

## Best practice - 1

1. **Title:** Learning by doing
2. **Duration:** Year of Inception -2009, Yes, Still continuing

1. **Objectives:**

- i. RGUKT was established in 2008, primarily to cater to the education needs of gifted rural youth of Andhra Pradesh. The primary objective of establishing RGUKT was to provide high quality educational opportunities for the aimed rural youth of Andhra Pradesh.
- ii. The initial goal was that at least the top 1 % of the eligible rural students would be given the opportunity to study at RGUKT.
- iii. Education at RGUKT is based on the intensive use of Information Technology. The assumption is that ICT (Information and Communication Technologies), will permit the scaling of the learning environments by one to two orders of magnitude.
- iv. The specific objectives are (a) To use the latest advances in Learning Sciences with ICT to effectively reach the learners and (b) Explore the use of modern cognitive science tools in education and learning.

2. **The context:** The primary objective of establishing RGUKT was to provide high quality educational opportunities for the aimed rural youth of Andhra Pradesh. The initial goal was that at least the top 1 % of the eligible rural students would be given the opportunity to study at RGUKT.

A person born into a low income, rural family in India struggles to aspire to study at an IIT or aim to be selected into the IAS. This is true in many cases. The reason for this is because they start with many inherent disadvantages such as:

- a) The educational level of the parents
- b) The quality of teachers and the schools they go to in rural areas
- c) The ability to pay for coaching classes, and;
- d) The time and effort devoted to study the material;

It has been observed that, on an average, the marks obtained by the students in rural India are about 10-20% lower than the marks of students studying in private schools of urban India. As a result, most of the seats for higher education get filled by students from these private schools when the basis of selection is the marks

obtained. Even if a rural student is capable, the educational system doesn't allow him to go ahead. The goal of RGUKT is to help remedy this unfortunate situation.

The other issue RGUKT is attempting to tackle is the issue of "Early Specialization". In most cases, once a student goes into a Junior College for a pre-university program, he gets routed through coaching factories that drills him to get the top rank in entrance tests which will enable him to secure a seat in a good college or university. This kind of intensive coaching makes students uni-dimensional with very little understanding of anything other than what they have been coached in.

Once students get into professional colleges, they don't get any exposure to Humanities and Social Sciences for the rest of their lives. RGUKT attempts to deal with this issue by giving students direct admission into a 6-year integrated program after class X. Here, they are not subjected to two years of torture preparing for entrance tests. Since these students are already gifted and belong to the top 1%, it is expected that they will do well naturally and don't need other entrance tests.

3. **The practice:** Every student in RGUKT is given a laptop the moment he/she is admitted. Teaching methods used are such as Learning by Example, Learning by Doing and Problem-based Learning. Online lectures are provided to the students in the class rooms and are followed by problem solving sessions that reinforce what has been covered in each lecture. Flipped class room method has been mostly followed. Video lectures of experts are downloaded from various sources such as NPTEL depending on the subject. Some lectures are also produced in RGUKT and some were funded and trained by Commonwealth of Learning, Canada. The lectures are played in the classrooms for a period ranging from 30 minutes and above. Once video lecture is over, the Mentor/Teacher clarifies doubts of the students and problems are solved in the classroom on the topic. After class hours as the students are on the campus since RGUKT is residential university, and have study hours from 8:00 PM to 10:00 PM, wherein Home room tutors (HRTs) and Mentors helps the students in reinforcing their learning in the classroom. Evaluation is continuous as assessed by a combination of weekly tests, Mid-exams and Semester end exams.
4. **Evidence of success:** The success rate of the students after evaluation has been very high and even those students who fail are given remedial classes from 5:00 PM to 7:30 PM as needed and then were allowed to take remedial examinations. The experience in RGUKT has been one of a highly successful model in higher education.

The model helped in transforming many a rural raw youth into successful technical professionals bagging lucrative jobs in India and abroad. Some of them also became successful entrepreneurs. Thus for those coming from low socio economic background RGUKT provided effective learning with outcomes matching its objectives and philosophy.

5. **Constraints:** RGUKT has been running successfully providing technical professional education to thousands of students with predominantly rural background funded by the Government of Andhra Pradesh, which continues to be only source of funding. Financial constraints sometimes devail the progress of the Institution in intensifying technological adoption and increase the access to many aspiring rural youth with similar background. Further availability of adequate number of teachers, both in quality and quantity, is another problem that the RGUKT is currently facing. Infrastructure issues add to the problems that RGUKT has to grapple with.