Table 2 **Assessing the 3 types of undergraduate curricula in Iraqi medical colleges against learning tools**

Educational activity/item	Curriculum		
	Subject-based	Integrated	Problem-based learning
First tool: Dale's effectiveness of teaching methods			
Lectures	Main teaching method	Starting point at the beginning of educational activities	Fewer keynote lectures as needed to respond to student's learning needs in the first 3 years
Memorization	Focus of teaching and exams with heavy load on student	Student still overwhelmed by load of theoretical content	Covers only concepts
Use of audiovisual aids	In lectures as demonstration	Students react to audiovisual aids	Students interact and apply
Lab work	Extensive but irrelevant to parallel educational activities in the first 3 years	Related to organ-system module in the first 3 years	Responsive to student's learning needs in the first 3 years
Small group tutorials	Occasional and non-curricular	Teaching led by related resource faculty	Learning led by students and tutored by faculty
Curricular opportunities to apply competencies	Rare in the first 3 years and guided opportunities in the last 3 years (clinical phase)	Limited in timetable in the first 3 years and guided opportunities in the last 3 years (clinical phase)	Part of timetable and repeated weekly in the first 3 years and guided opportunities in the last 3 years (clinical phase)
Curricular opportunities to practise peer-teaching	Non-existent	Limited, non-curricular	Curricular and assessed in the first 3 years. Repeated weekly
Second tool: the quality of educational strategies (SPICES)			
Student role	Teacher centred	Teacher role	Student centred
Problem solving	Memorization	Understanding and questioning a problem	Facing and solving new problems
Integration	Separate subjects	Integrated teaching	Integrated learning
Clinical training	Hospital-focused	Curative content-focused	Community-oriented
Electives	Not offered	Offered	Not offered
Systematic training	Clinical training depends on availability of patients in teaching hospitals.	Planned availability of patients or alternatives (skills lab) for training based on adopted set of competencies/ outcomes	Planned availability of patients or alternatives for training in health and community settings based on adopted set of graduate competencies and Cognitive skills in the weekly problem solving steps.
Third tool: Miller's pyramid for training and assessment of clinical skills competence / performance			
Knows (knowledge)	Theory	Theory + training (skills lab)	Theory + training in skills lab, class, and community settings
Knows how (competence)	Theory and observation	Describe, observe and apply in skills lab	Describe, observe and apply in class, skills lab and community settings
Shows how (perform)	Limited in later clinical years only	Separate opportunities to show how	Repeated opportunities in the first 3 years (multiple settings)
Does (action)	Limited and only in last year	Limited opportunities in clinical modules	Repeated weekly curricular opportunities in the first 3 years