



Tomorrow's Doctors, Tomorrow's Cures®

Curriculum Inventory Portal Standardized Instructional and Assessment Methods and Resources

One of the major issues in working with any type of a national system is the concept of creating meaningful aggregate data. For the Curriculum Inventory Portal (CIP), we are developing standardized **instructional methods** and **assessment methods** to facilitate reporting of aggregate data related to curriculum content and pedagogy. Schools may continue to use local vocabularies, but the upload to the CIP will include a process that matches local vocabulary to standardized vocabulary.

We reviewed existing terminologies for instructional methods and assessment methods from CurrMIT, LCME, ACGME, and others and developed a list of instructional methods and assessment methods describing the activity in which the learners are engaged. The terms are intentionally general. A list of **resources** may be used in conjunction with the instructional methods and assessment methods to allow greater specificity regarding the nature of the activity.

The attached lists represent the efforts of a subcommittee of the MedBiquitous Curriculum Inventory Working Group (http://www.medbiquitous.org/curriculum_inventory), and while much thought and discussion went into development of these lists, they should be considered drafts for public comment and should not restrict continued discussion and potential revision.

We encourage your comments about these lists and invite questions. We are developing a list of FAQs to assist in the use of this standardized vocabulary, and your questions will help us develop a useful list.

For more information or to submit comments and questions, please contact:

Terri Cameron, Senior Program Manager, Curriculum Inventory Portal
tcameron@aamc.org www.aamc.org/cip

Adrian Ballard, Educational Content Specialist, Curriculum Inventory Portal
aballard@aamc.org www.aamc.org/cip

Valerie Smothers, Deputy Director, MedBiquitous
vsmothers@jhmi.edu www.medbiq.org

MedBiquitous Curriculum Inventory Working Group Instructional Methods Subcommittee:

Terri Cameron, AAMC
Adrian Ballard, AAMC
Kristi Ferguson, University of Iowa
Heather Hagemann, Washington University

Lise McCoy, A.T. Still University
Valerie Smothers, MedBiquitous
Hugh Stoddard, University of Nebraska

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Instructional Methods – DRAFT (November 2011)

Instructional Method	Definition / More information
Case-Based Instruction/Learning	<p>The use of patient cases (actual or theoretical) to stimulate discussion, questioning, problem solving, and reasoning on issues pertaining to the basic sciences and clinical disciplines (Anderson, 2010)</p> <p>Synonymous with/Includes: Case Study</p> <p>Does not include: Conference; Discussion, Small Group (<10); Patient Presentation - Faculty; Patient Presentation - Student; Simulation</p> <p>Note(s): Distinguished from Simulation in that, in CBL, learner is not necessarily practicing the role of care provider, yet in Simulation, learner is practicing some aspect(s) of provider role.</p>
Clinical Experience - Ambulatory	<p>Practical experience(s) in patient care and health-related services carried out in an ambulatory/outpatient setting (LCME, 2011b) where actual symptoms are studied and treatment is given (Educational Resources Information Center, 1968 & 1981)</p> <p>Synonymous with/Includes: Clinical Correlation; Clinical Reasoning; Communication Skills; Community-Based; Outpatient; Patient Care; Patient Care Activity; Problem Solving</p> <p>Note(s): LCME ED-15: “The curriculum of a medical education program must prepare students to enter any field of graduate medical education and include content and <i>clinical experiences</i> [emphasis added] related to each phase of the human life cycle that will prepare students to recognize wellness, determinants of health, and opportunities for health promotion; recognize and interpret symptoms and signs of disease; develop differential diagnoses and treatment plans; and assist patients in addressing health-related issues involving all organ systems.”</p> <p>ED-16: “The <i>clinical experiences</i> [emphasis added] provided to medical students by a medical education program must utilize both <i>outpatient</i> [emphasis added] and inpatient settings” (LCME, 2011b)</p>
Clinical Experience - Inpatient	<p>Practical experience(s) in patient care and health-related services carried out in an inpatient setting (LCME, 2011b) where actual symptoms are studied and treatment is given (Educational Resources Information Center, 1968 & 1981)</p> <p>Synonymous with/Includes: Clinical Correlation; Clinical Reasoning; Communication Skills; Patient Care; Patient Care Activity; Problem Solving</p> <p>Note(s): LCME ED-15: “The curriculum of a medical education program must prepare students to enter any field of graduate medical education and include content and <i>clinical experiences</i> [emphasis added] related to each phase of the human life cycle that will prepare students to recognize wellness, determinants of health, and opportunities for health promotion; recognize and interpret symptoms and signs of disease; develop differential diagnoses and treatment plans; and assist patients in addressing health-related issues involving all organ systems.”</p> <p>ED-16: “The <i>clinical experiences</i> [emphasis added] provided to medical students by a medical education program must utilize both outpatient and <i>inpatient</i> [emphasis added] settings” (LCME, 2011b)</p>
Conference	<p>Departmentally-driven and/or content-specific presentations by clinical faculty/professionals, residents, and/or students before a large group of other professionals and/or learners (e.g., Mortality and Morbidity, or "M & M," Conference--Biddle & Oaster, 1990--and Interdisciplinary Conference--Feldman, 1999; also see Cooke, Irby, & O'Brien, 2010b)</p> <p>Synonymous with/Includes: Grand Rounds; Mortality and Morbidity (M & M) Conference; X-Ray; Tumor Board</p> <p>Does not include: Discussion, Large Group (>10); Lecture</p>
Demonstration	<p>A description, performance, or explanation of a process, illustrated by examples, observable action, specimens, etc. (Dictionary.com, n.d.)</p> <p>Synonymous with/Includes: Autopsy</p>
Discussion, Large Group (>10)	<p>An exchange (oral or written) of opinions, observations, or ideas among a Large Group (more than 10 participants [Springer, Stanne & Donovan, 1999]), usually to analyze, clarify, or reach conclusions about issues, questions, or problems (Educational Resources Information Center, 1980)</p> <p>Does not include: Conference</p>
Discussion, Small Group (<=10)	<p>An exchange (oral or written) of opinions, observations, or ideas among a Small Group (10 or fewer participants [Springer, Stanne & Donovan, 1999]), usually to analyze, clarify, or reach conclusions about issues, questions, or problems (Educational Resources Information Center, 1980)</p> <p>Does not include: Conference; Tutorial; Workshop</p>

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Instructional Method	Definition / More information
Independent Learning	<p>Instructor-/ or mentor-guided learning activities to be performed by the learner outside of formal educational settings (classroom, lab, clinic) (Bowen & Smith, 2010); Dedicated time on student schedules to prepare for specific learning activities, e.g., case discussions, TBL, PBL, clinical activities, research project(s)</p> <p>Synonymous with/Includes: Independent Study; Self-Study</p> <p>Does not include: Self-directed Learning</p>
Journal Club	<p>A small group forum in which participants discuss recent research papers from field literature in order to develop critical reading skills (comprehension, analysis, and critique) (Cooke, Irby, & O'Brien, 2010a; Mann & O'Neill, 2010; Woods & Winkel, 1982)</p> <p>Synonymous with/Includes: Critical Reading</p> <p>Note(s): “[A] [small-group (Mann & O'Neill, 2010)] forum for the education of residents in the techniques of critical reading, that is, the ability to understand the format of an article, analyze the process by which the study was done, recognize the limitations of the work, and critique the results and interpretation” (Woods & Winkel, 1982); “[A] forum for discussion of recent papers in [a] specialty [and] mechanism for residents [and/or students] to learn how to assess the quality and import of clinical research papers” (Cooke, Irby, & O'Brien, 2010a)</p>
Laboratory	<p>Hands-on or simulated exercises in which students collect or use data to test and/or verify hypotheses or to address questions about principles and/or phenomena (LCME, 2011b)</p> <p>Synonymous with/Includes: Autopsy; Anatomy Lab; Gross Lab; Histology Lab; Wet Lab</p> <p>Does not include: Demonstration</p> <p>Note(s): LCME ED-12: “[P]ractical opportunities for the direct application of the scientific method, accurate observation of biomedical phenomena, and critical analysis of data...[C]ould include hands-on or simulated (e.g., computer-based) exercises in which medical students either collect or use data to test and/or verify hypotheses or to address questions about biomedical principles and/or phenomena” (LCME, 2011b)</p>
Lecture	<p>An instruction or verbal discourse by a speaker before a large group of students (Institute for International Medical Education, 2002)</p> <p>Synonymous with/Includes: Didactic</p> <p>Does not include: Conference</p>
Mentorship	<p>The provision of guidance, direction and support by senior professionals to learners or more junior professionals (U.S. National Library of Medicine, 1987) (<i>NOTE:</i> Focus is professional behavior, contrasted with focus of Preceptorship, which is clinical behavior/skills)</p> <p>Synonymous with/Includes: Advising; Professional Development</p> <p>Does not include: Preceptorship</p>
Patient Presentation - Faculty	<p>A presentation by faculty of patient findings, physical exam, history and physical, differential diagnosis, treatment plan, social issues, etc. (Wiener, 1974)</p>
Patient Presentation - Student	<p>A presentation by a student or students to faculty, resident(s), and/or other students of patient findings, physical exam, history and physical, differential diagnosis, treatment plan, social issues, etc. (Wiener, 1974)</p>
Peer Teaching	<p>Student-to-student instruction for the mutual learning experience of both "teacher" and "learner"; may be "peer-to-peer" (same training level) or "near-peer" (higher-level student teaching lower-level student) (Soriano et al., 2010)</p> <p>Synonymous with/Includes: Near-Peer Instruction; Peer Instruction; Peer Teaching; Peer Tutoring; Peer-Assisted Learning</p>
Preceptorship	<p>Practical experience in medical and health-related services wherein the professionally-trained student works outside the academic environment under the supervision of an established professional in the particular field (U. S. National Library of Medicine, 1974) (<i>NOTE:</i> Focus is clinical behavior/skills, contrasted with focus of Mentorship, which is professional behavior)</p> <p>Synonymous with/Includes: Externship</p> <p>Does not include: Mentorship</p>

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Instructional Method	Definition / More information
Problem-Based Learning (PBL)	The use of carefully selected and designed patient cases that demand from the learner acquisition of critical knowledge, problem solving proficiency, self-directed learning strategies, and team participation skills as those needed in professional practice (Eshach & Bitterman, 2003 ; see also Major & Palmer, 2001 ; Cooke, Irby, & O'Brien, 2010b ; Barrows & Tamblyn, 1980)
Reflection	Examination by the student of his/her personal experiences of a learning event, including the cognitive, emotional, and affective aspects; the use of these past experiences in combination with objective information to inform present clinical decision-making and problem-solving (Mann, Gordon, & MacLeod, 2009 ; Mann & O'Neill, 2010)
Research	Short-term or sustained participation in research
Role Play/ Dramatization	The adopting or performing the role or activities of another individual Synonymous with/Includes: Practicing Skills (with peers) Does not include: Simulation (as with Simulated/Standardized Patient) – See Resources
Self-Directed Learning	Students taking the initiative for their own learning: diagnosing needs, formulating goals, identifying resources, implementing appropriate activities, and evaluating outcomes (Garrison, 1997 ; Spencer & Jordan, 1999) Does not include: Independent Study; Independent Learning
Service Learning Activity	A structured learning experience that combines community service with preparation and reflection (LCME, 2011b) Synonymous with/Includes: Community Service
Simulation	A method used...to replace or amplify real patient experiences with scenarios designed to replicate real health encounters, using lifelike mannequins, physical models, standardized patients, or computers (Passiment, Sacks, & Huang, 2011)
Team-Based Learning (TBL)	A form of collaborative learning that follows a specific sequence of individual work, group work and immediate feedback; engages students in learning activities within a small group that works independently in classes with high student-faculty ratios (Anderson, 2010 ; Team-Based Learning Collaborative, n.d. ; Thompson, Schneider, Haidet, Perkowski, & Richards, 2007)
Team-Building	Workshops, sessions, and/or activities contributing to the development of teamwork skills, often as a foundation for group work in learning (PBL, TBL, etc.) and practice (interprofessional/-disciplinary, etc.) (Morrison, Goldfarb, & Lancken, 2010)
Tutorial	Instruction provided to a learner or small group of learners by direct interaction with an instructor (Education Resources Information Center, 1966b)
Ward Rounds	An instructional session conducted in an actual clinical setting, using real patients or patient cases to demonstrate procedures or clinical skills, illustrate clinical reasoning and problem-solving, or stimulate discussion and analytical thinking among a group of learners (Bowen & Smith, 2010 ; Wiener, 1974) Synonymous with/Includes: Attending Rounds; Bedside Rounds; Bedside Teaching; Teaching Rounds; Student group visit as part of "Doctoring" or "Physical Diagnosis" course
Workshop	A brief intensive educational program for a relatively small group of people that focuses especially on techniques and skills related to a specific topic (U. S. National Library of Medicine, 2011) Synonymous with/Includes: Seminar

Assessment Methods – DRAFT (November 2011)

Assessment Method (may be <i>formative</i> or <i>summative</i>)	Definition / More information
Clinical Documentation	<p>The review and assessment of clinical notes and logs kept by students as part of practical training in the clinical setting (Bowen & Smith, 2010; Irby, 1995)</p> <p>Synonymous with/Includes: Case Log; Chart Review; Clinical Encounter Log; Patient Workup</p> <p>Does not include: Portfolio Review (Formative); Portfolio-Based Assessment (Summative); Feedback</p>
Clinical Performance Rating/ Checklist	<p>A non-narrative assessment tool (checklist, Likert-type scale, other instrument) used to note completion or achievement of learning tasks (MacRae, Vu, Graham, Word-Sims, Colliver, & Robbs, 1995; Turnbull, Gray, & MacFadyen, 1998) also see “Direct Observations or Performance Audits,” Institute for International Medical Education, 2002)</p> <p>Synonymous with/Includes: Rating Scale; Likert Scale; Reflection Feedback</p> <p>Does not include: Multisource Assessment; Peer Assessment; Self-Assessment</p>
Exam - Institutionally Developed, Clinical Performance	<p>Practical performance-based examination developed internally to assess problem solving, clinical reasoning, decision making, and[/or] communication skills (LCME, 2011b) (<i>Includes observation of learner or small group by instructor</i>)</p> <p>Synonymous with/Includes: OSCE; Virtual Patient; Practical Exam; Internal (practical) Exam; Script Concordance; Simulation Exam; MiniCEX; CEX; SCEE (Simulated Clinical Encounter Examination)</p> <p>Note(s): LCME ED-26. “A medical education program must have a system in place for the assessment of medical student achievement throughout the program that employs a variety of measures of knowledge, skills, behaviors, and attitudes. Assessments of medical student performance should measure the retention of factual knowledge; the development of the skills, behaviors, and attitudes needed in subsequent medical training and practice; and the ability to use data appropriately for solving problems commonly encountered in medical practice” [emphasis added] (LCME, 2011b)</p>
Exam - Institutionally Developed, Written/ Computer-based	<p>Examination utilizing various written question-and-answer formats (multiple-choice, short answer, essay, etc.) which may assess students’ factual knowledge retention; application of knowledge, concepts, and principles; problem-solving acumen; and clinical reasoning (Cooke, Irby, & O’Brien, 2010b; LCME, 2011b)</p> <p>Synonymous with/Includes: Written Exam; Internal (written) Exam; MCQ; Multiple Choice; Quiz; Script Concordance</p> <p>Note(s): LCME ED-26. “A medical education program must have a system in place for the assessment of medical student achievement throughout the program that employs a variety of measures of knowledge, skills, behaviors, and attitudes. “Assessments of medical student performance should measure the retention of factual knowledge [emphasis added]; the development of the skills, behaviors, and attitudes needed in subsequent medical training and practice; and the ability to use data appropriately for solving problems commonly encountered in medical practice” [emphasis added] (LCME, 2011b).</p>
Exam - Institutionally Developed, Oral	<p>Verbal examination developed internally to assess problem solving, clinical reasoning, decision making, and[/or] communication skills (LCME, 2011b)</p>
Exam - Licensure, Clinical Performance	<p>Practical, performance-based examination developed by a professional licensing body to assess clinical skills such as problem solving, clinical reasoning, decision making, and communication, for licensure to practice in a given jurisdiction (e.g., USMLE for the United States); typically paired with a written/computer-based component (MCC, 2011a & 2011c; NBOME, n.d.; USMLE, n.d.); may also be used by schools to assess students’ achievement of certain curricular objectives</p> <p>Synonymous with/Includes: USMLE Step 2-CS, COMLEX Level 2-PE; MCC Part II; CEFM</p>

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Assessment Method (may be <i>formative</i> or <i>summative</i>)	Definition / More information
Exam - Licensure, Written/ Computer-based	<p>Standardized written examination administered to assess students' factual knowledge retention; application of knowledge, concepts, and principles; problem-solving acumen; and clinical reasoning, for licensure to practice in a given jurisdiction (e.g., USMLE for the United States); typically paired with a clinical performance component (MCC, 2011a & 2011b; NBOME, n.d.; USMLE, n.d.); may also be used by schools or students themselves to assess achievement of certain curricular objectives</p> <p>Synonymous with/Includes: USMLE Step 1; USMLE Step 2-CK; COMLEX Level 1; COMLEX Level 2-CE; COMLEX Level 3; MCC Part I; CEFM</p> <p>Note(s): United States Medical Licensing Examination (n.d.): "The USMLE assesses a physician's ability to apply knowledge, concepts, and principles [emphasis added], and to demonstrate fundamental patient-centered skills, that are important in health and disease and that constitute the basis of safe and effective patient care."</p>
Exam - Nationally Normed/ Standardized, Subject	<p>Standardized written examination administered to assess students' achievement of nationally established educational expectations for various levels of training and/or specialized subject area(s) (e.g., NBME Subject or "Shelf" Exam) (NBME, 2011; NBOME, 2010a)</p> <p>Synonymous with/Includes: NBME; NBME Subject Exam; NBME Shelf; COMAT Subject Exam; COMSAE; COMVEX</p>
Feedback	<p>Response to student work or performance [that is not part of student record], often directing the learner to specific remediation for identified deficits (Holmboe, 2008, as cited in Wiese, 2010, p. 149; Thomas & Kern, 2010)</p> <p>Synonymous with/Includes: Reflection Feedback</p> <p>Does not include: Narrative Assessment; Clinical Performance Rating/Checklist</p>
Multisource Assessment	<p>A questionnaire-based performance assessment by peers, patients, and coworkers (Bowen & Smith, 2010; Institute for International Medical Education, 2002) (Also see Peer Assessment)</p> <p>Synonymous with/Includes: Multi-Rater Assessment; 360-Degree Assessment</p>
Narrative Assessment	<p>An instructor's or observer's written subjective assessment of a student's work or performance (Mennin, McConnell, & Anderson, 1997) [to be included in student record, versus Feedback, not included in student record]; <i>May Include:</i> Comments within larger assessment, Observation [of learner or small group by instructor]</p> <p>Synonymous with/Includes: Observation by Instructor; Observation by Faculty; Observation by Resident</p> <p>Does not include: Peer Assessment; Feedback; Self-Assessment</p>
Oral Patient Presentation	<p>The presentation of clinical case (patient) findings, physical exam, history and physical, differential diagnosis, treatment plan, social issues, etc., by a student to an instructor or small group, and subsequent discussion with the instructor and/or small group for the purposes of student demonstrating skills in clinical reasoning, problem-solving, etc. (Wiener, 1974)</p>
Participation	<p>Sharing or taking part in an activity (Education Resources Information Center, 1966a)</p> <p>Synonymous with/Includes: Attendance</p>
Peer Assessment	<p>Method for evaluating professional attitudes and behavior, used by trainees to assess each other and also used by supervisors, nurses and patients to assess trainees. Typical measurement tools for this form of testing are checklists and questionnaires (Institute for International Medical Education, 2002)</p> <p>Does not include: Multisource Assessment; Narrative Assessment</p>
Portfolio-Based Assessment	<p>Review of a student's achievement of agreed-upon academic objectives or completion of a negotiated set of learning activities, based on a student portfolio (Institute for International Medical Education, 2002) ("a systematic collection of a student's work samples, records of observation, test results, etc., over a period of time"—Educational Resources Information Center, 1994)</p>

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Assessment Method (may be <i>formative</i> or <i>summative</i>)	Definition / More information
Practical (Lab)	<p>Student engagement in hands-on or simulated exercises in which they collect or use data to test and/or verify hypotheses or to address questions about principles and/or phenomena (LCME, 2011b)</p> <p>Synonymous with/Includes: Laboratory Practicum; Anatomy Practical</p> <p>Note(s): LCME ED-12: “[P]ractical opportunities for the direct application of the scientific method, accurate observation of biomedical phenomena, and critical analysis of data...[C]ould include hands-on or simulated (e.g., computer-based) exercises in which medical students either collect or use data to test and/or verify hypotheses or to address questions about biomedical principles and/or phenomena” (LCME, 2011b)</p>
Research or Project Assessment	<p>Assessment of activities and outcomes (e.g., posters, presentations, reports, etc.) of a project in which the student participated or conducted research (Dyrbye, Davidson, & Cook, 2008)</p>
Self-Assessment	<p>The process of evaluating one’s own deficiencies, achievements, behavior or professional performance and competencies (Institute for International Medical Education, 2002); Assessment completed by the student to reflect and critically assess his/her own performance against a set of established criteria (Gordon, 1991)</p> <p>(NOTE: Does not refer to <i>NBME Self-Assessment</i>)</p> <p>Does not include: <i>NBME Self-Assessment</i> (National Board of Medical Examiners (NBME) Self-Assessment Services, n.d.)</p>

Resources – DRAFT (November 2011)

Resource	Definition / More information
Audience Response System	An electronic communication system that allows large groups of people to vote on a topic or answer a question. Each person has a remote control (“clicker”) with which selections can be made; Typically, the results are instantly made available to the participants via a graph displayed on the projector. (Group on Information Resources, 2011 ; Stoddard & Piquette, 2010)
Autopsy	Postmortem examination of the body (U. S. National Library of Medicine, 1999)
Cadaver	A human body preserved post-mortem and “used...to study anatomy, identify disease sites, determine causes of death, and provide tissue to repair a defect in a living human being. Students in medical schools study and dissect cadavers as part of their education” (MedicineNet.com, 2004) Synonymous with/Includes: Corpse; Dissection; Prosection; Prosection Specimen
Distance Learning - Asynchronous	Education facilitated through communications media (often electronic), with little or no classroom or other face-to-face contact between students and teachers, and which “does not occur in real time or involve simultaneous interaction on the part of participants. It is intermittent and generally characterized by a significant time delay or interval between sending and receiving or responding to messages” (Education Resources Information Center, 1983; 2008a) Synonymous with/Includes: Computer-Assisted Learning (CAL); Computer-Assisted Instruction (CAI)
Distance Learning - Synchronous	Education facilitated through communications media (often electronic), with little or no classroom or other face-to-face contact between students and teachers, “in real time, characterized by concurrent exchanges between participants. Interaction is simultaneous without a meaningful time delay between sending a message and receiving or responding to it. Occurs in electronic (e.g., interactive videoconferencing) and non-electronic environments (e.g., telephone conversations)” (Education Resources Information Center, 1983; 2008b) Synonymous with/Includes: Computer-Assisted Learning (CAL); Computer-Assisted Instruction (CAI)
Educational Technology	Mobile or desktop technology (hardware or software) used for instruction/learning through audiovisual (A/V), multimedia, web-based, or online modalities (Group on Information Resources, 2011); Sometimes includes dedicated space (see Virtual/Computerized Lab) Synonymous with/Includes: computer; desktop computer; laptop; iPad; netbook, smart phone; e-reader; web portals; collaboration tools (wikis, blogs); simulation tools (see also, Mannequin, Searchable Electronic Database, Standardized/Simulated Patient, Task Trainer, Virtual Patient; Virtual/Computerized Lab); audio/video casting; e-Portfolios (see also, Portfolio-based Assessment [assessment method])
Key Feature	An element specific to a clinical case or problem that demands the use of particular clinical skills in order to achieve the problem's successful resolution; Typically presented as written exam questions, as in the Canadian Qualifying Examination in Medicine (Page & Bordage, 1995; Page, Bordage, & Allen, 1995) Synonymous with/Includes: Patient Management Problems (PMPs); Clinical Decision Making (CDM) exam Note(s): “1. a critical or essential step(s) in the resolution of a problem, 2. a step(s) in which examinees ...are most likely to make errors in the resolution of the problem, or 3. a difficult or challenging aspect in the identification and management of the problem in practice” (Medical Council of Canada, 2010, p. 6).
Mannequin	A life-size model of the human body that mimics various anatomical functions to teach skills and procedures in health education; may be low-fidelity (having limited or no electronic inputs) or high-fidelity (connected to a computer that allows the robot to respond dynamically to user input) (Group on Information Resources, 2011 ; Passiment, Sacks, & Huang, 2011)
Plastinated Specimens	Organic material preserved by replacing water and fat in tissue with silicone, resulting in “anatomical specimens [that] are safer to use, more pleasant to use, and are much more durable and have a much longer shelf life” (University of Michigan Plastination Lab, n.d.) Note(s): “Preserved tissue is first dissected and then dehydrated with acetone. It is immersed in a silicone bath under vacuum until the replacement of acetone is completed. After plastination, the resulting tissue is safe to handle (i.e., toxic fixatives are eliminated), the tissue has no odor and it is extremely durable. Thus, the anatomical specimens are safer to use, more pleasant to use, and are much more durable and have a much longer shelf life” (University of Michigan Plastination Lab, n.d.)

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Resource	Definition / More information
Professional Journal Articles	Articles from peer-reviewed professional journals (see Woods & Winkel, 1982)
Real Patient	An actual clinical patient
Searchable Electronic Database	A collection of information organized in such a way that a computer program can quickly select desired pieces of data (Webopedia, n.d.) Synonymous with/Includes: PubMed
Standardized/ Simulated Patient (SP)	Individual trained to portray a patient with a specific condition in a realistic, standardized and repeatable way (where portrayal/presentation varies based only on learner performance) (ASPE, 2011) Synonymous with/Includes: Gynecological Teaching Associates (GTA); Male Urogenital Teaching Associates (MUTA) Note(s): “SPs can be used for teaching and assessment of learners including but not limited to history/consultation, physical examination and other clinical skills in simulated clinical environments. SPs can also be used to give feedback and evaluate student performance.” (ASPE, 2011)
Task Trainer	A physical model that simulates a subset of physiologic function to include normal and abnormal anatomy (Passiment, Sacks, & Huang, 2011); Such models which provide just the key elements of the task or skill being learned (CISL, 2011) Synonymous with/Includes: Plastic IV Arm, Airway Management Head, Urinary catheter trainer, Pelvic examination trainer; Virtual reality endoscopic devices Note(s): “Part-task Trainers in plastic or other forms cannot fully replicate performing the task on real patients, but they do allow learners to acquire the basic steps of the procedures and some of the basic skills needed to then be taught the fine art of doing the procedures under supervision on actual human beings” (CISL, 2011)
Virtual Patient	An interactive computer simulation of real-life clinical scenarios for the purpose of medical training, education, or assessment (Smothers, Azan, & Ellaway, 2010) Does not include: Educational Technology ; Virtual/Computerized Lab
Virtual/ Computerized Laboratory	A practical learning environment in which technology- and computer-based simulations allow students to engage in computer-assisted instruction while being able to ask and answer questions and also engage in discussion of content (Cooke, Irby, & O'Brien, 2010a); also, to learn through experience by performing medical tasks, especially high-risk ones, in a safe environment (Uniformed Services University, 2011) Synonymous with/Includes: Computer Assisted Instruction; Biochemistry; Microbiology; Molecular biology; Cell biology; Tissue culture laboratory; Pathology; Organic Chemistry; Physical Chemistry Does not include: Educational Technology
Wet Laboratory	Facilities outfitted with specialized equipment* and bench space or adjustable, flexible desktop space for working with solutions or biological materials (“ C.1 Wet Laboratories, ” 2006; Stanford University School of Medicine, 2007 ; WBDG Staff, 2010) *Often includes sinks, chemical fume hoods, biosafety cabinets, and piped services such as deionized or RO water, lab cold and hot water, lab waste/vents, carbon dioxide, vacuum, compressed air, eyewash, safety showers, natural gas, telephone, LAN, and power (“ C.1 Wet Laboratories, ” 2006) Synonymous with/Includes: Biochemistry; Microbiology; Molecular biology; Cell biology; Tissue culture laboratory; Pathology; Organic Chemistry; Physical Chemistry Note(s): Frequently used for instruction and/or research in Biochemistry; Molecular biology; Cell biology; Tissue culture laboratory; Pathology; Organic Chemistry; Physical Chemistry (“ C.1 Wet Laboratories, ” 2006) “[T]raditional molecular and cell biology...must be facilitated by high-quality wet lab space with benches and standard, small scale, support space (including desks that are computer-friendly because even for molecular biology experimentation you need a computer). As long as people work with model organisms, cell culture, and molecular biology, this arrangement forms the basis of biomedical insights that are obtained by experimentation” (Stanford University School of Medicine, 2007 p. 58).

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