

# **School Improvement in Multigrade Situation (SIMS)**

**An innovation of the PDCC**

**By Jalal Wali Khan**

*Paper presented at the conference "Quality in Education Teaching and Leadership in Challenging Times", Institute for Educational Development, Aga Khan University, Karachi from 21-23 February, 2006.*

## **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. Multigrade situation in primary schools is one of the many reasons of low quality education. School Improvement in Multigrade Situation (SIMS) was piloted in five schools aiming to improve the current Multigrade 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 multigrade 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 of a school improvement model titled as "School Improvement in Multigrade 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 challenges in the way of effective teaching and learning in Multigrade situation as a result of the SIMS intervention in one of the primary school. The paper further shares some recommendations for effectively implementation of SIMS model in schools where there Multigrade situation exists.

## **Background**

Professional Development Center Chitral (PDCC), since its establishment in Chitral, is committed to work with its partner education providers such as AKES, P Chitral, Government Educational Department and Private Educational Sector. The objective

of the PDCC is improving the quality of teaching and learning in schools through 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 certificate courses (long) 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 have long term objectives to overcome educational impediments in Chitral.

Multigrade situation in primary schools is one of the impediments in quality education. It came out 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, the major partners of the PDCC in Chitral have Multigrade 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 majority of the Multigrade 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. with the 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, one teacher can only control the students" By control he meant keeping the students sit quietly so that they could not misbehave. Approximately 90% of both the AKES and government primary schools are running in a Multigrade situation. Two to three teachers teach six classes having overall enrollment from minimum 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 multigrade teaching situation in schools through enhancing teachers' content knowledge and improving their pedagogical skills especially in multigrade teaching. It also aims to enhance students' learning achievements and create awareness among communities regarding their role and responsibilities in child education.

### **The Model**

School Improvement in Multigrade 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 in 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 sustainability of the changes and improvement.

### **The SIMS Intervention**

After negotiation with our partner organisations that is the first component of the model, SIMS was piloted in five schools comprising of 2 governments 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 set up and culture but having Multigrade 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. Since there are five classes (Nursery, K-G, I, II & V), 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 SIMS intervention. Three classrooms were carpeted while there were desks and benches in one of the classrooms and four teachers to teach eighty two students.

### **Class-wise enrolment**

Classes	Nursery	K-G	I	II	V
Enrolment	13	11	18	24	16

Though Nursery class and K-G were sitting in one room, no Multigrade Teaching (MGT) was happening. Teacher was found busy with one class without engaging the other class in a meaningful learning. The school used a time table that allocated 35-40 minute period for each lesson and observe 5 to 5:30 hours teaching a day. No time was allocated for Art & Craft and for physical education in the daily timetable. Although TMS is 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 were trying to answer the questions asked in Urdu but could hardly ask questions.

### **SIMS Intervention and Achievement Analysis**

#### **Professional Development of Teachers**

In the first phase of the SIMS Model, a four week workshop was organised for the teachers during summer vacations in order to save 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 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 Multigrade teaching.

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

At the beginning of the workshop the participants came out with the understanding of Multigrade 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). Since the Facilitators tried to construct on the previous understanding of the CPs of MGT and Shared Miller's Model of Multigrade Teaching with the CPs. As a result of the discussion on MGT they came out with different understanding of MGT as one of the CPs mentioned in their reflection, "Keeping more than one classes in meaningful learning activities at a time by a single teacher is MGT and is very challenging". These types of discussions led to discuss different strategies regarding the MGT. For example, reframing class-wise timetable, putting concepts in to sequential order, and developing unit plan were some strategies discussed by the CPs. Discussions on the mentioned strategies and techniques resulted in getting insight to both the positive and challenging aspects of Multigrade teaching. A CP reflected, "Now I can teach easily in a Multigrade situation as unit planning and putting concepts into sequential order are new and helpful ways in MGT". Another CP mentioned her views, "Tome MGT seemed to be impossible, now although it still challenging, not impossible".

Re-organization of curriculum especially putting concepts given the textbooks in to sequential order (concept blocks) was one of the major components of the SIMS teacher workshop. The CPs found the activity very helpful as they reflected, "Now we understood how these concepts which are to be taught in 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 in ignorance of the 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 boring subject it is we the teachers who can make it either boring by teaching it the way we are teaching or make it interesting by teaching it in an interesting way" (composite quote, reflective journals of CPs). Similarly, reflecting on teaching of Social Studies in primary school a CP

said, “Now I realized how important it to teach social studies in primary classes is”. Reflecting on their own learning of mathematics and then their current teaching of mathematics they perceived mathematics as boring, difficult, dry subject both for students and teachers. During the workshop when they were introduced with some thinking activities like pattern seeking, problem solving, magic squares they were saying, “This boring math is becoming interesting” (composite quote, CPs informal discussion). Reflecting on language game and story telling in language teaching especially in the Multigrade classroom the CPs mentioned, “Story telling plays a vital role in 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. The PDTs helped and guided the teachers in framing the changes in even more appropriate way 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 Multigrade Situation (MGS). So 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 where there was needed. Another benefit of the changed seating arrangements was that they have got one room spare to develop it as a resource room and library. They also replaced small classroom of grade V with a bigger one for MGS. This replacement made the classroom movement of students easier as well as of the teacher in a MGS. Now teachers could reach to 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 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 becomes possible in a way that the teachers get sufficient time to give 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 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 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 that 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 enters to their classroom before and after the SIMS workshop and was really 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 because of lacking practice of social skills and they have very little idea how to interact appropriately with their classmate.

### **Enhanced Teaching and Learning**

The students seemed to be more confident and motivated to learn. It 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 to a question of comparison before and after the SIMS intervention 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 to simple questions also witness 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 wall magazine from old magazines, newspapers collected by students and teachers has great impact not only on students' learning but also developing healthy competition among the students and sharing information. Hoyle (1994) argues that a classroom that works for equality in which pupils and teachers are working together to enable the learning process to occur

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 result of inculcation of a 40 minute time per week per grade for A&C 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 then could draw, color 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 Multigrade teaching**

Teachers found the professional training given not sufficient to be skillful to 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 multigrade classroom requires more planning, collaboration, and professional development than mono graded classroom.

## **Coming out from routine practice and Sustainability**

Since 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 (Shahid Siddiqui). There is need to support the teachers for sometimes against the mentioned force 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 Multigrade 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 of top-down pressure for bottom-up initiatives by relevant stakeholders
- Effective parental involvement in child learning would play 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 to 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 multigrade situation. The teacher must also be skillful to compete the hindrances and the factors that force the teachers switching 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, I would say that implementing Multigrade programmes must be taken into account both capacity and will of all the stakeholders especially the teachers, for encouraging greater depth in children's social, academic, and intellectual development. Keeping in mind the above mentioned factors SIMS can be replicated effectively in schools where there is Multigrade situation exists.

## References

Alvi, N. (1992, November). Low cost/no cost teaching materials. Paper presented at the 4<sup>th</sup> national seminar on excellence in education, Karachi.

Miller, K. (1997). Teachers' subject content knowledge and understanding. *Science Teacher Education*, 6 (19).

Hoyle, P. (1994). Race equality and science teaching. In R. Hull (Ed.), *Science Teachers' hand book, primary*. Townbridge: Dotesios LTD.

Hargreaves, A. (1995). *Changing Teachers changing times: Teachers' work and culture in the post modern word*. London: Cassell.

Siddiqui, S. (2003, March, 2003). Why teachers don't change. *The Daily Dawn*, p.12.

Vincent, S. (1999). *The Multigrade Classroom: A Resource for Small, Rural Schools*. Northwest Regional Educational Laboratory: Portland, Oregon 97204