Medical Education

Design and development of an arena blended connected learning model for faculty development in health professions education: A step forward

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Supplementary File

Annexure 1. ABC design matrix for PGDHPE module 1 topics

Topics	Subtopics	VED	Acquisition		Discussion		Investigation		Collaboration		Practice		Production	
			C	P	C	P	C	P	C	P	C	P	C	P
1. Education: systems approach	Education: systems approach	V	4	4	3	3	2	2	1	1	2	3	1	1
2. Vision, mission, goals, objectives, learning outcome	a. Characteristics of vision, mission, goals, aims and objectives	V	3	2	2	3	1	1	2	3	2	4	4	4
	b. Taxonomies and comparison of taxonomies of different HPE		4	3	2	3	1	3	1	3	2	2	2	2
	c. Taxonomy and writing learning outcomes		4	3	2	3	2	2	1	1	4	4	4	4
3. Educational psychology: theories and principles	Educational psychology: Theories and principles	E	4	4	1	3	1	1	1	1	1	3	2	3
4. Andragogy, heutagogy and principles of adult learning	a. Principles and maxims of teaching and learning for competencies: pedagogy, andragogy, heutagogy	V	4	3	3	3	1	3	1	1	3	3	2	2
	b. Teaching–learning principles		4	4	2	2	1	1	1	1	1	1	1	1
	c. Adult learning principles		4	4	3	3	1	1	1	1	3	3	3	3
5. Competencies	Competencies in HPE (domains/WFME/ quality chasm)	V	4	3	1	3	1	3	1	1	2	3	2	3
6. Comparison of graduate programmes (ACGME/ Australia/CANMED/IMG of vision 2015) Formulating objectives to achieve competencies	Comparison of core competencies	D	4	4	1	3	1	1	1	1	1	1	1	1
7. Large group teaching, small group teaching and group dynamics	a. Large group teaching methods and classroom management	V	2	2	4	4	1	3	2	2	4	4	4	4
	b. Group dynamics and small group teaching methods		2	2	4	4	1	3	2	4	4	4	4	4
8. Problem-based learning (PBL) and lesson plan	a. PBL (as a method), problem oriented/case-based learning, group work	V	2	2	3	3	3	3	3	3	4	4	3	3
	b. Flipped classroom		3	2	2	4	1	1	1	1	2	2	2	2
9. Learning styles and types also e-learning, distance learning and blended learning; Google forms versus Survey monkey	a. Learning styles and types (VARK); right and left brain orientation, learning methods	D	3	3	4	4	3	3	1	1	3	3	1	1
	b. Newer methods of students engagement (e-learning, distance learning, blended learning, seamless learning)	V	3	4	4	4	4	4	4	4	4	4	4	4
	c. Utilizing informatics/ web2-google forms	V	4	3	1	1	3	3	1	1	4	4	4	4
10. Learning–teaching methods	a. Developing learning resource material using different media	V	4	4	2	4	2	3	1	1	3	4	2	4
	b. Instructional aids: types, uses, selection, utilization, projected and non-projected aids, multimedia		3	2	4	4	1	3	1	1	4	4	4	4
	c. Simulation, standardized patient (SP), field work, video-/tele-conferencing, immersive learning, etc.		4	4	3	3	4	4	4	4	1	3	1	1
	d. Instructional design: planning and designing the lesson, writing lesson plan: meaning, its need and importance, formats. Lesson plan group work		4	3	3	3	1	1	1	1	4	4	4	4
11. Microteaching	Microteaching introduction and practice	V	2	2	3	4	1	1	1	1	4	4	4	4

Annexure 2. ABC design Matrix for PGDHPE module 2 topics

Topics	Subtopics	VED	Rubrics											
			Acquisition		Discussion		Investigation		Collaboration		Practice		Production	
			C	P	C	P	C	P	C	P	C	P	C	P
1. Principles of evaluation	a. Aims of evaluation b. Types of evaluation: formative versus summative assessment, internal assessment c. Characteristics of evaluation (reliability, validity, feasibility, objectivity) d. Norm and criterion referenced f. Steps of evaluation	V	4	4	3	4	1	4	1	3	4	4	1	1
2. Tools of assessment	a. Long answer question b. Short answer question c. Multiple-choice question d. Extended matching items principles e. Objective structured clinical examination f. Objective structured practical examination g. Structured oral examination h. Mini multiple personality interview	V	3	3	3	4	2	4	2	4	4	4	2	4
3. Mechanics of question paper (QP) setting	a. Steps in QP preparation b. Design of a QP c. Blue printing of QP d. Preparation of QP model e. Preparation of marking scheme f. Refining and editing the questions g. Review of the QP	V	4	4	3	4	2	3	2	3	2	4	1	4
4. Post-validation	a. Item response theory	D	3	3	1	2	2	2	1	1	1	1	1	1
	b. Multiple-choice question (item analysis); essay question; short answer; very short answer	E	4	3	3	4	2	2	2	2	2	4	1	2
5. Projects as tools for evaluation	Includes educational research projects	E	4	4	2	4	2	2	2	3	2	4	3	4
6. Administering tests	Scoring versus grading	D	3	3	1	2	1	1	2	2	3	3	1	1
7. Automation in evaluation		D	3	2	1	2	2	2	2	4	1	2	1	1
8. Standard setting	Methods of standard setting; normalization	E	3	2	1	2	1	2	4	4	1	2	1	1
9. Professionalism	a. Requirements for postgraduate evaluation b. Professionalism c. Assessment of soft skills d. Newer assessment tools	V	4	4	2	2	1	2	3	4	3	4	2	2
10. Workplace-based assessment (WPBA)	a. WPBA versus conventional b. Portfolio c. Logbook d. 360 degree feedback	V	3	3	1	3	1	2	3	4	3	4	2	2
11. Regulatory standards for evaluation		E	4	4	1	2	1	2	1	2	3	4	1	1

Annexure 3. ABC design Matrix for PGDHPE module 3 topics

Topics	Subtopics	VED	Acquisition		Discussion		Investigation		Collaboration		Practice		Production	
			C	P	C	P	C	P	C	P	C	P	C	P
1. Curriculum development	a. Curricular models: principles, framework, types and applications	V	2	3	2	3	2	3	1	2	1	2	2	2
	b. Process and steps in curriculum development (MDN, ABC): curricular determinants		1	2	2	2	2	3	2	2	2	3	1	2
	c. Group work in curriculum designing		2	2	1	2	2	3	2	2	3	4	2	2
	d. Curriculum mapping and framework		2	2	1	2	2	3	1	2	2	4	2	2
	e. Authentic curriculum: intended, taught, assessed, achieved		1	2	2	2	3	4	2	2	1	2	1	2
2. Critical analysis of existing curriculum	a. Curriculum: critical evaluation—medical, dental, nursing	E	2	3	2	3	2	3	1	2	2	2	1	2
	b. National Medical Commission critical analysis—MCI Act 1956 discussion; DCI act		2	2	1	4	2	2	2	2	1	2	1	2
	c. Role of regulatory bodies in Health professional education (MCI, DCI, IN UGC), professional education, current trends and issues in HPE (NEET/ UGC-MOOC/21st century needs)		2	3	1	2	2	3	2	2	1	2	2	2
	d. Global curricula: comparison of health professional education (HPE); global perspectives and patterns of HPE across countries—Russia, China, Malaysia		2	3	2	2	2	3	1	2	1	2	2	2
3. Future directions in curriculum	Move to choice-based credit system and choice-based semester system curriculum; credit transfers, achievements and challenges	E	2	3	2	3	2	3	2	3	2	4	2	3
4. Curriculum determinants	a. Social, economic, political and techno-logical influencers of HPE in India: curriculum determinants	D	1	2	1	2	3	4	1	2	1	2	2	2
	b. Educational policies and their influence on HPE–Flexner report, GPEP report, The Edinburg declaration, Geis report, Bhore Committee, Bajaj Committee, National Policy of Education of Health Sciences, Yashpal Committee report, Chada, Kartar Singh, Kennedy, Mudaliar, Mukherjee, Shrivastava Committee report, Lancet, Vision 2015, NSDC report		4	2	2	2	3	4	1	2	1	2	2	2
5. Quality control in curriculum	Quality control, assurance and improvement	V	2	4	3	4	3	4	2	4	2	4	3	4
6. Management of education conflict management	Resource management: time, stress and	V	2	2	2	4	2	4	1	2	2	4	2	2

contd.

Annexure 3. ABC design matrix for PGDHPE module 1 topics

Topics	Subtopics	VED	Rubrics											
			Acquisition		Discussion		Investigation		Collaboration		Practice		Production	
			C	P	C	P	C	P	C	P	C	P	C	P
7. Professionalism, mentoring and feedback	Preparation of professional teacher—roles and responsibilities; educational activities in core competencies; organizing professional aspects of teacher; evaluation: self, peer and student	V	2	3	2	4	2	4	2	4	3	4	3	4
8. University structure	a. Structure of universities, faculty administration relationship, malpractice issues; accreditation	E	2	3	2	4	2	4	2	3	3	4	3	4
	b. University administrative issues with curriculum implementation—approval channel, board of studies, academic council, how frequently should it be done		2	3	3	4	3	4	2	3	2	4	3	4

Annexure 4. ABC design Matrix for PGDHPE elective modules topics

Topics	Subtopics	VED	Rubrics											
			Acquisition		Discussion		Investigation		Collaboration		Practice		Production	
			C	P	C	P	C	P	C	P	C	P	C	P
1. Simulation pedagogy	a. Why simulate? Dale's cone of experience; simulation for different domains	V	4	4	3	3	2	2	2	2	1	1	1	2
	b. Classification of simulators for psycho-motor skills; visit to skills laboratory	V	1	1	3	3	2	2	3	3	4	4	3	4
	c. Immersive simulation and attributes of high-fidelity simulation; use of standardized patients for communication skills and other soft skills	D	2	2	3	3	4	4	2	2	4	4	3	4
	d. Factors that impact simulation; feasibility in own settings in India	D	1	1	3	3	4	4	3	3	4	4	1	1
2. Educational research	a. Introduction to research; types of research: mixed-methods research; difference between educational research and other types of research; selection of topic, review of the literature, preparation of protocol and writing a research question	V	2	2	3	3	4	4	3	3	4	4	4	4
	b. Quantitative research methods	E	2	2	3	3	3	3	3	3	4	4	3	3
	c. Qualitative research methods	E	2	2	4	4	2	3	3	3	4	4	4	4
	d. Ethics, plagiarism and publication of educational research	V	2	2	4	4	2	2	3	3	4	4	4	4
3. Guidance, counselling and student wellness	a. Guidance and counselling: theory	V	3	3	2	2	2	2	3	3	1	1	1	1
	b. Guidance and counselling: practice	E	3	3	4	4	4	4	3	3	3	3	1	1
	c. Student wellness—yoga/music therapy	D	2	2	1	1	1	1	1	1	2	2	2	2
	d. Workshop for guiding SNACS/SNAPS	E	2	2	3	3	3	4	3	3	3	3	3	4