

WEB TABLE I COMPARATIVE ANALYSIS OF TRADITIONAL AND COMPETENCY-BASED CURRICULA*

	<i>Traditional Curriculum (TC) – Process and discipline based</i>	<i>Competency-based curriculum (CBC): Outcome based</i>	<i>Remark</i>
Curriculum design and planning	Begins from: ‘What do learners need to know?’ [5] (<i>Knowledge driven</i>)	Begins from: ‘What outcome abilities (competencies) are needed of a graduate?’ [5] (<i>Outcome driven: directly relevant to the health needs of the society</i>)	
	Relatively fixed processes and sequencing in form of initial phase of training in basic sciences followed by clinical disciplines and clinical exposure	The curricular framework specifies the outcome but not the processes [14]. Recent efforts at also delineating the pathway to achieving these outcomes (milestone achievements along the way to end-outcome)	In CBC, the student and the teachers share a clearer picture of the end outcome as well as intermittent achievements (also termed ‘milestones’ or levels)
Focus	Process oriented. Achievement of learning objectives in specific domains, often in a compartmentalized manner	Outcome oriented. Achievement of learning objectives that relate to a broader professional functionality (involving many domains)	Hence the assessment parameters and methods differ. The assessment of overall performance in authentic settings becomes crucial in CBC
Emphasis	Knowledge acquisition than development skills and attitude [14]	Knowledge application towards development of overall ability or competence for a whole task or job responsibility [14]	CBC more oriented to producing graduates who are “job – ready”. Earlier orientation of students to their future professional role
	Time-based training	Developmental progress and achievement of desired milestones; Certification of competency rather than years of training.	In CBC, there is scope for time flexibility within a defined minimum and maximum time period of training: more efficient and engaging [5]
Teaching-learning	Reductionist approach: Learning may not be integrated. Independent lists of learning objectives in different domains may allow for better achievement in one domain as a compensation to under achievement in another	Constructivist approach: Promotes integrated learning. The learning objectives are guided towards developing an overall competency and hence have to be achieved as a blend of different domains [5]	CBC encourages student to use their judgment for adapting to clinical situations and hence is likely to prepare them in a better manner to function as professionals
	Learning is more teacher controlled [16]: One-size-fits-all approach in teaching learning activities [2]	Promotes learner-centeredness [16]: student-controlled and self directed under guidance by the teacher. Highly individualized learning process [2]	The goals are clearer in CBC and a roadmap of milestones outlines a desired path of learning. A student can pace their own learning accordingly
	Logistically easier for all students to follow a time bound program [5].	Logistically challenging if each student allowed to progress at own pace, a chaos may ensue [5].	A minimum and maximum prescribed time in CBC may alleviate this issue
	An extensive training in basic sciences prior to clinical training [17]. Permits a more natural assimilation and comprehension for knowledge-based practice. More room for innovation.	Utilitarian approach: A focus on prescribed instructional design towards achieving a competency and functionality [17]. This may occasionally hinder creativity and innovation	It is a challenge to incorporate the components of CBC while retaining the strengths of the TC
	Bulky syllabus loaded with lots of factual information that may not be directly relevant to clinical practice.	Syllabus is chiseled to retain the relevant factual information and knowledge base that and hence reduces the bulk	Better efficiency in CBC. Critics of CBC feel that the narrowing of curricular content may limit the ability of physician to manage unusual and complex clinical problems.

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	Often a disjointed series of lectures are delivered that are compartmentalized discipline-wise: While integration across disciplines is desirable, it is only occasionally achieved [18] Hardly any flexibility with a time bound and fixed-sequence program for clinical rotations	The teaching learning methods include purposeful activities that are targeted at achieving the exit learning outcomes. Integration across disciplines is quintessential [18] Inclusion of student ‘elective’ rotations provides the flexibility to students to work on deficient areas or their area of interest [3]	
Assessment	Largely knowledge based with some effort to include competence and performance tests (Largely level 1 and 2 of Miller’s pyramid with some inclusion of level 3 and occasionally level 4) Emphasis on summative assessment - high stake final evaluation [16] Norm referenced: performance in reference to other students though arbitrarily agreed upon cut-off is used for summative purposes [14] Overtime, there has been an increasing emphasis on objectivity in assessment	Performance based in authentic workplace setting (Largely testing at level 3 and 4 of Miller’s pyramid) Emphasis on frequent formative assessment – with feedback that facilitates improvement [16] Criterion referenced: minimum standard of competence is set that is not dependent on performance of other students [14] Subjective assessment by an expert is more important specially in formative assessment The focus is on improving the validity of the assessment even at the cost of some degree of reliability. However reliability also improves with increase in assessment opportunities by multiple assessors.	The Work-place Based Assessment (WPBA) is the preferred method in CBC and tools utilizing direct observation of trainee are preferred. In fact narratives by experts may be more meaningful assessment reports rather than a set of scores. Of key importance is to remember the utility index, and that it allows compensating for a relatively lacking element.

* Based on references: 2, 3, 5, 14, 16-18.