NPTEL –A New Open Online Course Serving as Faculty Development Programme

-A case study of Dr. Ambedkar Institute of Management Studies and Research (DAIMSR), NAGPUR (INDIA)

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Abstract:

The research is about faculty development programme of an educational institution. The research involves approved faculty members of DAIMSR affiliated to Nagpur University . The Present Case revolves around the following set of research questions:

1. What major constraints limit the faculties to do traditional way of doing FDP?
2. What major benefits are obtained in online certification course for FDP?
3. What objectives are achieved through mandatory policy of FDP in the form of NPTEL?
4. Whether the current policy for NPTEL FDP is a useful Policy? If 'NO' how it can be improved further?
5. Whether the NPTEL FDP produced any positive effect on students' academic achievement by use of blended learning as well as the different methods to assess FDPs effectiveness.

The proposed policy was planned, implemented, evaluated for suitability, and updated to its current form. The idea was to make use of NPTEL as FDP for the faculties of DAIMSR .With the advancement in technology ,teachers of DAIMSR demonstrates their teaching by practicing different teaching methodologies while performing teaching . The policy has been made last year in the academic Session 2017-18. The experience of one year suggested that faculties can do FDP programme on NPTEL, thereby making themselves more updatable with the knowledge ,the method of teaching style ,the type of resources to be involved in teaching. This initiative of enrolment of course at NPTEL has brought a simple, easily accessible and convenient mode of learning for teachers. Online certification courses like NPTEL has shown a new way of doing FDP. Affiliated universities and accreditation bodies have also given an approval and acceptance to NPTEL courses .NPTEL course sponsored by institute has also brought a sense of motivation to the faculties .The present case will help in knowing the impact of FDP on teaching and learning process. The case also depicts the benefits of using NPTEL in improving the teaching and learning methods.

1. Introduction:

Established in the year 1987, Dr. Ambedkar Institute of Management Studies and Research (DAIMSR) was one of the only three institutions offering Management Programmes in Nagpur City at that point of time. Located in the historical, Deeksha Bhoomi premises, the institute has been able to create an academically rigorous environment and its programmes are considered as one with greater emphasis on development of specific skills amongst the students. The institution has built up a stronger linkage with the industry and its standing amongst the recruiters and employers has gained a lot of ground over the years. The opportunities for Live Projects, Internships and Final Placements can also be developed, derived and delivered to the student body. The institute is known in the region for its delivery of high quality and rigorous academic training and also for its socially relevant initiatives. (www.daimsr.in).

Accreditation agencies and criteria on FDP , the institute has subjected itself for The National Assessment and Accreditation Council (NAAC) accreditation and was awarded 'A' grade. The accreditation agencies give importance to Faculty Development Programme. The institute has also framed a new FDP policy which mentions that the entire FDP through NPTEL is sponsored by the institute . Each and every faculty needs to enroll themselves on NPTEL.

Ministry of Human Resources and Development (MHRD), India has taken an initiative in funding the NPTEL project since 2003 and has also shown the continuous support in current project of NPTEL-MOOCs. Google has also supported in partnering with NPTEL since 2007 and enabling the NPTEL channel on youtube where more than 35000 hours of video are currently hosted. Google's partnership with NPTEL enables to deploy, develop and maintain the portal where different certification courses are offered.

In 2003 , the initiative of NPTEL was taken by 7 Indian Institutes of Technology (Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee) along with the Indian Institute of Science, Bangalore . Core disciplines such civil engineering, computer science and engineering, electrical engineering, electronics & communication engineering , mechanical engineering were identified and 235 courses in web/video format were developed. The main goal of NPTEL Phase II (2009-14) was to build on the engineering and core science courses launched previously in NPTEL Phase I. An additional 600 web and video courses were created in all major branches of engineering and physical sciences. NPTEL began offering open online courses in March 2014 along with certificates from the IITs/IISc for those who completed the courses successfully.

2. Case Objectives:

1. To understand the objectives for implementing DAIMSR FDP policy.
2. To know the benefits of using NPTEL.

3. Case Presentation :

Every institute needs teachers for effective implementation of higher education in professional courses. Therefore, there is a need to implement methods for training young and inexperienced teachers to enable them carry out their academic responsibilities effectively .

Faculty members are the most important resource of any institution of higher education because they provides knowledge and skills to students. In order to deal with the rapid changes and shifting paradigms in education , FDP programmes needs to be organized. Without such training, teaching is often reduced to instructors presenting their understanding of the subject by one-way lecturing. UGC has made a mandatory aspect of FDP for the development of its teachers. Thus, taking this into consideration, faculties from different institutions and colleges requires to do FDP.

Faculty development means those activities that help teachers improve their teaching skills, design improved curricula, and enhance the organizational climate for education. High-quality professional training programs for faculty members have become essential to higher education institutions in order to be able to compete in this ever-changing world. It is clear that faculty development has become well established and has grown into a recognized activity within higher education. Professional training programs produce promising outcomes in the learning and teaching practices and many FDPs have proven effective in developing faculty skills and educational leadership. Indeed, today, faculty development constitutes a strategic force for institutional excellence and quality, and essentially important means for advancing forward institutional readiness to bring in the desired change in response to the ever growing complex demands facing universities and colleges.

The biggest challenge which each educational institute has come across is to send all faculties for regular FDPs. FDPs has become one of the mandatory requirement for any educational institution. Due to hectic schedule , DAISMR is not able to send all faculties for general FDP. Even general FDPs are not necessarily useful for all faculties as it is not fully relevant for all faculties as per the requirement of their subjects(courses) . Organizing Specific FDP as per faculty domain is also a big challenge for an institute as it becomes costly for an institute. Participating in different FDPs at different colleges at different point of time creates a problematic situation for the institute in sending the faculties for attending such programmes.

4. Research Questions :

The accreditation agencies require an educational institute to put much focus on FDP. They advised the faculties to join and enroll various online certification FDPs. Therefore, there is a need to propose and implement NPTEL certified FDP for the faculties .

At DAIMSR, faculties usually participates in FDP for 1 week ,organized by different institute but it restricts the institute to send all faculties at the same time for attending that FDP.

The current research revolves around the following set of research questions:

1. What major constraints limit the faculties to do traditional way of doing FDP?
2. What major benefits are obtained in online certification course for FDP?
3. What objectives are achieved through mandatory policy of FDP in the form of NPTEL?
4. Whether the current policy for NPTEL FDP is a useful Policy? If 'NO' how it can be improved further?
5. Whether the NPTEL FDP produced any positive effect on students' academic achievement by making use of blended learning as well as the different methods to assess FDPs effectiveness.

5. Research Hypothesis:

Null Hypothesis (Ho): There is no significant impact of DAIMSR new NPTEL FDP policy on faculties .

Alternate Hypothesis(H1):There is significant impact of DAIMSR new NPTEL FDP policy on faculties .

Here ,the impact can be measured in terms of teacher's skill development ,attitude towards digital learning and willingness to make changes in the present mode of teaching.

6. Research Design:

The research is descriptive . The data has been collected from both Primary and Secondary sources of the data. Collection tools are questionnaire for teachers, in depth interview with teachers of DAIMSR. Out of 20 faculties ,18 responded and the data collected has been presented in the form of charts by using excel.

Management and Outcome:

Taking the above problem into consideration, NPTEL is an easy solution which provides a platform for faculties of an affiliated institute to do online certification FDP. Affiliated universities and accreditation bodies have also given an approval and acceptance to NPTEL courses .Thus ,institute has made a mandatory FDP policy for all faculties in context of NPTEL whereby all faculties of DAIMSR needs to register themselves and enroll themselves in their Specific domain courses.

Implementing FDP through NPTEL brought good results and enhanced teaching performance by instructors and improved learning outcomes for students.

Such improvements included the development of new teaching skills or assessment techniques, improved ways of designing or implementing curricula, newer ways of viewing the student–teacher relationship, and increased commitment to the educational perspectives. Even a new way of blended learning through NPTEL enabled faculties of DAIMSR to put the same approach of blended learning while teaching to BBA /BCCA

students. Courses like Computer Applications for Business ,Financial Management or even other computer based courses need a blended learning platform for the better understanding of the students.

Other outcomes:

- High satisfaction with NPTEL FDPs.

- Changes in attitudes toward teaching and faculty development.

- Updates in knowledge

- Improvement in skills

- Changes in teaching behavior

- Changes in organizational practice and student learning.

Detailed Case findings	
Sponsored	DAIMSR sponsors the NPTEL course to each and every faculty of DAIMSR under the Policy of NPTEL FDP
Assessment tools	Exams, Quiz, Assignments
Users	Faculties of DAIMSR
Basic Requirements	Internet Connection ,Audio features
Major Constraints	Web issues
Major Benefits	Good and reusable course materials, blend of learning methods ,Time and location flexibility, cost effective, interactive discussion, self paced learning ,Fast Feedback, Enriched Course Materials.
Need to Join	NPTEL gives an equivalence of FDP and mandate by College.
For how many weeks joined	8-12 weeks
Resources or activities on NPTEL FDP	1. Assignment and Quizzes 2. Text transcript 3. Pre recorded lectures

Factors influencing to join NPTEL FDP	1. Access anytime anywhere 2. Weekly assignment of self assessment 3. Open online mode of learning 4. Updating the knowledge
Skills improved after joining NPTEL FDP	1. ICT skills 2. Preparation of Outcome based MCQs for students' assessment after each unit explanation 3. Presentation and communication skills.
Objectives fulfilled by NPTEL FDP	1. Updation in knowledge 2. Learning different teaching pedagogies 3. Engagement in continuous learning process. 4. High satisfaction with NPTEL FDPs. 5. Improvement in skills
Other Aspects :	1. Joining NPTEL is interesting 2. Images and text in the course clearly visible 3. Information in the course is easily understandable

NPTEL FDP is the solution to overcome the constraints that limit the faculties to do traditional FDP. NPTEL FDP is beneficial as it provides online mode of learning ,available for 24 hours ,access anywhere and at anytime ,helps in updating the knowledge ,continuous and open learning ,free and open educational resources. The objectives were achieved through mandatory policy of FDP in the form of NPTEL. And the policy is useful for the institute as well as for the faculties. NPTEL FDP can be helpful in creating a positive effect on students academic as it involves a blended learning.

Thus ,there is significant impact of DAIMSR new NPTEL FDP policy on faculties .

Here ,the impact can be seen in terms of teacher's skill development ,attitude towards digital learning and willingness to make changes in the present mode of teaching.

7. Case Discussion:

  i. Different Perspectives of NPTEL:

  a) NPTEL -MODEL OF MOOCS

NPTEL being a Massive Open Online Courses (MOOC) is an asynchronous platform through which pre-recorded lectures, resource video materials, lecture notes, assignments and quizzes can be accessed at anytime ,anyplace and anywhere. NPTEL also provides self assessment in regular intervals during learning. This platform also provides discussion with the content creator . For self testing , assignments can be accessed. Through NPTEL ,faculties from IITs or from other reputed institutes such as CMI, IMSc ,etc offers the courses in different domain.

  b) NPTEL –AN ONLINE CERTIFICATION COURSE

NPTEL aims at enabling the students in obtaining certificates for courses .This certificate will be valuable for students and helps students for getting employable in the industry or even for further pursue of a suitable higher education programme. Basically 4 ,8 or 12 weeks online course on different topics for students in all years of higher education along with basic core courses in sciences and humanities are being offered. Following these online courses, an in-person, proctored certification exam will be conducted as per scheduled date and a certificate is provided showing the assignment score and theory paper score.

  c) NPTEL –AN EQUIVALENT OF FDP IN HIGHER EDUCATION

Faculty members can upgrade their knowledge and skills through NPTEL FDP .They can take an advantage of NPTEL in the context of their teaching and curriculum planning. Faculty development programs (FDPs) through NPTEL have proven to be successful for improving teaching skills in higher education. On July 24, 2018, all India Council for Technical Education (AICTE) the statutory body and a national-level council for technical education, under Department of Higher Education, Ministry of Human Resource Development and NPTEL have signed an MOU.As per the MOU , advanced NPTEL online certification courses are approved for Faculty Development Programme (FDP) by AICTE. NPTEL contents can be used as core curriculum content for training purposes. With the help of NPTEL ,teachers ,faculties will acquire and learn new skills for imparting education to students . Here, 8 weeks NPTEL course gives an equal weightage of one FDP, whereas 12 weeks NPTEL course is equal to $1^{1/2}$ FDP. Taking this point into consideration ,the MANAGEMENT of DAIMSR has made a mandate for all faculties to register for NPTEL course for 12 weeks in the teaching domain of faculty.

ii. DAIMSR FACULTIES USING NPTEL FOR FDP

The most important assets of any organization is its employees who are striving hard for the achievement of the organizational goals.

Since 2017-18 academic session ,DAIMSR has made a policy of FDP for all the faculties. The college faculties are asked to do NPTEL course every semester with a view to improve the teaching and learning process in higher education .The entire fees of the NPTEL course is sponsored by the instate itself. Last year the certified NPTEL course – OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING had been registered mandatorily by all the faculties of the institute .The new learning skills in context of course outcome ,program outcome gave a new and practical insight and helped an institution in understanding the attainment of objectives for an Institute. In Academic year 2018-19 ,all faculties have registered in the different course as per their domain specific course requirements. Such courses are all about Financial and Cost management ,Privacy and security issues in online social media ,six sigma, effective speaking and communication skills.

WHY NPTEL?

Increasing diversity of students - with varying age, aspirations, cultural, and academic backgrounds. effective faculty must support the learning of those students with diverse learning needs, and develop curricula and teaching strategies appropriate for a wide range of learning environments. NPTEL has been helpful in dealing with the above situation.

The opportunities and challenges of technology: Technologies offer many opportunities to enhance learning processes with information, simulations, and engaging learning activities, and faculty members must have the knowledge and skills to take advantage of these advances in their teaching and curriculum planning.

NPTEL being one of the model of MOOCS (Massive Open Online Courses) offers the variety of courses making the availability of study material in terms of :

i. Pre-recorded lectures

ii. Resource video materials

iii. Lecture notes

iv. Assignments and quizzes

v. Self assessment in regular intervals during learning

vi. Discussion on forums

vii. Chats with the faculty via email

Advantages of using NPTEL

   i.   Online mode of learning

  ii.   Available for 24 hours

 iii.   Access anywhere and at anytime

  iv.   Weekly assignment helps in

   v.   Helps in updating the knowledge

  vi.   Continuous and open learning
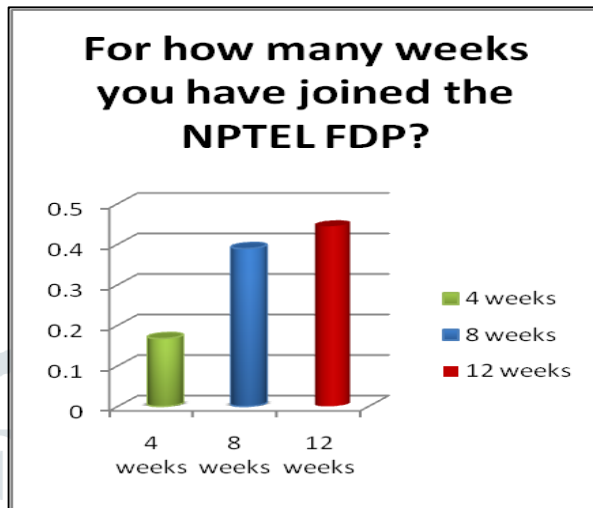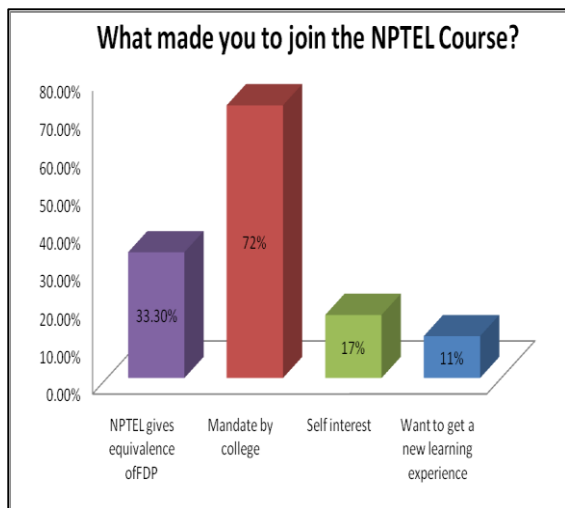
 vii.   Free and open educational resources

8. Conclusion:

Online certification course of FDP at NPTEL has been an easy and smart platform for FDP. Like NPTEL, a new mode of blended learning can be adopted for the courses like Computer applications for business, financial management, other courses of computer applications. Hence ,such kind of platform gave a new insight to the faculties of DAIMSR to use blended learning for students of BBA and BCCA. Faculties of DAIMSR meth with the objective of improvement in teaching ,acquisitions of new teaching skills ,updation in knowledge, engagement in continuous learning process ,learning different teaching pedagogies, etc. The current policy for NPTEL FDP is useful policy. The NPTEL FDP produced positive effect on students' academic achievement as well as the different methods to assess FDPs effectiveness. In a nutshell, NPTEL FDP is effective programme for the faculties of any educational institution.

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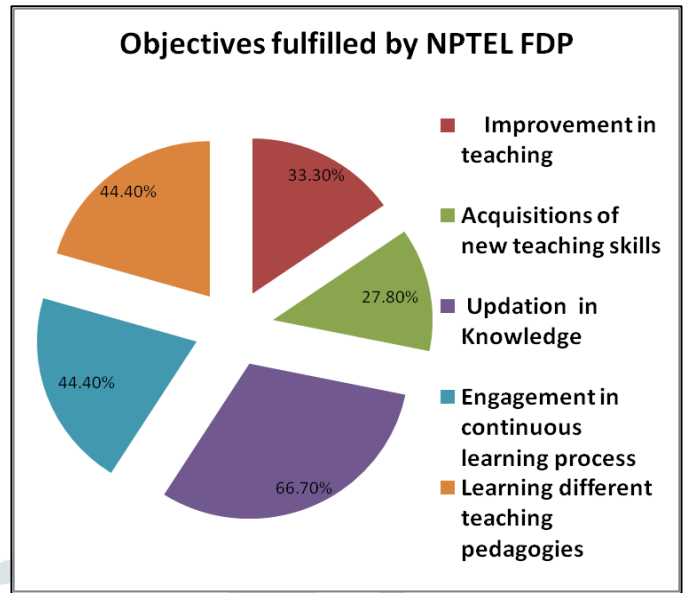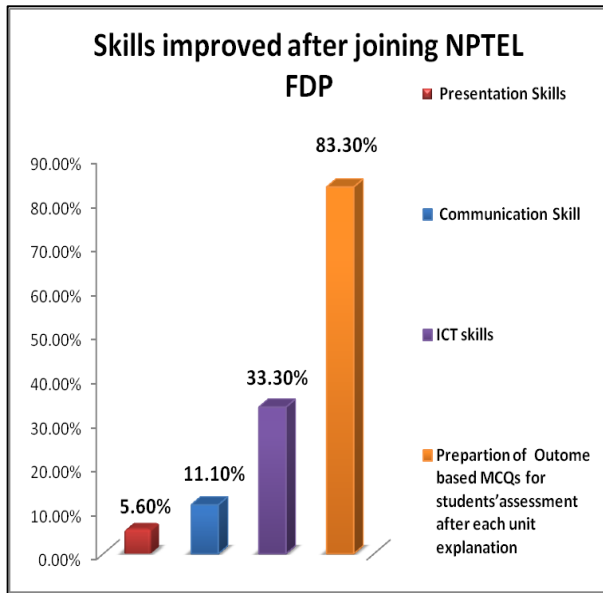

Figure 1:Joining of NPTEL

Figure 2:Duration of NPTEL
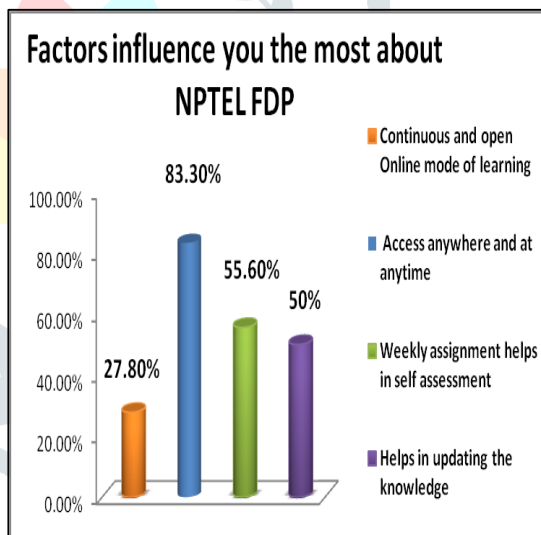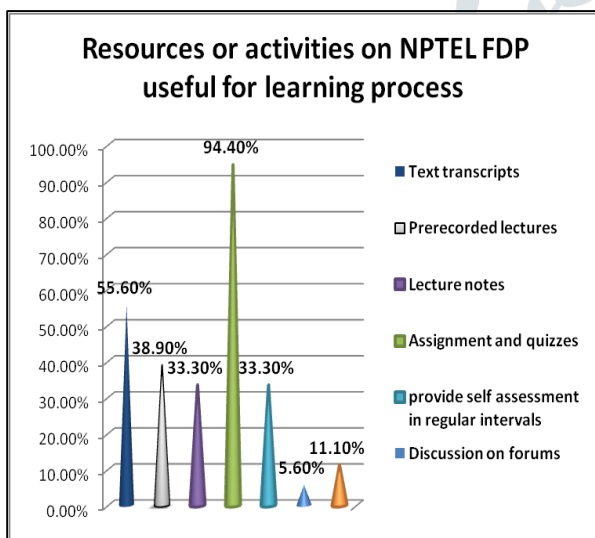
Figure 3 : Resources or activities on NPTEL

Figure 4: Factors influencing NPTEL FDP

Figure 5 : Skills improved after joining NPTEL

Figure 6: Objectives fulfilled by NPTEL FDP