is no doubt challenging. Vincent, S. (1999) also argues that it is true that a multi-grade classroom requires more planning, collaboration, and professional development than mono-graded classroom.

## **Coming out from Routine Practice and Sustainability**

The teachers have been trained as a mono-grade teacher and were practicing it for a long time before the SIMS intervention. So, sometimes teachers remain under the pull of gravitational force of switching to comfort zone (Siddiqui, March 2003). There is need to support the teachers against the said in order to sustain the positive change.

## Lessons learned

We believe that the model can work even more effectively if the following factors are taken into consideration:

- Teachers' pedagogical skills with especial reference to Multi-grade Teaching would be enhanced through intensive workshops.
- There is need of sustainable support to the teachers at school.
- Appreciation of teachers' hard work, commitment and capabilities by management.
- There is also need for top-down pressure and for bottom-up initiatives by relevant stakeholders.
- Effective parental involvement in child learning would play a crucial role in better teaching and learning.
- There is need to enhance basic health & hygiene and physical education activities in schools.

## Conclusion

It is concluded that students are enjoying school and learning more than they did before. The teachers are more motivated and skilful and learning new methods of teaching. There are some contributing factors observed with these achievements which are worth mentioning. For example, teachers play a central role in MGT that involves commitment and motivation. Hargreaves (1995) argues that the teacher is the ultimate key to educational change and school improvement. Sitting and working/planning after school, for school activities witness the commitment of the teachers. However, teachers need to be skillful to meet the requirements of creating learning friendly environment in multi-grade situation. The teacher must also be skillful to compete against the hindrances and the factors that force the teachers to switch back to they way they have been teaching for long time. So it becomes the responsibility of the school management to provide the teachers with professional development facilities to enhance and update their knowledge as well as skills in general, and with reference to MGT in particular. While concluding, it should be said that for implementing multi-grade programmes, it must be taken into account both the capacity and the will of all of the stakeholders, especially the teachers, for encouraging greater depth in children's social, academic, and intellectual

development. Keeping in mind the said factors, SIMS can be replicated effectively in schools where there is a multi-grade situation.

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