

## EDITORIAL

This special issue of *School Science* includes selected review articles and research papers which were presented during the conference 'National Conference on Science Education' held at the Regional Institute of Education, Ajmer from 24 to 26 November, 2016. There are 25 research papers and review articles in all.

In the article '*Science Learning Through Experimentations*', the author highlights the process of science learning through experimentation, in which a robust ecosystem for active learning is promoted as it uses the inherent curiosity of children.

The next research paper studies 'Awareness of Education for Sustainable Development among Class IX Students of Yadadri Bhuvanagiri District in Telangana' and recommends that education for sustainable development be given more weightage in the school curriculum and related activities be organised in the school throughout the year for more awareness.

The research paper 'The Effectiveness of Hands-on Activity Teaching in Learning Acid and Base Concepts at the Secondary Level' infer that students taught through investigative hands-on activity approach learned better and there is a significant increase in understanding of the concept of acids and bases than among the students taught in traditional way.

'To Study the Effect of 'Live' Miraculous Demonstrations on Increasing Interest in Chemical Sciences', clearly highlights that live

experiments can boost student's eagerness to learn chemical sciences.

'*A Study of Students' Conceptual Understanding of the Content of EVS at the Primary Stage*' highlights a considerable difference in conceptual understanding of EVS between two groups of students studying in Hindi and English medium schools.

'Effectiveness of Digital Technology on Biology Learners at the Secondary Level', reports a positive impact on the biology learning and enhances their fascination towards the subject and their zeal to learn.

'A Study of the Working Style of Different Types of Institutes and Attitude of Entrant Science Students of Class XI', highlights increasing tendency of students entering Class XI to join coaching institutes to crack competitive examinations due to the fear of unemployment.

In the paper 'Relation of Sustainable Development with Science Education and Human Needs and Greed', the authors attempt to find out the relationship of the two independent variables— science education and humans, future aspirations and plans for expenditure with one dependent variable— sustainable development.

The major findings of the research papers 'Availability of Science Laboratory in Schools at the Secondary Level' discuss the necessity of local resources and virtual laboratories for learning science and to bridge the gap of learning and understanding science at the school level.

The paper 'Live Zoology Beyond the Classroom: A New Era of Science Education' suggests that the live zoology concept allows capacity building of students to study organisms of the same and other species in their natural habitats without disturbing them.

'Learning of Flame Test Using a Low Cost Experiment' suggests the method of using of low cost reagents for qualitative analysis of some basic radicals.

The study 'Transcending Disaster Education: A Developmental Approach Ensuring Sustainability' focuses on harm caused by disasters to our environment and the study allows devising better ways to mitigate them by educating all about disasters and disaster management.

'Teaching of Science in Upper Primary Special Training Centres for Out-of School Children' is a presentation of successful intervention of science teaching with groups where science, based on relevant societal problems in interactive and laboratory activities, is taught.

'Study of Indicators on Acids and Bases' focuses on constructivist science classrooms where the role of students changes from knowledge gainers to knowledge constructors.

'Periodic Table as a Constructivist Model of Teaching-learning at the Secondary Level' presents a model for constructivist learning of periodic trends allowing students to apply critical thinking skills and to boost their mind.

'Science Education for Sustainable Development: A Theoretical Framework' highlights the role of science education in sustainable development and attainment of millennium development goals.

The studies 'Hands-on Activities Vs Multimedia Content in Science in Developing Pre-service Teachers' Competence' and 'Learning Science by Use of Innovative Hands-on Activities' reveal that students' achievement and teachers' competence was better when the science concepts were dealt using hands-on activities in teaching-learning processes.

The paper 'Sustainable Practice of Knowing Medicinal Plants through Environmental Education Theme Park at RIE, Ajmer' provides the elaborate description of eight plants of medicinal importance.

The research paper 'Liquid Hydrocarbon Fuel Collected from Waste Plastic by Using  $\text{CuCO}_3$  catalyst' presents a solution to the issue of plastic waste management by conducting pyrolysis of waste plastic bags.

The paper 'Science Education and Sustainable Development' critically analyses the factors causing environmental issues like climate change, global warming, ozone depletion, etc., and finds how to overcome these problems by inculcating scientific temperament among children.

In the present study 'Orienting Senior Secondary Physics Students about Measuring Conductivity of a New Material and its Applications' the conductivity of  $\text{PEO:NH}_4\text{ClO}_4$  (85:15 wt %) polymer complex was enhanced by addition of plasticiser, propylene carbonate, so that it becomes good material for the fabrication of a rechargeable solid state proton battery.

The article entitled 'Embedded, Laminated and Mounted Specimens of Plants and Animals' provides technique of embedded specimen as a replacement of the traditional

dry and soak specimen catering better understanding of the species.

The article on 'Innovative Heavy Metal Waste Disposal System: Modular Approach for Senior Secondary Chemistry Teachers' describes an approach to combat the hazards of laboratory waste by safe disposal of heavy metals.

In the paper 'Using Affinity Chromatography and Western Blotting - The Purification of Polyclonal Antibody from Rabbit Antisera', anti E. Coli lysate antibody was purified using affinity chromatography and the immunoactivity of the antibody was confirmed using SDS PAGE and Western Blotting.