

Report



Foundation Day Celebration

5th July, 2017

SEMINAR ON UPSKILLING OF VOCATIONAL TEACHERS IN THE 21ST CENTURY



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PSS CENTRAL INSTITUTE OF VOCATIONAL EDUCATION, NCERT, BHOPAL

Foundation Day Celebration 5th July, 2017

SEMINAR ON UPSKILLING OF VOCATIONAL TEACHERS IN THE 21ST CENTURY

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PSS CENTRAL INSTITUTE OF VOCATIONAL EDUCATION, NCERT, BHOPAL

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Introduction

Skills development (also referred to as vocational education and training) for economic growth has been identified as a priority area in our educational policy and practice. There are overwhelming evidences to demonstrate that VET plays an essential role in promoting sustainable growth and the socioeconomic development, with benefits for individuals, their families, local communities, and society in general. Improving VET for work helps to empower our youth and citizens with more choices in their lives, alleviate poverty, and helps individuals who would otherwise be marginalized. Vocational education and training, therefore, has a major role to play in achieving inclusive and sustainable growth in the 21st century. For India to enjoy the fruits of the demographic dividend, there is an urgent need to redefine the critical elements of imparting VET to make it more flexible, contemporary, relevant, creative and inclusive.

Appropriate policies and practices for skills development currently occupy a dominant place in the development discourse. As we examine the growth models to consolidate our positions in the global economy, availability of a highly skilled and technically qualified human resource base will become crucial determinant of our success in economic growth. Vocational teachers are the most significant stakeholders in spearheading the implementation of the curriculum of VET and their role starts from guiding the students in making the right choice till preparing the students as responsible and productive citizens of the country. Vocational teachers and trainers face numerous challenges in delivering competency-based education and training and conducting competency based assessment procedures on well-defined learning outcomes to prepare their students on skill standards set by the Industry or Employers.

The radical changes in the skill development policies and programmes warrant specialised professional training, retraining and upskilling of the vocational teachers and trainers. There is a need to prepare students for the new realities of the workplace and labour market by ensuring that the skills imparted are attuned to the changing labour market requirements. The vocational teachers or trainers of the future will have to prepare themselves to meet the new and emerging challenges in skill development, especially in view of the policy directions and implementation challenges. Vocational teachers need upskilling so that they acquire necessary skills set in guiding and preparing the students for the 21st Century skills.

The PSS Central Institute of Vocational Education (PSSCIVE), a constituent unit of National Council of Educational Research and Training (NCERT) under MHRD, Government of India organized a Seminar on Upskilling of Vocational Teachers in the 21st Century against the background of the emerging global challenges regarding the climate change, growing unemployment among graduates, including youth, women, and people belonging to the marginalized group. The Seminar was organized to provide an opportunity for discussion on emerging

trends, challenges and experiences on the educational and training dimension of upskilling Vocational Teachers in the 21st Century. It portrayed the beginning of the Silver Jubilee celebrations of the PSSCIVE, as the Institute has completed "24 Years" of service to the nation. An exhibition of the publications of PSSCIVE was also organized during the Seminar.



Objectives of the Seminar

The objectives of the seminar were as follows:

- To provide insights on the emerging trends and developments in Vocational Teachers Development;
- To examine issues and challenges in Upskilling Vocational Teachers in the 21st Century; and
- To share good practices and approaches for Upskilling Vocational Teachers in the 21st Century within VET system.

Themes of the Seminar

The broad themes of the seminar were as follows:

- Emerging Trends and Challenges in Vocational Teachers Development
- Vocational Teachers Development in 21st Century: New Perspectives & Approaches

Participants

Participants of the seminar included academicians and professionals from NITTTR, AISECT, CRISP, RIE, PSSCIVE, Demonstration Multipurpose School, and students from Regional Institute of Vocational Education.

Inaugural Session

Welcoming the guest and participants of the Seminar, Prof. Rajesh P. Khambayat, Joint Director, PSSCIVE stated that by 2025, around 70% of the workplace will be occupied by millennium people and highlighted the need for skilling people in order to harness the demographic dividend and to fulfill the requirements of the rising globalisation. The skill development strategies need to change and adjust to changes of the labour market. The major challenges are the youth un-employment and youth employability. The vocational education has a major role to play in meeting the skill demands of the industry and the labour market. He informed that the Indian Prime Minister has emphasized on the skill development and called for skilling at a scale and speed. The challenges that today's teacher faces is to make students learn and prepare them for the future. The role of Vocational Teachers is very important as they are the change agents. We, therefore, need to upskill our teachers and therefore this Seminar has been organised to address the challenges in upskilling of vocational teachers and to generate new ideas and approaches.

The Chief Guest of the Seminar Prof. C. Thangraj, Director, National Institute of Technical Teachers Training and Research (NITTTR), Bhopal opined that the teachers face redundancy if they do not sail along the stream and change with the teaching paradigm and technology. Teachers need to upgrade their skills to adapt to the paradigm shift happening across the globe, especially with regard to the development of vocational skills. He expressed his concern over the depletion of natural resources and suggested that Vocational Teachers should teach students about sustainable development and global warming and



develop green skills to address the issue of green economy. This is to be taken care of when we are designing the curriculum. We need to include process skills, technical skills and employability skills. We need to understand the limitations of the formal education and make necessary changes in order to promote green skills and green economy.

The Guest of Honour Prof. N. Pradhan, Principal, Regional Institute of Education, Bhopal stated that the culture of skill development is lacking in schools and we need to change this culture to make vocational education popular. The high dropout rate at the upper primary stage is resulting in the entry of students into the world of work. Around 20 million children drop out at the elementary stage. Formal vocational training is available to only 2.5 million students and there are weak linkages between the VET Institutions and Industry. The curricula developed by PSS Central Institute of Vocational Education are as per the job roles and are designed to reduce the mismatch between the demand and supply of skills. India has the largest youth population and also the unemployed youth in the world. Therefore, steps need to be taken to provide necessary opportunities for skilling people in employability skills. Vocational teachers are poorly equipped in vocational skills and therefore, the Ministry of Human Resource Development and Ministry of Skill Development and Entrepreneurship are emphasizing on upskilling teachers to implement an integrated programmes of general education with vocational education.



Prof. N. Pradhan appreciated the efforts made by the faculty members of PSSCIVE for developing 50 competency based curricula and around 100 courseware including student workbooks and teacher handbooks. He stated that the Institute is not only developing curricula and courseware through the working group meeting of experts but is also vetting curricula developed by

other organizations. Referring to his visit to South Korea, he stated that the Meister schools which offer industry oriented vocational courses have a classroom of 20 students, direct linkages with the Industry in implementation of vocational courses, teachers from the Industry and well-established workshops / laboratories and learning centres. These institutions have the autonomy of conducting examinations and issuing certificates. He further stated that the Institute is exploring the possibility of introducing vocational subjects and short duration vocational courses under the NSQF in the Demonstration Multipurpose School of NCERT at Bhopal. He informed that a Memorandum of Understanding has been signed between NCERT and Academy of Korean Studies, South Korea to work on establishing a Vocational Demonstration School at PSSCIVE, Bhopal.

Speaking on the occasion, the former Joint Director of PSSCIVE Prof. S.Z. Haider emphasised the need for providing vocational education to all. He also expressed his concern over the rampant unemployment in the country and stated that block level institutes should be established for imparting vocational education and training.



PLENARY SESSION 1: Emerging Trends and Challenges in Vocational Teachers Development

Presentation by Guest Speakers

Presentations on various topics related to the Emerging Trends and Challenges in Vocational Teachers Development and ICT as a tool for teachers were made by Dr. V.H. Radhakrishnan and Dr. D.S. Karaulia from NITTR, Bhopal, Mr. Alok Modi from Madhya Pradesh Council for Vocational Education and Training, Bhopal, Mr. Mukesh Sharma, Center for Research and Industrial Staff Performance, Bhopal, Mr. Siddharth Chaturvedi, All India Society for Electronics & Computer Technology (AISECT), Bhopal.

Topic: Emerging Trends and Strategies for Developing Competencies of Vocational Teachers

Speaking on the topic, Dr. V. H. Radhakrishnan, Professor, Dept. of Civil and Environment, NITTTR, Bhopal opined that the role of teacher and the context of teaching have changed. To qualify, teachers must acquire the more complex competencies that underlie the new professionalism of the teaching profession. Flexible, modular and open ended learning should be promoted for upskilling teachers. Vocational Teachers should be competent in using technology (ICT/ONLINE/MOBILE) in learning and



assessment and must be well versed and competent in Industry/ world of work related abilities and performance requirements. Constructivist approach with Interactive and collaborative learning using learning outcomes and competency approach should be adopted by the teachers. Greater emphasis in training of teachers must be placed not only on a better integration between theoretical and practical courses, but also between practical courses and the actual conditions in which teaching is done. Training should be such that the teachers are able to develop abilities to do multiple tasks and duties in their professional setting with mastered competencies of vocational teachers. The emphasis in teaching professionals shall be on the criteria of implementing the best possible means, in the context, to encourage students to learn. VET system has to be responsive to new learning requirements of students and industry demands while making use of technological advances- i.e. technology enabled learning and assessment.

Topic: New Initiatives in Vocational Teachers Development

Mr. Alok Modi, Senior Consultant, Madhya Pradesh Council for Vocational Education and Training, Bhopal made a presentation on New Initiatives in Vocational Teachers Development and stated that the vocational courses through which one gains skills and experience directly linked to a career in future should be offered in such a way that they serve as a medium for acquiring the necessary skills for gainful employment. He stated that in today's context, time management and meeting deadlines play an important role in the employee's performance and productivity. Students normally produce a portfolio of evidence (plans, reports, drawings, videos, placements), which is taken as a demonstration of students' capabilities for a job. Teachers have to

empower them with necessary skills for assessment of competencies of students. He stated that vocational education has diversified and now exists in industries such as retail, tourism, information technology, funeral services and cosmetics, as well as in the traditional crafts and cottage industries. There is a need to harness the demographic dividend and prepare quality workforce. Greater choices need to be given to the youth through skill development programmes. The sustainability of vocational



education depends on the availability of infrastructure, tools and equipment and technology platform. Continual training of Vocational teachers and trainers through skill development programmes should be organised for alignment of their competencies to industry requirements. He suggested that National portal as a repository and registration database for all certified and interested trainers/assessors should be created so that the training providers and assessment bodies are benefitted. There should be a system of accreditation, quality control and quality assurance of training of teachers/trainers.

Topic: Skilling Youth for 21st Century Skills

Mr. Mukesh Sharma, Managing Director, CRISP, Bhopal opined that the skill training programmes are generally designed by management experts instead of subject experts, who always think in terms of time management. Therefore, short duration courses for skilling people are mostly designed and offered by VET Institutions. Global technicians can not be prepared in 2-3 months duration, therefore, long term courses should be introduced for quality skill training. Designing of the vocational courses should take place keeping in view the qualification of the trainees.



PLENARY SESSION 2: Vocational Teachers Development in 21st Century: New Perspectives and Approaches

Topic: Using ICT for Upskilling of Vocational Teachers

Dr. D.S. Karaulia, Professor, Department of Computer Engineering and Application, NITTR, Bhopal informed about the government initiatives in information society, knowledge economy and digital literacy. He opined that there has been a fundamental shift in the way the various tasks are being conducted in the world of work. He suggested that flexible and blended learning should be used for curriculum integration and assessment. ICT can be optimally used for meeting the learning needs of children with special needs, therefore, teachers should be trained in the application of ICT tools. The various delivery modes that can be used are synchronous and asynchronous learning, individualized, contact mode, in-campus and network or web-based learning. Referring to the Government of India's initiatives such as NPTEL online courses, virtual laboratory, audio tutorials, National digital library, online courses SWAYAM Massive Open Online Courses, etc. he suggested that such platforms should be utilized by the vocational teachers for upskilling and enhancing their knowledge in their subject field.



Topic: Good Practices in Upskilling of Vocational Teachers

Mr. Siddarth Chaturvedi, Director, All India Society for Electronics & Computer Technology (AISECT), Bhopal informed that the AISECT is working with 11 States in the implementation of the vocationalisation of education in 645 schools. Sharing the experiences of AISECT, he stated that there are 22 Sector Skill Council Certified Master Trainers and more than 100 Certified



Vocational Trainers in 52 State and Regional Offices of AISECT across India. He informed that in order to maintain the quality of vocational trainers, training of trainers should be done on competency standards and quality of vocational training should always be maintained.



The vote of thanks was proposed by Prof. Vinay Swarup Mehrotra, PSSCIVE, Bhopal.

Summary and Conclusion

The Seminar on upskilling of vocational teachers in the 21st Century was organised to understand the emerging trends and challenges in Vocational Teachers Development using new ideas and approaches. Presentations by the seminar speakers provided a deeper understanding about recent trends, challenges, reforms and innovations taking place in teacher education and training. It was highlighted that there is a need to bring policy reforms in teacher education and training for upskilling of teachers in India.

Vocational Teachers will have to upgrade their skills to adapt to the paradigm shift happening across the globe, especially with regard to the skills development. Teachers need to be competent in using ICT technology tools in teaching- learning and will have to be given opportunity for professional development in line with the technology advancement.

In addition, Vocational teachers will have to be equally competent in giving training by using a combination of skills – teaching, training, mentoring and counseling. Moreover, there is a need to introduce the concepts of sustainable development and green skills to Vocational Teachers to address the issue new workforce development for the green economy. Flexible, modular and open ended learning is likewise essential for upskilling teachers in the 21st Century.

PROGRAMME SCHEDULE

Inauguration: Lighting of the Lamp **10:00 to 10:10 AM**

Welcome Address: Prof. Rajesh P Khambayat **10:10 to 10:20 AM**

Felicitation of Guests **10:20 to 10:30 AM**

CHIEF GUEST:

Prof. C. Thangaraj

Director,

National Institute of Technical Teachers Training and Research (NITTTR), Bhopal

GUEST OF HONOUR:

Prof. N. Pradhan, Principal,

Regional Institute of Education, NCERT, Bhopal

Address by Guest of Honour **10:30 AM to 10:40 AM**

Address by Chief Guest **10:40 AM to 11:00 AM**

Tea Break **11:00 AM to 11:10 AM**

Speech on the Objectives of

the Seminar: Prof. Vinay Swarup Mehrotra **11:10 AM to 11:20 AM**

PLENARY SESSION 1: Emerging Trends and Challenges in Vocational Teachers Development

Emerging Trends and Strategies for Developing Competencies of Vocational Teachers

Dr. V. H. Radhakrishnan, Professor, Department of Civil and Environment,
NITTTR, Bhopal

Time: 11:20 AM to 11:40 AM

New Initiatives in Vocational Teachers Development

Mr. Alok Modi, Senior Consultant, Madhya Pradesh Council for Vocational
Education and Training, Bhopal

Time: 11:40 AM to 12:00 NOON

Skilling Youth for 21st Century Skills

Mr. Mukesh Sharma, Managing Director
CRISP, Bhopal

Time: 12:00 NOON to 12:20 PM

PLENARY SESSION 2: Vocational Teachers Development in 21st Century: New Perspectives & Approaches

Using ICT for Upskilling of Vocational Teachers

Dr. D.S. Karaulia, Professor, Department of Computer Engineering and Application, NITTTR, Bhopal

Time: 12:20PM to 12:40 PM

Good Practices in Upskilling of Vocational Teachers

Mr. Siddarth Chaturvedi, Director, All India Society for Electronics & Computer Technology (AISECT), Bhopal

Time: 12:40 to 01:00 PM

Discussion and Interaction Session

Time: 01:00 PM to 01:30 PM

Felicitation of Guest Speakers

Time: 01:30 PM to 01:40 PM

Vote of Thanks

Time: 01:40 PM to 02:00 PM



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