ERA Research Club (ERA-RC)

This is organized under the auspices of the ERA Chair holder as part of the development and support activities of young researchers at Charles University (CUNI).

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Program design:

The ERA Research Club offers students, doctoral students and post-docs different educational opportunities to suit a variety of learning styles. These will include, one to one mentorship, ERA Open lectures, bespoke workshops and courses, Research Blind Dates, Nerd art prize. These events will be targeted at increasing creativity, improving motivation, and promoting the spirit of natural curiosity.

The ERA-RC utilises these varied educational activities to deliver a comprehensive academic educational program in 3 tiers.

Tier 1 (Core curriculum):

This tier focuses on delivering core knowledge and skills that academic trainees will require through their graduate and postgraduate academic studies. This tier is delivered by means of a series of bespoke courses covering a pre-set core curriculum. The lectures are delivered face to face and or virtually and are recorded to be made available and accessible to students on the university learning management system (Moodle).

Core topics:

- Formulating a research question and Literature searching
- **P**rotocol, **R**eviewing, **O**wnership and **P**ublishing in **E**xperimental **R**esearch **PROPER**Course
    - o Module 1: Study design and protocol writing
    - o Module 2: Critical appraisal of different study designs
    - o Module 3: Research governance and responsibilities
    - o Module 4: Medical writing and editing
- Introduction to statistics for biomedicine
- Basics of graphics and image editing
- Reference management

Tier 2 (Student-driven curriculum):

To comply with the ethos of adult learning, we have created this tier to empower students to develop their own curriculum to meet their needs. This tier will be delivered through open lectures, specifically designed practical workshops. Students will determine topics for this tier. This will be achieved by creating a representative student group (the ERA-RC Champions) who will be working with the ERA-RC team to select the final list of topics. We will utilise a Delphi methodology for the nomination of potential topics and for their prioritisation. This will ensure equitable representation of student views in the determination of their curriculum. We will make sure that the ERA-RC Champions are a representative sample with students studying for different degrees, in several faculties and a variety of academic study years. Tutors involved in the preparation and delivery of these activities will be selected either from the ERA-RC team members or invited from the wider faculty or university staff as well as guest speakers.

Tier 3 (Personalised curriculum):

This tier will create a medium for active interaction between students and tutors as well as between different students to discuss, learn about or solve issues related to their specific studies. Students will have access to a booking system where they provide brief information about the issue they need help with and based on this the ERA-RC team will organise appointments for one to one mentorships with a member of the team or create opportunities for peer to peer discussions to help the student with the query they have. These activities will develop PhD students' and young researchers' competencies to interconnect with other colleagues with different expertise. Furthermore, the scientific principles or solutions concerning objects or problems of everyday life will be introduced, explained and developed.

To facilitate interaction and to instil the sense of pride in what students do we will arrange some social programs that will include Research Blind Dates, Nerd art Prize. The research blind date will be an event where students from different faculties and or groups would be randomly paired. During this blind date, students would be expected to introduce their research to each other and see if there would be a potential for future collaboration. We appreciate that, although these events might not lead to actual collaborations, it will introduce students to networking, how to pitch for their project and also enables them to consciously think about the future potential for their work. The "Nerd art Prize" is an elective competition where students (as well as other CUNI staff) can submit interesting art (images, photographs, digital art etc.) generated from their research.

ERA-RC evaluation:

We appreciate that evaluating an educational program is a complex multifaceted process. We intend to adopt the Kirkpatrick hierarchical model for the evaluation of training programs (Figure 1).

Delivery of an effective and efficient educational program that tackles both theoretical and practical skills in academic is our ultimate goal. Our training is designed around our trainees' needs. Their input at Kirkpatrick level 1 of our evaluation program is achieved through surveys asking for their feedback on training sessions with regards to the following:

Figure 1: The Kirkpatrick hierarchial levels of training evaluation

- Relevance of the topic to their educational and training needs
- Fulfilment of the learning outcomes set at the outset
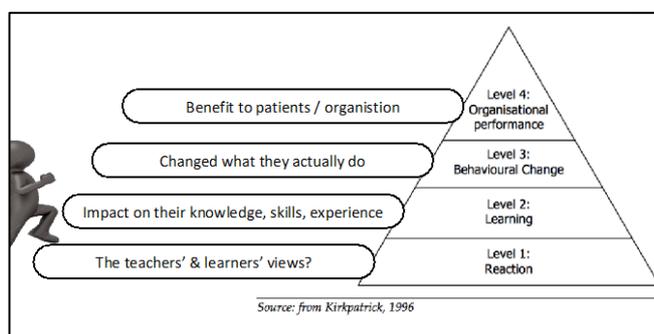- The planning of the educational activity with regards to its content and style

Our trainees will also be involved in Kirkpatrick level 2 of our evaluation where we use quantifiable measures to assess the impact of the educational activity on their level of knowledge and skills. For that purpose we will use bespoke-designed questions and / or objective structured assessment of training forms (OSATs), depending on whether we are assessing a theoretical or practical skill.

Kirkpatrick Levels 3 and 4 of our evaluation will be assessed by auditing student progress throughout their degree in line with the university regulations and code of practice.