MAKTAB PROJECT

http://www.Maktab.pk

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Motivation

A large number of students studying in schools and colleges in Pakistan depend on additional mentoring to understand the course content. Most of them have to rely on private academies and individual tutors to comprehend the course content and to pass the board exams. However, many of these students do not have the financial resources to afford private tutors for each of the subjects they are studying. Moreover, even when they attend the private academies, due to large class size, the pace of learning is not self-controlled. Furthermore, in many regions of the country, especially in rural area, qualified teaching staff is in scarcity. This situation is more pronounced for science subjects. Students in such regions are at a competitive disadvantage because for their college or university admissions they have to compete with students from all over the country.

Using advances in communication technology, Maktab project plans to address some of the above mentioned problems. Maktab project will assist the students in their comprehension of the course content, as well as provide them a self-paced learning alternative. One of the key sources of motivation for us is teaching model of Salman Khan (KhanAcademy.org).

Vision

Provide quality instructional material for most of the academic courses in Pakistan with special focus on scientific subjects.

Objectives

- Provide quality lectures on CDs and online (websites, social media, video hosting sites etc.) with an open access and at no cost.
- Keep main focus on conceptual learning, but at the same time teaching is geared towards exam preparation too.
- Act as a supplementary resource for students attending colleges or academies.
- Teach the course content in Urdu language for better comprehension. Most of the text and technical terms will remain in English, however, the explanation of the text will be in Urdu.

Scope

Long term scope of this program is to cover most of the academic classes and courses offered in Pakistan from Class 1 to bachelor degree level. Focus and preference will be for the scientific subjects, as quality content in these areas is scarce, especially in Urdu language.
However, in Phase 1 of this project, we will only cover the F.Sc. syllabus for the following science subjects: Mathematics, Physics, Chemistry and Biology. We will start with the text books of one of the government boards and extend it to course content of other boards’ text books, based on resource availability.

In Phase 2 of the project, we will cover the middle and secondary school syllabi.

Our current preference to cover F.Sc. syllabus is due to the following reasons:

- An overwhelming majority of the F.Sc. 1st year students come from Urdu-medium-of-instruction background, so they face additional difficulties due to the transition in the language of instruction.
- The working environment of government colleges that majority of the students attend is completely different from that of secondary and high schools. In many college lecturers don’t observe a teaching schedule strictly, hence the students are generally left either on their own or have to rely on tuition academies. Therefore, college students deserve first and foremost attention.
- Many colleges located in remote districts offer F.Sc. with incomplete faculty. Sometimes a single science teacher covers all the science subjects (Mathematics, Physics, Chemistry and Biology).
- It is quite rare to find a complete set of four female lecturers in a small city to cover all the four subjects, due to which many female students suffer the most.

Methodology

- We will start the project with some seed money and will hire instructors to cover the F.Sc. science subjects (Mathematics, Physics, Chemistry and Biology).
- We will prefer the fresh graduates of F.Sc., and students in Engineering Universities, Medical Colleges, and Computer Science institutions.
- During incubation period we will closely manage and monitor the project. Later, we will remove the restrictions and make it more open for others to contribute.
- After pilot program’s success, we will be open to accept donations to promote this program.
- Volunteerism will be encouraged to produce new content and to manage and disseminate it.
- We will inspire other people and/or groups to replicate the experience for non-science subjects.
- Lectures will be recorded in a style similar to that of KhanAcademy.org.
  - In general, the instructor will not be visible in the lecture.
  - Lectures will be video recorded
  - We will use a digital board to draw on the computer screen
  - A screen capturing software (preferably an open source) will be used to capture the lecture from a computer screen
- Lectures will be uploaded to multiple video sharing platforms
- A specific website (www.Maktab.pk) will be created for this project to display all the lectures in an organized way.
- Lectures will be available for free, for downloads and/or burning them on a CD.
- Each video's duration will be 15-20 minutes (with exceptions as per the situation).
- No single video will be longer than 30 minutes.
- Preferably the first and the last slide of each lecture will bear a logo of the project name, and the instructor’s name (and of course a title and description of the lecture).
- Ideally, comments will be enabled for each lecture on the video sharing websites and this feedback will be analyzed and incorporated in future lectures.
- A status file will be maintained to track the progress of the project.