

SHORT REPORTS ON SIMULATION INNOVATIONS
SUPPLEMENT (SRSIS)**'Where can I learn to be an SP educator?'**
Feasibility of online resources to support
professional developmentCathy M Smith^{1,✉}, Jennifer Harlim^{2,✉}, Debra Nestel^{2,3,✉}¹*Division of Simulation and Virtual Learning, Centre for Education and Knowledge Translation in Aging, Baycrest, Toronto, Canada*²*School of Clinical Sciences, Faculty of Medicine, Nursing & Health Sciences, Monash University, Clayton, Australia*³*Department of Surgery, University of Melbourne, Melbourne, Australia***Corresponding author:** Cathy M Smith, smith.cathy06@gmail.com<https://ijohs.com/article/doi/10.54531/UXZI7422>**Introduction**

While simulated participant (SP) methodology has been documented since 1964 [1], it has evolved into a specialized practice. The growth is evidenced by SP methodology embedded in most health professions curricula, expansion of SP programs and development of practice standards [2] and professional networks [3]. What is less clear are pathways for simulation practitioners seeking to expand their expertise in SP methodology.

The authors have varied backgrounds and bring many years of collective experience working with SP methodology in diverse global contexts. In response to almost weekly requests from individuals interested in developing their SP practice, we wanted to provide high-quality resources to an international audience and to meet this need efficiently. The development of an online network was an obvious response.

This report documents a decade-long history of surfacing issues with feasibility in the provision of online resources for professional development.

Innovation

In 2012, we launched the Victorian Simulated Patient Network – renamed in 2016 to the Simulated Patient Network (SPN) (www.simulatedpatientnetwork.org) – a web-based resource that includes online learning materials for SP educators and SPs. In development, we brainstormed topics that we believed were important and reflected the nature of the varied requests we received, as well as consulting widely with colleagues.

Table 1 lists the module topics that sit in a Moodle-based learning management system (LMS). Each module was designed to take about 3 hours and structured according to a template framework that promoted effective educational design. Authors were guided to include learning objectives (LOs); text, audio and visual content; practical resources such as scenarios and worksheets; reflective exercises; and evaluations. Using this framework, modules were developed by nine scholars and practitioners, and underwent an initial peer review. Modules were offered for asynchronous learning and were complimentary until 2021. While the development of resources was funded, there was no additional funding for long-term maintenance.

Evaluation

Our evaluation strategy focused on reach, engagement and quality improvement. The country of origin of participants and completion rates were considered. In the

Table 1: Module titles offered by SPN

Module	Title
M1	Introduction to SP methodology* [<i>Foundation program in SP methodology</i>]
M2	SP program management*
M3	Creating roles for SPs*
M4	Training methods for SPs – role portrayal*
M5	Training methods for SPs – feedback*
M6	The art and science of teaching and learning with SPs using audio-visual review
M7	SPs in assessments
M8	Developing hybrid simulations
M9	SPs and moulage
M10	Debriefing SPs after simulation events
M11	SPs in action
M12	Interprofessional SP-based education
M13	Children as SPs

*Indicates the revised course title in [] and now available on <https://learn.healthysimulation.com/>

Table 2: Qualitative evaluations of modules by participants

Theme	Example
<i>What worked well?</i>	
Structure of learning materials	'I thought the module was very well laid out. It gave an overview of the chapter and expectations. I also felt it flowed very well and logically from one chapter to the next. I found the examples of feedback from learners useful'.
Provided resources	'The resources were all very informative and helpful in expanding my understanding of this topic. I appreciated the insight into different sites and how they are challenged and coping with a variety of situations'.
Quality content that suits both novices and experts in SP methodology	'This module is very well developed. The information is relevant and detailed. Even though I had been working in this field for 18 years, this module reminded me of aspects I had not thought of for a long time. It enabled me to take a much-needed objective approach to SPs and SP methodology again. And yet, the module would be great for someone beginning in this field as well. I also liked the fact that this module opened my eyes to areas that could still be explored that I might have lost sight of amidst the admin and having gotten used to how things are done. If I had to substantiate the use of SPs now, I could do it with enthusiasm and conviction'.
Exercises provided	'I really enjoyed being able to come up with a scenario. This was fun yet challenging. It was also useful to have an example that we could follow. It was also informative to learn the different ways that one could come up with roles'.
Inclusion of audio-visual material	'I liked the 2 short videos, firstly showing the SP 'in role' during the scenario and then secondly showing the SP 'out of her role' giving the learner pertinent feedback. I learnt what to appreciate and value and look for whilst 'in role' and then to honestly feed that back'
<i>What could be improved?</i>	
LMS navigation	'The content management system is a bit clunky. I found it hard to know where I was up to (when I returned in subsequent days). Sometimes the pages contained only a little text, so there was quite a bit of clicking to move through it'.
More engagement via interaction with other participants and feedback from instructors	'Interaction with other students would be good and some feedback from the assessor'
More visual images to be used to complement the text	'Images would brighten the Moodle books'
Maintenance, including technical issues (such as broken links, video not loading fast enough)	'Some of the links did not work...not sure of this is related to the web browser that I was using (IE)'
Opportunity to cater to non-English-speaking participants	'I wish there were videos that contain subtitles so we can understand in a better way'

module evaluation, 6-point rating scales (1 = *Not at all met/helpful/satisfied* to 6 = *Completely met/helpful/satisfied*) were presented to the participants to rate the meeting of LOs: the helpfulness of the content in meeting LOs and their satisfaction on the overall learning materials and LMS. Open-ended questions (*What worked well?* and *What can be improved?*) were also included.

Outcomes

By 2021, there were 1,322 enrolments from 71 countries, with major sources of enrolments from Australia (695), the United States (326) and Canada (71).

The highest completion rate achieved was 11.8% (Module 1). Low completion rates are typical of massive open online courses (MOOCs) [4,5]. Furthermore, given our limited resources, we were unable to undertake activities such as increasing social interaction, running webinars and providing feedback and CE credits, which might have assisted in boosting completion rates.

Participants' evaluations of LOs across the 13 modules had mean ratings of 4.9 to 5.7; the helpfulness of the exercises was 4.8 to 5.5; the satisfaction with the module content was 4.9 to 5.4; and satisfaction with the LMS was 4.8 to 5.4. These ratings indicate that the course materials were well received.

Table 2 presents free-text comments from participants. The feedback reinforced that, overall, the participants found the course materials to be of high quality and valuable. The data also suggest opportunities for improvement, which were limited by our lack of resources.

By 2021, several events converged to facilitate directional change. We had long depleted funding for maintenance and had limited capacity for administration and other activities. The advent of Covid-19 with almost universal uptake of online learning increased the acceptability of the format of our modules. We needed to consider a new approach that stayed with our vision of the provision of high-quality resources to a global audience.

What's next?

We were approached by a provider of online resources for the international simulation community (<https://learn.healthysimulation.com/>) with a more sophisticated LMS that supports deeper engagement with learners (e.g. webinars with amplification of ideas; Q&A) and the embedding of exercises directly into the module, providing smoother navigation for users. CE credits are also provided.

Five courses have been revised, and others are slowly transitioning to the new platform. We have switched from the use of the term 'module' to 'course' to accommodate Healthy Simulation and better align with the Continuing Professional Development format. A new course – Working with SPs online – has also been developed in response to contemporary needs. Participants are given three months of access with their fee. While we retain asynchronous

learning, synchronous aspects (e.g. webinars) have enabled the opportunity for engagement with us and networking between participants. The platform also has the potential for hosting different languages. Currently, evaluations are standardized across all resources on the LMS, enabling comparisons between them that target user experiences and preferences.

We believe that these strategies will assist in achieving increased engagement while offering long-term sustainability. We hope that sharing this experience highlights considerations related to sustainability and feasibility for anyone planning online learning materials.

Declarations

Authors' contributions

DN drafted the initial version of the manuscript. All authors met to review. CS led all further revisions. JH collected and organized data in Tables. All authors contributed equally to draft revisions and approved the final version of the manuscript.

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Availability of data and materials

None.

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None declared.

Competing interests

None declared.

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