



# VITAL ANAESTHESIA SIMULATION TRAINING

## **VAST Instructor Course report – *Halifax, Canada***

20-22 May 2022

**Patty Livingston**



## Executive summary

### *Situation*

After a pandemic related pause in course activity for more than two years, the Vital Anaesthesia Simulation Training (VAST) Instructor Course was offered in Halifax, Canada.

### *Background*

Vital Anaesthesia Simulation Training (VAST) was developed to teach and reinforce essential clinical practices and non-technical skills for both anaesthesia providers and perioperative teams. VAST was first piloted in 2018. Since then, VAST Courses have been offered multiple times in seven countries: Rwanda, Tanzania, Ethiopia, India, Fiji, Canada, and Australia. Additional courses planned for 2020 and 2021 were cancelled due to the global pandemic.

The VAST Instructor Course was designed to provide participants with skills to facilitate and debrief simulated scenarios, design their own scenarios, and to contemplate implementation of VAST Courses in a new region. This course has only been run twice previously. The curriculum for the VAST Instructor Course has undergone extensive revisions during the extended pause in course delivery. This was the first opportunity for in-person training after over two years. Engaged educators from nine countries were invited to attend this course.

### *Assessment*

The VAST Instructor Course was well-received and reported to be valuable. The participants offered constructive suggestions, such as allowing more time for practice and modelling of high-level debriefings. There was strong enthusiasm and engagement for offering VAST Courses and VAST Facilitator Courses again in new and established regions.

### *Recommendation*

Minor revisions will be made to the curriculum. Planning is underway for courses during 2022 and 2023.

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## Acknowledgements

We gratefully acknowledge financial support for this course from the:

- Department of Anesthesia, Pain Management and Perioperative Medicine, Dalhousie University
- Canadian Anesthesiologists' Society International Education Foundation (CASIEF)
- World Federation of Societies of Anaesthesiologists (WFSA)
- Royal College of Physicians and Surgeons of Canada

## Background

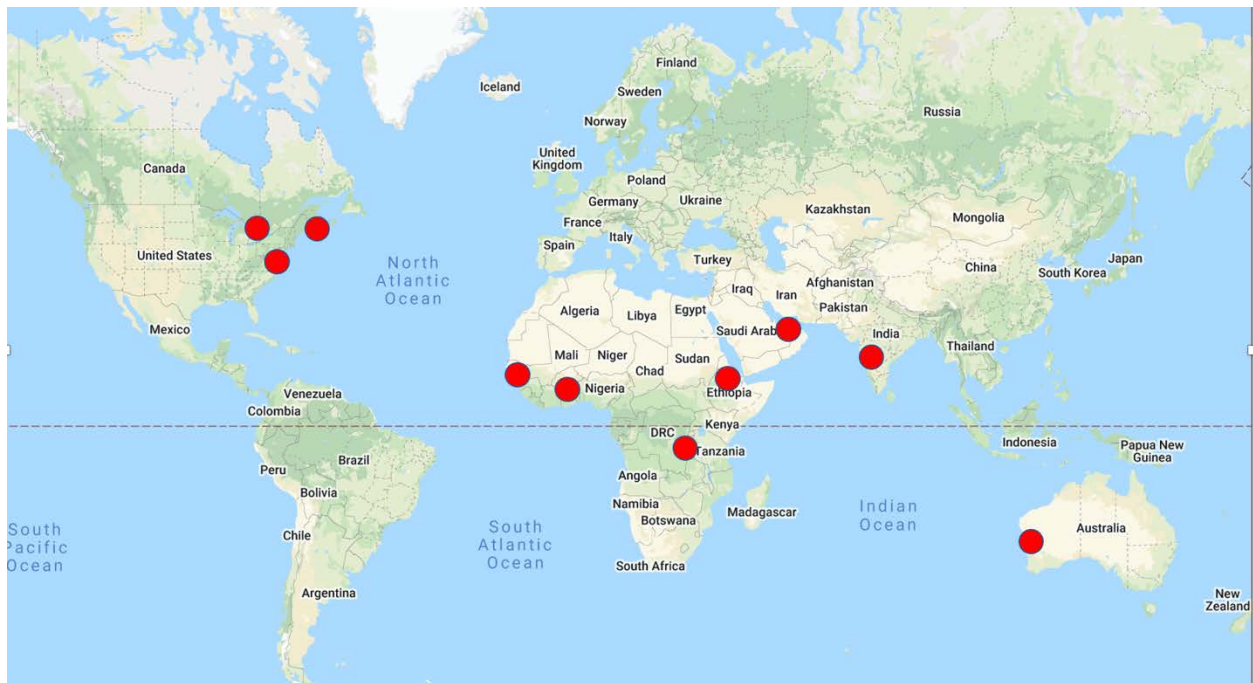
The VAST Instructor Course was designed to provide participants with skills to facilitate and debrief simulated scenarios, design their own scenarios, and to contemplate implementation of VAST Courses in a new region. The Instructor Course has been offered in Halifax, Canada in 2019 and in Addis Abba, Ethiopia in early 2020. Plans had been underway for another Instructor Course in Australia in the middle of 2020, but the global pandemic put a halt to travel and in-person teaching for over two years. This course was the first time any VAST courses resumed after the pandemic.

The intention of the VAST Instructor Course is to build a small cadre of facilitators who can be mentored over subsequent courses to achieve the level of VAST instructor (someone capable of leading all aspects of a VAST Course, implementing VAST in a new region, and training other facilitators). Course participants were strategically invited with the goals of refreshing skills after the long pause in courses, continuing to raise capacity, and introducing VAST to educational leads with an interest in bringing this training to new regions.

Given the ongoing high levels of COVID-19, there was great uncertainty whether this course could happen at all. It is all the more remarkable that all of the instructors and participants who committed to coming to the course were able to attend. There were no cancellations due to illness or travel logistics.

## Instructors and participants

Instructors and participants			
Name	Professional role	Course role	Workplace
Fetiya Alferid	Anesthesiologist	Mentor	Ethiopia
Shyamal Asher	Anesthesiologist	Participant	Rhode Island, USA
Jon Bailey	Anesthesiologist	Instructor	Halifax, Canada
Olga Bednarek	General surgery trainee	Participant	Halifax, Canada
Kwaku Doffour-Dapaah	Obstetric fellow	Participant	Ghana
Niz Eltom	Anesthesia fellow	Participant	UK/Qatar/Canada
Stew Forbes	Anesthesiologist	Participant	Moncton, Canada
Emma Kehoe	Anesthesia trainee	Mentor	Halifax, Canada
Jackson Kwizera	Anesthesiologist	Participant	Rwanda
Sarah Kwok	Anesthesiologist	Participant	UK/Senegal
Patty Livingston	Anesthesiologist	Instructor	Halifax, Canada
Stephen Middleton	Anesthesia fellow	Instructor	Halifax, Canada
Brendan Morgan	Anesthesia trainee	Participant	Halifax, Canada
Adam Mossenson	Anesthesiologist	Instructor	Perth, Australia
Michelle Murray	Nurse/simulation coordinator	Sim coordinator	Comeauville, Canada
Gaston Nyirigira	Anesthesiologist	Mentor	Rwanda
Heather Scott	Obstetrician	Participant	Halifax, Canada
Jill Taras	Anesthesia trainee	Participant	Toronto, Canada
Eugene Tuyishime	Anesthesiologist	Mentor	Rwanda/Canada
Vai Upadhye	Anesthesiologist	Participant	Pune, India
Sara Whynot	Research facilitator/simulation coordinator	Sim coordinator	Halifax, Canada
Julia Wright	Anesthesia trainee	Participant	Halifax, Canada



Red dots indicate countries where course attendees work

## Venue and equipment

The course was held in four rooms at the Collaborative Health Education Building (CHEB) with an additional room for lunch. The venue is excellent, with plenty of natural light and space for all the activities. The Department of Anesthesia, Pain Management and Perioperative Medicine, Dalhousie University has a full set up VAST equipment except for the mannikins, stretchers and IV poles. The CHEB was able to provide these items.

## Program

### ***Pre-course program***

Through generous sponsorship from CASIEF, WFSA and the Department of Anesthesia, Pain Management and Perioperative Medicine, Dalhousie University, Drs Fetiya Alferid, Jackson Kwizera, Gaston Nyirigira and Vai Upadhye were able to partake in a pre-course program that consisted of a full day or immersive simulation, meetings with educational leads and leads for acute pain, chronic pain, and regional anesthesia, attending anesthesia grand rounds, and a sightseeing trip to Peggy's Cove. These sessions gave a valuable insight into the infrastructure of the anesthesia program at Dalhousie University.

### ***VAST Instructor Course***

This was the first time the VAST Instructor Course had been delivered in two and a half years. During the pandemic, when courses were paused, extensive revisions were made to the facilitator and instructor training programs. The VAST debriefing model had been further refined and new sessions were added on Simulation in Context and Conversational Techniques. A team building game called "hand it on" was added to the Non-Technical Skills session.

The main streams of the VAST Instructor Course are to learn the elements of simulation facilitation and debriefing, to design new scenarios, and to contemplate future involvement with VAST.

#### *Facilitation and debriefing practice*

The bulk of the course involves practice of the four elements of scenario facilitation: briefing, iPads/prompts, debriefing, and co-facilitation. Participants worked in groups of four to practice these skills while running scenarios for another small group. Following each scenario, an instructor led a meta-debriefing on the process of scenario facilitation to highlight key learning points.

#### *Scenario design*

Participants worked in small groups to design new scenarios de novo using the VAST scenario template. On the final day, they delivered four new scenarios they had designed. These were all high-quality and it was impressive to see the progress in a few short days. The new scenarios will be refined by Dr Vai Upadhye and added to the VAST scenario bank.

#### *Future opportunities*

There was great enthusiasm to continue VAST Course delivery in places where the course has been established and to expand course delivery to new areas. Participants worked in small groups focussing on implementation planning in Latin America, India, Senegal, Ghana, Rwanda, Ethiopia, and rural Canada.

### **Summary of participant course evaluations and informal feedback**

Participants found the course valuable. There was a high level of engagement and motivation to continue delivering VAST Courses and to implement VAST in new regions. The amount of course content was at times overwhelming. The instruction on debriefing was acknowledged as useful but participants recognized that debriefing skills take time and practice to become proficient. Participants recognized the essential need to create a safe space for learners, including attention to culture, language and context. Suggested course improvements were to decrease the didactic elements and allow more time for practice. Participants expressed that it would have been helpful to see an example of an excellent debriefing, with the various elements outlined, to help them model good debriefing behaviour. Informal feedback was overwhelmingly positive with great enthusiasm for continued engagement with VAST and for lifelong learning of simulation facilitation skills.

### **Challenges and lessons learnt**

Considering the challenges of organizing an international course during a pandemic, curriculum revisions, and an instructor pool who had had no chance to practice, this course was a massive success. Future work will be to modify the curriculum to optimize opportunities for facilitation practice, include a video of excellent debriefing, and to ensure pre-course preparation on the VAST learning management platform is clear and manageable.

### **Future directions**

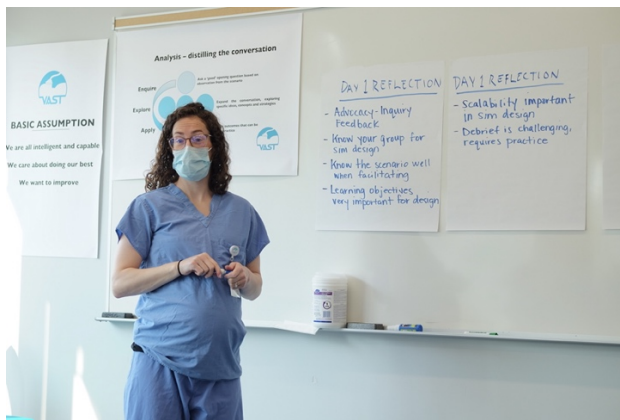
Plans are underway for the following:

1. VAST SIMposium, Rwanda 5-7 September 2022
2. Fiji: VAST Facilitator Course and modified VAST Course during the Pacific Society of Anesthesia meeting in Fiji 24-30 September 2022
3. Senegal: VAST Course in Senegal in October 2022; will be in French

4. Latin America: VAST Facilitator Course (in English) and VAST Course (in Spanish) in Honduras 6-10 December 2022
5. Ghana: tentative plans for a VAST Course in 2023
6. India: plans for VAST Facilitator Course and VAST Course in 2023; this is a potential location for the next VAST SIMposium
7. Exploration of course delivery in rural Canada; this could be both future courses and looking at embedding VAST training in the general practitioner anesthetist program



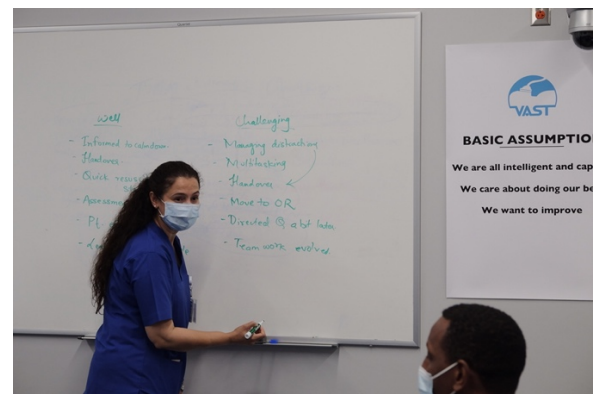
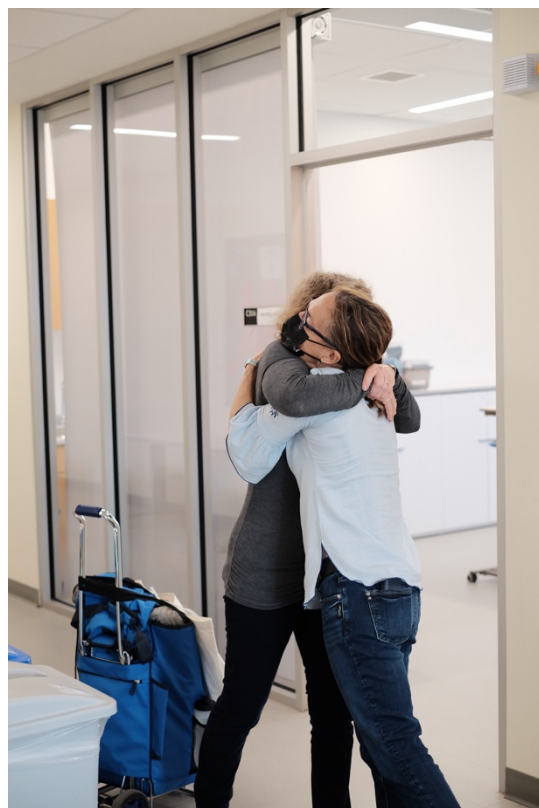
## Appendix I – Course Photos















## Appendix II – Participant evaluations

What participants liked	
Facilitation	<i>It was really well organized Great arrangements! Thank you!</i>
Content	<i>I thought it was excellent The course was excellent I loved the course! Really building debriefing and feedback skills that I will take beyond just VAST and will apply to professional (and truly personal) aspects of my life.</i>
Engagement	<i>Can't wait to implement VAST in my practice Need to continue the momentum and keep practicing! It's critical for us to collaborate in order to broaden the reach of VAST Thanks very much for a great informative course and the opportunity to meet so many amazing people Excellent course and I look forward to having an opportunity in the near future to use my new skills!</i>
Key take home messages	
Debriefing	<i>The value of a good debrief The tools to facilitate a good debrief How to stay focused on objectives in simulation Avoid judgmental phrasing in debrief Adapt to your learning group Try to understand WHY decisions are made Debriefing techniques like: advocacy and inquiry, debriefing with good judgment, Plus/Delta Good questions can make debriefing easy Use of silence Stay curious and consider language when debriefing My debriefing style has changed from facilitator centered to learner centered Debriefing is not the same as feedback Participants will often come to the conclusions you're looking for if you just give them time Debriefing is a lifetime learning</i>
Non-technical skills	<i>VAST is a multidisciplinary team simulation for learning and practicing non-technical skills Non-clinical skills as important as clinical skills The videos of Sully and Bromley case were a great watch during the last FC to understand the non-technical skills Development of non-technical skills is a vital part of VAST training and consistently practicing will help in the development of these skills</i>
Teamwork	<i>Collaboration when teaching simulation</i>
Environment	<i>Safe learning environment Importance of getting to know participants for which you are putting the sim on for (surgeons vs nurses vs OB etc.) to help design scenario Learning is two-way process both from participants and facilitators Be conscious of context Differences in cultures affect the way of communication and this should be taken into consideration during VAST training</i>



	<p><i>Always think about language barriers and evaluate participants' intervention</i></p> <p><i>The importance of preparing prior to delivering a course - regarding culture, equipment, resources etc.</i></p> <p><i>How helpful humility is. Today's sessions reminded me that none of us are perfect and that is it difficult and stressful to have your weaknesses exposed!</i></p>
Practice	<p><i>It starts off hard for everyone!</i></p> <p><i>Practice of concepts learnt is important for a seamless flow of actions in situations when they are required</i></p> <p><i>Facilitation takes practice</i></p> <p><i>Debriefing takes even more practice</i></p> <p><i>Debriefing needs to be Practiced</i></p> <p><i>Debriefing needs a lot of practice</i></p> <p><i>Feedback is hard and take time to practice</i></p> <p><i>Debriefing must be practiced</i></p>
Running and designing scenarios	<p><i>To facilitate the scenario well, you need to know the content very well</i></p> <p><i>When designing scenarios it's best to stick to simple scenarios that are realistic to facilitate best learning</i></p>
Relevance	<p><i>The concept of simulation being taught in the vast course can be applied seamlessly in obstetrics</i></p>
<b>Suggestions for improvement and general comments</b>	
Logistics	<p><i>Timing was a little tight, especially for preparing the simulation sessions</i></p> <p><i>I think the afternoon lectures were too long</i></p> <p><i>I would enjoy practicing more scenarios and debriefs. For example, maybe shorten the didactic learning about debriefing and practice more with scenarios we have gone through. Videos were fun to watch but hard to debrief on since we didn't actually participate in them.</i></p> <p><i>Facilitators to discuss allotted time needed and adjust agenda</i></p> <p><i>Some of the didactic sessions could be shortened a bit. It's hard sitting through &gt;1 hour of lecture!</i></p> <p><i>I think less didactic teaching and more "doing things" would help keep everyone more engaged. By the third day it was hard to sit still and stay focused during the lectures.</i></p>
Course design	<p><i>There's a lot of content</i></p> <p><i>Continue to expand scenarios beyond just the role of anesthesia providers</i></p>
General comments	<p><i>More (real) nursing members in the team apart from Michelle.</i></p> <p><i>Demonstrate what facilitation looks like before the participants do it.</i></p> <p><i>Have guider with both facilitators for their first two roles</i></p> <p><i>I would have liked the opportunity to practice hot debriefs and critical incident stress debriefs. I understand that may add even a whole other day but it's a valuable skill to have</i></p> <p><i>A mock practice of challenges in debriefing. Example: Aggressive participant, emotional participant, silent participant, conflict between participants, etc.</i></p>

