

# **BLOSSOMS – Mini**

## **A BLOSSOMS Experiment for Public and Private Schools in Pakistan**

By

**Ovais Ahmed Tanweer**  
*TV Presenter and Producer*  
Express News Pakistan  
*Honorary Administrator*  
Cutchi Memon English School Karachi

**Hina Ovais**  
*Academic Consultant*  
Cutchi Memon English School Karachi

### **Abstract**

*This paper explores the implementation of BLOSSOMS-Mini at a local school in Pakistan as a case study. Inspired by the MIT-BLOSSOMS project, similar but shorter videos on theoretical subjects taught in Pakistan's schools were prepared by teachers. The objective was to counter one of the most important issues faced by teachers in classroom i.e. generation and retention of subject interest in the students. The videos were then used as aid in the classroom and student learning was tested. It was observed that these short videos proved to be extremely helpful in improving the standard of learning in the classroom. On the students side, interest level and learning improved while on the teachers side, the preparation of these videos increased their knowledge about the subject also. In a country, where teacher training is very low, these videos, if implemented at government level, can bring about a significant change in the education system. The paper lays down how the video-based learning system i.e. the Mini-BLOSSOMS project can help in the achievement of long term education targets of Pakistan.*

### **Education in Pakistan: General Overview**

Education plays a key role in the development of any economy. International statistics display that educated populations have a direct positive relationship with high economic growth rates, enhanced labour productivity, social prosperity and sustainable development. More importantly, equalization of educational levels within a country is an important factor in the elimination of regional, gender and class inequalities. It battles poverty by reducing unemployment, setting decent practices for women's participation in the work environment and providing guidance regarding financial expenditures towards most beneficial use.

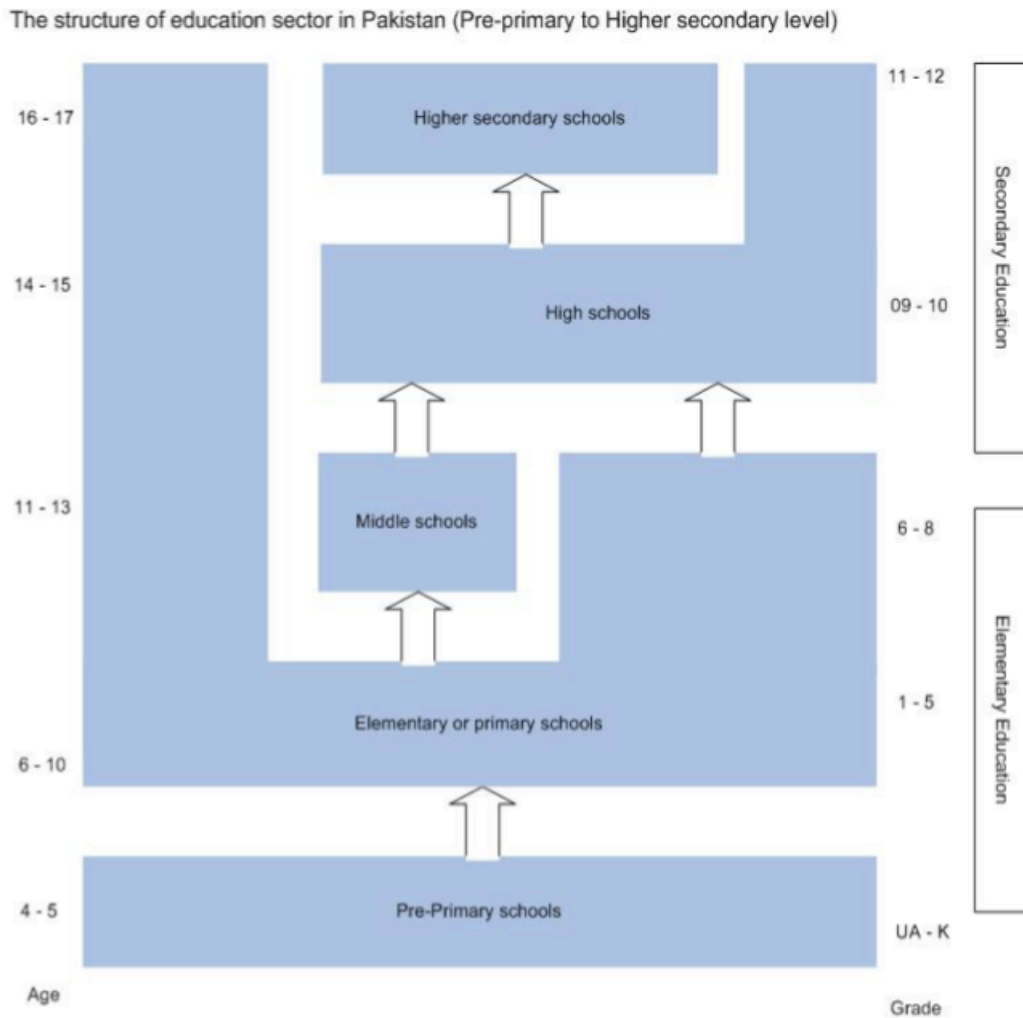
Like many developing countries, Pakistan has not progressed adequately in the field of education. With an adult literacy of only 57%, a large part of its adult population is

unable to read or write. School enrolments are very low and drop out rates are too high. The budgetary allocation for education has remained about 2% of GDP for the past decade, with a high proportion being spent on heads such as salaries, which leaves a small amount for teacher training, curriculum development and increase in school facilities.

On the Education Development Index (EDI), Pakistan lies at the bottom with India, in the low EDI group. The Global Competitiveness Index (GCI) also shows Pakistan’s weak performance in the areas of health and education, when compared with other countries of the region.

**Pakistan’s Education Structure:**

The structure of the education sector of Pakistan (pre-primary to higher secondary) is illustrated below:



The most striking feature of the above-presented system is its inherent inequalities. There are parallel streams of primary and secondary schooling, which are further divided in public and private sectors. These sectors cater to different socioeconomic classes in the country.

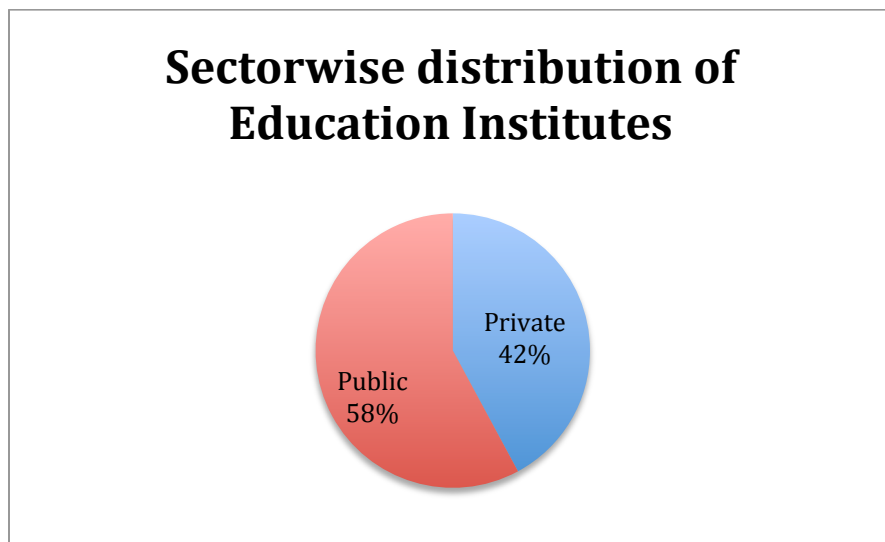
The majority of the children, residing mainly in rural and semi-urban areas and belonging to the lower to middle classes, attend public schools which offer free matriculate system education and face issues like shortage & absence of teachers, weak infrastructure and lack of learning materials.

On the other hand, children of upper-middle and upper classes, residing in rich urban localities, mostly attend high cost private schools which offer both local (matriculate) as well as foreign examination systems (e.g. O and A levels). These schools are staffed with qualified and trained teachers, well-equipped classrooms, all essential facilities and good quality, often imported, imported teaching and learning materials.

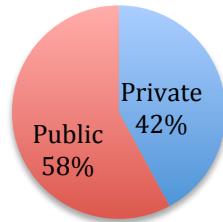
### **Education in Pakistan: Statistical Overview**

The education system of Pakistan is comprised of almost 0.27 million institutions and is facilitating around 41 million students with the help of approximately 1.5 million teachers. The system is composed of 194,151 public institutions and 76,674 private institutions. The sector wise distribution of educational institution in percentages is shown in figure below.

The public sector is serving 26.5 million students to complete their education while the remaining 14 million students are in private sector of education. The sector wise distribution of enrolment in percentages is reflected in figure below.

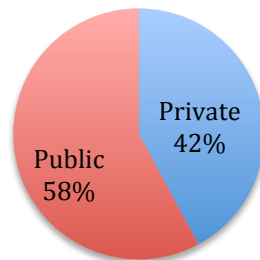


## Sectorwise distribution of Students



Comparing these two sectors of education in terms of teaching staff, we find that 57.88% of teachers are providing their services to public institutions whilst 42.12% are employed by the private sector.

## Sectorwise distribution of Teachers



Data from 2010-2011 shows that the overall public sector education system is using services of approx. 0.8 million teachers while in 2008-2009 the system had the services of 0.7 million teachers, indicating that over this time period, 0.1 million more teachers are added to the system.

## **Two Major Issues related to education in Pakistan**

### **1) Quality of teachers**

It is accepted by all stakeholders that the quality of teachers in the public sector is unsatisfactory. Poor quality of teachers in the system is due to the mutations in governance, an outdated pre-service training structure and a less than satisfactory in-service training regime. Presence of incompetence in such a huge quantity and infusion of malpractices in the profession have not only caused adverse effects on students but also have had a negative effect on the high status of teachers in the eastern culture. Teaching has become the employment of last resort of most educated young persons, especially males.

According to the National Education Policy (2009), reform is required in all areas: pre-service training and standardization of qualifications; professional development; teacher remuneration, career progression and status; and governance and management of the teaching workforce.

### **2) Curriculum**

Another common observation in Pakistani schools is that classroom teachers do not use the curriculum. Their focus is on one single textbook that is assigned to them for the subject. Even assessments are based on this textbook and not the curriculum.

The curriculum also does not cater to the primary need of student i.e. generating interest of the subject. Due to this lacking, most of the students follow the rote learning approach without understanding the basic concepts of the subject.

The teachers also have a routine conventional way of teaching from the same book for years and years without creating new unorthodox and interest generating methods.

### **Training of Teachers**

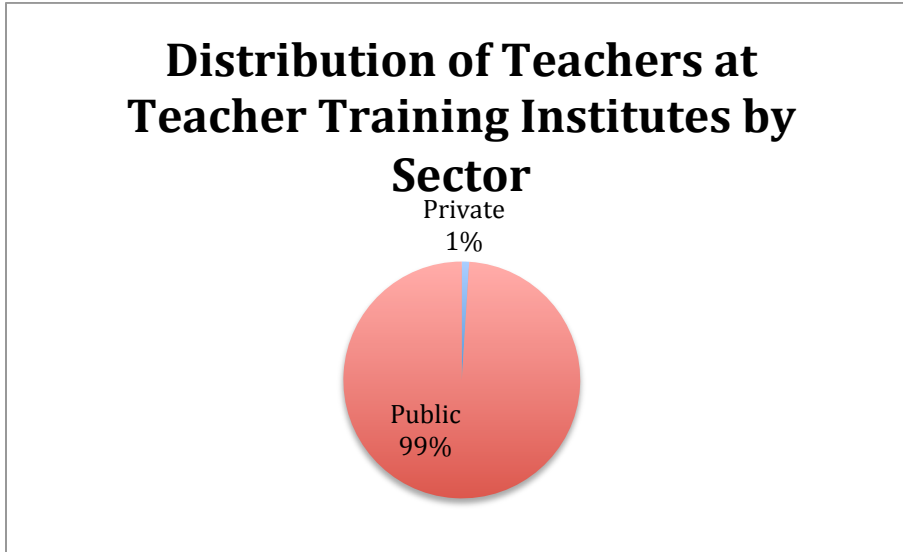
The above problems can be addressed partially with some proactive work in the domain of teacher training.

If proper policies and procedures are designed and implemented to equip teachers with the knowledge, attitudes, behaviors and skills they require to perform their tasks effectively in the classroom, school and the community, they would translate into high learning achievements of students.

But unfortunately, teacher training is also a neglected area in Pakistan. There are only 184 teachers training institutions, of which 151 (82%) are in the public sector, whereas 33 (18%) are in the private sector.

The total enrolment at teachers training institutions is 0.679 million of which 0.674

million (99%) are in public sector, whereas, 0.005 million (1%) are in private sector.



### **Effects of above problems**

The ultimate test of quality of education relies on the learning achievements of school children.

In 2011, a study was conducted by the 'Aga Khan University's Institute for Educational Development' in Pakistan. It covered 196 schools and over 6,000 students from classes IV and V across several districts of Sindh. It gathered information on student populations and prevailing teaching, learning and management practices in these schools, as well as data on student learning achievements in four core subject areas i.e. Mathematics, Science, English and Social Studies.

Unsurprisingly, students were shown to be performing poorly with just 17 percent obtaining pass marks in tests. Girls performed relatively better in all subject areas as compared to boys even though they were not encouraged or provided equal opportunity to participate in classroom.

The study also revealed that only 56 percent of the enrolled students attended classes regularly, with the remainder either attending school intermittently or remaining absent. Moreover, 70% of primary school teachers across Sindh teach their classes for merely 15 of the 35 minutes assigned to each subject daily. Only 20 percent teach for more than 20 minutes while the remaining 10 percent offer even less than five minutes of teaching time in their classrooms.

These low learning levels are an unacceptable reality needing urgent responses from all stakeholders: households, parents, educators, civil society, industry, government, youth groups and media in a campaign mode for action oriented results.

## **BLOSSOMS enters the picture**

BLOSSOMS is an “Open Educational Resource,” a web-based collection of materials offered freely and openly for re-use in teaching, learning and research. The project is sponsored at MIT by LINC (Learning International Networks Consortium), a consortium of global educators interested in using distance and e-learning technologies to increase access to quality education worldwide.

An introduction to this initiative at the MIT-LINC conference in 2010 made me think about its implementation in Pakistan. It was heartening to know that there are plans to implement it in some schools of Punjab. Being the voluntary administrator of a small charity school in Karachi (province of Sindh), I was determined to implement it there.

### **The Cutchi Memon School, Karachi**

The Cutchi Memon English School, Saddar, Karachi started as a Madressah in 1894. The thriving Cutchi Memon Community set it up. The inspiration for setting up of this school was drawn from the Educational and Reform Movements launched by Muslims stalwarts such as Sir Syed Ahmed Khan, Justice Syed Ameer Ali, Khan Bahadur Hassanali Effendi and many others in the late nineteenth century.

It became a lower (Middle) school in 1927 and a secondary level school in the 1960s. In 1972, the school was nationalized by the government of Pakistan. It was restored to the Cutchi Memon community in March 1999. The School is now a co-education and English medium institution. The cosmopolitan nature of this school is reflected in the present enrolment of 390 students belonging to different religions, sects, creed and races.

Being a school catering to the lower segment of the society, the students come from families who have no or very low education level. Most of the parents are illiterate and are unable to keep a check on the studies of their children. This adds to the responsibilities of teachers, who are mostly in this profession by chance, not by choice. Their lack of competence and failure to motivate students translates into an extremely low level of student achievement. Students opt for rote learning to pass their annual exams, without the understanding of subjects that are already taught with the help of an old dry curriculum.

### **The mini-BLOSSOMS Experiment at C.M. School**

A group of young teachers were shown the Blossoms videos through the Blossoms website and were asked to provide their opinion on the video based method of teaching. Their initial reaction to Blossoms was positive but they were confused about its implementation at Cutchi Memon School. After discussion, teachers presented the following suggestions:

- 1) The videos already present on the BLOSSOMS website are related to practical subjects such as Physics, Mathematics, Biology etc. but there were no videos

related to purely theoretical subjects taught here such as Language, Ethics, Religion, Social Studies etc. The teachers were of the view that interest of students is low in classes of these theoretical subjects, so video modules might be helpful here.

- 2) The duration of most of the videos was long. Teachers suggested that if the duration of the videos can be reduced, they could serve as good starters followed by explanation given by teachers, who could refer to the video whenever required.

We concluded that a practical effort to make our own Mini-BLOSSOMS videos could be started. The teachers were then given a task to select two chapters, from textbooks of their subjects, for which they feel video aid would help students. The chapters selected by the teachers were:

- 1) *The Hajj – Chapter 2B from Islamic Studies for Class VIII*

The chapter was selected because Hajj is a complex Islamic ritual and the teachers felt that they face difficulty in explaining this chapter to the students. They felt that video aid might increase student learning and also generate interest in the topic.

- 2) *Land and Climate of Pakistan (Section: Mountains) – Chapter 4 from Social Studies for Class VIII*

The reason for selection of this chapter was that the teachers felt that most students are not interested in learning the names and heights of mountains etc. so visual aid might increase their interest level.

The initial script was drafted from the chapters and a senior teacher was selected to narrate the script on camera. Urdu language was selected for the Islamic Studies video while English language was used for Social Studies video. Corresponding visuals and images for both were finalized and finally the production of two videos was completed in ten days.

The next task was to test the result of video-based learning on the students of CM school. Two groups of students were selected for this experiment. Details of the groups are as follows:

- 1) *Group A: 15 students (7 boys and 8 girls)*

- 2) *Group B: 15 students (6 boys and 9 girls)*

Both the groups were taught the selected chapters in the conventional manner without any visual aid. After the lecture, they were tested about their learning outcomes with the help of a written quiz. The outcome of the quiz was that 60% students secured passing marks.



For teaching with the help of our Mini-Blossoms videos, as we had named project, two more groups of students were selected.

*1)Group A: 15 students (8 boys and 7 girls)*

*2)Group B: 15 students (6 boys and 9 girls)*

The two groups were taught the same chapters with the help of these videos. Before the formal lecture, students were introduced about the subject and the video was played. Students showed great interest in watching the video. After the video, the normal lecturing started but the teacher kept referring to the video regularly and also showed them important clips during her lecture. Test was conducted after the lecture and it was a surprise that 75% students of this group secured passing marks.

The response of teachers on teaching with video aid was also positive. They said that the video helped them in preparing the lecture and it also helped them during the class as it increased student's interest in the topic.

This basic experiment, its successful results and the overwhelming response from teachers and students encouraged us to produce more videos for the Mini-Blossoms project so that they can be implemented. Working on production of new Mini-blossoms videos for theoretical subjects has started with the help of school students, who are now learning the basic of TV production too.

It is further planned to follow the open courseware model to make all the videos available online so that anyone can benefit and also improve upon them.

The videos produced initially can be viewed at:

*1)Mountains of Pakistan: <https://vimeo.com/50480464>*

*2)The Hajj: <https://vimeo.com/50425119>*

As far as the existing BLOSSOMS videos from all over the world are concerned, the teachers plan to:

- 1)Screen the videos related to their subject in classroom.
- 2)Translate the English videos to Urdu so that they become more comprehensible for our students.
- 3)Use them as guides when preparing their own lectures.

## **Major Benefits of Mini-BLOSSOMS**

- 1)It provides a good interesting start to the topic being topic. Students get actively engaged in viewing the video before the lecture so their initial interest is built.
- 2)It heightens motivation as students actually see what they are learning. Most of the times when the discussion is about something that students have not observed, this method helps them understand the topic in a better way.
- 3)It increases retention, as it is easy for students to remember what they saw as compared to what they heard.
- 4)Referring to the video during the lecture holds the student's attention throughout the lecture.
- 5)Students ask more questions about the discussion topic, as their visual and auditory capabilities are both at work simultaneously.
- 6)While creating the videos, teachers also learn a lot. Brainstorming, information gathering and knowledge sharing in the video making process improves their understanding of the topic even more. So it serves as a great tool for training of teachers.
- 7)Since the video can include information from multiple sources, students and teachers both learn a lot more than what is present in the textbook.
- 8)It is a one-time effort and videos once produced can be utilized in future even if the teacher is not available.
- 9)Whether it is a conventional school, a school in slum areas or a village school, Mini-BLOSSOMS can go everywhere and benefit everyone.
- 10) Videos once created can be improved constantly. These changes can be done keeping in view the changes in syllabus or if teachers find some new interesting information which they feel must be included.
- 11) Teachers can take the more difficult content from any topic and make videos around that content. These videos can become great resources for students and other teachers.

## **Suggestions for the MIT BLOSSOMS Project**

- 1)Scope of the project can be expanded and theoretical subjects can also be included.
- 2)Ministries of Education from participating countries can be approached and they can be asked to start developing videos keeping in view their curriculum/course book for any specific class. These videos can later be made an integral part of the curriculum.
- 3)Since the development of the video is also an enriching exercise for teachers in terms of their learning, it is suggested that networks of teachers from different countries can be established. These networks can collectively work on developing videos with the help of a collaborative video development system.

## **Scope in Pakistan**

The Vision 2030 for Pakistan, prepared by the recent government, aims at a high quality of life, providing equal opportunities to its citizens to reach their true potential. It is based on a plan to meet contemporary and future challenges by deploying knowledge inputs and developing human capital.

In the context of social development, it states, *“The citizen shall have greater access to quality education, as well as basic amenities like health, water and sanitation.”*

According to Vision 2030, *“Education is a key driver of economic growth because of its positive linkages with employability, entrepreneurship, empowerment of women and productivity – conditions that are all conducive to building a knowledge-based productive economy where our youth are better skilled, productive and scientifically trained to compete with the fast changing global trends.”*

The National Education Policy of 2009 states that:

*“A well regulated system of competitive publishing of textbooks and learning materials shall be introduced.”*

The Mini-BLOSSOMS project has the potential to assist in achieving the above-mentioned targets by the Government of Pakistan. It can be implemented in public schools across the country to reduce teacher-training shortfalls and increase student learning.

It can prove to be a great asset for public schools in rural areas of the country where lack of facilities and lack of interest in education are major issues. With a one-time setup cost, schools in such areas can impart knowledge to their students even with the help of teachers with less formal training.

## **Bibliography**

1. Human Development Reports  
<http://hdrstats.undp.org/images/explanations/PAK.pdf>
2. National Education Policy 2009, Ministry of Education, Government of Pakistan
3. <http://www.teachereducation.net.pk/>
4. Education for all Development Index  
<http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/ED/pdf/gmr2012-report-edi.pdf>
5. Vision 2030 <http://www.pc.gov.pk/vision2030.html>
6. The Education System in Pakistan: Assessment of the National Education Census, UNESCO 2007
7. Situation Analysis of the Education Sector, by Dr. Ayesha Mujahid-Mukhtar for UNESCO
8. Pakistan Education Statistics 2010-2011, Academy of Education Planning and Management, Pakistan
9. MIT BLOSSOMS Website <http://blossoms.mit.edu>