Report on

Workshop on Improvisation

Let's Build

Organized by the

Physical Science Association

'SCIENTIA'

of
BNV College Teacher Education
Thiruvallam

Introduction

Workshop on Improvisation

Workshops on improvisation play a vital role in shaping the professional and creative abilities of teacher students. In today's ever-evolving educational landscape, teachers are expected not just to deliver content, but to inspire curiosity, adapt to diverse classroom needs, and make learning engaging and meaningful. Improvisation equips future teachers with these dynamic skills. Such workshops foster **creative problem-solving**, encouraging teacher trainees to think beyond textbooks and develop innovative teaching aids using locally available, low-cost materials. This becomes especially crucial in resource-constrained classrooms, where adaptability and imagination can transform learning experiences. In essence, a workshop on improvisation is more than just a training session—it's a journey into becoming a resourceful, responsive, and reflective educator.

"Let's Build"

The Physical Science Association of the BNV College of Teacher Education "Scientia 2024-26" conducted a Workshop on Improvisation named Let's Build on 2nd April 2025 at 01:30 pm for the B. Ed. Physical Science students under the leadership of eminent Science pedagogue Shri. K Suresh Kumar. Shri. K Suresh Kumar Sir is a national award-winning teacher and currently the State Coordinator for Teacher Training in the state of Kerala. The program was coordinated by the Vice Principal of BNVCTE, Dr. Sunikumari P M.

The workshop began with an inspiring address by Shri Suresh Kumar K, who emphasized the qualities of an excellent science teacher. He highlighted the importance of curiosity, adaptability, and innovation in classroom teaching and encouraged budding teachers to move beyond textbooks and foster experiential learning. Following the keynote, the session transitioned into a hands-on demonstration of improvised experiments in Physics and Chemistry.

First it was Burning ice with calcium carbide where the reaction between calcium carbide and water from melting ice produces flammable acetylene gas, which, when ignited, burns on the surface of the ice. The Pressure-Area Relationship was demonstrated with breaking a circular hole in coconut shell by banging it on a narrow-necked glass bottle. Further a plastic rainbow magic spring toy was used to show the properties of wave motion, longitudinal and transverse waves.

Everyday objects were used to identify the point of balance in irregular shapes, highlighting the concept of stability. By stacking two empty and one sand-filled ice-cream balls in a plastic

bottle, Shri. K Suresh Kumar Sir explained how to teach the concepts of centre of mass and gravity. Instead of using Newton Cradle Pendulum which would cost nearly Rs. 2000, he made use of four empty ice-cream balls in a kangoose thread to demonstrate the relation of force and momentum.

An improvised magnetic needle was assembled lively to display the effect of electricity in and magnetic field. This activity showcased how electricity can induce magnetic fields. Instead of using a tuning fork a hair massager was used to exhibit the relation between wavelength and frequency.

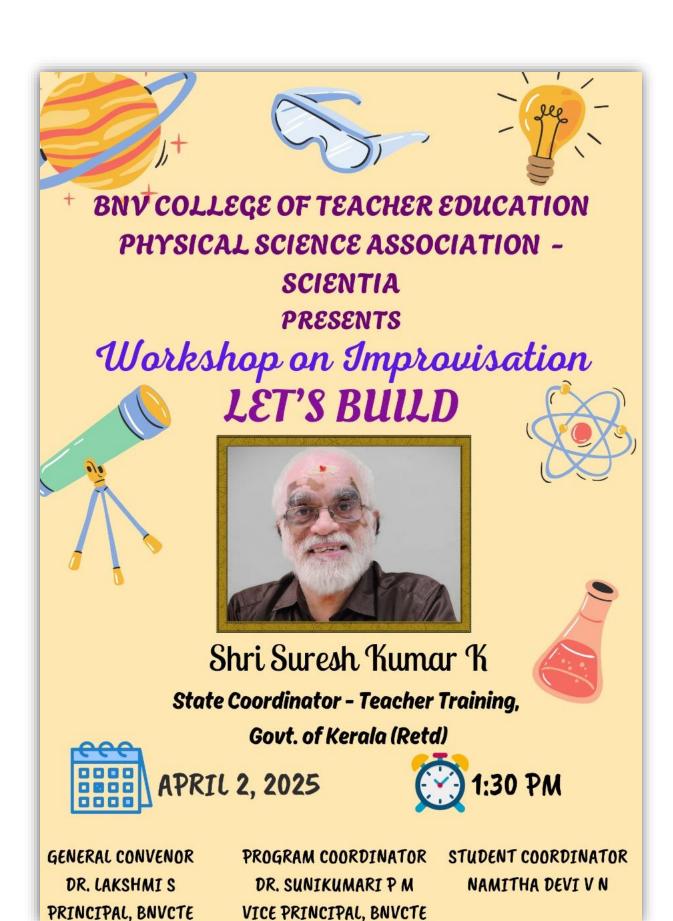
Shri. K Suresh Kumar Sir was the founder of TESLA - Total Empowerment for Science Learning Activities, a pedagogical laboratory which is completely dedicated to providing hands-on experiments in physics. He had brought a number of exhibits from the laboratory to demonstrate the working principles of several instruments. It included a practical demonstration of the behaviour of electrical circuits such as series and parallel connection in electricity. The working principle of transformer and solenoid was also explained for its functioning by correlating it with actual hydroelectric power station.

These improvised experiments provided the teacher students with creative and low-cost alternatives to teach essential concepts in Physics and Chemistry. The session encouraged critical thinking and hands-on learning, fostering a deeper understanding of scientific principles.

Overall, the workshop was a success, providing valuable skills and insights for future teachers. The participants left with a better understanding of how to implement improvisation techniques in their classrooms, creating more dynamic and engaging learning environments.

Interaction with D. El. Ed students

Following the "Let's Build – Workshop on Improvisation," an inspiring interactive session was held with the D. El. Ed students of BNV Teacher Training Institute, led by Shri Suresh Kumar K. The session focused on the evolving role of teachers, the significance of improvisation in primary education, and the need for creativity and empathy in teaching. Shri Suresh Kumar shared real-life experiences and practical tips to help the aspiring teachers build confidence, manage classrooms effectively, and make learning engaging using simple, locally available materials. The students actively participated, asking insightful questions and expressing their aspirations, making the session both enriching and motivational.



Poster of Workshop on Improvisation – Let's Build











