

## Issues and Challenges of Online ODL Courses: Case study of SWAYAM Stakeholders

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### Abstract

Paradigm shift in teaching and learning taken place with the advent of Open and Distance Learning in India. The first pioneers BR. Ambedkar Open University (1982) and IGNOU (1985) introduced technology mediated learning with multimedia packages like print, audio and video lessons. But 90% percent of the weightage is given to print medium and audio/ video lessons provided as supplementary or complementary studies. Whereas ICT wireless technological revolution with the developments of 2G, 3G and 4G technologies which Supports voice, text and data services completely changed the methods of teaching and learning process. In the present industrialized societies technology has been deeply rooting in our every walk of life this has become reality in educational sector too. The aim of this study is to evaluate issues and challenges of various stakeholders offering Online courses in India on SWAYAM platform, with the help of ICT Media, stakeholders are like Online Course Coordinators, Online teacher as Subject Matter Experts(SMEs), SWAYAM Online Platform Managers as Academic Coordinators, Capacity Building Trainers for online Teachers. Outcome of this study indicates the barriers faced by the respondents and results indicate the majority of positive responses and valid suggestions for improvement strategies for future teaching and delivery of online courses on SWAYAM platform.

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**Keywords:** Paradigm Shift, Online Courses, Open Distance Learning(ODL), Academic Coordinators, SWAYAM platform, stakeholders, Capacity Building Training, Digital Media, issues and challenges, Technology Mediated Learning, ICT.

### Introduction

#### What is New Media?

A good example of new media is combining Internet accessible digital text, images and video with web-links, creative participation of contributors, and interactive feedback of users and formation of a participant community. Social media or social networking services, such as Facebook and Twitter, Instagram, WhatsApp, are another example of new media in which most users are also creative participants.

Masterman said the television can be used in education for change and expansion (Masterman 1983). Till the year 1980s all available media functioning are primarily based on print and analog broadcast models, such as those of television and radio broadcast. Analog television or analogue television programs broadcast is based on the original television technology that uses analog signals to transmit video and audio signals. In this an analog television broadcast technology's brightness, colors and sound quality varies depends on the amplitude, frequency or phase of the signal.

In the last twenty-five years we have been witnessing the rapid transformation and predictions on media technologies especially use of digital technologies, such as the Internet and video games. O'sullivan J, Heinonen A. (2008) explained new digital media has changed the face of traditional journalism and teaching by creating myriad opportunities like new platforms for interactivity, democracy, multimedia matrix while writing with new domains of bloggers which also present sets of issues and new opportunities which is beyond our boundaries of experiences.

New digital media technologies are like many tools to life in the world of teaching and learning said by (Barone, D., & Wright, T. E. (2008). However, these examples are only a small representation of digital new media. The use of digital computers has transformed the remaining 'old' media, as witnessed by the advent of digital television and online publications. Even traditional media forms such as the printing press have been transformed through the application of technologies such as image manipulation software like Adobe Photoshop and desktop publishing tools. Lüders, M. (2008) argued that the two dimensional model of new digital media like mass media as institutional media interactions and personal media interactions as de-institutionalized and de-personalized.

Media is central hub of contemporary life styles, politics, mirror of various cultures and personal relationships said by Buckingham, D. (2019) he also said present day policy makers are eagerly looking forward to gain maximum benefit to increase educational benefits for all segments of populace. New Media technologies have great potentials like digital, Interactivity, Hypertextual, Global Networks, Virtual Worlds and Simulation, Strauss, S., Sundjaja, K., Robinson, P., & Chen, A. (2020) New Media can be used in technology mediated teaching and learning, Devi, S. R., & Rathy, G. A.(2020).

### **Annual cost of Education on Indian parents**

In India the annual private cost for general education increased beyond our imagination between years 2008 to 2014 from Kindergarten to post graduation and above. The increase in average cost indicates 176% percent. Whereas it was noticed 96% percent increase in annual cost for professional and technical education such as medicine, engineering, ICT based advance courses as mentioned by a research survey report Aurum Equity Partners LLP (2020) it also mentioned every individual parent spend annually on their child Rs.36,000 for six years on secondary education in government schools, while for the same education in private schools parents spend Rs.3,96,000 on single child. The cost will increase even more up to Rs.18 lakhs if the child is in boarding school. In the below given Table No.1, we can notice the expenditure cost for each percent increases more on professional and technical education when compared to general education.

**Table No.1 Annual Cost of Education on Graduation and Post-Graduation.**

Level of Education	Sector	Engineering	Medicine	Science & Commerce
Under Graduate	Government	5-6 lakhs	6-10 lakhs	2K – 15 K
Under Graduate	Private	8-10 lakhs	18-20 lakhs	2.5 – 5 lakhs
Under Graduate	Abroad	1 Crore	1 Crore	50 lakhs
Post Graduate		20-30 lakhs	30- 35 lakhs	5-10 lakhs

Source: Survey Report, Aurum Equity Partners LLP (2020), Gurgaon, Haryana, India

Even now in India and Abroad majority of the learners pursue their education in conventional schools and colleges. Opting online education is very less, in the Table.No.2. The University Grants Commission statistics give us very clear picture.

**Table 2: Enrolment in Higher Education through Regular & Distance Mode: 2015-16**

Mode	Male	Female	Total	Percentage
Regular	16539469	14220411	30759880	89
Distance	2055254	1769647	3824901	11
Total	18594723	15990058	34584781	100

Data Source: Department of Higher Education, MHRD, GOI. (2015-16)

### Benefits of online education and Cost reduction

In the above Table No.2 we have seen the analogue conventional model of brick and mortar four walled education system is still dominating and holding 89% percent of the learner populace share, while distance and open learning education without walls system able to get only 11% percent of the learner's populace share. The government of India aimed to increase the Gross Enrolment Ratio to 30% percent by 2020. Whereas the current rate of GER of higher education increased from 25.8% (2017-18) to 26.3% (2018-19) as said by All India Survey (AISHE 2019) on Higher Education on 22 September 2019. AISHE also said that in factual numbers of students enrolment increased from 3.66 crore to 3.74 crores. Dr. V.S. Rao, President, NIIT University said, In order to increase 30 percent GER in higher education sector government and private sectors should intelligently use the digital new media technologies in education. V.S. Rao (2018).

Government and private sector can save huge amount of money on establishment cost, investment cost like preparing and delivery of online courses if they intelligently integrate the use of digital new media technologies in all online courses. For example expenditure cost can be reduced on staff salaries, physical infrastructure such as construction of huge buildings class rooms, practical labs , play grounds, Library Buildings, stationery, books etc. It is also predicted by AISHE by the end of 2020 India will have world's largest tertiary age group population and second largest graduates will be in the pipeline. Covering the target gap of 3.7% percent in

order to reach GER 30% percent by the end of 2020, there is no other way if the conventional higher education is not supplemented by e-learning. Adoption of new digital media technologies can bridge the gap to satisfactory level.

Gaurav Singh (2017) revealed in his research study that the Massive Open Online Courses stepped in as a game changer in India, scope for MOOCs is very promising for the days to come. His study reveals that even though teacher educators having basic idea about MOOCs strengths, benefits, mode of offering methods and course benefits but teacher educators having confusion about their role has to be played in MOOCs teacher training and in addition to this, they also lacks understanding about Indian MOOCs initiatives like SWAYAM. Gaurav Singh study concluded that there is a very urgent need not only to provide proper understanding about Indian MOOCs SWAYAM initiatives for Indian teachers but also provide them ample facilities to develop and integrate MOOCs for all their classroom practices.

Kusuma, Krishna Shankar (2017) surveyed all India teacher training program under ICT policy. In order to bring digital revolution in India, ICT mediated leaning is promoted and given training to pre-service and in-service teachers. Kusuma, said the main focus of the training is to enhance capacity building ICT training for school teachers in computer aided learning. In this connection Government of India started in the year 1987 'Operation Black Board' and in recent years the novel initiatives 'Operation Digital Boards'. The finding revealed how ICT course curriculum structured. How the strategies of India government surpasses the challenges in re-training of in-service teachers and building infrastructure for schools.

Jan, H., & Mattoo, M. I. (2017). Said that online courses only can provide tailor made courses and also interdisciplinary knowledge courses which suits present day industrialized society requirements. These courses, not only offered online successfully but also learners can study at their own place, phase and anytime anywhere. Whereas in conventional educational institutes first of all they do not offer tailor made courses as per the trendy societal needs and also it is very difficult to learner and procure a certification, to do so they have to leave their jobs to attend full time classes and spend huge amount of money. Some of the Massive Online Open Courses (MOOCs) initiatives have been taken place by private as well as government of India. They are ApnaCourse, EduKart, NPTEL- National Programme on Technology Enhanced Learning, CEC (Consortium for Educational Communication), e-PG Pathshala, Talk to a Teacher, Spoken Tutorial, Virtual Labs, ILLL- (Institute of Life Long Learning), Khan Academy, IGNOU (Indira Gandhi National Open University), SWAYAM, Sakshat. Hafsah Jan and Mohammad Iqbal Mattoo said, there is a urgent need to restructure the educational system in India, at present India require a robust educational system to address present day requirements of industrialized societal needs, but we are failing to address these requirements due to non-availability of talented teachers, professionals and educational infrastructure due to diversified

geographical, economic and social restrictions. India should have our own MOOCs to provide larger quantity and quality education to all.

Kusuma, Krishna Shankar (2018) explained modus operandi of the MOOCs SWAYAM online platform in India. Kusuma also revealed even though SWAYAM online platform presented new opportunities to teachers for using ICT based teaching with use of digital technology mediated learning, but the same technologies posed operational problems to teachers at every stage. In his study Kusuma, illustrated anxieties of students and pedagogical issues of teachers while dealing with ICT technologies. Kusuma also talked about UGC incentives for teachers for offering a MOOCs courses. Finally author Kusuma predicted the future of the MOOCs on SWAYAM online platform.

Gowthaman and Awadhiya (2017) said continuous professional development training is needed in use of media and technology for the staff engaged in carrying out the online delivery of various university activities. Lack of appropriate training, lack of time to practice the obtained training methods are some of the significant barriers in all ODL institutions. Gowthaman emphasized if these barriers overcome by ODL their services can be successfully utilized for routine work, front- end and back- end activities.

### **Online Education as a rescue manager for COVID-19 lockdown period**

It is said necessity is the mother of invention, the lockdown period of COVID-19 given raise to many innovative online platforms based on ICT digital media. Both government and private sector in education, using various e-learning platforms tremendously, to complete the syllabus of the learner's community from primary level to post graduation level. These e-learning platforms facilitates teachers and learners in providing opportunity to combines workplace chat, video meetings, file storage, and file collaboration. To name few online e-learning platforms like, Microsoft Teams, BYJUS, ZOOM, Unacademy, Shaw Academy, Udemy, and GradeUp, Google Hangouts, Google Classroom, skype are very useful e-learning platforms to deal the COVID-19 lockdown situation.

Dr. Ramesh Pokhriyal, Union Minister, MHRD, Government of India, said Human Resource Development Ministry's online learning platforms have been accessed five times more during the COVID-19 lockdown period due to coronavirus outbreak. (Pokhriyal, Ramesh 2020), he said there is an increase of five times in accessing SWAYAM national online e-learning platform ever since COVID-19 lock down, it was only 50,000 students use to access before March 2020. In addition to this 26 lakhs students enrolled in 574 courses. 59,000 people are viewing the videos of the SWAYAM Prabha DTH TV channels every day, and more than 6.8 lakh people have watched these since the lockdown began. The National Digital Library was accessed about

1,60,804 times in just one day and about 14,51,886 times during the lockdown period, whereas it was only 22,000 daily strikes before COVID-19 lockdown.

The government education portals like NCERTs DIKSHA, e-pathasala, National Repository of Open Educational Resources, ICT initiatives like Robotics education, e-Yantra, Open Source Software for Education (FOSSEE), Virtual experiments (Virtual Labs) are also experiencing large access rates, both schools and higher education institutions have started various modes of online classes. 50-65 percent of the higher education students like, central universities, IITs, IIITs, NITs, IISERs, are participating in some form of e-learning. Even though internet access and connectivity is posing as a major problem. In order to help students communities HRD ministry used SWAYAM PRABHA group of 32 DTH channels, telecasting educational programmes on 24X7 basis using the GSAT-15 satellite and the contents provided by various educational institutions like NPTEL, IITs, UGC, CEC, IGNOU, NCERT and NIOS. The Indira Gandhi National Open University (IGNOU) is providing education through Gyan Vani (105.6 FM Radio) and GyanDarshan, which is a 24-hour educational channel offering the best of educational programmes for pre-school, primary, secondary, higher secondary students, college/university students, homemakers and working professionals and youth seeking career opportunities.

Online education web platform SWAYAM the government of India's initiative has extended tremendous helping hand for student's community during this lockdown period of coronavirus. SWAYAM offers education to classes 9 to post- graduates' levels and also for, teachers and teacher educators, teacher trainers. SWAYAM has 2,867 courses, 568 courses added for January 2020 semester. The enrolment of 1, 25, 04,722 (one crore twenty five lakhs four thousand seven hundred twenty two). Unique registrations about, 57, 84, 770 (fifty seven lakhs and eighty four thousand and seven hundred seventy seven) on SWAYAM platform has been registered. Many states using state television telecast to help students, where the network connectivity is very poor

### **About SWAYAM**

The SWAYAM is an initiative of government of India which offers online interactive courses from class 9<sup>th</sup> to post-graduate level, these can be accessed by any one from anywhere, any-time across the globe, at free of cost, all the courses are prepared by more than 1000 best teachers and faculty members specially chosen to prepare the course materials.

Even though Courses offered by SWAYAM are free of cost to the learners, however if the learners wants to obtain SWAYAM certificate, learners has to register for the final proctored exams, which is chargeable and has to attend in-person at designated exam centers on specified dates. Eligible candidate's certificates will be announced on the course page and learners will get certificates only if these criteria's are matched. All the Universities/colleges

who are approving credit transfer for these courses can use the marks/certificate obtained from these SWAYAM online courses for the same. (SWAYAM 2020)

SWAYAM has four quadrants approach to offer online interactive courses to learners they are  
 1) Video lectures 2) Specially designed interactive style reading materials which can be printable/ downloadable. 3) In built self-assessment tests and quizzes as self-checking tools for the learners progress 4) an online discussion forum for clarifying the learner's doubts with teachers.

The SWAYAM platform is the combination of nine nodal educational institutions namely, 1) All India council for Technical education, 2) Consortium for Educational Communication, 3) Indira Gandhi National Open University, 4) The Indian Institute of Management Bangalore, 5) National Council of Educational Research and Training, 6) National Institute of Open Schooling , 7) National Program on Technology Enhanced Learning, 8) University Grants Commission 9) National Institute of Technical Teachers Training and Research are partnering with various pioneering educational institutes of state and central government, having expertise in diversified interdisciplinary or various subject matter disciplines.

### Status of online courses and Learners Response

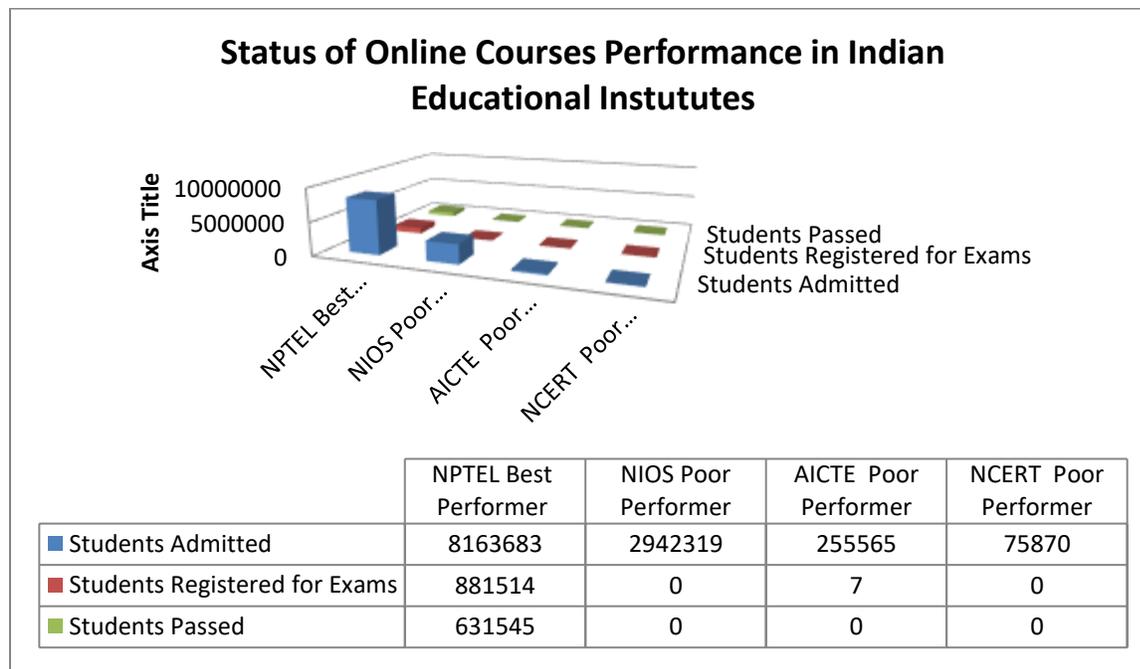
Table No. 3. Details of SWAYAM Online courses

Logo	Main Educational Institute	Number of Partnering Institutes	Completed Courses	Student Enrollment	Exam Registration	Successful Certification
	AICTE All India council for Technical education	7	132	255565	7	0
	CEC Consortium for Educational Communication New Delhi	19	356	518172	13800	8524
	IGNOU Indira Gandhi National Open University	3	52	91458	1485	962
	IIMB The Indian Institute of Management Bangalore	3	58	144561	4861	3383
	NCERT National Council of Educational Research and Training	8	75	75870	0	0
	NIOS National Institute of	1	130	2942319	0	0

	Open Schooling					
	NITTTR National Institute of Technical Teachers Training and Research	3	22	65598	1561	961
	NPTEL National Programme on Technology Enhanced Learning	26	1660	8163683	881514	631545
	University Grants Commission	133	263	284766	12310	9289
<b>9</b>	<b>Total</b>	<b>203</b>	<b>2748</b>	<b>12,541,992</b>	<b>915,538</b>	<b>654,664</b>

Compiled from various source of SWAYAM, MHRD, GoI, India (2020)

If we analyze the 4 institutes were having high enrolment like All India council for Technical education (AICTE), National Council of Educational Research and Training (NCERT), National Institute of Open Schooling (NIOS) having students enrolment 255565, 75870, 2942319 but so far either ZERO students have enrolled for exams or successfully completed any online program. It has been noticed highest enrolment and highest Successful Certification given by NPTEL - National Program on Technology Enhanced Learning, 8163683( eighty one lakhs sixty three thousand six hundred eighty three) students enrolled and 631545 (six lakhs thirty one thousand and five hundred forty four), successfully obtained certificates.



The above chart shows that NPTEL - National Program on Technology Enhanced Learning did best performance, while AICTE - All India council for Technical education, National Institute of

Open Schooling (NIOS), National Council of Educational Research and Training (NCERT) did very low performance in passing out exams. This means students have shown immense interest in taking online admission but unable to complete the term end exams. This gives deep reasons to do research to find out the facts. CEC, UGC, IGNOU, IIMB, NITTR are moderate performers in delivering online courses.

### **Stakeholders' duties and Responsibilities'**

Stakeholders of online courses consist of online Teachers, Subject Matter Experts (SMEs), online Platform Academic Coordinators (who manages & coordinate the online platform), Capacity Building Trainers for online teachers and subject matter experts (SME). IT team experts and Media Persons like Academic Producer.

Please Note: Academic Producers coordinate with online teachers/course coordinators and manages media input team members like cameraperson, video editor, graphic artist, animators work as a team with Online Platform Academic Coordinators.

**Role of an Online Teacher/ Course Coordinators/ Subject Matter Expert:** Online Teacher has to prepare a project report as per the guidelines issues by the SWAYAM platform to offer online courses, which require 4 quadrants like 1) video lecture 2) specially prepared reading materials which can be downloadable/printable 3) self-assessment test through tests and quizzes and 4) online discussion forum to clearing the doubts of the learners. Get the approvals for launching online course, preparing video lecture contents with the help of various subject matter experts. Participating in online discussion forum, clarifying learner's doubts posted on discussion forum, conducting online live two-way interactive session with learners. Sending term end examination questions and evaluation parameters to notified testing agencies. Interaction with online platform, academic coordinators for uploading and resolving technical issues.

**Role of Academic Coordinators of Online Platform:** Academic coordinators of online platform are of two types, one at gross root-level manager and other middle level manager. Each academic coordinator handle different responsibilities like Coordination with all stake holders which includes Program coordinator, Information and Library Network Centre (INFLIBNET) & Bhaskaracharya Institute For Space Applications And Geo-Informatics (BISAG) engineers, MHRD, IIT Chennai Project officials and reporting to National Coordinator of SWAYAM & Swayam Prabha of IGNOU.

Coordinating with online teachers, Monitoring progress of online programs, examining the approvals, reporting the lacunae if any, managing finances of online platform.

Coordinating and managing the four quadrants of design and development of online programmes. Helping, Program/course coordinators and facilitate to run the online program.

**Role of a Capacity Building Trainers:** Designing capacity building training workshop from basic software know how to advance online software. Planning the need based tailor made advance capacity building training workshop to online teachers, various subject matter experts, and

course coordinators. Conducting phased manner capacity building training workshop, as and when a version change in online platform.

### **Problem of the Study**

SWAYAM platform online course stakeholders are teachers, academic coordinators of SWAYAM online platform and Capacity Building Trainers for online teachers. Online Teachers faces many issues and challenges due to, many of them mainly who had their educational background from conventional educational institutions, many of them are not even given formal induction training to open and distance learning strategies. Some of them are not computer savvy; some do not even have basic exposure to software, so preparing specially designed reading materials, creating interesting video content without having the knowledge of TV presentation or production techniques, handling discussion forums without having sound knowledge of software. On the other hand understanding of 4 quadrants of online course design is a must pre-requisite knowledge to run online courses. Academic coordinators play a pivotal role in managing online courses on SWAYAM platform, and they coordinate online platforms housed at different nine nodal educational institutes having mini servers at their end and the main server of SWAYAM is housed at IIT, Chennai. Academic Coordinators of different nodal institutes have to coordinate with teachers, examining their online teaching course proposals, coordinating with INFLIBNET, Gandhi Nagar. Information and Library Network (INFLIBNET) Centre is an autonomous Inter-University Centre of the University Grants Commission (UGC) of India. INFLIBNET plays a major role in facilitating creation of open access digital repositories in every educational institution for hosting educational and research contents created by these institutions. Similarly coordinating with Bhaskaracharya Institute For Space Applications And Geo-Informatics (BISAG), Gandhinagar, Gujarat, which, uploads 32 DTH educational TV channels of SWAYAM Prabha, MHRD, Government of India, they also coordinate and manage internal and external IT teams, managing media unit, coordinating and managing training programs within tight schedules without proper infrastructure and financial support, without having proper SWAYAM regulations, is a herculean task for academic coordinators of online SWAYAM platform. Finally challenges for capacity building trainers for online teachers, face several issues and challenges. Lack of basic knowledge of computer software's among some of the participants in order bring training program at par for everyone in a given time is very difficult. Lack of aptitude among participants. Lack of fully equipped PC labs with public address system. In some cases lack of minimum requirement of PCs and insufficient finances for conducting capacity building trainings.

### **Scope of the Study**

This study mainly focuses to find out issues and challenges faced by Stakeholders like Online Teachers, Academic Coordinators and Capacity Building Trainers. This study also will explain what kind of technical infrastructure needed, on which heads financial provisions are needed and what modifications to be incorporated in SWAYAM regulations for smooth run and delivery of online courses. Finally address what are the issues needed immediate attention to run the SWAYAM online platform.

### Objectives of the Study

The objectives of the study were to:

- ❖ Analyse Demographic profiles of the online platform stakeholders
- ❖ To study the perception of Stakeholders on the role of Online Courses in ODL
- ❖ To Analyse the views of Stakeholders on the issues, challenges and opportunities
- ❖ To provide the suggestions for further enhancements.

### Methodology and Sample

A mix mode research approach was adopted to conduct the study. A questionnaire consisting of close-ended and open-ended questions was designed to collect quantitative and qualitative data. This questionnaire was validated by the expert for content validation followed by reliability testing through test-retest method. The survey was administered on 200 stakeholders of online courses, to assess their issues and challenges of new media online ODL courses and problems faced by them while dealing with on job issues and gathered their suggestive resolving mechanism for future improvement. Total 120 stakeholders responded to the questionnaire. Data received from these respondents was entered in the spreadsheet and analyzed.

### Demographic Profile

**Table No.4: Demographic Profile**

Gender	Number of Responses	Percentage
Male	73	60.84 %
Female	47	39.16 %
<b>Total</b>	<b>120</b>	<b>100 %</b>

Demographic Profile of Stakeholders, SWAYAM online Platform

### Age Profile

**Table No.5: Age Profile**

Gender	Number of Responses	Percentage
<30	30	25%
31 – 40	65	54.17%
41 – 50	15	12.5%
51 – 60	10	8.33 %
<b>Total</b>	<b>120</b>	<b>100 %</b>

Age Profile of Stakeholders, SWAYAM online Platform

**Categories of Respondents 1) Online Teachers, 2) Swayam online Platform Academic Coordinators and 3) Capacity Building Trainers for Online Teachers.**

**Table No.6: Categories of Respondents**

<b>Respondent Categories</b>	<b>Number of Respondents</b>	<b>Percentage</b>
Online Teachers	97	80.84 %
SWAYAM online Platform Academic Coordinators	15	12.5 %
Capacity Building Trainers for Online Teachers	8	6.66 %
<b>Total</b>	<b>120</b>	<b>100 %</b>

Categories of Respondents 1) Online Teachers, 2) SWAYAM online Platform Academic Coordinators and 3) Capacity Building Trainers for Online Teachers.

### What Type of Start-up Training obtained to launch online course

**Table No.7: Types of Training Obtained by Teachers**

<b>Respondent Categories</b>	<b>Number of Respondents</b>	<b>Percentage</b>
Obtained phased manner training	91	93.82 %
Obtained one lengthy training for two weeks	3	3.09 %
Obtained 4 days' workshop	2	2.06 %
Obtained 2 days' workshop	1	1.03 %
<b>Total</b>	<b>97</b>	<b>100%</b>

### Online Teachers, issues and challenges

**Online teacher's issues:** The majority of the teachers expressed that they want to be oriented on financial dealings and available financial assistance for SWAYAM online courses. They want to learn in detail effective evaluation strategies for online system. They also expressed the desire of learning better way of engaging student's community and also have training on additional support of human resources for effective handling and smooth functioning of online courses. They have requested the trainers to conduct additional workshops exposing some Knowledge of modern and latest technological support and availability of the same for conducting the online interactions counselling sessions like state of the art technology enabled virtual smart classroom and training of handling the same.

**Online teacher's challenges:** majority of the online teachers said that the online SWAYAM platform needs to improvement. They expressed the desire of having own server space to upload videos rather than uploading on **YouTube** and then linking them to our SWAYAM platform. As the online teachers are the main interacting agents with students' community many have informed that the students faced problems in registrations and also found difficulty in viewing video contents, at present video contents are 25 to 30 minutes duration. Some reference videos may have more than 30 minutes. Teachers also find difficulty in uploading video content in day time due to heavy internet traffic, both teachers and learners said they

only upload and view video contents at midnight. They also said they are lacking funds to update and revise video content from time to time, they urged Latest updating with statistics is necessary. At present they don't have Exam online facilities too integrated with the course content.

### **Academic Coordinators issues and challenges**

**Academic Coordinators Issues:** they play the role as central nervous system in the human body. They are the main interface between online teachers and online platform. Their job starts from the scratch to delivery and maintenance, their role is ongoing always 24x7, their job starts from receiving various projects of online courses, evaluating them and informing the lacunae to teachers and also getting the modifications done to fit as per the 4 quadrants requirements. Managing online platform, coordinating with internal as well as out stationed agencies like, INFLIBNET Centre, plays a major role in facilitating creation of open access digital repositories in every educational institution for hosting educational and research contents created by various institutions. BISAG, Gandhinagar, Gujarat, here 32 DTH channels are uplinked. They also deal with technical teams of IIT, Chennai which controls main server of SWAYAM online platform.

**Academic Coordinators Challenges:** Firstly resolving data compatible issues between SWAYAM 1.0 version and SWAYAM 2.0 version. Secondly in order to use the SWAYAM 2.0 version, the learners and program coordinators must have g-mail account reason because on the same platform other email accounts will not work like re-diff, yahoo or any other email accounts. They also informed at present that the lack of human resources to handle generation of e-content, production of video contents, lack of dedicated studio and adding creative interactive inputs and regularly happening too many varied activities which changes scheduled priorities. Lot of time consumed in development of 4 quadrants contents, troubleshooting the technological issues on regular basis, meeting the deadlines/timelines literally forcing them to do lots of pull and push.

### **Capacity Building Trainers issues and challenges for Online Teachers**

**Trainer's issues:** trainers have noticed that some of the teacher participants are not technical savvy and lacking aptitude for online software and reluctant to use new media digital technologies. It's very difficult to organise same subject matter to all teacher participants to bring them at par. They also found varied age groups have different apprehensions in terms of grasping and accommodating digital new media technologies to enable online courses.

**Trainer Challenges:** majority of the trainers felt in order to give intensive training they need organized well quipped computer lab so that each participant can be properly trained on MOOCs, SWAYAM online platform. In order to impart awareness to participants about latest technologies, and online tools like Augmented Reality (AR) and Virtual Reality (VR) and also Learning Management System (LMS), Open Educational Resources (OER), Open and Distance Learning (ODL) technology based training topics, they strongly felt at present condition they don't have dedicated well equipped training computer labs loaded with adequate software nor they don't have financial support to purchase the required software.

### Suggestions and Conclusions

- Capacity Building Trainers said that maintaining quality is an ongoing process, in order to maintain the quality, online teachers should be given phased manner training so that as and when new version of technology emerges into the market online teachers can be oriented accordingly.
- Many teachers accentuated SWAYAM require exclusive online platform open resources or proprietary for training with required server space.
- Many online teachers and Academic Coordinators of SWAYAM online platform insisted that the adequate provisions of finances should be allocated to online teachers, academic coordinators and capacity building trainers to revise/update the video content and also incorporate AR/VR technological inputs, proper animations required for explaining simple to complex and complex to abstract forms.
- Academic Coordinators of SWAYAM platform revealed that the timely clearances of financial bills to contributors need to be addressed and clear guidelines for payment procedures should be adopted and regulated.
- SWAYAM online platform Academic Coordinators emphasized immediate need to improve infrastructural upgradation and extra ear marked budget allocations for improving quality and quantity for accommodating huge quantity of online 4 quadrant contents requirements.
- Many teachers and academic coordinators of online SWAYAM platform requested the policy makers and top-level managers should work out policy guidelines to incorporate motivational strategies and encourage all stakeholders like teachers and academics to compensating with adequate API scores for their contribution to SWAYAM courses.
- Many online teachers as well as online SWAYAM platform academic coordinators urged that SWAYAM should immediately tackle the bandwidth issues many times faced difficulties while uploading bulk videos on SWAYAM server.
- Capacity Building Trainers pointed out SWAYAM online platform should immediately upgrade the bandwidth because many learners find difficulty in watching 30 minutes videos due to low-bandwidth. Because at present most of the video contents are either 30 minutes or 45 minutes reference video content.
- Online teachers are requested to timely answer learners queries this not only encourage and reduce the dropout rate of learners but also leads to successful completion of their course.

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