



दीप से दीप जले



Virtual National Workshop on Development of Learning Resources in Science and Mathematics Education

Every Saturday

February, 2021

**Under
the Aegis of
IASE Programme
2020-2021**

Department of Education (CIE)

University of Delhi

33' Chhatra Maarg,

New Delhi –110007

About University of Delhi

The University of Delhi is a premier university of the country with a venerable legacy and international acclaim for highest academic standards, diverse educational programmes, distinguished faculty, illustrious alumni, varied co-curricular activities and modern infrastructure. Over the many years of its existence, the University has sustained the highest global standards and best practices in higher education. Its long-term commitment to nation building and unflinching adherence to universal human values are reflected in its motto: 'Nishtha Dhriti Satyam'.

Established in 1922 as a unitary, teaching and residential University by the Act of the then Central Legislative Assembly. Beginning with three colleges and 750 students, it has grown as one of the largest universities in India with 16 faculties, over 80 academic departments, an equal number of colleges and over seven lakh students. Over 500 programmes offered by the University are approved by Academic and Executive Councils, out of which 209 programmes are being considered for NAAC accreditation purpose. The rest being run in colleges are separately accredited.

About Department of Education (CIE)

The Department of Education, University of Delhi, earlier known as CIE, is perhaps the first major institution of professional learning and research in Education that was established since independence. The first Prime Minister of India, Pandit Jawaharlal Nehru and his first Education Minister, Maulana Abul Kalam Azad took considerable interest in its establishment in 1947 and activities and progress in those early years.

Over these past decades, the Department has indeed grown into a pace-setting institution in Teacher Education and Educational Research. Recognized as the Institute of Advanced Studies in Education (IASE) and having launched the Maulana Azad Centre for Elementary and Social Education (MACESE), the Department has shaped its unique philosophy, which finds reflection in its all the programmes through inculcating core values of democracy, freedom, dedication, creativity, social responsibility, diversity, inclusion, collaborative and experiential learning, innovation, sincerity and excellence.

Concept Note

The principle goal of science and mathematics education is to create an individual who could be capable of critically analyses any phenomena. The National Curriculum Framework (2005) recommended that classroom knowledge should derive from children's experience and enable them to construct knowledge that present a great challenges and opportunity to bring desire changes in a systematic manner. NCF (2005) also focuses on issues with respect to science and mathematics teaching in India, firstly, science and mathematics education is still far from achieving the goals of education, secondly science and mathematics education even at its best, develops competence but does not encourage inventiveness and creativity, thirdly, overpowering examination system is a fundamental problem for science and mathematics education in India. The definitions and objectives of science and mathematics as discipline may be documented very well but perhaps need to be understood by practitioners.

Educators have always been in search of more potential ways of instruction to help students learn effectively. In recent years, educators have suggested various directions for the improvement of teaching and learning. Beginning with demonstrations, enquiry, discovery and problem-solving techniques, educators have suggested constructivism in the classrooms as an interpretative

process involving individual's construction of meanings related to specific occurrences and phenomena. New constructions are built through their prior experiences/knowledge and it is a pedagogic challenge for the teacher to focus on student's learning with understanding.

The purpose of this workshop is to explore the major concerns and challenges faced by the learners during the process of concept building. The pedagogical practices adopted by the teachers and teacher educators in the class room is the major concern, and should be analysed on the bases of learners' achievements or learning outcomes. In this workshop our focus is to explore the challenges and concerns arise during the conceptualization of the subject content. This Workshop will provide an opportunity for researchers, prospective teachers and in-service teachers to understand the vision and goals of teaching mathematics and science, and enable them to develop learning resources which assist them in teaching-learning process. It would be a resource support for practitioners to make their teaching meaningful. The assessment and evaluation are the integral components of teaching learning process. They not only provide feedback about learner, but also about the effectiveness of curriculum, programmes and policies. An assessment is authentic, if the assessment procedures match with what children are learning, and also children should get opportunity to express their learning

in multiple ways. One of the objectives of this workshop will be to explore the best practices of assessment to be followed specifically in science and mathematics respectively. It will also provide an opportunity to teacher educators, student teachers and research scholars across the country to disseminate their experiences for the same in the field of science and mathematics education.

The main themes covered under the National Workshop on Development of Learning Resources in Science and Mathematics Pedagogies will be as under:

- **Pedagogical innovations and practices in Science and Mathematics Education at school level.**
- **Identification and development of resources in Mathematics and Science Education at school level.**
- **Pedagogical strategies in terms of specific lesson plans, activities and projects for effective teaching in Science and Mathematics Education**
- **Significance of Laboratory Work in Science and Mathematics Education**

Registration: Form for In-service Teachers:

https://docs.google.com/forms/d/e/1FAIpQLSfDOMRmHnUtAep1EnOVdBxb6nDyyx-cux-Eza2Oowx92ca_wlkw/viewform?usp=sf_link

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