

BACKGROUND AND RATIONALE

- The completion of a research dissertation (Master of Medicine; MMed) is a standard requirement for medical specialist registration with the national Health Professions Council of South Africa.
- However, there is no formal research methodology module included in the degree curriculum.
- The Research Capacity Development Office at the Faculty of Medicine and Health Sciences has previously offered courses and workshops for these trainees as face-to-face contact sessions.
- Unfortunately, these offerings have not had the desired reach because demanding clinical training schedules typically take priority over research.
- To accommodate a **more flexible learning alternative** and to **improve access**, two research support staff members developed a blended *Clinical Research Protocol Writing Course (CRPW)* for first roll-out in May 2019. The course was designed to capacitate participants to develop a research protocol.

From  **Research idea** to protocol  **in <4 months** 

AIMS AND OBJECTIVES

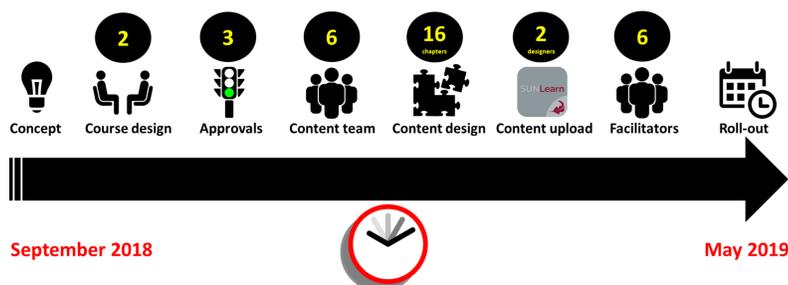
We aim to describe and reflect on lessons learnt during the design, development and the first iteration of this blended CRPW course.

Blended learning is a mixture of online self-study content and facilitated contact or face-to-face sessions.

The following objectives were identified:

- Describe the design, development and implementation of the course
- Describe the budget required to develop the course
- Describe the team involved in the course design, development and facilitation
- Describe the profile of the first cohort of participants
- Describe highlights and lessons learnt during the first offering of the course

1. COURSE DEVELOPMENT

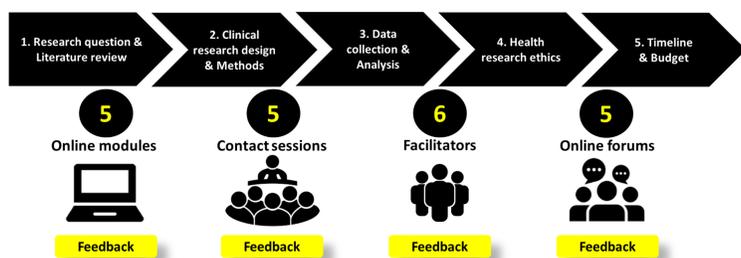


- The 4-month CRPW course was conceived and developed in 7 months by 2 individuals.

Opportunities for innovation exist. Research managers and administrators should identify those and respond pro-actively.

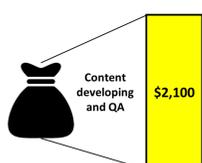
- The designers were a core team of 6 who developed content for 16 chapters.
- There were 6 facilitators that assisted participants online as well as during the different contact sessions, depending on their expertise.
- We obtained 3 approvals (SUNLearn, ethics and institutional approval) to conduct research on the first two iterations of the course (2019-2020).
- The **blended learning approach** allows for **flexible self-study** of content presented on SUNLearn (open source Moodle platform) with expert guidance available electronically or in person.

Course structure



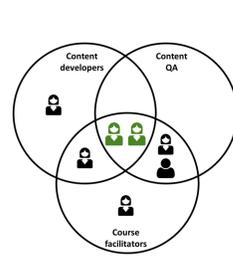
- The CRPW course consists of 5 core online modules and 5 contact sessions.
- Active learning** was encouraged by motivating participants to develop or improve a draft protocol.
- Online content, delivered via SUNLearn, includes **reading material** and **short videos** that explained the methodological underpinning of clinical research.
- Participant engagement** in the online space was facilitated through the use of **online forums** where participants could ask questions and share their research questions and study designs.
- Facilitators** also assisted participants **online** by answering questions posted in each module's forum, or participants could engage with facilitators via **e-mail** or **in person**.
- During **contact sessions**, facilitators were available to address queries about theory and content.
- Direction on **how to write each section of the protocol** was also provided during these sessions.
- Anonymous course feedback** was collected at the end of every online module and contact session.

2. COURSE DEVELOPMENT BUDGET



- The **total cost** for developing this course was approximately **\$2,100**.
- This is considered the **once-off input cost**.
- The budget was spent on course **content developers** and on experts who acted as **quality assurers**.
- The team are all **staff members at the Faculty**.
- Team members were remunerated for their time only if the CRPW course was not part of their everyday job function.

3. COURSE TEAM



Big projects can be mastered by a small research support team who understands the needs of their researchers.

- 2 core course designers, who were also involved in developing content
- 2 other content experts who contributed to content development
- 2 other content experts who verified the quality of content
- Most team members facilitated engagement online and/or in person
- The majority of team members were involved in multiple activities

Skills and attributes of course development team



Research managers and administrators must also focus on their own capacity development. Multi-skilling enhances versatility.

4. COURSE PARTICIPANTS

Target audience
MMed candidates and other clinical researchers at the FMHS

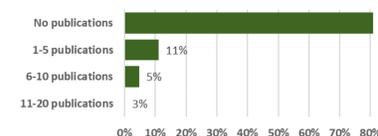


Participant representation from the 10 clinical departments:

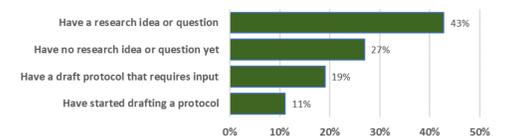
- Anesthesiology and Critical Care
- Global Health
- Health and Rehabilitation Sciences
- Medical Imaging and Clinical Oncology
- Medicine
- Obstetrics and Gynecology
- Pathology
- Pediatrics and Child Health
- Psychiatry
- Surgical Sciences

Relative prior research experience

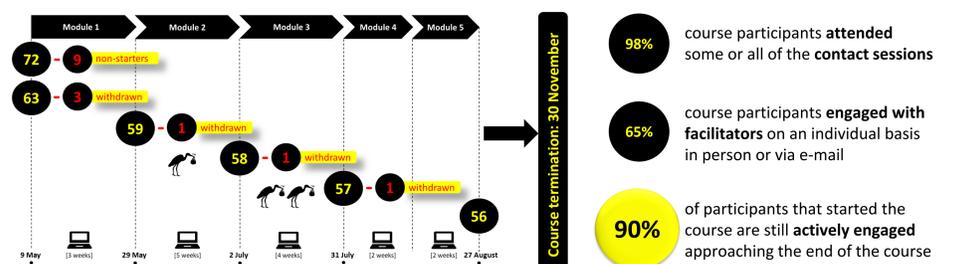
Publications as proxy for research experience



Stage in research protocol development process

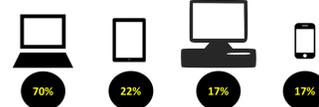


Course engagement and retention



Participant feedback

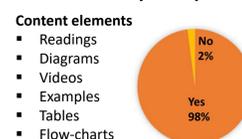
Which device(s) did you mostly use to access the course material?



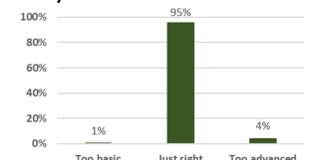
Where did you work through the majority of course content, at home or at work?



Did you find the format in which the content was presented conducive to your style of learning?



How did you experience the level of the content presented to you?



It is rewarding for research managers and administrators to experience the positive uptake of a voluntary course such as this.

General participant feedback

- "Blended learning is the future. It is a great method of class delivery! It works!"
- "The course was very helpful to me. It taught me basic research tools and how to go about each step of protocol writing."
- "Enjoyed being able to go through the course work at home at my own pace."
- "Great course, great facilitators!"

5. HIGHLIGHTS AND LESSONS LEARNT

- Playing on the strengths of each content expert facilitated rapid course development
- The blended model was well-received
- The course increased access and reach
- The development cost was low and once-off
- Participant feedback is invaluable to improve the course going forward
- Course and content development is time-consuming
- Online engagement with course participants is a challenge and some groups prefer in-person contact
- Time constraints remain participants' biggest challenge and limiting factor
- A dedicated team of facilitators are required throughout the course to provide hands-on guidance

Acknowledgements

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