## Implementation of BLOSSOMS in Pakistan

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My name is Kashif Farooq, and I am with the Punjab Information Technology Board. We are planning to implement BLOSSOMS in about 4,000 schools in Punjab. In recent months, the Punjab government has provided IT infrastructure in these 4,000 schools to implement many initiatives like BLOSSOMS, Oracle ThinkQuest, and many others.

Before implementation, we arranged a workshop for the faculty of the different private and public schools to get feedback about the BLOSSOMS modules. In fact, Pakistan has a heterogeneous education system. There are two main education systems running side by side. One is the international education system, and the other is the local education system. There are some gaps between these two, so we have some implementation issues like localization, language controversy, curriculum alignments, implementation, assessment and resources.

Generally— and I quote from the literature— teachers want to implement innovations in keeping with the culture of school and not beyond this culture or beyond the examination system. Therefore, they have to change their mindset to adopt BLOSSOMS and the other initiatives. We arranged a workshop and invited many teachers from public and private institutions. More than 80 teachers from the public and private institutions attended, and some teachers participated virtually. We showed the BLOSSOMS modules to them and discussed many aspects.

We received very interesting feedback. Most of the faculty members believe that these modules are very conceptual in nature, and thus could have a valuable impact on the Pakistan education system. The issues concern localization. Some people believe the modules need some localization, and some deny that, saying that there is no need for localization to implement the Blossoms modules.

The mainstream, or the international education system such as O-level and A-level educators, are used to the many international experiences in education, so they believe that there is no localization required. The local education systems are offering the Class 10, called Matric, and Class 12, called the FSc system. They believe that some localization should be required. Localization examples include accents and other things. We can also include language. The local educators think localization is required to implement these video modules.

The other, bigger issue is the language barrier. In Pakistan, the medium of instruction has been in English, in higher education and partly in lower education. The Chief Minister of Punjab has announced that the next medium of instruction in the primary and the secondary level will also be in English. Students will improve day by day, but many

people's response is that Urdu translation needs to be provided. About 50% of the responses express that there is not any need for Urdu translation for implementation of the modules. Some people believe that thes English language video modules will reinforce general English comprehension for higher-level studies, while the other percentage denies that. Each person has his own views.

The other big issue in discussion is alignment with the curriculum. Many people believe that no alignment of curriculum with the video modules is required. However, a few people feel that we should produce topics related to the curriculum because they don't want to go beyond that curriculum. Two opinions arise. One opinion is that the curriculum should be modified as per the video modules. The other is the reverse of that, suggesting that the video modules be tailored as per the curriculum. Once again, people have their own views. In the end, the majority said that we should not tailor the curriculum, and that the videos should be introduced at the end of the high school education, to enhance the concepts of the students. Then the innovations and the existing curriculum can jointly contribute to the betterment of concepts for higher education.

Another problem is the issue of implementation of the BLOSSOM modules in the current education system. The major problem is faculty acceptance. On this topic, considerable faculty response indicates a rejection of the implementation of BLOSSOMS. These people are conventional-minded, older faculty who don't want to change anything. However, a smaller ratio of people wants to change the existing system. These faculty members want to change their methodologies and accommodate innovations for the betterment of the education system.

Another benefit to the implementation of BLOSSOMS modules is that teaching skills may be improved because the very, very experienced video teachers demonstrate their experience in explaining the concepts and creating new ideas of teaching. Teachers can learn a lot with these video modules if they open their minds.

Another issue is that of enforcement. There are two approaches to the implementation of the BLOSSOMS modules in the existing system. One approach is to implement them by enforcement and the other is to implement them voluntarily. Better results are gained through voluntary implementation, but people are teaching in school faculties tightly bounded by regulations, discipline, many other curriculum outlines, and this and that. As a result, they want some type of enforcement to be required from the government side, the school administration and other corners to implement these video modules in the existing educational system.

Regarding the academic calendar, people in the teaching sector are very much concerned with that. They have to achieve the targets of teaching in time. As a result, the majority of the people said that they have no time to implement or adopt BLOSSOMS for use in their current academic calendar. However, a significant ratio said that they can accept the challenge, and they want to implement these video modules in their current academic calendar.

People believe that an evaluation or assessment of the effect of the BLOSSOMS modules on the students is necessary. There are two types of evaluation we can apply. One is an external evaluation by the examination boards, like the local examination boards or the international examination boards like O-levels and A-levels. This would be a little bit tough, because for this, the evaluation system should be modified to take into account the BLOSSOMS modules. An alternative is internal evaluation. In fact, faculty and students don't take internal evaluations seriously because their careers are based only on the final evaluation. The final evaluations are conducted by external agencies, so many faculty members and students have a very poor response regarding internal evaluations.

The other issue is the resource barrier for the institutes. In fact, Pakistan is a developing country, and its telecommunications infrastructure is not quite as good as other BLOSSOMS partners, such as Jordan. Jordan has a rich communications infrastructure. I collected this data from the e-Government to Connected Governance 2008 data from the United Nations. Pakistan is a little bit behind Jordan, and the U.S. is definitely the leader in the communications infrastructure. Pakistan has a little bit of a problem in connectivity and infrastructure. Similarly, it is a problem for in-home users.

This BLOSSOMS workshop IN PAKISTAN was very effective and provided us with many recommendations. Unanimously, the crowd there suggested that these BLOSSOMS modules can easily be implemented in intervals during which the students have spare time, such as between examinations, and before joining higher education. They can use this time for the BLOSSOMS modules. If the BLOSSOMS modules can be part of the entry test for medical, engineering and other higher education disciplines, then students, teachers, institutes— all the stakeholders— should implement BLOSSOMS by themselves, and not by enforcement.

In conclusion, it is a valid recommendation, and now the ball is in the court of the Punjab government. It is up to them to decide, and also up to the director of BLOSSOMS Pakistan. They will finalize the recommendations and the implementation model. Still, the feedback suggests the benefits of the implementation model that I have shown you today. Thank you.