

# Proceedings

## National Consultative Workshop on Developing Implementation Strategy for NVEQF in Open Schooling in India

June 20 & 21, 2013

Cherai Beach Resort, Kochi



**National Institute of Open Schooling  
A-24/25, Sec-62, Institutional Area  
Noida, U P  
&**

**Commonwealth Educational Media Centre for Asia, New Delhi**

**M**inistry of Human Resource Development of Government of India vide F. No. – 1-4/2011-VE dated the 3rd September, 2012 brought out the National Vocational Education Qualifications Framework (NVEQF) in September 2012 through a government notification. The document says that Technical and Vocational Education and Training (TVET) system in India is fragmented and lacks coordination between various stakeholders and there is lack of articulation arrangements for progression of students from School to Polytechnics and University. NVEQF is a descriptive framework that organizes qualifications according to a series of levels of knowledge and skills defined in terms of *learning outcomes*. The key elements of the NVEQF are to provide *multiple entry and exit to TVET, transfer and progression* within and between TVET and general academic education and *partnership* with industry/employers. NVEQF for the first time has considered all levels, aspects and modes of technical and vocational education and training in the country.

According to the NVEQF formal education includes education (and training) *‘provided in the system of schools, colleges, universities and other formal educational institutions that normally constitutes a continuous ladder of full-time education for children and young people, generally beginning at age 5, 6 or 7 and continuing up to 20 or 25 years of age’*. This form of education provides limited access due to age specificity and fulltime participation in institutions of learning. Non-formal education refers to any organized and sustained educational activities which may take place, both within and outside educational institutions, and may cater to persons of all ages.

It may cover educational programmes to impart adult literacy, basic education for out-of-school children, life skills, work skills, etc. Although not specified by the Framework, open schooling mode comes within this form of education.

In addition NVEQF also brings within its purview all types of learning that takes place through life and work experience, which may also be referred to as experiential learning. Often this learning is unintentional and the learner may not recognize at the time of the experience that it has contributed to his or her knowledge, skills and competence.

### **Technical and Vocational Education and Training by ODL**

Open learning in vocational and technical education has a tremendous amount to offer the new world of work because it is responsive, flexible, fosters independent learning, can be set up in a way that fosters teamwork and allows the immediate transfer of skills with workplace based learning. Open learning also reinforces qualities of self-reliance, mobility and rapid adjustment to change needed for survival in today’s world. The potential and possibilities in the open distance learning mode has undergone remarkable changes that today ODL systems with use of variety of technologies and learner support modalities can go well beyond teaching theoretical subjects. There are enough experiences around the world to show that appropriately organized distance learning experiences supported by F2F, virtual interactions and hands on skill development sessions can be an effective mode to develop technical and vocational competencies. Few

examples of various Open Learning Systems are as follows;

- **The Open Polytechnic of New Zealand (TOPNZ):** Open Polytechnic is one of the world's leading providers of vocational education and training (VET) by ODL, removing barriers of time, place and cost to deliver effective learning solutions. It has a strong track record in designing and delivering skills and competency-based learning solutions within blended and networked learning environments. and works closely with industry to deliver vocational training to accredited national standards and qualifications.
- **National Institute of Open Schooling, India:** One of the objectives of the Vocational Education Programme of NIOS is to meet the need for skilled and middle-level manpower for the growing sectors of economy, both organized and unorganized. The training system includes contact sessions and hands on experience in the vocation or training in the formal training institutions or workplace supported by well developed multimedia support materials.
- **Open University of Sri Lanka (OUSL):** The study system adopted by the Open University of Sri Lanka and the Faculty of Engineering Technology is based on multimedia instructional materials with strong emphasis on Distance Education techniques using printed material and audio-visual aids. The central element of the self-study is the printed material that offers the student the equivalent of lectures in a conventional university.
- **Indira Gandhi National Open University (IGNOU):** The university uses multimedia teaching-learning packages which include self-instructional print and audio-video materials, radio and television broadcasts, face-to-face counselling, laboratory, hands-on experience, teleconferencing, video-conferencing, interactive radio counselling, interactive multimedia CD-ROMs, Internet-based learning, the use of mobile phone for instant messaging and practical / practice teaching at selected programme centres.
- **The Open University, UK:** Through the Open University Vocational Qualification Assessment Centre (VQAC), UKOU delivers these vocational qualifications through a flexible, distance-learning, modular approach. In most cases, an assessor will work with the learner providing support and guidance as they progress through the qualification. Vocational Qualifications are also very flexible for staff with heavy or unpredictable workloads.

The strength that India has in open schooling has mostly been used for schooling and post-literacy education of academic stream. Now there is an opportunity for mobilizing this strength of NIOS and state open schools in developing and delivering a large scale open schooling programme for Vocational Education and Training. With this in background the two day workshop was planned to deliberate on "Developing Implementation Strategy for NVEQF in Open Schooling in India"

#### **Workshop Objectives:**

- To discuss and finalize all aspects of curriculum transaction in open schooling

based on the requirements of the NVEQF of MHRD.

- To discuss and formulate the implementation Strategy for NVEQF in Open Schooling.

## Participants

The participants for the workshop include academicians, representatives from sector skill councils, National Skill Development council, State Government, and organizations associated with vocational training.

## PROCEEDINGS OF THE TWO-DAY WORKSHOP ON DEVELOPING IMPLEMENTATION STRATEGY FOR NVEQF IN OPEN SCOOING IN INDIA HELD ON 20<sup>TH</sup> AND 21<sup>ST</sup> JUNE, 2013 AT KOCHI.

A workshop on “Developing Implementation strategy for NVEQF in Open Schooling in India was held on 20-21<sup>st</sup> June, 2013 at Kochi organised by the NIOS in collaboration with CEMCA to discuss and finalise all aspects of curriculum transaction in open schooling along with the strategy for implementing NVEQF. List of the participants is enclosed (Annexure I)

### Day – 1

Chairman NIOS, Dr S.S. Jena in his welcome address welcomed all the participants who have travelled from faraway places to attend the workshop. In his welcome address he highlighted the significance of the vocational education as well as the advantages of Open Distance Learning and has been engaging himself with the furtherance of Open Learning.



Dr. Sanjaya Mishra, Director CEMCA while introducing the objectives of the workshop, briefly explained about the effective use of Open and Distance Learning including the use of mobile devices and emerging technologies. The strategic objective of CEMCA is to promote cooperation and collaboration in the use of electronic media resources for distance education. He observed that though the NVEQF highlights the vertical mobility of VET programmes from recognition of prior learning to National Competence Certificate ‘eight equivalence to level ten’, it is hard to believe that the role Open and Distance Learning was somehow missing explicitly from the ambit of NVEQF.

During the introduction session, Chairman, NIOS promised that the NIOS curriculum will be revised as per the guidelines issued by the MHRD for which National Skill development Corporation (NSDC) also will be involved. He also assured that the outcome of the meeting will be implemented in NIOS without fail.

Prof. Takwale former VC, IGNOU while delivering the keynote, appreciated the steps taken by the NIOS and insisted for the essentiality of a new Education globally connected to the society. He also mentioned that existing models of education

and development are manifestation of the Industrial Age, and not appropriate at this juncture where new concepts, methodologies and organisations have already emerged and the goal is to find Career and Create Social Value. He argued for the need of methodology to Building Co-creativity through small/big/community working together for coop learning and creation of Social Common Value/Wealth along with the need for learning and developing paradigm in networked education system. His view with respect to linking academics with applied developmental areas for finding use of working outputs (Vocation Skill Development) and thus building capability (Apps, Social Behavior and Attitudes), was noteworthy.

He briefly described about the two Models of Education (Western and Indian), which are as follows:

- Western: Industrial Model
  - Knowledge Industry: Form of a Factory
  - Hierarchical and Centralized
  - Linear, Conformist and Class creating; Kills creativity (Sir Ken Robinson)
  - Hidden Curriculum:
  - Consumerism, Capitalism and Competition
- Unsuitable for Equality and Justice for All
- Fragmented Education into Academic, Professional, Technological/Vocational streams:
- Creates Fragmented Humans; Stratified Societies.



According to Prof. Takwale, student’s evaluation has been divided into four components, which are as follows:

- Course Work -Roles Played
- Practicum and Field-Lab Work
- Student’s Initiative
- Project Work

He also mentioned about the “Shikshan Pandhari Project in Maharashtra” where a Pilot project is being established with an approach of introducing “New Educational Model”.

During the first plenary while setting the background for the workshop, the presentation by Rajiv Mathur, Principal Standards & QA, NSDC highlighted the NVQEF, and he briefly explained about the various aspects of curriculum development including assessment in Vocational Education and Training. He also remarked that qualifications are made up of occupational standards and stressed the need for partnership with industry/employers which can be used by learners, educationists, skill training providers and employers.

Ms. Surina Rajan, Principal Secretary, Education, Govt. of Haryana shared the experiences of Pilot

of NVEQF in her State on Vocational Education in the formal training system: She explained about the pilot project under NVEQF Haryana State Implementation Strategies, which is as follows:

- Successfully introduced an integrated vocational courses at class 9<sup>th</sup> and 11<sup>th</sup> in 40 schools in 8 districts, to improve employability of the students graduating from these courses.
- This pilot project attempts to roll out NVEQF integrated into the School system at select state run schools in Haryana. A detailed exercise was carried out using the data from the Secondary Education Management Information System (SEMIS) (2010-2011) and District Information System for Education (DISE) (2009-2010). The exercise for facilitating the REAP (center for research and experiment for action and policy) Study & School Selection also Tools were carried out.
- 40 Schools were selected for introduction of this Pilot Project based on the students' strength, proximity of the industry, infrastructure available, motivation of the school and students for vocational education, etc. Selection of quality teachers and their mobilization plays a very important role as their inputs determine the quality of the programs and the students.
- Teacher Selection tool prepared for teacher selection process and criteria. Guest lectures organized to bridge the World of Studies and the World of Work. Field visits were undertaken to help students to relate what they learnt in the class room to the actual work place.

- All the schools have finished their hands on practical training in the Industry for minimum of 7days.

She also explained that IT/ITEs introduced in 18 schools in Class 12 during 2012-13 Level-1 and 2. As a result, 376 students enrolled and 123 opted for placement. Two campus interviews, one each in Gurgaon and Faridabad were organised. 21 students placed so far in Navigant Technologies, NetAmbit, Spanco etc. with salary range between Rs. 7,000/- and Rs. 12,000/- p.m



Haryana State has well equipped Computer labs in all Secondary / Sr. Secondary schools. Vocational labs in 40 schools for Auto, Retail and there are plans to add 141 schools and 3 more domains. These schools can be used as Study centres in the evenings and holidays. There is a need to leverage other key resources, like teachers, labs, industry contacts.

The third presentation of this session was on vocational Education and Training, the Parvaaz project of IL&FS. Dr. B Chandrasekhar Vice President, IL&FS made a presentation on 'Vocational Education & Skill Training: An Innovative Concept of Education & Placement Linked Skill Training'. The main stress of the

presentation was on 'Parvaaz', the programme of IL&FS specifically designed to provide a continuum based learning on a graded curriculum ensuring quality of education for minority youth neo-literates and school drop-outs/left-outs. The presentation explained the major outcomes of the program:

- **Education for Life:** 5000 school dropouts and neo-literates minority Muslim youth undergo a yearlong academic program enabling them acquire basic literacy for a smooth life.
- **Education for Employability:** They are taken through a month of vocational training program to facilitate specific industry skills that equip them generate employability in an organized sector.
- **Education for Empowerment:** After the completion of the program, minority youth are able to achieve economic independence leading to social, political and economic development of their community.

The presentation was followed by a short film on 'Parvaaz'.

**In the second plenary of the day, the presentation on NVEQF and Open Schooling was made by Dr. S.S. Jena, Chairman NIOS.** As a result of his relentless efforts Open Learning is now standing at new heights in India. During the course of the discussions, he highlighted the significance of the vocational education as well as the use of Open Distance Learning. He informed the gathering with the basic facts in India:

- Age Group 15-29:
  - only 2% have formal Vocational Training
  - 8% have acquired Non-Formal Vocational Training
- 93% of workforce in unorganized sectors
- New entrants to the workforce every year: 12.8 Million
- Existing Skill Development capacity In India: 3.1 Million

He also appreciated all the stakeholders working towards the achievement of the target of giving training to 500 million people by the end of 2022. He explained about the NVEQF's objective in nutshell, which is as follows:

- Providing uniformity in qualifications across Institutions
- Provision for clear & recognized pathways of learning
- Enhancing credibility amongst stakeholders
- Drawing pathways for horizontal and vertical mobility
- Provision for formal recognition of informal (prior) learning

He also explained about NIOS's Open Educational Resources in Vocational Education as follows:

- Develop exemplary courseware, both print & non-print forms, in selected vocational subject areas
- Online collaborative platform is created for development of digital materials

- Approaches followed in development of the resource materials are based on
  - (i) Role based education for Scenario based learning
  - (ii) Situated based Social Reconstruction & Transformation Process

**The second presentation of the session was on Vocational Education and Skill Development in NIOS. The presentation was done by Dr. K.P. Wasnik, Director Vocational Education, NIOS.**

Dr. Wasnik, explained about the activities of the Department, like developing new courses, revising existing courses, supplying study materials to study centres, conducting examination and distributing certificates to learners. Regional centres are doing the activities like promoting courses in region, monitoring of AVIs (Accredited Vocational Institutions), conducting examination. AVIs are engaged in the activities like giving counseling, doing admission, distributing study materials, conducting practical examination and promoting NIOS courses.

He also mentioned the features of vocational Education as follows:

- Delivery through Accredited Vocational Institutes in face to face mode.
- No creation of extra infrastructure by NIOS, thereby optimum use of resources available in the society
- Development and supply of courses material
- Minimum 14 yrs age (in some 18 yrs) and no upper age limit
- 5 years for passing, nine chances and re-enrollment facilities.

He also mentioned that NIOS signed MoU with CIDC, ITDC, IMA, MGH and CISCO and introduced collaborative courses. He also briefed about NIOS future thrust as follows:

- Use of ICT –OER , e-learning , online courses
- Recognition of Prior Learning(RPL)
- Integration of academic with vocational as per NVEQF
- Collaboration with different agencies/Inst.
- State wise promotion policy
- Advocacy
- Introduction of new courses in collaboration with NSDC/ SSCs.

**The third presentation of the session was on Recognition of Prior Learning by Dr. Mamta Srivastava, DD, NIOS.**

She started her presentation by putting forth the situation of vocational skill education and training and the present scenario in the country. The majority of workforce is in the unorganized sector. Her ideas and plans to put a pathway through RPL are worth emulating. Some of the major points made by Ms. Mamta, DD are as follows:

- India has the youngest population in the world & this demographic advantage to be converted to demographic Dividend.
- In countries like Korea, Japan and Germany 60% to 96% of the youth in the age group 20-24 are vocationally trained.
- 25% of the world labour force would be Indians by 2025 (India Labour Report, 2009)



- Target is to achieve 350 million skilled persons by 2022.
- To achieve these targets India needs a flexible education system with Facilities for Lifelong Learning and Recognition of Prior Learning

### **RPL IN INDIA**

- Large pool of skilled, unqualified workers.
- To provide recognition to the skilled craftsman and skilled workforce who do not have any formal learning and certification
- To empower adult mature learner
- To provide alternate routes for studies and equivalency
- For personal development and empowerment

### **OUTCOMES OF RPL**

- **Plan a learning pathway;** personal/career development plan which will build on their prior learning (RPL for PCD/ formative recognition)
- **Identify core, and other skills,** which they have gained through their life and work experiences which will help them to study, train or work effectively ( building learner confidence & supporting transitions)
- **Gain entry** to a programme at college or university as alternative to traditional entry qualifications (RPL for entry)

- **Gain credit** within a programme or towards a qualification (RPL for credit/ summative recognition)

### **CHALLENGES:**

- Public recognition of the RPL processes as part of the education and training systems.
- Training of the trainers and other functionaries a key issue.
- Tailored and customized learning processes must be developed further..
- How to minimize costs for the learner.

**Post Lunch the discussion and presentation on the NVEQF Developing Strategy Plan for Open Schooling on- concept paper, was made by Prof Mohan B. Menon, Assistant Vice Chancellor, Wawasan Open University, Malaysia**

Prof Mohan Menon explained the reforms and innovations of the Govt's policy to strengthen the vocational system in India over the last six decades. He also mentioned about the key element of NVEQF, some of the points are as follows:

- National principles for providing Vocational Education (VE) leading to international equivalency
- Multiple entry and exit between VE,
- transfer and progression within VE,
- transfer between VE and general education
- partnership with industry/employers

He also revealed that NVEQF has considered all levels, aspects and modes of technical and vocational education and training in the country. He also criticised the NVEQF formal education and training, as it provides only limited access due to age specificity and fulltime participation in institutions of learning. In terms of non-formal education, the framework refers to any organised and sustained educational activities which may take place both within and outside educational institutions that will cater to persons of all ages. He clearly specified that the Technical and vocational education, and training system in India lacks coordination and articulate arrangements with various stakeholders. While quoting about the Technical and vocational education and training by ODL, Shri Menon said the potential and possibilities in the Open distance learning mode has undergone remarkable changes with the use of variety of technologies, and learner support modalities can go well beyond teaching theoretical subjects.

The following are the issues currently faced by the Open Schooling System:

- Need for modular credit-based system
- Recognition of prior learning
- Promotion of vocational pedagogy and blended learning
- Imparting practical experiences through distance mode
- Competency based assessment systems
- Developing an academia-industry alignment
- Modification in teaching-learning approaches

- Need for flexibilities

He also suggested various steps to implement the system:

- Strong focus on designing and delivering skills and competency-based learning solutions within blended and networked learning environments.
- Close partnership with industry to deliver vocational training to accredited national standards and qualifications.
- Approach in which the institution has disaggregated the elements of its ODL system (e.g. curricula, courseware, examinations, student support) so that each can be made available to partners separately
- Use of appropriate, available and accessible technologies to provide individualized support
- Optimum use of all available infrastructure and resources in the community at all levels for course development, course distribution and providing varied kinds of learner support
- Flexible, distance-learning, modular approach
- Counsellor/assessor working with the learner providing support and guidance as they progress through the qualification



According to him, in framing Open Schooling Strategy for NVEQF Implementation- various challenges are:

- ***Developing academia-industry alignment***
- ***Modifications in teaching-learning approaches***
- ***Need for flexibilities and innovations***
- ***Development of an effective quality assurance system***

Prof. Menon also presented a well thought of SWOT analyses of VET through Open Schooling in India in a very lucid & precise manner.

After that some issues which were thrown open for Group Discussion were as follows:

- ***Learning Materials and Resource Support for curriculum transaction (Group-A)***
- ***Learner support of theory and practice (Group-B)***
- ***Learner assessment-theory and practice (Group-C)***
- ***Monitoring and Management of VET through OS (Group-D)***

### ➤ ***ICT Infrastructure and Network (Cross-cutting area)***

Thereafter all the participants divided themselves into four groups according to their area of interest and worked on the above provided themes.

**Day two** started with the presentation from Dr. Bhawani Director, AMMACHI labs, Amrita University on the topic "***Development and Deployment of CVET in India***". AMMACHI Labs is



an acronym for Amrita Multimodal Applications and Computer Human Interaction Labs. AMMACHI labs is nestled right next to the ocean in the lush green of southern Kerala. At ammachi labs their main focus is on developing applications using technology for skill development ranging from vocational training to medical rehabilitation to serious games. They have also developed and deployed CVET content in the areas of Fabric Painting, Plumbing, Soap making, Organic cultivation, Flower arrangement, Artificial jewelry.

SAVE project is funded by the Ministry of Human Resource Development in which >2400 Women enrolled and 1,600 trained in vocational and soft skills.

MoVE project is funded by the Robinov Family Foundation.

According to Ms. Bhawani Vocational Education is essential in the empowerment of underserved populations. Vocational Education in India is outdated and disorganized. For making use of

Haptic devices, computerised vocational education design challenges are : Large Numbers (~500 million population), Dispersed locations (take training to the people not vice versa), Minimize need for new infrastructure, Greater accessibility, Standardization of course content, Scalability, Cost effective, Adaptability to local environment, language, dialect, Low or non-existent literacy levels, Incentive to learn

Hence, at Amrita they are following Multimodal approach i.e. **Multimedia using Video Lectures & 2D/3D simulated labs, Haptics using Smart tools , Low cost Haptic Devices, Skill Database , Immersive Environments through Virtual Reality & Augmented Reality**

*Their Product Strategy comprises of*

- Video Lectures (~ 20%)
- Interactive Multimedia (~15%)
- Immersive VR environments (~3%)
- Smart Tools (~3%)
- Haptic Devices for skill development (~15%)
- Hands on training (30%)
- E-learning (A-View) (8%)
- Assessment (2%)

*Haptics is used in trades such as Surgery, Driving Simulator, Flight simulators*

At Ammachi labs they are making use of two types of haptic devices 4 DOF Linear haptic device – APTAH and 2 DOF Rotary haptic device - CHAKRA

According to her they have set a criteria for tool selection such as Need of Expert, Safety measures, Cost of Tool , Portability , Technique intensive,

Skill intensive and the required Specifications for Haptic Simulation are

Type of Grasp: Contact, Precision, Power; Workspace, Degrees of Freedom – x,y,z (translation, roll) , Degrees of Force feedback – x,y,z (translation, roll) , Posture while working , Powered or Non Powered Tool They also have several technical Collaborations with State University of New York , University of Michigan , L&T.

This presentation was appreciated by all especially for piloting the Haptic Technology in India. Following this, few queries were raised by the audience such cost of developing & using haptic devices, present focus areas of applications, cost of operating mobile labs etc.

Ms Bhawani gave her answers very precisely that presently haptics are being used in engineering related trades such as plumbing , carpentry etc. and cost of operating mobile labs is not much as they are only providing the infrastructural tools & equipment to the rural areas.

After the AMMACHI LAB presentation by the groups presented the work that was discussed within the groups on the following themes



- **Learning Materials and Resource Support for curriculum transaction (Group-A)**
- **Learner support of theory and practice (Group-B)**

- **Learner assessment-theory and practice (Group-C)**
- **Monitoring and Management of VET through OS (Group-D)**
- **ICT Infrastructure and Network (Cross-cutting area)**

**Group A** comprised of Ms. Sudha Chandra, Mr. S. Ganesh, Mr. Mr. Anil Prasad, Ms. Namitha , Ms. Radhika, Mr. Badri , Dr. Chandrasekar . Their presentation title was **Learning Materials & Resource Support for Curriculum Transaction.**

**They provided various Types of Learning Resources such as**

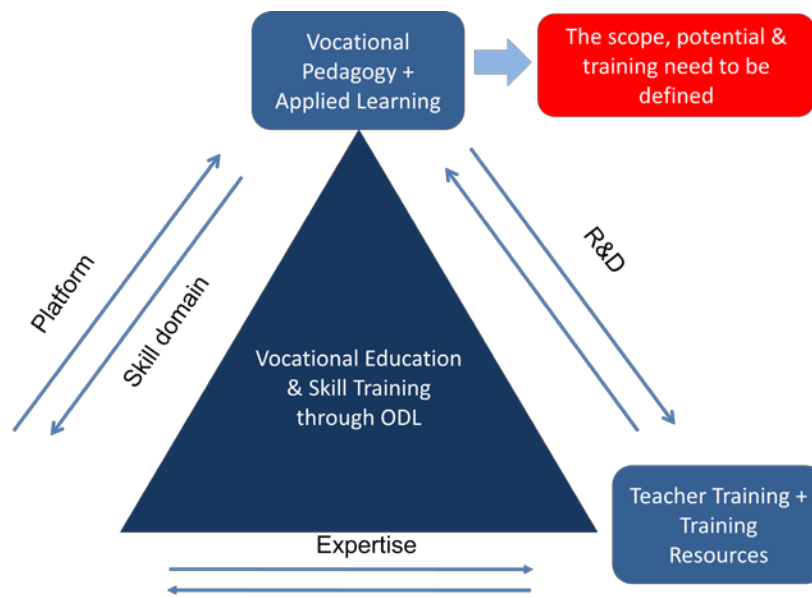
- ➔ Theory (shall be made available in hard version & OER, web based)
- Teaching Manuals/ Guides in the form of Lecture notes

- Practice Manuals
- Student Handbook
- Assessment Manuals (Students/ Teachers)
- Assessment Guides
- e-Resources
- Simulation based; Gaming for New & Innovative Courses

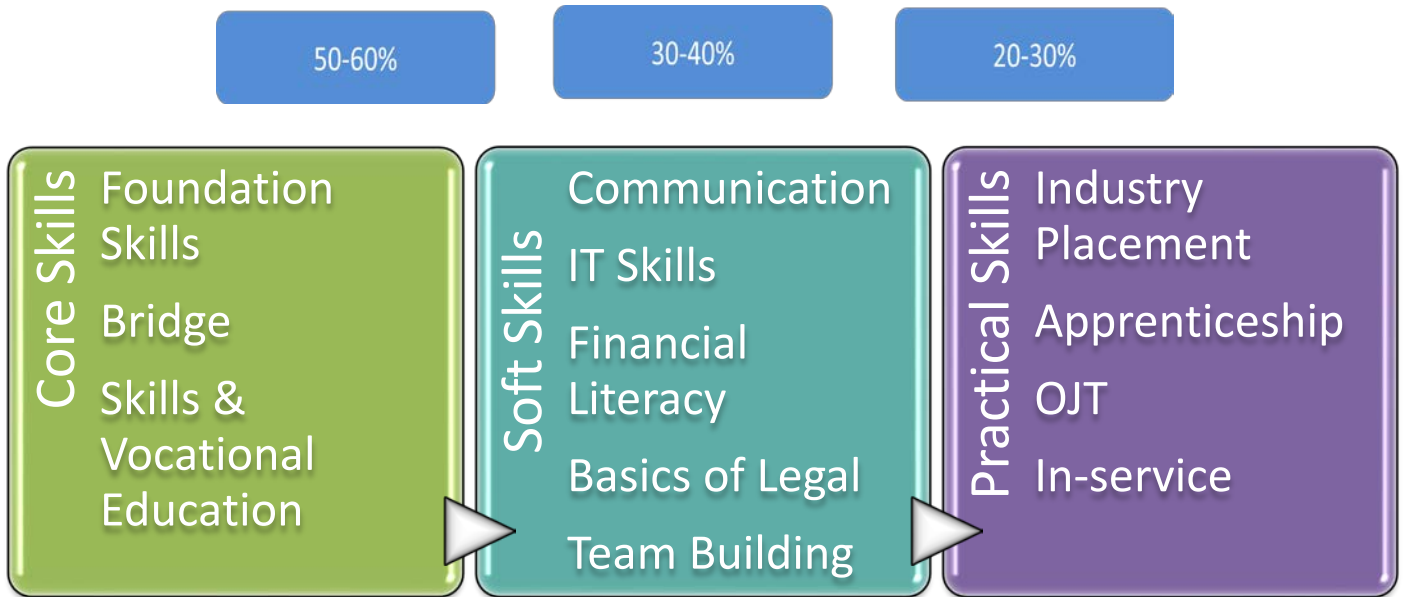
➔ Vocational Education Training (this will be guided by SSCs for respective sectors)

- VET Student Handbooks
- Practical Handouts
- Online support Resources
- Simulation based Resources – Gaming & low cost models based practical training

**Group also suggested Nature of Materials /Resources in the form of TRIAD MODEL (3P)**



**Framework for Curriculum Transaction**



## Compliment training & theory during in-service

### Methodology of Transanction

- Vocational Education & Training in ODL should be
  - Blended learning approach
  - Integrated, Modular and Flexible approach to VET
- Theory
  - Self learning
  - Online Tutoring (thru OER, e-learning & virtual learning based)
  - What: Core/ Domain skills + Soft Skills + Applied Learning
  - Again a BLENDED APPROACH
- Practical Skills Training
  - Low Cost Model based Practical Training
  - Virtual Experiments
  - e-Resources: Simulated Experiments (Cost?)

- Mentorship Model based Skill Training
- Competency Based Content & Resources

### Training the Trainers (3Ts) & Key issues

- Development of customized TOT for VET
- Flexible in the delivery of training
- Technology Enabled TOT
  - ICT
  - OER
  - Multimedia
  - Simulation & Gaming Technology
  - Virtual Training

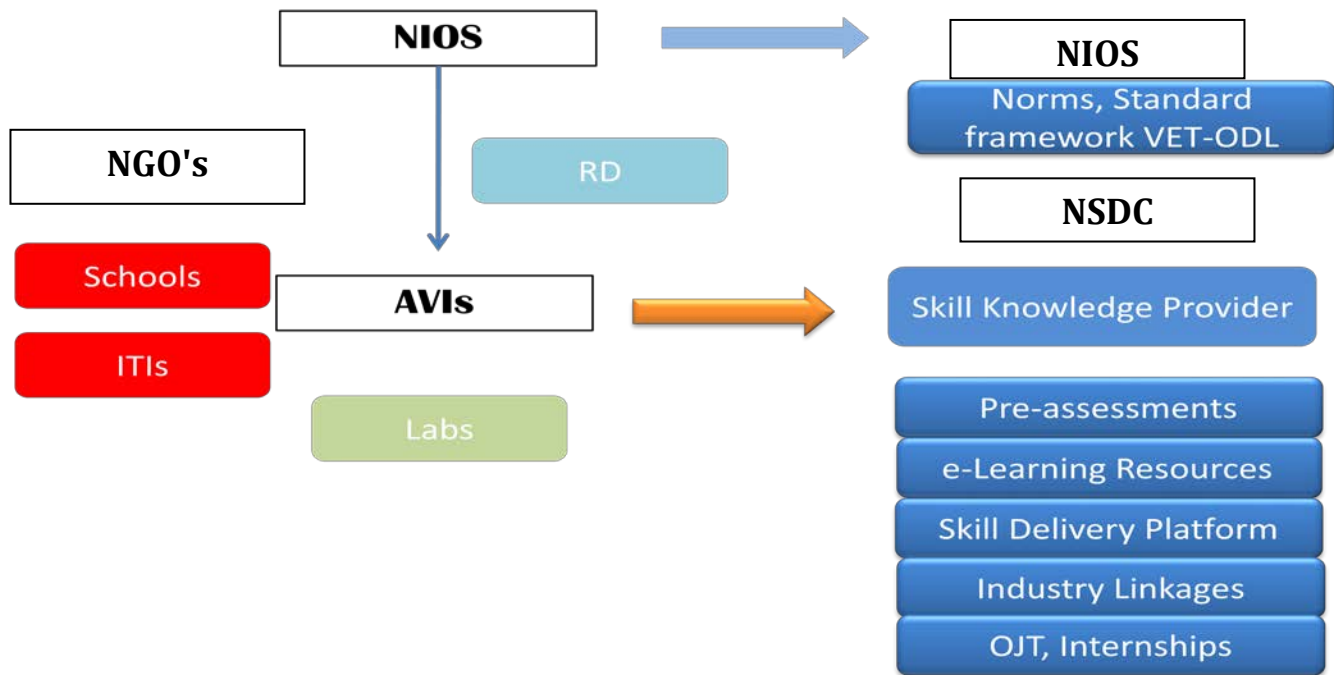
- F2F Coaching is a need, the duration may be made flexible to suit the learners, availability of resources
- This shall be augmented with technology based learning
- Continual up-gradation of teacher trainers is a must, this will enable them to acquaint with new development

**Implementation issues**

- Robust Institutional Structure for VET within ODL system
- Key stakeholders to be in place within the NIOS Ecosystem

- Roles of each of the stakeholders to be listed before the implementation
- Linkages with existing & new institutions to be defined
- Final framework for implementation
- Role for academic delivery
- Type and scope of industry participation
- Stakeholders participation with specific roles & confined
- Linkages: NIOS-SSC/ NSDC/ Industry Partners & SSP – Skill Service Providers

**Institutional Governance Structure for Curriculum Transaction**





**Group-B** Comprised of Rekha Menon, Wadhvani Foundation, G.G. Saxena, CEO, Delhi Tourism, K.K. Agnihotri, Govt. Of Haryana, Ajay Mohan Goel, Wadhvani Foundation, Sanyam Bhardwaj, NIOS made their presentation on "**LEARNERS SUPPORT OF THEORY AND PRACTICE**".

Their recommendations were in two parts i.e. learner's support for theory & learner's support for practice. Highlights of their presentations were:

**Support For Theory can be provided using :**

- Printed self learning study material
- Support through cloud
  - (Website, U- tube, Khan Academy based Modal, O.E.R, etc.)
- Support through video transmission
- Support through audio broadcast
- Support through community
- Teleconferences
- 24 x 7 services through LSC, subject experts
- Local resources by creating Local knowledge centre with the help of local plumber, electrician , old learners, experts, Industries , Families etc

**Support for practice can be provided using:**

- Existing infrastructure of AVI's

- Existing infrastructure of other similar institutions
- Infrastructure of industries
- Mobile labs with all infrastructure including ICT
- Local infrastructure like carpenter shop etc.
- Videos through various modes
- Specialized labs for advanced training
- Simulation labs
- Specialized practical manuals

In addition to this following can also be done

- Social auditing of the courses
- Continuous efforts to convert materials in ICT
- Use of existing infrastructure
- Specific courses for specific places
- Use of Goggle + like software
- Peer learning
- Any other suggestion by other group



**Group C** comprised of Dr Mamta Srivastava, Dr Ashok K Gaba, Mr. N Balasubramanian, Srividya, Rajiv Mathur titled **Inputs on Learner Assessment – Theory and Practice**. Highlights of their presentations were:



- Current assessment system for VET courses – Haryana Model
- Assessment System should remain same thru' ODL system
- Few trades can have complete online assessment:
  - IT-ITeS
  - Retail
  - BFSI
  - Sales portions associated with Telecom, Gems and Jewelry

Portfolios and e-Portfolios are used in formative/Continuous assessment of practical work

- The suggested ratio is 20:30:50
- 20: is CCE by the skill trainer
- 30: is Theory Assessment by NIOS – inputs from SSC
- 50: is Skills Assessment by SSC and joint certification by NIOS and SSC
- Additional safeguard – 3 months OJT evaluation

Can on-demand examination with a large item-bank be visualized for open schooling in VET

- Yes – in a phased manner
- Model – Insurance Agents of Insurance companies
- Equivalence – SSC certified Assessors with limited assessment license – on QP based assessment model
- possibility for developing a large repository of assessment items especially for testing of skills

- Data Bank/ Assessment Items – by series of workshops involving SSC, Industry experts, Academicians and Soft Skill Experts



**Group D** comprised of Lt Gen S S Chahal, Shri Asim K Bhattacharya, Prof Vinay Pathak, Dr K P Wasnik , Ms Shivali Chawla, Prof Santosh Panda

Titled **Marketing, Management, Networking & Collaboration, Quality Assurance**. This group suggested a tripod model comprising the role of NVEQF, SSC, ODL. Factors to be considered in for the framework involved What, How, How far, with what effect covering the areas of Marketing, Monitoring, Management, Networking & collaboration, Quality assurance.

Marketing strategy could be based on skill-gap analysis & well supported by AVIs which are accredited by SSCs supported by assessment bodies (with adequate infrastructure, experts, assessment tools etc). Thus Marketing by NIOS in collaboration with AVIs and SSCs wherever possible is considered.

Monitoring should be done at two levels: Institutional and Academic. At Institutional level NIOS could be monitored by NSDC, AVI could be monitored by SSC & NIOS, SSC could be monitored by NSDA. At academic level monitoring could be done by skill gap analysis, curriculum

development, MMLR, Delivery, assessment & certification.

Further monitoring tools such as

- 360 degree appraisal of the AVI (where students, parents, external examiner's/ interviewers may be asked to provide feedback.)
- Annual performance reports of Enrolments, Financials, Placements of students, Social audit
- Surprise inspection with videography
- Mandatory disclosure reports on website
- Tribunal for grievance redressal



### QA & Accreditation

- Internal QA of all processes—parameters/ indicators/ best practices in place—transparent—continuous process reports on web site.
- Quality manual for inputs, processes, outcomes.
- Accreditation of each AVI by SSC for each sector.
- Tripartite Team: SSC-Experts from industry & academia-NIOS.

- The benchmark and quantification of accreditation value/ outcome needs to be categorically specified (Be system-oriented = mix of sectoral requirements and ODL requirements).
- Could be a possibility of multiple recognized accrediting agencies for institutional choice.
- Assessment as benchmark for validating 'training'.
- Assessment tools/ devices to be validated by SSCs responsible for accreditation.
- Assessment bodies to use assessment tools.
- Training provider not to be the assessor.
- To be undertaken by tripartite team—SSCs-Experts-NIOS.

### Role of NIOS

- Assessment and QA framework and parameters for all other institutions including SOSs.
- NIOS as apex body through NCOS.
- NIOS to develop institutional digital repository to be used by all—ODL and formal.
- To liaise with TOPNZ for strengthening resource material base and other aspects.
- NIOS to liaise with COL/ CEMCA for capacity building/ professional development and for developing models for VET for open schooling.

**Conclusion:** Professor Menon summarized the two days work and suggested to incorporate the issues

that were raised by the participants and will modify the paper for the implementation. He

thanked all the participants for a very lively workshop.



Group photo of the workshop participants

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**National Institute of Open Schooling  
&  
Commonwealth Educational Media Centre for Asia**

**“Developing Implementation Strategy for NVEQF in  
Open Schooling in India”**

20-21 June 2013

**List of Participants**

<b>S. No.</b>	<b>Name and Affiliation</b>
1	Dr. Sitansu S. Jena, Chairman National Institute of Open Schooling (NIOS)
2	Dr. K.P. Wasnik Director, Vocational Education , National Institute of Open Schooling (NIOS)
3	Dr. Mamta Srivastava, Dy. Director, National Institute of Open Schooling (NIOS)
4	Regional Director NIOS, Kochi
5	Dr. Sanyam Bhardwaj, Director ( SSS) National Institute of Open Schooling (NIOS)
6	Ms Shivali Chawla AO ( SP) NIOS
7	Ms Radhika B AO ( IT), NIOS
8	Dr. Sanjaya Mishra, Director, Commonwealth Educational Media Centre for Asia (CEMCA) 13/14 Sarv Priya Vihar New Delhi 110016
9	Dr. Ashoka Gaba Associate professor, Indira Gandhi National Open University Maidan Garhi, New Delhi – 110068

10	Dr. Santosh Panda Professor, STRIDE Block No. 14, Indira Gandhi National Open University Maidan Garhi New Delhi-110068
10	Mr. Rajiv Mathur Principal- Standards and QA National Skill Development Corporation Block – A Clarion Collection, (Qutab Hotel) Shaheed Jeet Singh Marg. New Delhi- 110016
11	Mr. N. Balasubramanian CEO, Automotive Skills Development Council(ASDC), Core 4-B, 5th Floor, India Habitat Centre, Lodhi Road, New Delhi - 110003
12	Lt Gen S S Chahal CEO, Security Knowledge and Skill Development Council 305 city court Sikenderpur MG Road Gurgaon, Haryana
13	Dr. B. Chandrasekar Vice President IL&FS Skill Development Corporation Ltd. (a JV of NSDC) IL&FS Education Technology Services Ltd. 2nd Floor NTBCL Building, Near DND Flyway, Next to Toll Plaza NOIDA 201301
14	Mr. P. Anil Prasad Under Secretary (Lifelong Learning Strategy and Systems Development) Additional Skill Acquisition Programme Higher Education Department Government Secretariat Government of Kerala Thiruvananthapuram 695001
15	Mrs Sudha Chandra Dy General Manager (HRD) ITDC C-12/A, Qutab Institutional Area New Delhi – 110 016
16	Mr. S. Ganesh Programme Head Mc Graw Hill educational Services India (P) Ltd; B-4 Sector 63, Distt Gautam Budh Nagar NOIDA UP 201301

17	Mr. Ajay Mohan Goel Director – Skills Wadhvani Foundation 294, Sector 15-A NOIDA – 201301 (UP) Mobile: +91 9910495444
18	Dr. Vinay Kumar Pathak Vice Chancellor Vardhaman Mahaveer Open University Rawatbhata Road Kota – 324 010 Rajasthan
19	Prof. Ram G. Takwale Former Vice Chancellor, IGNOU 162/4A Naveli Anapurna Housing Society D. P. Road, Aundh Pune – 411 007 Maharashtra
20	Smt. Surina Rajan, IAS Secretary of School Education Government of Haryana, Department of School Education Room no. 207, 2nd Floor New Civil Secretariat Building, Sector-17, Chandigarh – 160001 HARYANA
21	Mr. K.K. Agnihotri Additional Director (NVEQF & TE) Government of Haryana, Department of School Education Room no. 207, 2nd Floor New Civil Secretariat Building, Sector-17, Chandigarh – 160001 HARYANA
22	Shri Asim Kumar Bhattacharya Joint Secretary, Govt. of W.B., School Education Department, 6th Floor, Bikash Bhavan, Salt Lake City Kolkata – 700091WEST BENGAL
23	Sh. G. G. Saxena, Managing Director, Delhi Tourism 18-A,D.D.A., SCO Complex, Defence Colony, New Delhi – 24
25	Ms Namita Dalmia Central Square Foundation 301, Golf Apartment Sujan Singh Park New Delhi-110003

26	Prof. Bhavani B. Director, AMMACHI Labs Amrita University Amritapuri, Kollam Kerala 690 525
27	Prof. Mohan Menon Assistant Vice- Chancellor Wawasan Open University 54, Jalan Sultan Ahmad Shah 10050 Penang Malaysia

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**Workshop Agenda**

<b>20 June 2013</b>			
Time	Nature of Session	Theme	Outputs
8.30-9.00		<b>Registration</b>	
9.00-10.00	Plenary: Opening Session	Welcome: SS Jena (5mts) Introduction to the Workshop: Sanjaya Mishra (10mts) Self-introduction by participants: (10mts) Keynote on “Skill Development & Adult Learning” Prof. R.G.Takwale, Former VC IGNOU (30mts) Announcements regarding logistics: (5mts)	
10.00-11.00	Plenary: Background Presentations	1. NVEQF- salient features and expectations- Sh. Rajiv Mathur, NSDC / 2 Vocational Education & Training-Formal system- Case -1 Mr. K.K. Agnihotri, Haryana NVQEF/ Ms. Surena Rajan, Secretary Education, Govt. of Haryana 15 mts 3 Vocational Education & Training – Formal system-Case -2 Dr. B. Chandrasekar , ILF&S New Delhi 15 mts	Available best practices and models
<b>11.00-11.30 Tea/Coffee break</b>			
11.30-1.00 pm	Plenary: Background Presentations	1. NVQEF & Open Schooling: Dr. S.S.Jena (15mts) 2. Vocational Education in NIOS: Dr. K.P.Wasnik ( 20+10mt) 3. Recognition of Prior Learning- Dr. Mamta Srivatsava (NIOS)- 30 mts (20+10)	
<b>1.00-2.00 pm Lunch break</b>			
2.00-3.00 pm	Plenary:	NVEQF Implementation Strategy for Open Schooling- Concept paper- Mohan Menon- 30mts Discussion-30 mts	Proposed strategy
<b>3.00-3.30 pm Tea-coffee break</b>			
3.30--5.15pm	Break away sessions	Group-1: Resource and Materials Support for curriculum transaction Group -2: Learners support -- theory and practice Group -3: Learner assessment-theory and practice Group -4: Managing open schooling systems for VET (Place of innovative practices involving ICT to be discussed under all sub-themes)	
5.15-	Plenary	Wrap up for the day	



5.30 pm			
<b>21 June 2013</b>			
8.45-9.00	Plenary	Review of Previous Day's work	
9.00-11.00 am		Presentation of Group Reports and general discussion	
<b>11.00-11.30 Tea/Coffee break</b>			
11.30-1.00 pm	Plenary	Curricular Needs and Requirements based on NVEQF of MHRD- Issues and Challenges in an Open schooling system- Brainstorming- Anchor- Mohan Menon	Curricular and pedagogic alternatives
<b>1.00-2.00 pm Lunch break</b>			
2.00-3.30 pm		Consolidation of thoughts from all Groups to be incorporated to the Final Document- Mohan Menon	
<b>3.30-4.00 pm Tea-coffee break</b>			
4.00-5.30 pm	Plenary	Concluding Session	
<b>22 June 2013</b>			