REVIEW ARTICLE

Self-Directed Learning: Paradigm Shift in Competency Based Medical Education – A Narrative Review

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ABSTRACT

Competency-Based Medical Education (CBME) in India has shifted medical training towards outcomes that emphasise self-directed lifelong learning as a core attribute of a competent physician. Self-Directed Learning (SDL) encourages learners to identify gaps in knowledge, access and evaluate relevant resources, reflect on their learning needs, and integrate knowledge into clinical practice. This paper aims to review the conceptual foundations, implementation strategies, benefits, and challenges of SDL within the CBME framework in undergraduate medical education in India. This narrative review is based on the National CBME guidelines of India, and published literature on SDL in medical education. Key themes included learner readiness, faculty roles in facilitating SDL, assessment methods aligned with SDL, and institutional strategies for integration. SDL improves learner engagement, critical thinking, and adaptability by promoting reflective practice and autonomous learning behaviours. CBME tools such as reflective portfolios, formative feedback, and workplace-based assessments provide opportunities for SDL; however, effective implementation is constrained by limited faculty training, traditional reliance on teacher-centred instruction, and variable student readiness for autonomous learning. SDL is integral to CBME and requires structured approach, faculty development, and institutional support to fulfil its potential in producing reflective, competent, and lifelong learners in medical practice.

Keywords: competency-based education, learner autonomy, medical education reform, self-directed learning, undergraduate medical training

International Journal of Human and Health Sciences Vol. 10 No. 02 April'26

DOI:https://doi.org/10.31344/ijhhs.v10i2.932

INTRODUCTION

For those of us who graduated from Indian medical colleges, the sights and sounds of classrooms are familiar and predictable, with teachers at the podium— lecturing, and students noting down dutifully in their notebooks. It was a system most of us grew up with, and one that shaped generations of competent doctors. But the world our students will practise in, has changed in ways this old rhythm cannot keep up with. And in this 'new world', Competency-Based Medical Education (CBME) has arrived, altering the landscape fundamentally – the shift is seen not just in curriculum, but in the mindset of learners.[1] Students can no longer rely solely on what is taught within the sanctity of classroom walls; they must learn to search, question, adapt, and evaluate their own growth. Self-Directed Learning (SDL) sits at the heart of this transformation, subtly

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but decisively shifting the culture of medical training. SDL was described by Knowles as the ability to identify learning needs, find resources, choose strategies, and evaluate one's progress.[2] It encourages students to step forward as active learners and invites teachers to become guides rather than guardians of knowledge.[3]

Evidence and Global Trends

The available literature consistently highlights the benefits of SDL – better retention, stronger clinical reasoning, and improved learner motivation. International educational reforms echo this direction: Entrustable Professional Activities (EPAs), adaptive learning platforms, longitudinal mentorship programmes, and competency dashboards all reinforce the principles of learner autonomy and continuous feedback. The message is unambiguous: autonomous learners become safer, more competent clinicians.

A Changing Curriculum, A Changed Learner: CBME's New Learning Ethos

CBME challenges the long-standing assumption that learning depends on the time spent in a classroom. Instead, it reframes competence as observable performance in evolving clinical contexts. In other words, CBME does not merely require students to "know more." It asks them to learn differently, and SDL becomes the mechanism through which this happens.[3] It is important to understand that guidelines keep evolving and so, the learner should continue adapting the practice. SDL provides a pathway for this new kind of learning.

What does this transformation look like within the Indian context? In many colleges, we now see micro-assessments, portfolio-based reflections, workplace-based assessment tools, and structured feedback systems becoming more common. These changes, in theory, create opportunities for students to track their progress and identify learning gaps. But in practice, their success depends on whether students feel genuinely empowered to direct their learning – and whether faculty feel supported enough to facilitate this process.

Transitioning From Teacher-Centred to Learner-Centred Models

A) Evolving roles of the teachers: Under CBME, the teachers are no longer expected to be end-point of information. They are facilitators and mentors. Their role extends to creating opportunities for exploration, guiding critical thinking, and offering constructive, timely feedback. For faculty, the transition from "expert lecturer" to "learning facilitator" has been one of the most emotionally demanding aspects of CBME. Many of today's teachers were themselves trained in an information-heavy culture. Encouraging students to question, debate, and even gently challenge requires a shift in identity, not merely method. Recent Indian studies highlight that faculty often feel uncertain about how much autonomy to grant learners, especially in early MBBS phases where students appear unprepared for this independence. This discomfort is a predictable; to compound the tricky situation, they are burdened with heavy workloads, administrative pressures, and limited training in facilitation.[4] It is understandable why a lot of the faculty feel stretched and why acceptance will take time, and support by faculty development programmes, which tend to equip them with skills in mentorship, feedback, and psychological safety.

B) Evolving roles of the students: For students, the adjustment can be equally challenging. Most of them enter a college from a schooling system that prioritises board exams, coaching centres, and structured notes. The system has not equipped them with metacognitive skills such as planning and monitoring their learning. They expect the same pattern – structured notes, spoon-fed concepts, and predictable examinations. And CBME demands that they take on the role of active seekers of knowledge. When asked to set learning goals, identify weaknesses, and describe what they understood poorly in a session, they feel overwhelmed by the bombardment of information, and the way of teaching. The initial struggle is intense, with younger MBBS students needing much guidance before they can confidently navigate SDL.[5] It is much later that they begin to realise that autonomy is not abandonment. And when they get familiar with autonomy—and the confidence that comes with it—they start participating more actively, asking sharper questions, and taking genuine responsibility for their growth.[6]

C) Transformation in assessment: Assessment is one of the places where this shift is felt most strongly. Traditional, high-stakes exams were good at measuring recall but rarely captured thinking, reasoning, or reflection. CBME introduces a

different structure: smaller assessments, more regular feedback, and tools like reflective portfolios, workplace-based assessments, and learning logs. It focuses on continuity, reflection, and real-time evaluation. In this way, students understand their own progress, reinforcing the core of SDL. The role of institutions can not be understated because they have to provide spaces for reflection, mould the existing rigid assessment systems into a malleable framework that encourages formative feedback. Without institutional alignment, SDL risks being inserted into the curriculum without being meaningfully supported.

Embedding SDL into CBME Curricula

A) Structured learning approaches: Students dont become self-directed simply by being told to do so. They need to be given a structure and mentorship, supporting independence. Learning contracts, personal development plans, and guided reflection exercises help students articulate goals and recognise gaps. Pedagogies such as small-group discussions, case-based learning, and flipped classrooms encourage engagement, accountability, and active preparation.[7,8]

B) Technology-Enhanced Strategies: Digital platforms extend the possibilities for SDL. E-portfolios allow longitudinal tracking of competencies, simulation labs provide safe practice environments, and adaptive learning tools personalise content and learning pathways. Used intelligently, technology becomes a companion in the SDL journey, not a distraction.[9]

C) Creating a supportive environment: SDL works best in environments where students feel psychologically safe. This requires meaningful mentorship, non-judgmental feedback, and structured criticism.[8] Therefore, is essential that teachers be equipped not just with content expertise, but skills to facilitate reflective dialogue. For this, we need to have appropriate faculty development programmes where teachers are trained in mentorship, feedback, and creating safe spaces for students.

The Barriers That Remain

Even as SDL becomes a central feature of CBME, barriers persist: i) students may lack early metacognitive skills, ii) faculty often face heavy service loads, administrative duties, and limited time for mentoring, iii) institutions may struggle to harmonise policy commitments with practical realities.[10] However, these barriers are not signs that SDL is unrealistic. They simply underline that meaningful educational change is cultural rather than procedural. Cultures shift slowly – through patient, persistent effort.[10]

The Road Ahead

A) Institutional Commitments: Institutions, too, carry responsibility. No amount of enthusiasm can compensate for rigid schedules, overloaded postings, or assessment systems that reward memory over reasoning. For SDL to take root, institutions need to go beyond policy. Outcomes must explicitly include SDL competencies; learning spaces must encourage independent thought; assessments must reward reflection, not just reproduction. Most importantly, mentorship programmes must be strengthened, and faculty must be supported in redefining their roles.[11]

B) Cultural evolution: Ultimately, SDL is about culture as much as curriculum. When students feel permission to question rather than memorise, and when teachers value curiosity over compliance, the educational environment transforms. The goal is not perfection but growth, not silence but inquiry.[11]

CONCLUSION

Every educator has encountered students standing at the difficult intersection of a demanding curriculum and an unpredictable healthcare system. CBME acknowledges that reality and attempts to prepare students for it. But this preparation is incomplete without SDL. Self-Directed Learning is not a decorative concept; it is the mindset that allows students to face uncertainty with confidence. It reshapes classrooms into spaces where students and teachers learn together. It encourages students to look beyond prescribed notes, to ask better questions, to seek feedback with humility, and to recognise that growth is a continuous, lifelong journey. When students take ownership of their learning, and teachers become partners in that journey, something remarkable happens: classrooms become more alive, conversations become richer, and learning becomes personal.

The future of medical education in India will depend on how well we embrace this shift. If we, as institutions and educators, commit to nurturing curiosity, encourage reflection, and create

environments where students feel safe to explore and fail, we will cultivate clinicians who are not only competent, but confident, compassionate, and capable of learning long after their formal training ends. In the end, that is the aspiration of CBME – and SDL is the bridge that allows us to reach it.

Conflict of interest: None declared.

Funding statement: No funding.

Ethical approval: Not applicable.

Authors' contribution: All authors were equally engaged in literature search, review, compilation as well as manuscript preparation, editing and final submission.

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