Association of Indian Universities

Sri Balaji Vidyapeeth

Academic & Administrative Development Center (AIU-SBVDU AADC)

Brief Report on Technology Enhanced Competency Based Medical Education

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Technology Enhanced Competency Based Medical Education

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The Association of Indian Universities - Sri Balaji Vidyapeeth Deemed to be University, Academic and Administrative Development Centre (AIU-SBVDU AADC) welcomes you to be part of the Theory and Practice of technology enhanced Competency Based Medical Education workshop. The sessions cover all aspects to enable faculty to implement CBME successfully, guided by well renowned and experienced resource persons. This physical workshop provides an excellent opportunity to all the medical educators to equip themselves with the use of innovative technology in implementation of CBME.

Objectives of the workshop:

By the end of this 5-day face-to-face workshop, participants will be able to:

- Understand the foundational concepts of Competency-Based Medical Education (CBME)
- Apply principles of Workplace-Based Assessment (WPBA) to evaluate higher-order thinking skills (HOTS)
- Integrate technology-enhanced digital tools such as LMS, FACE GT and E-Portfolios to support learning and assessment.
- Develop strategies to address the affective domain and AETCOM competencies
- Design personalized learning pathways and utilize tools like Exit OSCE and radar graphs for formative and summative assessments.
- Employ standardized patients and simulation-based learning technologies to enhance clinical training.

Introduction

A Five-Day Faculty Development Program (FDP) on **Technology Enhanced Competency Based Medical Education (CBME)** was successfully conducted at our medical college from **02 February 2026 to 06 February 2026**. The program was jointly organized by the **Association of Indian Universities (AIU) – Sri Balaji Vidyapeeth Deemed to be University (SBV), Academic and Administrative Development Centre (AADC)** in collaboration with the **Institute of Health Professions Education (IHPE)**.

The primary objective of this workshop was to strengthen faculty competencies in modern medical education practices, particularly focusing on technology-enabled teaching–learning methods and effective implementation of the CBME framework. Faculty members from various departments actively participated and benefited from structured sessions, interactive discussions, and hands-on learning experiences.

Day 1 – 02.02.2026

The program commenced with an **Inaugural Session and Ice-Breaking Activity**, which provided an opportunity for participants to interact, share expectations, and understand the overall objectives of the FDP.

This was followed by a session on **Intended Outcomes and Competency**, where participants were introduced to the fundamental principles of Outcome-Based Education under CBME. The session emphasized defining clear learning outcomes, aligning teaching strategies with competencies, and assessing learner performance effectively.

In the afternoon, a detailed session on **Personalised Learning Pathways, Exit OSCE, and Radar Graphs** was conducted. Participants gained insights into designing individualized learning plans for students, conducting Exit OSCEs for competency assessment, and using radar graphs to visually track and analyze learner progress across multiple domains.

Day 2 – 03.02.2026

The second day began with a **visit to the Medical Simulation Centre (MSC)**. Participants were exposed to advanced simulation-based education techniques, including the use of mannequins, task trainers, and virtual simulation tools. The session highlighted the role of simulation in enhancing clinical skills, patient safety, and experiential learning.

The afternoon session focused on **Learning Management Systems (LMS) as a Tool for CBME**. Faculty members were trained on utilizing LMS platforms for curriculum delivery, student monitoring, online assessments, feedback mechanisms, and documentation of competencies. This session demonstrated how technology can streamline academic processes and improve teaching effectiveness.

Day 3 – 04.02.2026

Day three began with a session on **Gap Analysis in the AETCOM Module (Attitude, Ethics, and Communication)**. Participants discussed methods to identify gaps in students' attitudes, ethical understanding, and communication skills, along with strategies to address these gaps through structured teaching and assessment.

In the afternoon, a session on **Use of Standardized Patients to Enhance AETCOM Teaching** was conducted. The session demonstrated how standardized patients can be effectively used to train and assess students in communication skills, professionalism, empathy, and ethical decision-making through realistic clinical scenarios.

Day 4 – 05.02.2026

The fourth day featured an important session on **Evaluation of Higher Order Thinking Skills (HOTS) and Workplace-Based Assessment (WPBA)**. Participants were oriented to assessment tools such as case-based discussions, mini-CEX, DOPS, and structured rubrics for evaluating clinical reasoning and performance in real workplace settings.

This was followed by a session on **Competencies and Entrustable Professional Activities (EPA)**. The concept of EPAs was discussed in detail, highlighting their role in determining the level of trust that can be placed on a learner to perform professional tasks independently, which is a key component of CBME.

Day 5 – 06.02.2026

The final day commenced with a session on **Technology Enhanced Formative Assessment in Postgraduate CBME**. Faculty members learned about integrating digital tools and platforms to conduct continuous formative assessments, provide timely feedback, and support learner development in postgraduate medical education.

The afternoon session focused on **E-Portfolios**, emphasizing their importance in documenting student learning, reflections, competencies achieved, and overall professional growth. Practical guidance was provided on implementing and maintaining e-portfolios effectively.

The program concluded with a **Valedictory Session**, during which participants shared their feedback, reflections, and key takeaways from the workshop. Certificates were distributed, and the program ended on a positive and enriching note.

Program Outcomes and Key Learnings

The Faculty Development Program resulted in significant academic and professional benefits for the participating faculty members. Participants developed a clearer understanding of the principles of Competency Based Medical Education (CBME) and its practical application in undergraduate and postgraduate teaching. The integration of technology into teaching–learning and assessment processes emerged as a major strength of the program.

Faculty members gained confidence in designing outcome-based lesson plans, aligning competencies with teaching strategies, and selecting appropriate assessment tools. Exposure to simulation-based education, standardized patients,

and workplace-based assessment methods enhanced their ability to deliver experiential and student-centered learning. The hands-on sessions and real-life examples enabled participants to translate theoretical concepts into daily academic practice.

Role of Technology in Medical Education

A major highlight of the FDP was the emphasis on the effective use of technology in medical education. Participants were introduced to various digital platforms and tools that support CBME implementation, including Learning Management Systems (LMS), e-portfolios, online assessment tools, and data visualization techniques.

The sessions demonstrated how technology can be used to track learner progress, document competency achievement, provide timely feedback, and maintain academic records efficiently. Faculty members appreciated the structured approach to using technology not as an additional burden, but as a facilitator for improved teaching and learning outcomes.

Assessment Reforms and CBME Alignment

The program placed strong emphasis on assessment reforms aligned with CBME principles. Participants learned about formative and summative assessment strategies, Higher Order Thinking Skills (HOTS), Workplace-Based Assessment (WPBA), and Entrustable Professional Activities (EPAs).

Through interactive discussions, faculty members understood the importance of continuous assessment, constructive feedback, and reflective practice. The sessions clarified how EPAs can be used to make informed decisions about learner readiness and independent practice, thereby strengthening the assessment framework within medical education.

Faculty Engagement and Interactive Learning

The FDP encouraged active participation through group discussions, case-based learning, reflective exercises, and question-and-answer sessions. This interactive

approach promoted peer learning and exchange of best practices among faculty members from different disciplines.

Participants shared their institutional experiences and challenges related to CBME implementation, which led to meaningful discussions and collaborative problem-solving. The learning environment fostered professional growth, mutual respect, and a shared commitment to educational excellence.

Institutional Impact

The successful conduct of this Five-Day Faculty Development Program has strengthened the institution’s commitment to academic excellence and educational innovation. The program contributed to capacity building among faculty members and reinforced the institution’s readiness to implement national regulatory requirements related to CBME.

The FDP also enhanced interdepartmental collaboration and encouraged faculty members to adopt standardized teaching and assessment practices. The knowledge gained through this program is expected to have a long-term positive impact on curriculum delivery, student engagement, and learning outcomes.

Feedback and Reflections

Participant feedback indicated a high level of satisfaction with the structure, content, and delivery of the program. Faculty members appreciated the balanced combination of theory and practice, as well as the expertise of the resource persons.

Many participants expressed that the FDP helped them gain clarity on complex concepts such as CBME mapping, EPAs, and formative assessment strategies. The program also motivated faculty members to innovate in their teaching methods and adopt learner-centered approaches.

Conclusion

The Five-Day Faculty Development Program on Technology Enhanced Competency Based Medical Education was a comprehensive and enriching academic initiative. It successfully addressed contemporary challenges in medical education by equipping faculty members with relevant knowledge, skills, and tools.

The program has laid a strong foundation for effective CBME implementation and continuous quality improvement in teaching and assessment practices. The outcomes of this FDP are expected to contribute significantly to the overall enhancement of medical education standards at the institution, benefiting both faculty members and learners in the long run.