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Simulation Training for Educators of Health Care Workers
ACKNOWLEDGMENTS

This Simulation Training for Educators of Health Care Providers Learning Resource Package (LRP) is a competency-based learning tool. The LRP focuses on management of and instruction in a simulated environment for instructors working in or assigned to improve/create a simulation center at their teaching institutions that prepare health care providers. In addition, the LRP is modifiable for any developing country and not country-specific. It has been tested in both Eastern and Western Africa, in both English- and French-speaking countries. It is based in large part on experience gained from working in a simulated environment and with teaching institutions in developing countries that are creating and managing interdisciplinary simulation centers.

The main challenge was to create a package that adequately covered all the necessary topics—which is not feasible in a five-day course. Hence, follow-up, advisement and coaching are needed to ensure that instructors are incorporating the newly acquired information and practice.

We would like to thank the contributors of this LRP:

- Udaya Thomas, a Senior Technical Advisor, Global Learning Office, Jhpiego, Technical Lead for this project.
- Dr. Peter Johnson, Director of Global Learning, Jhpiego, for encouragement and support.
- Pre-service education (PSE) team members (contributors no longer with Jhpiego are in italic) in Liberia and Ethiopia: Marion Subah, Tegbar Yigzaw, Eritrea Tadesse, Entisar Ahmed, Mesfin Goji, Tesfaye Habitetsion and Endris Mekonnen for their input and contribution to the sessions and session plans.
- Learners of Liberia and Ethiopian courses, whose input was incorporated with modifications in this LRP.
- Tsigué Pleah, Senior Technical Advisor, Jhpiego, for her presentation on models and her review of the materials prior to use in French-speaking West African countries.
- Martha Appiagyei, Reproductive Health Advisor, Jhpiego Ghana, for her photos and contributions on locally made model instructions.
- Julia Bluestone for her review of and input for the course syllabus.
- Essential Teaching Skills (ETS) and ModCAL® (Modified Computer-Assisted Learning) developers at Jhpiego.
- Pamela Jeffries, Johns Hopkins University (JHU) School of Nursing, for the Simulation Model contribution.
- JHU School of Medicine Simulation Center for simulation text reference suggestions.
- Rachel Rivas for editing and Renata Kepner for formatting, Publications, Jhpiego.
- RBHS Liberia for partial funding support for this training package and CDC Technical Support in HIV Treatment, Care and Prevention in Ethiopia programs for partial funding support to the
initial development of the workshop and components that were used to develop this training package.

While framing this LRP, the following articles and texts were referenced:


Other Articles:


Text References:

Text references allow trainers and instructors to expand on areas that were covered and not covered in the course. These references give more information for faculty development and coaching sessions with instructors. If feasible, purchasing these texts for each Faculty Educational Development Center would be useful. The text references recommended by JHU School of Medicine Simulation Center are:


Checklists:

To make this Simulation Training LRP competency-based, the author developed, modified and utilized existing checklists and clinical simulations based on the actual need and appropriateness. Many thanks to Jhpiego programs worldwide for this large repository of checklists.
OVERVIEW

COMPONENTS OF THE LEARNING RESOURCE PACKAGE

This simulation training course is built around the use of the following components:

- Need-to-know information contained in the *Effective Teaching Skills (ETS): A Guide for Educating Healthcare Providers, Reference Manual* (see Appendix F) and presentation graphics.
- A Learner’s Guide containing how to use the learning package, course design, syllabus and schedule, and learning exercises.
- A Facilitator’s Guide, which includes session plans, learning exercise, interactive presentation thumbnails and narration notes, assessments with answer keys and detailed information for conducting the course.
- Well-designed learning aids, including those located on the accompanying CD-ROM, anatomic models and supplies, and other educational materials.
- Management binder, a sample management binder per institution that includes the following sections: 1) objectives to be met in lab, 2) staffing plan, 3) lab student rotation schedule, 4) assessment schedule, 5) tracking and renewal of materials and equipment list, 6) equipment instructions and manuals, 7) learning outcomes achieved in lab, 8) educational strategies, 9) clinical research, 10) CMT members, 11) business plan, and 12) homemade models.
- Competency-based performance evaluation

The reference manual recommended for use in this course is the *ETS Reference Manual* and the *ModCAL® (Modified Computer-Assisted Learning) flash drive*. There are only select areas that are dedicated to simulation, coaching and feedback; however, key relevant articles will supplement the information as further reference material (see Appendix J).

USING THE LEARNING RESOURCE PACKAGE

In designing the training materials for this course, particular attention was paid to making them “user-friendly” and to permitting the course learners and facilitators the widest possible latitude in adapting the training to learner (group and individual) learning needs. For example, at the beginning of each course, an assessment is made of each learner’s knowledge. The results of this pre-course assessment are then used jointly by the learners and facilitators to adapt the course content as needed, so that the training focuses on acquisition of new information and practical activities.

A second feature relates to the use of the ETS Reference Manual and course handbook. The *ETS Reference Manual and articles* provide essential information needed to conduct the course in a logical manner. The manual and articles only contain information that is consistent with the course goals and objectives, so they are an integral part of all sessions (e.g., giving an illustrated lecture or providing problem-solving information). The presentation graphics highlight the key information in each chapter of the reference manual.
The Learner’s Guide, on the other hand, serves a dual function. First, and foremost, it is the road map that guides the learner through each phase of the course. Second, it contains the course syllabus and course schedule, as well as all supplemental printed materials needed during the course.

The Facilitator’s Guide, as the name suggests, contains specific guidance and materials for the facilitator—including course logistics, materials and answer keys. Competency-based qualification checklists may be found as electronic files and will be shared with learners along with other course content at the end of the course in a CD-ROM. Checklists will be printed by the facilitator as needed and requested by learners, depending on the cadre and tasks that the instructors are teaching and assessing in their own facilities.

In keeping with the mastery learning approach upon which this course is based, all training activities will be conducted in an interactive, participatory manner. To accomplish this, the role of the facilitator must continually change throughout the course. For example, he/she is an instructor when presenting a classroom demonstration; a facilitator when conducting small-group discussions or using role plays; and shifts to the role of coach when helping learners practice a procedure. Finally, when objectively assessing performance, the facilitator serves as an assessor.

New Terminology
The use of “task development” will replace “skill development.” The term “skill” will be replaced with “clinical task/task.” This replacement is being done to emphasize that each clinical activity encompasses the knowledge that has been acquired, the appropriate professional behavior (and the underlying attitude), and the tactile skills that are necessary rather than just the tactile skills. This emphasis is consistent with emerging literature on simulation. The use of tasks also incorporates other activities that may not be of a clinical nature but students (and patients) would benefit from their simulated practice. Competency in its simplest definition is a set of job-related tasks. A task is an observable professional behavior. As such, all checklists and protocols relate to tasks and incorporate a set of steps that address knowledge, skill and attitude, as well as problem-solving components. This is important in our discussions to broaden our thinking away from “skills” and embrace a more holistic definition that allows us to open the conversation on why the aspects of attitude and problem-solving or clinical decision-making are so important. Integrating more simulation with our teaching-learning environments allows us to move teaching institutions toward more interactive, humanistic, team-oriented centers for learning and sharing.
INTRODUCTION

COURSE DESIGN
This Simulation Training for Educator of Health Care Workers Learning Resource Package (LRP) was born out of a request for further training on managing and implementing simulated environments for students in health-related training institutions. The package was specifically developed to be used with or without Jhpiego ModCAL Training Skills (TS) course, but was harmonized with the Jhpiego ModCAL TS LRP; key concepts may be reinforced by viewing the Jhpiego ModCAL TS flash drive or CD-ROM. If Jhpiego ModCAL can be viewed by learners prior to this training, the training itself will be more interactive. Modules 8 and 11 of the Jhpiego ETS LRP were also utilized as a base for expanding the content, using the adult learning principle of starting with what people know and building on that foundation.

This LRP is intended to be live and modified as new information becomes available. Instructors are encouraged to update themselves and modify the presentations to their context. There are many roads to the same destination; as long as the objectives are maintained and used as a road map, the outcomes of this course will be successful. Since the learners are instructors and will be replicating this training in second-generation courses, they should receive the entire LRP at the completion of the course. This LRP is based on two pilot courses implemented in Liberia and Ethiopia, and experience from working in a simulated environment and delivering ETS in many countries.

This simulation training course is designed for educators of health care workers (e.g., physicians, nurses, lab technicians, pharmacists, environmental health technicians and midwives). The course builds on each learner’s knowledge and takes advantage of his/her high motivation to accomplish the learning tasks in the minimum time. The training emphasizes doing, not just knowing, and uses competency-based evaluation of performance.

This course differs from traditional courses in several ways:

- During the first day, learners are introduced to the key features of mastery learning and then are briefly tested (Pre-course Assessment) to determine their individual and group knowledge of management, instruction and coaching in a simulated setting.

- Classroom and simulation sessions focus on key courses objectives that learners will choose in small groups (which need practice and assessment in a simulated setting prior to patient contact).

- Progress in knowledge-based learning is measured during the course using a review of the management binder, team presentations of coaching a clinical or other task and finally the Post-course Assessment. The order of the post-course assessment and the team presentations is up to the discretion of the facilitators. Furthermore, coaching will need to be assessed formatively and remediated as needed since time may prohibit all learners from presenting their coaching skills in simulation at the end.

- Simulation training builds on the learner’s previously mastered clinical or non-clinical tasks. In many cases, the learners have not had simulated practice before or have had limited clinical experience and conduct (primarily theoretical lectures). Both facilitators and learners should...
choose relatively simple clinical tasks or activities to coach, so that the focus is on the coaching and not the technical content since facilitators should be proficient in the technical content to be a coach. This will ensure that coaches are very comfortable with the clinical tasks and will allow them to spend their time processing and enhancing their coaching ability.

- Progress is measured formatively with very close contact of the facilitators in the group work and regular feedback and encouragement.
- Evaluation of each learner’s performance is conducted by a facilitator using a coaching aid checklist.

Successful completion of the course is based on attendance and participation in all the sessions, a team presentation of coaching (rotated if time permits or enough facilitators to break out into separate rooms), a partially completed management binder and the post-course assessment.

FACILITATORS
Facilitators of this course should be intimately familiar with delivering the Jhpiego ETS course and ModCAL and preferably have experience working in a simulation environment or at the very least supporting others who work in this environment. If they do not have this background, it is unlikely that they will be prepared with suggestions, guidance and answers for the learners. Learners of this course should be given the ETS Reference Manual in the course material CD-ROM, which is provided to them at the end of the training. They should also be given the ModCAL on flash drive or CD-ROM, so they will have both to refer to and review prior to facilitating the course or individual sessions to colleagues.

SESSIONS
Sessions may be given individually by instructors (who have participated in this course) to other instructors as time in their faculty development and continuing education permits. It is unlikely that you will be able to cover all instructors; therefore, those instructors should be prepared to replicate the training for others in their own institution. They may call on you to co-train with them and if this is feasible, trainers on this material should make every effort to do so. The sessions could also be divided into management versus clinical task or task development. Eventually, the Jhpiego Global Learning Office (GLO) would like to add a session on clinical decision-making and problem-solving. If a country has more than five days for the training, the course could easily incorporate additional sessions along with the session on locally available materials. If not, these additions could be conducted later on-site as follow-up coaching activities.

CHECKLISTS
Select checklists (Appendix B) according to the courses that you are teaching and for which tasks you are already proficient but you have not established simulated practice for at your institution. If you have checklists in your files that have been vetted and standardized, present them to the facilitator to review prior to using for the learning exercises.
EVALUATION
This simulation training course is designed to produce health care providers qualified to be a simulation center core management team (CMT) members and instructors/coaches in a simulated environment by:

- Building a management binder
- Mastering coaching ability according to the standard checklist
- Creating an assessment blueprint for the simulation objectives of at least one session of an existing course

Qualification is a statement by the training institution(s) that the learner has met the requirements of the course in knowledge, skills and practice. Qualification does not imply certification. Personnel can be certified only by an authorized organization or licensing agency (e.g., ministry of education or health).

Qualification is based on the learner’s achievement in three areas:

1. Knowledge—A score of at least 85% on the Post-course Assessment
2. Skills—Satisfactory coaching and feedback presentation that is technically correct
3. Attitude—Demonstrated ability to provide coaching and feedback in a professional manner

Responsibility for the learner becoming qualified is shared by the learner and the facilitator.

The evaluation methods used in the course are described briefly below:

- **Provision of Services (simulated practice only).** During the course, it is the facilitator’s responsibility to observe each learner’s overall performance in providing services. This provides a key opportunity to observe the impact on clients of the learner’s attitude—a critical component of high-quality service delivery. Only by doing this can the facilitator assess the way the learner uses what he/she has learned.

- **Post-course Assessment.** The assessment will be given at the time in the course when all subject areas have been presented. A score of 85% or more correct indicates knowledge-based mastery of the material presented in the reference material. For those scoring less than 85% on their first attempt, one of the facilitators should review the results with the learner individually and guide him/her on using the reference materials to learn the required information. Learners scoring less than 85% can repeat the exam in the afternoon on the final day and receive their certificate either later that day or in a follow-up coaching session that a facilitator might need to conduct with that instructor. If a learner is receiving less than an 85% because he/she missed one or more sessions, that learner is not eligible for a certificate and would need to repeat the course if feasible.
In determining whether the learner is qualified, the facilitator(s) will observe and rate the learner’s performance for each step of the Coaching Checklist. The learner must be rated “satisfactory” in each step to be evaluated as qualified.

Within three to six months of qualification, it is recommended that graduates be observed and evaluated while working in their institution by a trainer/advisor using the same coaching checklist. This post-course evaluation activity is important for several reasons. First, it not only gives the instructor direct feedback on his/her performance, but also provides the opportunity to discuss any start-up problems or constraints to conducting simulated practice sessions (e.g., lack of instruments, supplies lab manager or support staff). Second, and equally important, it provides the facilitators key information on the adequacy of the training and its appropriateness to local conditions. Without this type of feedback, training easily can become routine, stagnant and irrelevant to the needs of teaching institutions.

**COURSE SYLLABUS**

The syllabus below is your contract with the learners in this course. The syllabus and the schedule should be sent with the invitation to the course so that the selection criteria of the learners are well-understood and the right learners attend the course. There should also be a highlighted message in the invitation that the syllabi for the course that instructors facilitate should be brought with them to the course. If facilitators already have this material, they should make the relevant copies and have them available. There is nothing more frustrating to the facilitator than getting learners who expected an entirely different training. It affects costs, logistics and the number you expected to train, since the mismatch may cause learners to leave. Although the goals and objectives of the course are listed below, the administrator who received the invitation may not have given a copy to the selected learners. The goal and objectives should always be reviewed at the beginning of the course. The learners’ expectations should always come before these are shared, and then they can be reconciled with the objectives.

**Course Description**

This five to six day workshop is just one in a series of workshops to better prepare you and your institution to provide students with an improved educational experience and better prepared to provide safe, competent services upon graduation. The simulation course covers key aspects of managing a simulation center/environment, and prepares you to facilitate learning and clinical development in simulation. At the end of this course, you will be prepared to facilitate competency development in your students through the use of practice in simulation.

**Course Goals**

The goals of this course are that by the end, learners should be able to:

1. Assist in the management of the simulation center and

2. Facilitate the development of clinical competence in standardized tasks in a simulated setting.
Learner Selection Criteria
Learners for this workshop should be involved in managing their teaching institution’s simulation center and participate in assessing the development of clinical competency of students in simulation and in clinical practice.

Course Pre-requisite
Jhpiego ETS course or other Effective Teaching Course. (All learners should have attended an Effective Teaching course.)

Learner Learning Objectives
The specific objectives that will be covered include:

- Review the past and present of simulated practice for achieving competency
- Discuss the design of a simulated setting/center
- Identify core management team (CMT) member responsibilities
- Develop list of materials, supplies and equipment needed with locally available materials
- Develop components of a management binder for instructors and staff managing the simulation center. (See Articles and Text References below.)
- Discuss learning objectives/outcomes that could be achieved in simulation
- Link objectives to be achieved to assessment methods
- Develop lesson plans for students who have to acquire a specific set of clinical tasks in simulation
- Practice station rotation in groups in the simulated setting
- Practice coaching and feedback at simulated stations
- Present a coaching and feedback session at a simulated station

Teaching and Learning Methods
- Illustrated lecture
- Discussion
- Demonstration
- Coaching
- Role play
- Group activity

Teaching and Learning Materials
- Presentation graphics
- Video clips
- Selected articles on simulation provided on CD-ROM (listed below).
- Selected models and simulators
- Management binder, sample management binder per institution that includes the following sections: 1) objectives to be met in lab, 2) staffing plan, 3) lab student rotation schedule, 4) assessment schedule, 5) tracking and renewal of materials and equipment list, 6) equipment instructions and manuals, 7) learning outcomes achieved in lab, 8) educational strategies, 9) research, 10) CMT members, 11) business plan, and 12) homemade models

**Audiovisual Equipment**
- LCD (liquid crystal display) projector
- Power strip with surge protector, extension cords and plug adaptors
- Projection screen
- Laptop computers with CD-ROM drive
- Digital camera
- Flip chart, markers, flip chart stand

**Clinical Supplies**
- Prepare according to course syllabi that learners plan to bring with them to the course.

**Articles and Text References**
Reference articles for the course:


5. Local educational standards on simulation. Review and mark areas in need of updates based on discovery and reflection during this course.

Text references allow trainers and instructors to expand on areas that were covered and not covered in the course. It gives more information for faculty development and coaching sessions with instructors. If feasible, purchasing these texts for each Faculty Educational Development Center would be useful. The text references recommended by JHU School of Medicine Simulation Center are:


**Assessment Methods**

At the end of the course, each group will provide evidence that they are able to apply what they have learned throughout the course. The assignments will be contextualized to your working environment:

- Pre- and post-course assessments
- Submission of lesson plans for a clinical task or specific set of clinical tasks in the simulated center/setting.
- Presentation of a practical coaching and feedback session with assigned roles of coach, student, and student observer and simulated patient/s if applicable to the scenario.

**Course**

- Course Evaluation Form (to be completed by each learner)

**Logistics**

- Location: training room and simulation center
- Duration and dates

**Course Duration**

- 11 sessions for a five-day course

**Suggested Course Composition**

- 16 health care professionals
- Two or three facilitators
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<tbody>
<tr>
<td>• Opening Activities</td>
<td>• Agenda</td>
<td>• Agenda and Opening</td>
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<td>• Welcome and Introduction</td>
<td>• Recap and Clarifications</td>
<td>• Recap and Clarifications</td>
<td>• Recap and Clarifications</td>
<td>• Recap and Clarifications</td>
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<tr>
<td>• Learner Expectations and Group Norms</td>
<td>Presentation: Simulation Center Course Overview (S1.1)</td>
<td>Presentation: Simulation Lesson Plans (S3.1)</td>
<td>Presentation: Reviewing Standards for Monitoring and Evaluation (S4.1)</td>
<td>Presentation: Reviewing Standards for Monitoring and Evaluation (S4.1) relating to simulation setting, coaching and feedback, note potential gaps and revisions needed</td>
</tr>
<tr>
<td>• Goals and Objectives</td>
<td>Group Discussion: Identify courses and objectives in syllabi with practical components that may share the simulation space</td>
<td>Learning Exercise: Developing Stations and Lesson Plans (S3.1)</td>
<td>Learning Exercise: Reviewing Standards for Monitoring and Evaluation (S4.1)</td>
<td>Group presentations of stations and coaching/feedback in a simulated setting</td>
</tr>
<tr>
<td>• Review of Materials and Schedule</td>
<td>Learning Exercise: Complete sections 4 and 5 of business plan outline (S2.1)</td>
<td>Presentation: Group presentations of lesson plans</td>
<td>Learning Exercise: Reviewing Standards for Monitoring and Evaluation (S4.1) relating to simulation setting, coaching and feedback, note potential gaps and revisions needed</td>
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<tr>
<td>• Pre-course Assessment</td>
<td>Mini-Presentation: Facilitate the Development of Health Care Delivery Tasks(S3.2)</td>
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<td>Presentation: History and Current Use of Simulation (S1.2)</td>
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<td>Learning Exercise: Observations—tour of and scavenger hunt in available simulation environment/center (S1.2)</td>
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<td><em>Health Break</em></td>
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<td>Presentation: Design Simulation Teaching and Learning Activities (S1.3)</td>
<td>Presentation: Reviewing and Revising Specific Simulation Center Objectives (S2.2)</td>
<td>Presentation: Coaching and Feedback for Health Care Delivery Tasks (S3.3)</td>
<td>Activity: Group work on stations, build into lesson plan a role play or choose a new objective and build a lesson plan and station with role play or case study and practice for interactive presentation in the morning. Assign coach and student roles.</td>
<td>Individual Learning Plan &amp; Institution Action Plans (60 min.) Institution Action Plans (60 min.) Present Action Plans (5–10 min. each group)</td>
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<tr>
<td>Learning Exercise: Complete sections 1 and 2 of business plan (S1.3)</td>
<td>Learning Exercise: Revise specific objectives as a group (S2.2)</td>
<td>Learning Exercise: Practice coaching and feedback (S3.3)</td>
<td></td>
<td>• Post-course Assessment</td>
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<td>• Course Evaluation</td>
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<td>• Slide show of photos taken during training</td>
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<td>• CD-ROM review</td>
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<td>• Closing</td>
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<tr>
<td>Lunch Break</td>
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<td>Afternoon (3 hours)</td>
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<tr>
<td><strong>Presentation:</strong> Locally Made Models (S1.4)</td>
<td><strong>Presentation:</strong> Linking Simulation to Assessment (S2.3)</td>
<td><strong>Mini-presentation:</strong> Review Station Rotation map and process (S3.4)</td>
<td><strong>Learning Exercise:</strong> Practice station rotation (S3.4) for coaching and if time permits work on binder for stations that may be grouped together for formative assessment</td>
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<tr>
<td><strong>Learning Exercise:</strong> Creating an Assessment Blueprint for Simulation (S2.3)</td>
<td></td>
<td><strong>Learning Exercise:</strong> Practice station rotation (S3.4) for coaching and if time permits work on binder for stations that may be grouped together for formative assessment</td>
<td><strong>Mini-presentation:</strong> Review Station Rotation map and process (S3.4)</td>
<td><strong>Learning Exercise:</strong> Practice station rotation (S3.4) for coaching and if time permits work on binder for stations that may be grouped together for formative assessment</td>
</tr>
<tr>
<td>Health Break</td>
<td></td>
<td><strong>Learning Exercise:</strong> Develop materials list and focus on locally available materials; complete section 3 of business plan (S1.4)</td>
<td><strong>Optional activity, time permitting:</strong> Develop other sections of the binder.</td>
<td><strong>Daily Evaluation</strong></td>
</tr>
<tr>
<td><strong>Learning Exercise:</strong> Develop materials list and focus on locally available materials; complete section 3 of business plan (S1.4)</td>
<td><strong>Learning Exercise</strong> Continued</td>
<td><strong>Daily Evaluation</strong></td>
<td><strong>Daily Evaluation</strong></td>
<td><strong>Daily Evaluation</strong></td>
</tr>
</tbody>
</table>
PRE-COURSE ASSESSMENT

HOW THE RESULTS WILL BE USED
The main objective of the Pre-course Assessment is to assist both the facilitator and the learners as they begin their work together in the course by assessing what the learners, individually and as a group, know about the course topic. Providing the results of the pre-course assessment to the learners enables them to focus on their individual learning needs. In addition, the questions alert learners to the content that will be presented in the course.

The questions are presented in a true-false format. A special form, the Individual and Group Assessment Matrix, is provided to record the scores of all course learners. Using this form, the facilitator and learners can quickly chart the number of correct answers for each of the 20 questions. By examining the data in the matrix, the group can easily determine its collective strengths and weaknesses and jointly plan how to best use the course time to achieve the desired learning objectives.

For the facilitator, the assessment results will identify particular topics that may need additional emphasis during the learning sessions. Conversely, for those categories where 85% or more of learners answer the questions correctly, the facilitator may elect to use some of the allotted time for other purposes.

For the learners, the broad learning objective related to each question and the corresponding session(s) in the reference materials are noted above the questions. To make the best use of the limited course time, learners are encouraged to address their individual learning needs by studying the material.

PRE-COURSE ASSESSMENT
Instructions: In the space provided, print a capital T if the statement is TRUE or a capital F is the statement is FALSE.

<table>
<thead>
<tr>
<th>Designing the Simulated Environment</th>
<th>TRUE OR FALSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The role of simulation in practical teaching is to provide activities that mimic the reality of a clinical environment.</td>
<td></td>
</tr>
<tr>
<td>2. Objectives, fidelity, complexity, cues and debriefing are all considerations in design of a simulation.</td>
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<tr>
<td>3. Creating lesson plans for simulated activities is a waste of the instructor's time.</td>
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<tr>
<td>4. Models made from locally available materials may be used to meet learning objectives.</td>
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<tr>
<td>5. Supporting objectives for simulation MUST have BOTH a specific action and an object of the action.</td>
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</tr>
<tr>
<td>Managing the Simulated Environment</td>
<td>TRUE OR FALSE</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>1. A core management team (CMT) MUST have at least one person from each department to represent what objectives MUST be met in the center.</td>
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</tr>
<tr>
<td>2. Senior students are NOT appropriate to involve in managing the space and materials.</td>
<td></td>
</tr>
<tr>
<td>3. The simulation center MUST be available when instructors are demonstrating the clinical tasks.</td>
<td></td>
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<tr>
<td>4. Supplies MUST be kept open to air or they WILL degrade.</td>
<td></td>
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<tr>
<td>5. Ideally, a lab manager is the primary manager of the simulation space.</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Implementing in the Simulated Environment</th>
<th>TRUE OR FALSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A coach MUST be proficient in the area being taught.</td>
<td></td>
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<tr>
<td>2. Checklists MUST NOT be given to students while they are acquiring the clinical tasks.</td>
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<tr>
<td>3. The stations MUST be fixed and ready for use at all times.</td>
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<tr>
<td>4. Students MUST always be given an opportunity to respond to your feedback.</td>
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<tr>
<td>5. Debriefing after simulated practice is analogous to summarizing the end of a lecture.</td>
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<tr>
<th>Monitoring and Evaluating the Simulated Environment</th>
<th>TRUE OR FALSE</th>
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<tbody>
<tr>
<td>1. Feedback sessions or assessments are both ways to monitor a simulation center.</td>
<td></td>
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<tr>
<td>2. SBM-R is NOT an appropriate monitoring tool for simulation centers.</td>
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<tr>
<td>3. Evaluation of the simulation center is defined as a PERIODIC assessment of the overall process and results of the simulation center.</td>
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<tr>
<td>4. Revising learning lab/simulation objectives is a POSSIBLE outcome of monitoring and evaluating the simulation center.</td>
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<tr>
<td>5. Use expected results to examine if activities and assessments in the simulation center reflect learning objectives.</td>
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LEARNING EXERCISES

S1.2 OBSERVE A SIMULATION CENTER LEARNING EXERCISE
Group Work
Objectives:
1. Conduct a visual survey of a simulation center.
2. Record observations in the sheet provided.

Materials: paper, pens, Handout S1.2: Observations of the Simulation Center

Time: 60 minutes

Instructions:
- Tour available simulation center.
- Observe what is available and record according to the handout you have been given.
- Lab manager will give an orientation and demonstrate storage and maintenance of simulators, allowing hands-on time.
- Group debrief on observations will be held before orientation and after orientation and hands-on experience.

S1.3 COMPLETE SECTIONS 1 AND 2 OF THE BUSINESS PLAN LEARNING EXERCISE
Group Work
Objectives:
1. Write the outline of the executive summary of the simulation center.
2. Design the start-up or improvement plan.

Materials: Handout S1.3A Business Plan Outline (sections 1 and 2), paper, pens, computers, management binder

Time: 60 minutes

Instructions:
- Form small groups (institution or department).
- Select a group leader, reporter and time keeper.
- Complete sections 1 and 2 of business plan:
  1. Write your mission statement and primary goal or objectives for the simulation center.
2. Decide which courses (with lab components)/departments will use the simulation center and if there are any hospitals, funding groups or private companies with which you will have strategic alliances.

3. Create a start-up plan identifying, if possible, a main faculty lab manager or coordinator who could dedicate their time to (at least) start up while you look for a more permanent manager.

**S1.4 CREATE A SIMULATION CENTER MATERIALS LIST LEARNING EXERCISE**

**Group Work**

**Objectives:**

1. Review objectives and courses in the last activity.

2. Identify locally or homemade models that could be utilized to achieve these objectives.

3. Start creating a materials list in the materials template provided to you.

4. Start a new sheet (keep the sample as a separate sheet in the same file).

**Materials:** Handout S1.3A Business Plan Outline (section 3), management binder, computer, Handout S1.4 Simulation Center Materials Tracking Sheet (Excel spreadsheet, printed or given to each group on flash drive)

**Time:** 120 minutes

**Instructions:**

- Divide into your institution groups.
- Look at the objectives you identified in the last activity.
- Start creating a list of materials you would need for your simulation center and focus on locally available materials.
- Add this list to your management binder.
- Present to the larger group a summary of the last two activity results.

**S2.1 PLAN TO MANAGE A SIMULATION CENTER LEARNING EXERCISE**

**Group Work**

**Objectives:**

1. Identify objectives from the syllabi that could be achieved in the simulation center.

2. Identify funding and supplies needed based on objectives.

3. Map courses and time slots for lab use.

**Materials:** paper, pens
Time: 100 minutes

Instructions:
- Break into institutional groups.
- Plan or enhance your simulation setting.
- Manage multiple courses:
  - Coordinate courses and times.
  - Establish times for open lab.

S2.2 REVISE SUPPORTING OBJECTIVES FOR SIMULATED ACTIVITIES LEARNING EXERCISE
Small Group Work (3–5 people)
Objectives:
1. Revise three supporting objectives that should be attained in the skills area with at least one attitude objective or component.

Materials: paper, pens

Time: 15 minutes for revision and 30 minutes for sharing and correcting as a group

Instructions:
- Review your course syllabus-supporting objectives.
- Revise three supporting objectives that should be attained in the skills area, with at least one attitude objective or component.
- Share your revised or new objectives with the larger group.
- Main facilitator will review them in the large group and make any needed corrections with the group’s input or suggestions, identifying the specific action and the object of the action.

S2.3 CREATE AN ASSESSMENT BLUEPRINT FOR SIMULATION LEARNING EXERCISE
Group Work
Objectives:
1. Develop an assessment blueprint for one unit or session.

Materials: Handout S2.3: Blueprint Template, pens

Time: 120 minutes
Instructions:
- Assign a recorder and a reporter.
- Select a course you are all interested in.
- Select a unit or session from the course syllabus.
- Pull out the learning objectives that are assessed in simulated environment, or use the ones you revised in the last session.
- Develop assessment blueprint for simulation to determine what tasks will be practiced in the simulation center.
- Continue with additional units if time allows.

S3.1 DEVELOP LESSON PLANS AND STATIONS FOR SIMULATION LEARNING EXERCISE

Group Work

Objectives:
1. Develop a lesson plan for a station activity.
2. Develop a station for appropriate demonstration and coaching of the chosen clinical task.

Materials: checklists, Handout S3.1: Lesson Plan Template, corresponding materials required in the checklists, markers, pens

Time: 90 minutes

Instructions:
- Break into five groups (by discipline with one person from a different discipline works best).
- Choose a supporting objective(s) from your course syllabus.
- Develop a lesson plan and station(s) for your simulated setting.
- Include a case study or role play that you have created before, or create a new one.
- Time limit of 40 minutes for group work.
- Group review of stations and lesson plans will have 50 minutes.

[NOTE: NO LEARNING EXERCISE FOR S3.2.]
S3.3 PRACTICE COACHING AND FEEDBACK LEARNING EXERCISE

Objectives:
1. Practice coaching at a simulated station with a student and observers.
2. Practice giving feedback at a simulated station with a student and observers.
3. Allow students to debrief or ask questions at the end as a summary, or plan for the “next practice session.”

Materials: checklists, Handout 3.3: Coaching Aid with Talley Sheet, Handout S3.1: Lesson Plan Template, station set up and materials, markers, pens

Time: 90 minutes

Instructions:
- Break into disciplines: assign coaches, student and observers.
- Use the checklist and lesson plan with the same station and task you chose yesterday.
- Practice demonstrating and coaching techniques, rotate so everyone has the opportunity to act as demonstrator/coach.
- Address the student by first inquiring if there is a particular part of the clinical task they would like to focus on, or if they would like to practice the whole checklist.

S3.4 STATION ROTATION LEARNING EXERCISE

Objectives:
1. Practice coaching at a station where students will rotate through.
2. Follow time limit of lab manager and send students to the next station.
3. Debrief on rotation exercise (time at each station, having similar or different stations, use of senior students, etc.).

Materials: checklist, Handout 3.3: Coaching Aid with Talley Sheet, Handout S3.1: Lesson Plan Template, station set up and materials, markers, pens

Time: 150 minutes

Instructions:
- Gather with your group at your station.
- Coaches will remain at the stations for the first round (one round means that all learners completed all stations).
- The lab manager (one of the facilitators) will let them know when they will change stations.
If time permits, rotate coaches that remained at the stations so that other coaches get a sense of repeating a coaching session for different students.

**S4.1 REVIEW STANDARDS FOR MONITORING AND EVALUATION OF SIMULATED SETTINGS LEARNING EXERCISE**

**Objectives:**
1. Analyze existing standards.
2. Modify/update standards based on evidence presented in this course.
3. Create sample standards for monitoring a simulation center if standards are not currently employed.

**Materials:** copies of sample simulation standards (Appendix E), pens

**Time:** 90 minutes

**Instructions:**
- Divide by discipline.
- Have them choose a recorder, reporter and time keeper.
- Take assigned standard and analyze it (20 minutes).
- Decide on any modifications based on what you have learned here and per evidence, or have learners create standards and ways to verify those standards.
- If standards exist, then each group should present as each group would have a different standard. If there are no existing standards, each group should present unless another group has already presented what you would have. Allow 5–10 minutes for presentation depending on the size of the group and if they are presenting new standards or analyzing the existing ones.