

Large Group Learning Simulation Intensive Mastery Camp  
SIMCamp  
Notes

Slide 1

Introduction

California Health Sciences University is in Clovis California, if you know where Fresno is (right in the middle of the state) you will find Clovis next door.

It is the third college of osteopathic medicine in California.

It is the only medical school in central California.

I am the director for a 21,000 square foot simulation lab as part of the college of osteopathic medicine.

SIMCamp was developed while in the very large pediatric hospital in Fresno coming from the need to have multiple staff learn through simulation-based education.

It was originally conceived for new RN hires to the emergency department but became a model throughout the institution.

Slide 2

No Disclosures

Slide 3

This is where we are going today and you will have the opportunity to apply what we have experienced in your own setting.

Slide 4

Generally, education is given in three ways:

- lecture or presentation which can involve interactive and group learning including flipping the classroom

- learning management system or online which is siloed for the individual unless there are discussion boards to engage others

- skills practice such as skills fairs which focused on specific hands-on practice

What if there is a new way of doing things?

- Reduce costs

- Engage multiple learners

- Create the whole picture that integrates knowledge, skills and actions that are transferable to direct patient care

Slide 5

Let's look at the reason for a SIMcamp

Slide 6

This concept was a germ of an idea in a very large and very busy pediatric hospital.

New and experienced staff needed training:

New nurses and respiratory care practitioners to the emergency room  
Trauma team development: Surgeons, nurses, respiratory, imaging and more  
ECMO team development: new pump specialists, intensivists  
High winter census training: nurses, respiratory  
New transport team members

The question: how do we train the large numbers in the most time efficient manner and keeping resources reasonable?

The resources included personnel, time, supplies and equipment.

The idea become:

2-hour block of time

3 patient scenarios

20-minute scenarios

10-minute summary debrief during a reset for the next scenario

15 minutes for pre-assessment

15 minutes for post-assessment

30 minutes blocks with three (scenarios)

4-6 participants experience all 3 scenarios

Rinse and repeat four more times = 24 participants in an 8-hour day with a 30-minute lunch

Slide 7

Let's look at the foundation for a SIMCamp

Slide 8

Simulation is about active learning, tying all the senses and emotion to connect the right thing to do to patient care.

Simulation and debriefing is an interactive process where there is group discussion, practice and even some teaching where participants learn from each other.

Slide 9

Adult learning theory drives simulation-based education

Kolb's Learning Cycle was the core theory for design of the experience

A person experiences a concrete patient case

Reflecting on what has been seen, felt and heard happens both in the scenario and in the group debrief which leads to

Thinking that develops clinical reasoning and clinical judgement.

This will change a person's frame of reference and potentially their behavior

Therefore, applying learning either in a do-over situation or in the next scenario/patient encounter embeds learning into muscle memory

Build a scenario on a strong theoretical foundation

Slide 10

In scenario development build the patient content simple to complex.

Use 3 to 4 scenarios that incorporate the learning from the previous.

Example: In Trauma Team Training

Scenario 1:

motor vehicle accident, 6-year-old was sitting in the back seat with the shoulder belt behind him, not in front. Lap belt in place.

Car is rear-ended and child is lurched forward. Has some internal injuries from the lap belt which has left a marked bruise.

Has a small laceration on forehead where he hit the back of the seat.

Scenario 2:

infant brought in by parent which is lethargic and unresponsive except to pain. There are finger bruising on the lateral aspects of the torso.

When the right leg is moved, the infant cries. This is later seen on x-ray as a spiral fracture. The baby has been shaken. Head injury.

Scenario 3:

motor vehicle accident, 6-year-old in back seat doing homework. Car is rear-ended and pushed into the car in front. No rear air bag.

Seat belt bruising, severe head laceration where he hit the DVD monitor on the back of the front seat. Impalement with a pen in the lower left abdomen. Active bleeding.

Scenario design was build on the previous scenario experience and included duplication/addition of skills.

Slide 11

Three visual examples of the trauma scenario simple to complex

Slide 12

Visual examples of participant engagement

First picture: patient arrives

Second picture: stabilization, note the abdominal bruising

Third picture: stabilization of airway, IV start

Total engagement in the learning moment

Slide 13

Participants suspended disbelief as they were in the environment that was relevant to their work. This took place in the ER trauma room with equipment they would actually use to stabilize a patient.

Slide 14

Definition: SIMCamp vs. Boot Camp: Simulation Intensive Mastery Camp

Bootcamp is a military term and having had a son in the army who called literally crying at how difficult boot camp was it was decided that this term could have a negative connotation especially for a veteran

SIMCamp provided a clear definition of the intent of the simulation time:

Intensive Mastery

RCDP: This was used to provide learning in the moment

Scenario starts. Participants need a cue, are off track need to consider an intervention or determine an algorithm

A TIME OUT is called by the facilitator

Time out: Less than 30 seconds

Consists of:

Focus on deliberate skill(s) for practice

The facilitator asks a question and allows discussion/reflection from participants

Participants discuss and learn from each other

Time in: Called by the facilitator and the scenario resumes where it stopped

In-Scenario Debriefing: This is the rapid cycle deliberate practice model using stop-start

Benefits: Real-time learning – in the moment

Scaffolding learning – correct or add a new element that participants can apply to the scenario

The final debrief at the end becomes a summary of lesson learned during the time-outs

Saves time

Promotes strong team communication – closed loop communication in all SIMCamps was a primary objective.

Challenges: Too many time-outs and the scenario cannot be completed.

Objectives may not be met.

Too long of time-outs – 30 to 45 seconds is all that is needed – coming back to the scenario is challenging as focus is lost

Off-track time-outs – the wrong question is asked, one not related to the patient at hand, basically trying to figure out what the facilitator is thinking. This leads to the participants not able to figure out the answer which slows the process

## Slide 15

The final summary debrief, if stop-start in the moment debriefing is used becomes more focused.

### Diffusing

Use caution when dealing with emotions. Allowing too much focus on the emotions will pull the debrief off track of the hoped outcome. Acknowledge vented feelings and move on.

If someone needs to talk about the feelings the scenario brought up in their personal life such as an end-of-life experience, have a facilitator ready to take them aside to talk it out. In the hospital consider having a social worker available.

Question: “How did that go?” Avoid the word “feel” to focus on how they felt about teamwork, process, etc.

### Discovering

Identify how the team worked well together. It is NOT about any one individual.

Find gaps in teamwork and how to change those with the next patient.

This is where the time is spent and should focus on the scenario objectives.

Be cautious to stay on course/topic

Question: "I observed that the second set of vitals signs was not done which is important information to have for this patient.

I'm curious as to what the thinking was at the time?

Avoid the negative; could of, should of, why didn't I? OR on any one individual.

Reframe participants thinking to change actions to improve patient care.

#### Slide 16

Debriefing model: Advocacy and Inquiry

Recommended reading

Debriefing with Good Judgment: Combining Rigorous Feedback with Genuine Inquiry

Jenny W. Rudolph, PhD

Robert Simon, EdD

Peter Rivard, PhD

Ronald L. Dufresne, PhD

Daniel B. Raemer, PhD

Anesthesiology Clin 25 (2007) 361–376

#### Slide 17

With in-the-moment debriefing during the scenario and a focus on team discovery based on objectives then all that remains is to summarize learning and

Deepen thinking:

What was the AH-HA moment in this scenario?

One is a take-away from this experience that will apply to future patient care.

#### Slide 18

SIMCamp is rigorous and time consuming.

It takes dedication to the concept and the work.

Find the champions and enlist early.

Include them in the planning as well.

Creativity increases in a group rather than solo.

#### Slide 19

There is a lot to consider when building a SIMCamp for multiple learners.

Decide early, review, revise and meet often.

Develop your own checklist from these questions.

Content: based on a needs assessment, quality assurance data, and/or observed deficits (such as incident reports)

Scenarios: will new ones need to be written or are there existing scenarios that meet the objectives of the assessed need?

even if there are existing scenarios, they will need review and possible revision.

decide who should tackle this work

A subject matter expert is always needed to review a final draft and suggest changes, decide and contact this person early

Assessment: having a pre- and post-assessment provides important knowledge learned during the experience and provides data

Remember, experts state that the post assessment questions should be of the same content but not the same questions as the pre assessment.  
this will help to evaluate knowledge gained or lost

Timeline: decide what the drop-dead date will be to hold the SIMCamp. Work with stakeholders (department leadership) to find the best day and time

Participants: who is the audience and what is the sheer number of people that will be in SIMCamp?

Sessions: know who and how many will set the number of sessions needed

Debrief: does time need to be set-aside for a full or just a partial debrief?

In-Scenario time: Knowing who and how many and knowing the number of sessions determines how long the scenario time should be.

Remember, there needs to be reset time in between sessions.

Schedule: now you can set the schedule of the SIMCamp

Facilitators: who can facilitate learning in simulation? Contact them early and provide training if needed

Slide 20

Let's look at the what of hands-on learning in a SIMCamp

Slide 21

So now that you have started your question-get answers checklist let's design.

Design

Review the needs assessment and build the scenario to be relevant to participants.

Link classroom knowledge acquisition or course curricula to the simulation experience.

The objectives should be relevant to learning.

This is where learning is embedded. We choose to not "teach" anything new only that which has been covered in a theory course.

Knowledge gained from policy, protocols or curricula should be embedded in the actual patient care in the scenario

Scaffold skills in each scenario. Ensure muscle memory as participants advance.

Example: Scenario 1 – vital signs, IV start, focus assessment

Scenario 2 – VS, check IV fluids, repeat assessment, insert foley

And so on. . .

Slide 22

Fidelity – the universe is in your hands

Pay attention to what they would encounter in the real world and re-create that in the training space

Pictures of the real environment, memory of actual setting can be recreated. Many have these blown up and placed in the blank space

All supplies, equipment and materials must be the same  
The story line – must be real. Take it from real patient cases.  
Remember confidentiality of patient information. So if using a real case, change the name, place, and adjust the situation to not reveal the true patient data.  
Moulage – have the “patient” look like a real patient and create conditions that fit with the scenario objectives whether a manikin or standardized patient  
Senses – sight, smell and touch – it must be the real thing

#### Slide 23

To meet different department and learning needs, the SIMCamp model is very flexible.  
A two-hour session works well for three scenarios, reset, and debrief 4 to 8 participants.  
Timing can be changed to meet the needs of many:

- one-hour session with 2 short encounters
  - three-hour session with 4 encounters
  - even a four-hour session with 4 encounters and time for a strong reflective debrief
- We used all the different timing based on department and specialty needs.

Transition Have manikins already set-up if possible: one for each scenario  
If you don't have enough then consider the simple way of resetting a manikin in a 15 minute window.

Re-set the manikin for the next scenario during the debrief this will require assistance and potential more personnel. Look for volunteers for example students.

Re-set of equipment and supplies was easier

#### Ability to Adjust

- We had 3 scenarios planned but the clock ran out after 2!
- Learning was happening and beneficial, so we let the third scenario go.
- Rich learning can still occur with partial objectives met.

#### Slide 24

When multiple participants need to be trained using simulation, there are challenges to overcome.

By addressing this first in the process, resolution of challenges will bring a successful event and participants will engage.

Remember, the goal is to reframe their thinking, define behavior change so that patient care improves, and errors are reduced.

Starting with the questions that were previously shared will remove many challenges.

Planning should start no less than 4 months ahead of the event. Ideally, 6 months so that all stakeholders can be included for decision making.

Although we did our first SIMCamp in trauma in 6 weeks at the request of department leadership. You don't need to spend 8 hours a day 40 hours a week planning either.

## Slide 25

It's always about money. . .how much and where will it come from?

And no matter where you do a SIMCamp, there will be costs.

Developing a budget early is very important as it affects where and how the event can be developed. Plus, a good budget that demonstrates clear thinking can justify having a SIMCamp with stakeholders.

Find out how much money you have, then work forward.

Answer these questions?

Will the event be mandatory or elective?

Mandatory means you need to pay for participant time in the service setting.

This time could be on worktime or off worktime, in which case overtime needs to be considered for hourly staff.

Mandatory in the academic setting, means you pay for the simulation team time.

This time must be coordinated with the course schedule and course directors.

And note: if required in a curricula it may add more units. To avoid this,

Embed in a course how simulation will be part of interactive learning.

Elective means it is "strongly recommend" to attend.

In service and academia, sign-up helps to get commitment from participants.

Both require department and faculty leadership to promote the opportunity.

The simulation team does not have authority for either but will support and "advertise" the event, its objectives and benefits.

Because you will run the event more than once or have more than one scenario there is the cost of duplicate materials – supplies and equipment

Will you use real, expired, and reused? We reused a tremendous amount of supplies including expired ones.

Can you create your own materials to replicate the situation? We found a way to make a huge amount of fake blood for easy clean-up: Gain red dish soap with 3 drops of red food coloring and 2 drops of blue (make to desired color). It was 99% soap and did not stain people's cloths. Plus, easy clean up after as it provided a washing of equipment, gurney and floor.

How long will it take to develop the materials? We started early

How much manpower will be needed to get materials together? By starting early, we could take time to find and box it up.

Budgeting Who do you need to talk with about the event and funding?

Do you have buy-in from the organization?

Do you need to get buy-in?

Do you need to write an executive summary with justification to get funding?

And possible surprise: Is there money in the fiscal year budget already for learning?

## Slide 26

Environment is a key essential component to ensure realism and engage learners.



Decide where this will happen by answering these questions?

How many people will participate in the patient encounter?

Will there be more than one patient encounter to experience?

Map out the scenario flow with reset time if having more than one patient encounter, then decide the best location.

Space Where does patient care occur in real life, on a patient unit, in situ. Can it be done there?

If on a patient unit, will it disrupt patient care? We provide a simple card for patients and family near the simulation that reassured them we were training to improve ourselves.

Is there a place for people to wait for the encounter?

Is more than one room needed for multiple patient encounters?

Will the simulation lab work?

Can the look and feel of a patient unit be accomplished for realism?

Is it easily accessible for participants to come and go? Is travel time needed?

Does the scenario call for an out-of-the-building encounter?

Where can this be done?

How will participants access the location?

Environmental Setting

Can one create the appropriate look and feel of the actual place where a real patient would receive care?

Hospital, in a patient room

Simulation lab, how should the room look to mimic a patient room

Off Site, what creativity is called for to develop a realistic scene?

In any place, are confederates and/or standardized patients needed?

Equipment Always the big question.

Hospital: Can all the equipment necessary for the scenario be used? Can non-working equipment be used? If a piece of equipment does not need to be actually used by participants, then a non-working piece adds realism. In our current lab we have a refurbished anesthesia machine and ventilator that looks very real but doesn't work.

Simulation lab, same questions as above. Where will the equipment be found, from whom? Will the equipment need to be purchased, moved or transported?

Off Site, all the above questions need to be answered. Is there equipment that could be loaned for the scenario? Is there equipment that will have to be purchased?

Slide 27

There are real barriers that simulation holds for any participant.

It's not a real patient

It's not a real place

Creating realism

How real can you make a manikin to convince participants to engage?

What can be done in the environment to increase realism?

Think sight, smell, hearing and touch

## Apprehension

Those that have never experience simulation will be apprehensive. Pre communication is key – clear instructions for the simulation will make all the different.

Consider a open lab/center orientation day or days to acquaint people with what is there.

A well-planned prebrief is imperative but keep it simple and short.

Adults have the strong fear of failure.

Adults fear losing credibility if they do not perform perfectly or as if they don't have the Knowledge especially when working with other participants they may not know well.

It's about ego and reputation.

Being unfamiliarity with standards, regulations, protocols especially if this is orientation to a new concept creates anxiety.

Use these for pre-work reading.

## Slide 28

Let's recap

Decide a clear plan of action

Decide how many employees or participants you can handle.

With all scenarios think interdisciplinary. Our medical school does not have nursing, respiratory care or social work. But partnering with other colleges gives the opportunity for team work training. In the hospital, other departments need training to work with the team and often have new employees that need training time. If writing a scenario for nurses but a respiratory objective is part of it, bring in the respiratory employees to work with the nurses in the scenario.

Budget! Mandatory or elective?

Who will be the facilitators and train as needed

Look around for supplies and equipment. You would be amazed what is hiding in closets and offices

Create a timeline for the SIMCamp and try to stick to it.

Writing scenarios can take a lot of time. Start early and get your SME involved.

Could you pull something off in a short timeframe as we did in 6 weeks?

Think about debriefing. In the hospital we did not have a room anywhere to debrief so it was done at the bedside of the scenario. We had participants turn away from the "patient", we covered the "patient" and had them focus looking at the facilitator. It worked! Really well.

## Slide 29

Up to this point, hopefully you've answered the questions and overcome the obstacles so much of the work is done.

Now it's final planning.

## Slide 30

What's in it for me? Everyone's radio station.

You have to tune into the learner's needs.

It as to be relevant to their work and rigorous enough for personal development.

If the SIMCamp is not relevant to needs, then you have wasted your time.

Start with knowing who the audience will be

Finding the answers gives guidance to the scenario, the materials needs and the manpower.

Are they novice to simulation and the clinical world?

Then a simpler experience must be planned

Are they experienced?

Complexity can be designed even with some distractors

What are the educational needs?

Where do you find out what is needed?

It comes down to what does the data says

Look at quality and safety, incident reports, patient surveys.

Even observed deficits in patient care or in skills practice

Student assessment and exams scores.

Consider asking potential participants what they feel is important to reinforce and learn.

#### Slide 31

This is a sample of the simulation calendar and where SIMCamp was placed based on department feedback.

Ask yourself, where will it work the best?

Consider that there is preparation time so Mondays may not be the best choice.

Fridays are usually down days and hard to keep people engaged.

When is the census higher in the hospital?

The first SIMCamp in the emergency department was elective.

Sign-ups were required.

26 signed up and 24 came.

The success of this SIMCamp let to a mandatory SIMCamp six months later, funding paid for by the ED and required of all new registered nurses and RCPs within the six months.

#### Slide 32

An example of how to lay out a schedule in an 8-hour day with 2-hour sessions.

#### Slide 33

These are pictures of a supply set-up we did for the trauma SIMCamp.

The syringes were filled and each bucket was for each scenario that would be repeated.

Supplies were put into boxes and labeled for each scenario, ready to set-up.

#### Slide 34

We learned a lot, many lessons came from the first SIMCamp that improved the next.

After each simulation day, the team debriefed and looked at the successes and what changes need to be made to improve. Further, we looked at gaps that were found that could be addressed in future scenarios. These were logged and reported to department leadership for follow-up.

#### Slide 35

SIMCamp was successful:

Three manikins were enough

We could escalate or de-escalate based on the involvement of participants.

Everyone loved the stop-start embedded learning debrief and it reduced our time

What we did for moulage worked well and made it real.

We could adjust our time as needed.

#### Slide 36

We did find things to change:

We didn't need to create three sets of supplies, one for each scenario or four sets for each session. We only needed to replenish the small stuff. So we could save time and money.

In the beginning, the facilitator lost track of time. So we set a timer for the facilitator.

Could have had more pre-work, although in an elective experience, many did not do the small amount we asked them to review.

SMEs! We found them to be a challenge to the participants as they felt they were being watched and evaluated. Even though we discussed in the debrief this was a learning opportunity and not one for their evaluation. Plus SMEs like to teach so in a time-out learners didn't have the opportunity to critically think. SMEs can communicate in a way that is punitive setting up a bad memory of simulation. So, we asked department leadership and faculty to not be in the scenario. We would report any high stakes safety issues if they occurred but basically we would provide opportunity for improvement. It worked.

#### Slide 37

And everyone honestly felt simulation was a fun way to learn. And they asked for more.

#### Slide 38

You can decide where SIMCamp can be used. Let's explore the ideas.

#### Slide 39

Think outside the box

- Specialty groups – we did new transport team member training

- Individual departments – we did training for a new ECMO program seen in the top picture

- Single Units – we did medical surgical unit training, clinics, NICU, PICU

- Clinical Specialty – we focused on a new handoff model for doctors

- Interprofessional – multidisciplinary – every scenario was designed to have more than one discipline involved in care

- Longitudinal curriculum training – is there a course that spans over time where an unfolding patient case could be used?

- Collaborations and Partnerships – there are many colleges and hospitals looking to put interprofessional training together.

#### Slide 40

Whether service or academia, clinical or classroom the application of a SIMCamp model will Improve communication and team dynamics. We focused on roles and accountability. You can do leadership and communication training not just with students but faculty and administrative staff. If scaffolding is used, it will save time and increase learning.

Slide 41

Let's recap:

Challenges are never permanent; they only need to be addressed early to find answers  
Hopefully at this point you are eager to try something new and be innovative  
Build on simple to complex, consider over time how this could be done  
What is learned in the classroom needs to match what is experienced in the simulation  
Keep it real, it IS THE SMALL THINGS that engage people.  
Most of all be flexible.

Slide 41

Thank you for taking time to hear and see this presentation.  
Be encouraged to try something new. Let go of the fear and dive in.  
This is where you can find me.  
Please, email with questions and requests and even ideas.

My email [lcatron@chsuh.edu](mailto:lcatron@chsuh.edu)

Special thanks to my current simulation team seen hear in celebration of Healthcare Simulation week. Susie was so excited and realized she needed to wear shades because the future was so bright.