CHAPTER

4

Modus Operandi for Implementing the Competency-based Curriculum

The chapter outlines the approach for implementing a competency-based curriculum, recognizing potential concerns from established systems. It emphasizes the need to understand change management theories to integrate the new model effectively. Key frameworks include diffusion of innovation, kotter's change management principles, and senge's learning organization model, which offer insights into the adoption of new ideas, steps for system implementation, and characteristics of an empowered organization. The curriculum rollout is classified into macro and micro planning, with change management and learning organization principles providing stability. Additionally, the document highlights the importance of teacher and academic leader training to institutionalize excellence.

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4.1 DIFFUSION OF INNOVATION

Reception to anything new in the society has an observed pattern of acceptance and adaptation. Everett Rogers explained how new ideas, technologies, or products disseminate in society over time in his theory of diffusion of innovation. This theory outlines the process by which an innovation is communicated through certain channels over time among the members of a social system. Understanding the diffusion of innovation can help organizations develop strategies to accelerate the naturalization process and overcome resistance to change.

Rogers identified five categories of adopters (Fig. 4.1) based on their readiness to adjust to innovations. In the first category are innovators, who are the risk-takers are the ones who develop new ideas, and constitute 2.5% of the population. The second category are the early adopters, who are adventurous and open to new ideas, and constitute 13.5% of

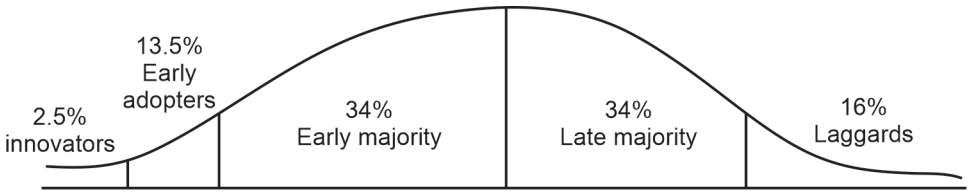

Fig. 4.1: Diffusion of innovation

the population. The early majority are those who are cautious, but who adopt new ideas when they see the benefits that the adopters are getting, and form 34% of the population distribution. The late majority are those who are sceptical of any new idea, but will adopt only because there is no alternative, and constitute 34% of the population. The remaining 16% are called as laggards who are resistant to change and the last to adopt, if at all.

He also described the factors that moderate the process of adoption:

a. Relative advantage of the new model over the existing model in terms of better clarity, ease of implementation, etc.
b. Compatibility of the new system to blend with the existing system so that the disruptions are not significant deterrent for adaptation.
c. Complexity of the new model could be a restraining factor to adapt, and needs to be simplified to understand and accept.
d. Trialability, which means can the user try before adapting; this can be facilitated by practicing in controlled situations and pilot studies before scaling up the innovation.
e. Observability of the benefits that other users or adopters have obtained. This factor will be relevant for the categories of early and late majority.

The diffusion of innovation theory provides a valuable framework for understanding and managing the adoption of competency-based education. By targeting key adopter groups, leveraging social networks, simplifying the complexity, and highlighting the benefits of CBE, institutions can effectively promote the widespread implementation of this innovative educational model.

4.2 PRINCIPLES OF CHANGE MANAGEMENT

Understanding the dynamics of change provides a foundation to introduce the desired changes. Kotter's principles of change management (Fig. 4.2) are the gold standard for ushering in the change and establishing the new system as institutional culture.

His eight-step process starts with creating a sense of urgency to change. Drawing attention to the limitations of traditional educational models, such as the gap between academic learning and clinical competence can create the urgency for change.

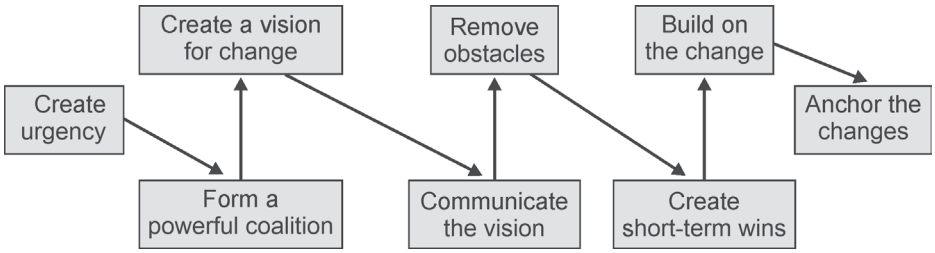

Fig. 4.2: Kotter's principles of change management

The smart way to manage change is to identify the innovators and early adopters in the team to form a powerful coalition, and engage them as the change agents. The professional experience in adopting and demonstrating change in their personal capacity will add credibility and stature to the core team vested with ushering the change.

Bringing about change is dependent on clarity of purpose which shall be conveyed as the institution's vision for change. The vision should articulate how the new model will improve educational outcomes in terms of student competence, patient care, and institutional standing. Effective communication of the vision is critical for ensuring that all stakeholders understand and support the transition to the competency model. This can be achieved through multiple channels, such as faculty meetings, workshops, newsletters, and social media.

Transitioning to the competency model may encounter obstacles, such as resistance to change, lack of resources, faculty overload concerns, etc. These impediments can be overcome by identifying the potential obstacles and removing or mitigating them for smooth implementation. In the process of transition, there would be small but morale boosting gains that give a reason to cheer. These will have to be recognized and celebrated, to offset the distress of obstacles.

The repeated spurts of change collectively amplify to a phenomenal transformation over a period of time. Building on early successes helps to drive deeper and more comprehensive changes across the institution. Use the momentum from short-term wins to expand competency initiatives to more departments, and continuously refine and improve the competency framework based on feedback, which builds the change.

For the competency model to be sustainable, it must become embedded in the institution's culture. This requires aligning the new educational model with the organization's values, norms, and practices. Reinforce the importance of competency model through ongoing professional development, integrating the competency principles into institutional policies, and recognizing and rewarding faculty who exemplify the competency practices. Over time, this helps to normalize the competency model as the standard approach to education.

Kotter's eight-step change model provides a comprehensive framework for managing the complex process of implementing competency-based education. This structured approach helps to overcome resistance, sustain momentum, and ensure that the benefits of competency-based model are realized in the long-term.

4.3 CONCEPT OF LEARNING ORGANISATIONS

To introduce, nurture, establish the change, the organizations must follow a systematic plan. Peter Senge has proposed a framework for internalizing excellence into any organization on the basis of five disciplines—personal mastery, mental models, shared vision, team learning, and systems thinking (Fig. 4.3). These principles are highly relevant to managing the implementation of competency-based education. He calls the organization that follows these disciplines as 'Learning Organization'. Such an organization continuously evolves and adapts to its environment through learning for relevance.

Personal mastery is the encouragement given to individuals to strive for personal and professional growth, by way of continually clarifying and deepening their personal vision, focusing their energies, and developing patience. In the quest for implementing competency-based model, encourage faculty to engage in ongoing professional

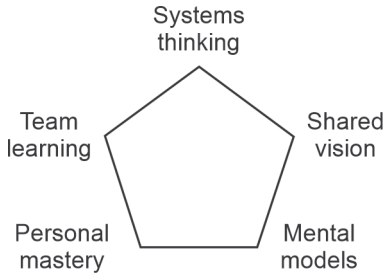

Fig. 4.3: Senge's learning organization

development, such as understanding competency frameworks, refining teaching practices, and learning new assessment methods.

Mental models represent the challenging and reshaping ingrained assumptions, beliefs, and mindsets that influence how we understand the world and take action. In a learning organization, these mental models are constantly questioned and updated. In the context of competency-based education, existing mental models about traditional education methods may create resistance to change. To implement competency model successfully, it is crucial to identify and challenge existing mental models that are rooted in the traditional model, and encourage open dialogue and reflection to shift mental models towards a competency-focused approach. It would be pertinent to refer Dweck's classification mindsets as growth-oriented and fixed-mindset. Growth mindsets promote the agenda of learning organisations.

Shared vision among the members of the organisation is essential for creating a common goal or vision that everyone in the organisation is committed to. It fosters a sense of purpose and motivates people to work collectively towards achieving it. To advance the spirit of shared vision, develop and communicate a clear, compelling vision for competency-model that reflects the institution's commitment to producing competent, practice-ready graduates. Involve all stakeholders in the vision-creation process to build solidarity and ensure that the vision resonates with the entire organisation.

Team learning is essential for promoting collective learning to achieve goals more effectively. It emphasizes dialogue, collaboration, and the idea that groups can learn and grow together, building on each other's strengths and ideas. For the success of the competency model, collaboration among faculty members is essential for developing and refining competency frameworks, assessment methods, and teaching strategies. Promote team learning through regular team meetings, interdisciplinary workshops, and collaborative curriculum design sessions. Encourage sharing of best practices and collective problem-solving to continuously improve curriculum implementation.

Systems thinking is the cornerstone of learning organisation, which enables the understanding of organisation as a complex system of interrelated parts, where changes in one part affect the whole. This approach encourages looking at the big picture rather than just isolated events. In the context of competency-based curriculum, it is crucial to understand how different aspects of the educational system, i.e. curriculum design, assessment, faculty development, and student support interact and influence each other. Use this big picture approach to identify potential challenges and leverage points for successful implementation.

In the context of an academic organisation that intends to implement competency-based curriculum, Senge's model of learning organisation offers a valuable framework by fostering a culture of continuous learning, collaboration, and systemic thinking. By focusing on personal mastery, challenging existing mental models, building a shared vision, promoting team learning, and applying systems thinking, institutions can more effectively navigate the complex process of transitioning to the competency model. This approach not only supports the technical aspects of implementation but also addresses the cultural and organizational changes necessary for sustained success.

4.4 MACRO PLANNING FOR IMPLEMENTING THE CBE

The macro planning for implementing the competency-based education has the regulatory, administrative, and academic aspects (Fig. 4.4). The regulatory aspect includes compliance with the essential standards for the establishment and management of the institution as per the mandates of the regulatory bodies, such as apex council and university. The administrative aspect relates to the oversight of structures and functioning for the survival and development of the institution. The academic aspect is concerned with the educational transactions.

The regulatory requirements are stated in the university's or apex body's code of practice, and are communicated to the institution when the permission or affiliation is granted. Beyond these essential standards, there are quality protocols asserted by the accreditation or rating agencies. These standards and protocols include the minimum essential requirements in terms of financial assets, physical infrastructure, human resources, etc. which are self-explanatory. Compliance with these standards and protocols is the basic requirement for viability and professional validation of the institution.

The administrative aspect broadly conforms to the four components of management—planning, organizing, monitoring, and evaluation. To be more specific, academic administrators are responsible for a variety of tasks, including policy innovation, strategic planning, resource allocation, teaching–learning, etc. The functions include leadership and oversight for curriculum delivery, faculty recruitment and development, student affairs and support services, quality assurance and accreditation, research and innovations, ethical and legal affairs.

For the specific purpose of implementing the competency-based education, there has to be a specific structure of committees for the governance. There shall be a curriculum coordination committee (CCC), which is distinct from the structure and function of IQAC,

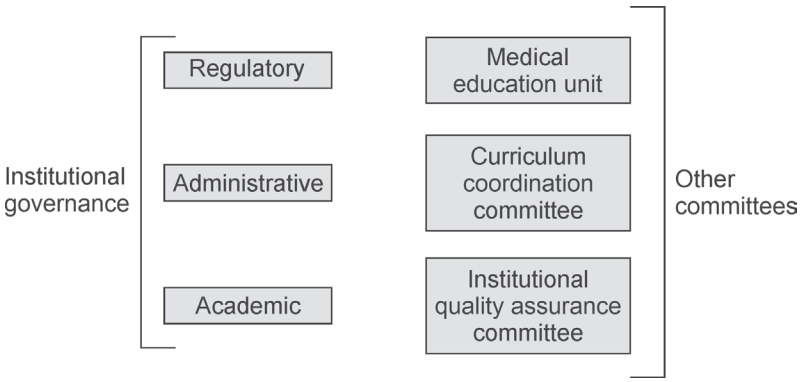

Fig. 4.4: Organizational tree of institutional capacity

or medical education unit (or comparable entity distinct to the health professionals' education). The CCC is vested with the mandate for the coordination to implement the curriculum by synchronizing the functioning of various committees, such as IQAC, MEU, Research Committee, Institutional Ethics Committee, Student Welfare Committee, Library Committee, Procurement Committee, Grievance Redressal and Disciplinary Committee, Community Outreach Committee, etc.

The CCC is vested as an autonomous body that has the specific mandate for the planning, organisation, coordination, monitoring, oversight, and evaluation of curriculum implementation. The head of institution shall be the captain of this team, which shall compulsorily include representatives of the IQAC, and MEU. There shall be subcommittees under the CCC with the specific role to conduct the foundation course, coordinate the electives, regulate continuous assessments, plan and oversee early clinical exposure, and harmonize the alignment and integration of learning outcomes. The composition and functions of the CCC, and its sub-committees are provided in **Appendix 2**.

The academic aspect of curriculum implementation has macro- and micro-level supervision. Macro-plan provides the big picture and includes the annual, semester, and module level. The topic planning and lesson planning would be under the micro-planning.

As a prelude to macro-planning, the estimation of resources needed, and those available has to be made. To calculate the effective academic time at institutional level, we can estimate 40 weeks of optimal time out of 52 weeks in a year, and 60 out of 78 weeks in an 18-month phase. Considering a six-day week, and six hours per day, there will be 1440 hours in a 12-month phase, and 2160 hours in an 18-month phase. The required academic hours as per the notified curriculum shall be matched with the available number of hours for optimal time allocation. The appraisal of number faculty, quantum of infrastructure, and financial resource will provide a framework for designing the macro plan of curriculum implementation.

The macro plan of curriculum implementation for each subject includes the twelve areas where the teachers would be able to:

a. recall the structure of curriculum and syllabus for the subject,
b. outline a template for the macro-planning of competency-based curriculum implementation,
c. list the appropriate TL methods/media for the subject,
d. illustrate the integration of inter-departmental learning activities,
e. demonstrate a model of comprehensive lesson plan,
f. exemplify the formative and summative assessment activities,
g. explain the assessment blueprint for theory, practical and oral examinations,
h. render a layout for each QP to ensure content validity,
i. demarcate the dimensions for assessment and scoring for practical/clinical,
j. codify the competencies for oral examination,
k. design timetable for the subject as per the time allotted,
l. prepare a comprehensive and inclusive academic calendar of events.

a. Recall the Structure of Curriculum and Syllabus for the Subject

The first step in planning implementation is to be aware of the complete document of curriculum and syllabus. Before explaining the process further, the terms 'curriculum' and 'syllabus' have to be clarified.

According to Kelly, "Curriculum refers to all the planned learning opportunities offered to learners by the educational institution and the experiences learners encounter when the curriculum is implemented." Wiles and Bondi describe a syllabus as "a descriptive outline of the topics covered in a course, which is generally provided by the course instructor".

As per the definitions cited above, curriculum is the program document that describes the purpose, relevance, and the regulatory aspects of the program, such as the duration of program, courses and subjects, eligibility for admission, assessment parameters, minimum essential standards to run the program, etc. Syllabus, on the other hand, details the topics or competencies, their learning environment and modalities, the assessment practices, etc. In summary, curriculum is the regulatory dimension of the program, while syllabus is the academic dimension; curriculum is the broader educational blueprint, while the syllabus is a more specific guide for what is taught in a particular subject.

Clarity of curriculum and syllabus related to the subject forms the basis for further planning and implementation, as it provides the content organized in standard tables. The categorization of content on blueprints for teaching–learning, and assessment, clarity of domain competencies, performance competencies, the level in Miller's pyramid, Bloom's taxonomy, and the Guilbert's levels in Bloom's domain, the prioritization of contents, the prescription of instructional strategies, assessment tools, and the areas for integration.

b. Outline Template for the Macro-planning of CBE Implementation

The macro-planning for curriculum delivery planner spans the timeline of entire program. It distributed the curriculum delivery under the slots of annual, semester, module, competency-clusters, and specific learning objectives, as shown in Fig. 4.5. This template creates a relationship map of curriculum contents, and their implementation modality. At the outset, the indicated syllabus of each year or the annual block period is arranged. Depending on the duration of the learning phase calculated in the number of weeks, volume of content, and the time allotted, the annual block of content is distributed into multiple modules of equal or similar duration and learning load, with each module being assigned independent, and integrated clusters of learning. These clusters would have congruent set of performance competencies, and, therefore, the objectives for performance also would be similar and compatible. This branching model of representation illustrates

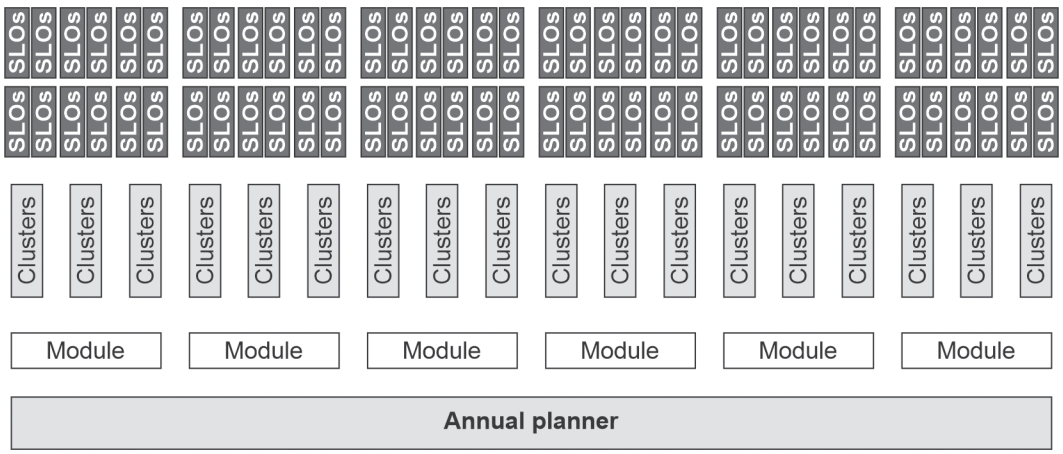

Fig. 4.5: Curriculum delivery plan

the interrelationship among the various modules and clusters to give a coherent overview of the curriculum.

The curriculum this mapped is further tabulated for implementation as in Fig. 4.6—the curriculum implementation plan and continuous assessment model (CIPCAM), which is a modification of the tabulated CBE document that was illustrated in (Fig. 3.9).

As already explained in the first chapter, the performance competencies are the milestone levels of the entrustable professional activities (EPAs) and form the units of performance. These are further assigned as the SLOs as per the Bloom's domain, and Guilbert's level in Bloom's domains. Before planning for the instructional activity, the existing level of the learners, or the desired level of learning is estimated as the 'entry behavior assessment'. Context of learning is either in the classroom, laboratory, clinics, community, small group, or self-managed study. The context of learning clarifies the relevant teacher activities, and the appropriate learner activities. The teacher and learner activities shall be compatible and complementing to each other. Monitoring the learning is the defining feature of competency-based learning, and is called as continuous assessment. Feedback is integral to the meaningfulness and success of continuous assessment. The outcomes are matched with the stated competencies and their indicators in the form of SLOs. Any gap in the learning is calibrated for the stated standards by remediation.

The tool for actual implementation of curriculum whether in the classroom, clinics, or any context that was mentioned in the preceding paragraph is the micro plan, which is generically known as lesson plan, which will be discussed in the next section (*4.5: Leadership for academic governance*).

b. List the Appropriate TL Methods/Media for the Subject

In the traditional model, 'teaching' is the instructional activity. The competency-based model recognizes the collaborative nature of learning and the inclusion of learners as significant partners in the process of learning. Therefore, the phrase 'Teaching–Learning' (TL) is used to denote the instructional activities.

The words 'methods' and 'media' have specific connotations: method is what the teacher does or facilitates the learners to do in an instructional activity, such as conducting a lecture, making a demonstration, facilitating a group discussion, mentoring for a project, etc. Medium, on the other hand, is what the teacher uses or makes the students to use,

1	2	3	4	5	6	7	8	9
Performance competency	Specific learning objectives	Entry behaviour	Context for learning	Teacher activity	Learner activity	Assessment and feedback	Outcomes	Remediation

Fig. 4.6: Curriculum implementation plan and continuous assessment model

such as a board, projector, chart, handout, model, instrument, etc. By the way, the word ''medium'' is singular, and the word ''media'' is plural.

The TL methods are classified on the basis of various determinants, such as the group size, context of learning, domain of content, and the learning style of students. The media are classified broadly as 'projected' and 'non-projected'. The selection of medium depends on certain considerations, such as the TL method, domain of learning, group size, availability of technology, etc.

The selection of appropriate TL methods and media are important for the implementation of the curriculum, and are explained in the later sections of this book.

d. Illustrate the Integration of Inter-departmental Learning Activities

Integration of learning is a key characteristic of a competency-based model. The purpose of integration is to bring about a strategic confluence of knowledge, skills, and attitudes from various disciplines to create a more cohesive and relevant learning experience. Integration helps students see the relevance of what they are learning by connecting theoretical knowledge with practical applications across different disciplines. Integration is also essential for developing competencies that require the synthesis of multiple skills and knowledge areas. Such a holistic approach ensures that students can apply their learning in real-world contexts, which is particularly crucial in the field of healthcare professions.

The competency curriculum suggests the areas for implementation as both horizontal, and vertical integration. Horizontal integration is where the contents are converged into the same phase of learning. It could be in the form of 'alignment' which is the temporal coordination, or 'correlation' where the contents of more than one subjects create a common learning document based on inter-departmental specific learning objectives. Horizontal integration contributes to a more coherent curriculum by aligning the teaching of related subjects and avoiding unnecessary repetition.

By integrating subjects horizontally, students can learn more efficiently as they can see the connections between different topics without having to compartmentalize information. For example, while studying the cardiovascular system, students might learn the relevant anatomy and physiology simultaneously, which reinforces their understanding of the system as a whole. The contents of alignment and integration are mapped to create blocks that are common for the outcomes or topics that are integrated.

Vertical integration is the process of concurrent teaching of basic sciences like anatomy, physiology, and biochemistry and clinical subjects, such as medicine, and surgery, throughout the education program. Instead of learning basic sciences in isolation during the pre-clinical phase and then transitioning to clinical subjects later, students are exposed to clinical applications of basic science knowledge early on and continue revisiting these concepts as they progress through clinical training. By integrating basic sciences with clinical practice, vertical integration ensures that students understand the relevance of foundational scientific knowledge in diagnosing, treating, and managing patients. This relevance promotes deeper learning and retention of basic sciences as students can directly see the implications of what they are learning in real clinical scenarios.

The learning of alignment and integration can be facilitated as teacher directed activity as in 'team teaching', followed by small group peer learning activities, followed by directed self-learning.

e. Demonstrate a Model of Comprehensive Lesson Plan

Lesson plan is the fulcrum and guardrail that stabilizes and supports the implementation of curriculum at ground level. It, therefore, serves as a detailed guide for the teachers to translate curriculum goals and objectives into practical, actionable teaching–learning strategies, by providing a clear roadmap of sequence of activities, time allocations, and instructional strategies. Lesson plans also include components for assessing student understanding, which are crucial for monitoring the effectiveness of curriculum implementation, and provide a basis for teachers to reflect on the lesson's success and areas for improvement.

The details of lesson plan are provided in the Chapter 13.

f. Exemplify the Formative and Summative Assessment Activities

Programmatic assessment is the model of assessment in competency-based education. It is characterized by continual monitoring and feedback to establish the stated competencies in each learner. The formative and summative assessment tools are strategically used as per their appropriateness of the context to create an authentic and comprehensive picture of the learner's professional competencies.

Details of the purposes, methods, models, and specific tools of assessment are provided in the later sections of this book.

g. Explain the Assessment Blueprint for Theory, Practical and Oral Examinations

Assessment blueprint is the specification table for ensuring validity of assessment. The curriculum document has the details of weightage for various aspects of the subject, which is calculated on the prioritization for learning. The relative importance is estimated by a formula that considers the frequency and impact of the content to the professional activities. The priorities are labeled as 'Must Know', 'Desirable to Know', and 'Nice to Know', depending on the weightage. The dimension of assessment as theory-based, practical or clinical-based, and oral-based is decided by the domain of performance. Weightage decides the emphasis to be given for each content or blocks of content. The dimensions and weightage ensure the validity of assessment.

During the implementation, the assessment blueprint has to be used as the guide for both formative and summative assessment. The planning of term tests, periodic assessments, and the continuous assessments shall be planned as per the guidelines of blueprint, so that the students are familiar with the patterns of assessment in university examinations.

h. Render a Layout for Each QP to Ensure Content Validity

Question paper is to theory-based assessment, what lesson plan is to teaching. It defines the quality and character of assessment for the cognitive domain. The outline of question paper, often stated as a model question paper in the curriculum, transfers the weightage to a template that represents the blueprint of assessment. This dimension of assessment fits into the 'knows' or 'knows how' layers of Miller's pyramid.

The question paper template outlines the number of questions, categorizes questions as long answer questions (LAQ), short answer questions (SAQ), and multiple-choice questions (MCQ). The LAQs may be refined as structured essay questions (SEQs) or modified essay questions (MEQs). The number of each category of question, i.e. how many LAQ, SAQ and MCQ is decided either by the national apex body or the university.

The questions are included as per the directions of the assessment blueprint, which states the area or theme or content from which the LAQs can be asked, and similarly the area of content for asking the SAQs and MCQs. This gives clarity for all the stakeholders of assessment—students, teachers, question paper setters, answer sheet evaluators, to be on the same page, thus improving the qualities of validity and reliability of assessment.

The challenge in preparing question paper is to make it not only compliant with the blueprint, but also ensuring that the difficulty levels are optimal, and the time is sufficient for all candidates to answer all the questions within the stipulated time. To facilitate the time management, it is estimated that a 10-mark question, which is the LAQ should be answered within 15 minutes, the SAQ of 5-marks to be answered in 8 minutes, and the MCQ of 1 mark to be answered in one minute. This would give some buffer time for the preparatory and conclusive activities of theory-based exam.

i. Demarcate the Dimensions for Assessment and Scoring for Practical/Clinical

The practical and clinical assessments test the learning in psychomotor and to some extent in the affective domain. Therefore, the medium of these assessment is either performance-based or communication based, which are directly observable and measurable. The practical or clinical skills represent the 'shows how' and to some extent 'does' layers in the Miller's pyramid.

These skills include performance of clinical examination on patients, communication with patients and attendants, observation and data gathering without prejudice, clinical reasoning, interpersonal skills, attitude, and ethical moorings. The comparative weightage for each of these components depends on the program outcomes, and milestone level of learning.

As these skills are directly observed, there is a probability for prejudice in the observations and interpretations. Therefore, objective tools such, as checklists, rating scales, and rubrics shall be designed specific to the performances. These assessment tools can also be used as training tools, so that there is congruence between learning, and assessment.

j. Codify the Competencies for Oral Examination

Oral examinations in medical education are a valuable tool for assessing a wide range of competencies that are crucial for the development of competent and effective healthcare professionals. These competencies include clinical reasoning, medical knowledge, communication skills, ethical judgment, problem-solving, application of basic science in clinical practice, patient-centered care, reflective practice, interpersonal skills, and ethical conduct.

Students may be presented with a case and asked to identify potential diagnoses, prioritize differential diagnoses, and suggest appropriate management plans. Integrated understanding of clinical conditions can be probed and tested, and the confidence of student can be checked during the defence of an assertion. Communication skills can be tested with a roleplay, such as asking a student to enact the breaking bad news to a patient or explaining a complex clinical procedure to a patient's family. Students can be presented with ethical dilemmas and asked to discuss how they would navigate the situation, considering legal and ethical principles, which will test their ethical and professional values.

k. Design Time-table for the Subject as per the Time Allotted

A well-structured timetable plays a crucial role in the effective implementation of a curriculum. It serves as a practical framework that ensures the organized delivery of educational content, the smooth functioning of the institution, and the optimal use of resources. Consistent scheduling provided by a timetable helps maintain continuity in teaching and learning, and helps students and faculty to develop routines, which can improve focus and productivity.

Timetable provides a clear and organized structure for the learning process, as it allocates specific times for each subject, ensuring that all aspects of the curriculum are covered systematically and within the designated time frame. A well-designed timetable ensures that all subjects and competencies outlined in the curriculum receive appropriate attention, by preventing the overemphasis on certain subjects at the expense of others. Timetables are essential for the efficient use of institutional resources, such as classrooms, laboratories, equipment, and faculty time. By organizing when and where different classes and activities take place, timetables prevent scheduling conflicts and resource bottlenecks.

For the managing of integrated block of learning in the curriculum timetable helps coordinate different types of learning activities, such as lectures, seminars, lab work, and clinical practice. The timetable serves as a reference point for monitoring the implementation of the curriculum. It allows administrators and faculty to track whether the curriculum is being delivered as planned and make adjustments if necessary. Timetable is designed at various levels—annual, institutional, departmental, class, and teacher level. The annual timetable is also referred as the calendar of events, and will be discussed in the succeeding section.

The institutional timetable is the overarching plan for entire institution, and is planned at the beginning of the academic session as the academic part of annual plan or calendar of events. This is a bottom-up approach of design with inputs from each department fam faculty for the concerned year. The number of subjects, number of students, and the time available decide the structure of annual timetable. Within the annual timetable, the department-wise and faculty-wise timetables are aligned. These are made available to the teachers and students, so that they can plan their academic activities.

l. Prepare a Comprehensive and Inclusive Academic Calendar of Events

Preparing an annual calendar of events is a critical task that plays a significant role in the smooth functioning and success of the institution. It serves as a comprehensive roadmap for the academic year, ensuring that all stakeholders are aligned with the college's goals and activities. The annual calendar lists the milestone events, such as the distribution of modules, conduct of periodic and term tests, the spread of weekly classes, vacations, mandatory holidays, etc. ensuring that all components of the curriculum are covered in a structured and timely manner. It prevents clustering of activities like exams, assignments, and clinical duties, thereby reducing stress on both students and faculty.

With an annual calendar, students, faculty, and administrative staff can manage their time effectively, as it helps them anticipate the events and prepare accordingly, for example, knowing the dates for exams, holidays, and clinical postings in advance allows students to plan their study schedules, vacations, and other activities efficiently. It also ensures the coordination of activities across different departments and disciplines within the college. It helps ensure that departmental activities, such as lectures, practicals, and seminars do not overlap or conflict, allowing for smooth collaboration and resource sharing.

The calendar provides a framework for incorporating extracurricular activities, professional development sessions, and community engagement initiatives into the academic year. These activities are crucial for the holistic development of students and staff. Events, such as medical camps, workshops, guest lectures, and student conferences can be strategically scheduled to complement the academic curriculum and provide opportunities for practical learning and networking.

The preparation of an annual calendar of events is vital for the effective operation and success of an institution. It ensures organized academic planning, efficient time management, coordination across departments, and compliance with accreditation standards. Additionally, it facilitates balanced workload distribution, enhances communication, and supports the holistic development of students and faculty. By providing a clear roadmap for the academic year, the annual calendar helps the college achieve its educational goals and maintain a high standard of academic excellence.

4.5 LEADERSHIP FOR ACADEMIC GOVERNANCE

Implementing the competency model of education requires shift of mindset for the teachers to feel comfortable with the disruption, and accept the challenges. There are two broad areas of training that can develop teachers as professional teachers and leaders. The advancement as an enlightened teacher can be supported through Harden's twelve roles as teachers, and the leadership training shall consist of a range of leadership qualities.

Ronald Harden, a pioneer in the field of medical education outlined twelve roles that a teacher in the medical field might assume. These roles are categorized into six broad areas, each of which is further into specific roles. The six broad roles are—information provider, role model, facilitator, assessor, planner, and resource developer. Each of the six roles can be expanded further to ramify:

a. As information provider, the teacher transmits knowledge in the classroom, and skills, communication, and values, apart from knowledge in clinical or community contexts.
b. As a role model, the teacher demonstrates professional behavior, skills, and attitudes in clinical settings, serving as an example for students, and also exhibits effective teaching methods and approaches, setting standards for others.
c. As facilitator, the teacher guides students in self-directed learning, encouraging them to take responsibility for their own education, and provide personal support, career guidance, and professional development, helping students navigate their careers.
d. As assessor, to assess students' knowledge, skills, and competencies through various assessment methods, and evaluate the effectiveness of the curriculum, suggesting improvements based on feedback and outcomes.
e. As planner, he/she can contribute to the design, development, and planning of the curriculum, ensuring it meets educational standards and objectives, and organize and coordinate courses, ensuring they run smoothly and effectively.
f. As resource developer to create educational materials, such as textbooks, study guides, or online resources to support learning, and possibly develop new resources, such as e-learning tools or simulation exercises, to enhance the learning experience.

Harden has designed a self-assessment tool in the form of questionnaire to estimate the strengths and areas for improvement in the twelve roles as teacher, as given in Table 2 of

the article Harden RM and Crosby JR (2000). The good teacher is more than a lecturer—The twelve roles of the teacher. Medical Teacher, 22, 334–347. This tool appraises roles a teacher is currently comfortable with, and can identify the roles that can be assigned with, for optimal utilization of resources. Training for the future roles and be designed basing on these roles.

Training the teachers as leaders is crucial for the successful implementation of competency model because it equips them with the necessary skills, knowledge, and attitudes to lead the change effectively. Understanding the elements of leadership roles enhances decision-making skills, enabling teachers to make informed choices that benefit the implementation of the new educational model. The key components of such training include institutional structure, university framework, quality standards for institutions of higher learning, roles of academic leaders, theories of change management, strategic management, transformational, and situational leadership, problem-solving, critical thinking, team building, conflict resolution, communication, and social and emotional intelligence.

4.6 ROADMAP FOR THE INSTITUTIONALIZATION OF EXCELLENCE

Institutionalizing excellence in a disruptive academic ecosystem is crucial for ensuring that educational institutions remain relevant, competitive, and capable of fulfilling their mission in a rapidly evolving environment. As academic ecosystems face shifts in technology, societal expectations, and educational demands, the need for embedding a culture of excellence becomes even more compelling. Institutionalising excellence leads to enhanced academic quality, which directly impacts student learning outcomes. Adapting to change as proactive rather than reactive is a Darwinian maxim that amplifies the likelihood for survival. This includes adjusting to new teaching methods, integrating emerging technologies, and meeting evolving student needs. By embedding high standards in curriculum design, teaching, and assessment, institutions can ensure that students receive a rigorous and meaningful education.

The key features that define establishment and sustenance of institutional excellence include:

- Building a strong institutional culture through shared vision and values, and safeguarding employee engagement and satisfaction,
- Adaptability to external environment by innovation and continuous improvement,
- Enhancing the academic quality by improving the learning outcomes and gaining recognitions of accrediting bodies, and reputation among peer institutions,
- Ensuring financial stability by way of attracting funds, grants, investments, endowments, and efficient resource management,
- Sustaining in a competitive environment by developing institutional resilience and long-term viability, and
- Contributing to social impact by social responsibility and community engagement.

For the sustenance of excellence, a culture of continuous improvement, quality, and innovation are imperative. The roadmap for achieving this includes several strategic steps and principles, starting with the establishment and dissemination of clear vision and mission statement for the long-term institutional uniqueness, supported by the leadership that sets high standards, providing financial and other resources, and leading by example. To enable this, there has to be a perspective plan that clearly defines and

articulates measurable objectives, timelines, and resource requirement, and which is also resilient to align with the changing circumstances and emerging opportunities.

The defined quality assurance processes shall be comparable to global standards and be regularly assessed to improve the institution's practices and outcomes. there shall be continuous professional development for faculty and staff to ensure they have the skills and knowledge required to achieve excellence, and an environment that encourages innovation and creativity.

The institutional leadership has to support experimental initiatives and pilot projects that have the potential to improve the institution. There shall be regular monitoring and evaluation mechanisms to assess progress toward excellence, by way of objective key performance indicators. The culture of excellence has to be cultivated across the institutional span by recognising and celebrating achievements and milestones in the journey that distinguishes the institution's exclusiveness.

SUMMARY

This chapter discusses the challenges of implementing a competency-based curriculum, emphasizing the importance of openness and awareness in managing these challenges. It highlights the need for preparedness in handling people's reactions to change and using change management principles to facilitate transitions. Institutions aiming for excellence should adopt a learning organization model and plan effectively with the right tools. Success depends on building human resource capacity, establishing the necessary infrastructure, and effective leadership. The chapter focuses on applying these principles within the context of competency-based education in health professionals' academic programs.

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