

A multi-dimensional learning strategy to foster research integrity.

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Coming up

- How to prevent research malpractice?



How to prevent research malpractice?



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How to prevent research malpractice?



Detect and punish

- Plagiarism detection tools
- Peer-review process
- Replication studies
- Whistle-blowing

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Prevention

- Open science
- Codes and guidelines
- Education
- Institutional culture

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- Open science
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- **Education**
- Institutional culture

Coming up

- How to prevent research malpractice?
- What does ALLEA say about RI education?



What does ALLEA say about RI education?

2.2 Training, Supervision, and Mentoring

- Research institutions and organisations ensure that researchers receive rigorous training in research design, methodology, analysis, dissemination, and communication.
- Research institutions and organisations develop appropriate and adequate training in ethics and research integrity to ensure that all concerned are made aware of the relevant codes and regulations and develop the necessary skills to apply these to their research.
- Senior researchers, research leaders, and supervisors mentor their team members, lead by example, and offer specific guidance and training to properly develop and structure their research activities.
- Researchers across the entire career path, from junior to the most senior level, undertake training in ethics and research integrity.

(ALLEA, 2023)



What does ALLEA say about RI education?

2.2 Training, Supervision, and Mentoring

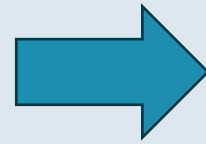
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Rigorous training in relation to the research process



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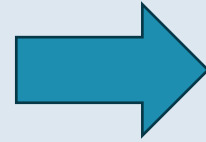
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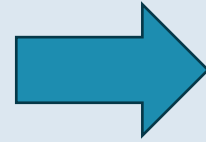
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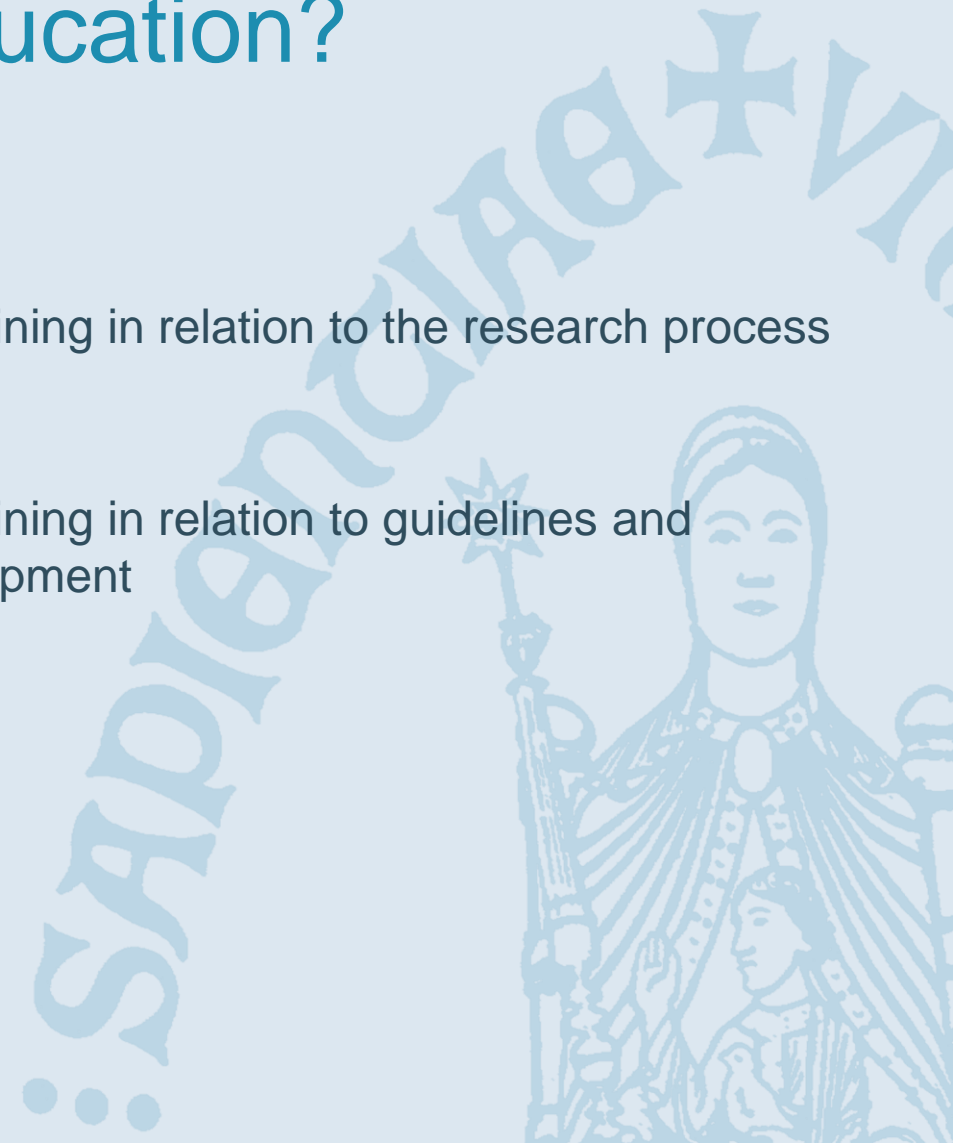
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Rigorous training in relation to guidelines and skills 'development



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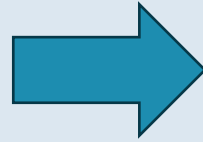
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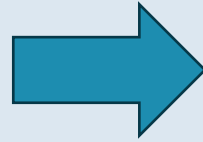
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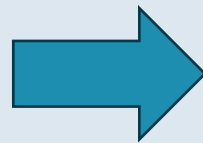
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Supervision and mentorship

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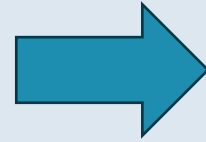
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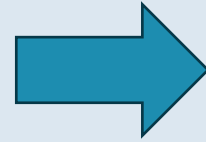
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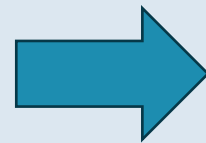
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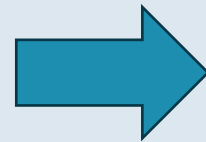
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Supervision and mentorship



Training at all career level

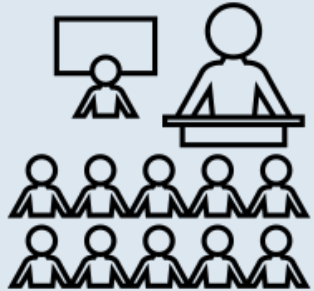
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Coming up

- How to prevent research malpractice?
- What does ALLEA say about RI education?
- What do institutions do in terms of RI education?



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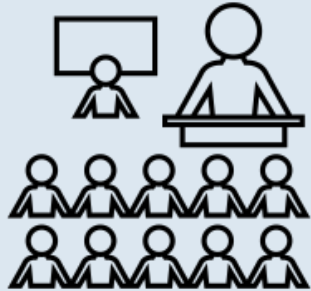
Training sessions



**Responsible supervision
and mentorship**



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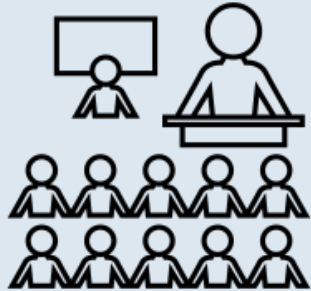
Training sessions



**Responsible supervision
and mentorship**

- Theoretical and general knowledge
- Skills, attitude and behaviour?
- Efficiency?

What do institutions do in terms of RI education?



Training sessions

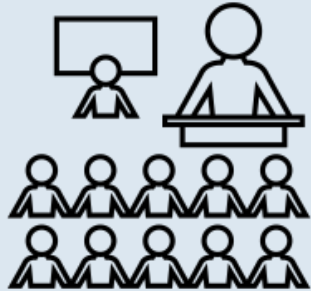
- Theoretical and general knowledge
- Skills, attitude and behaviour?
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**Responsible supervision
and mentorship**

- Research process
- RI-related issues
- Role modelling and support

What do institutions do in terms of RI education?



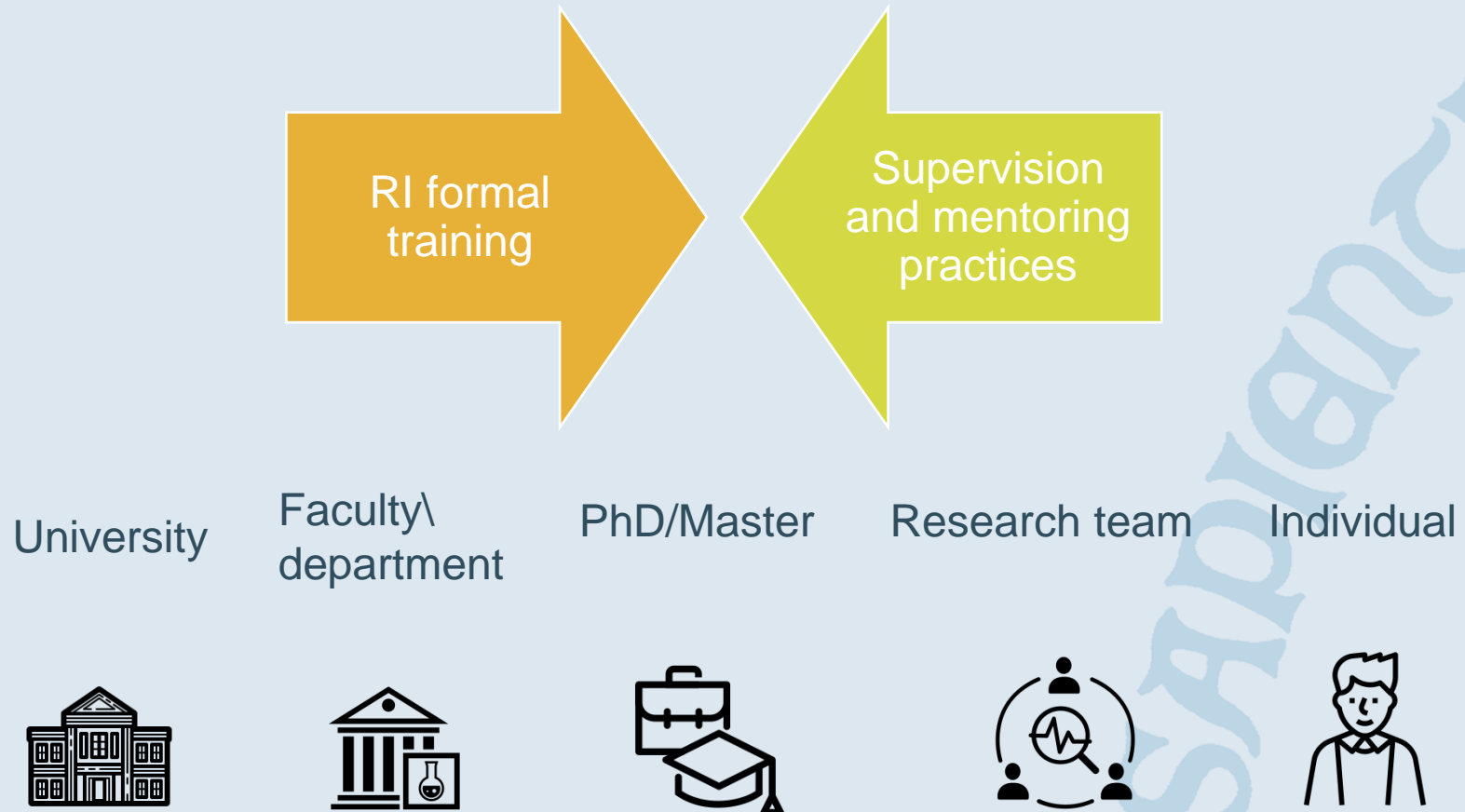
- Are training sessions effective?
- No consistency between what learnt during trainings and supervision practices (explicit practices and role modelling)
- Unidirectional top-down approach

Coming up

- How to prevent research malpractice?
- What does ALLEA say about RI education?
- What do institutions do in terms of RI education?
- Multi-dimensional learning strategy

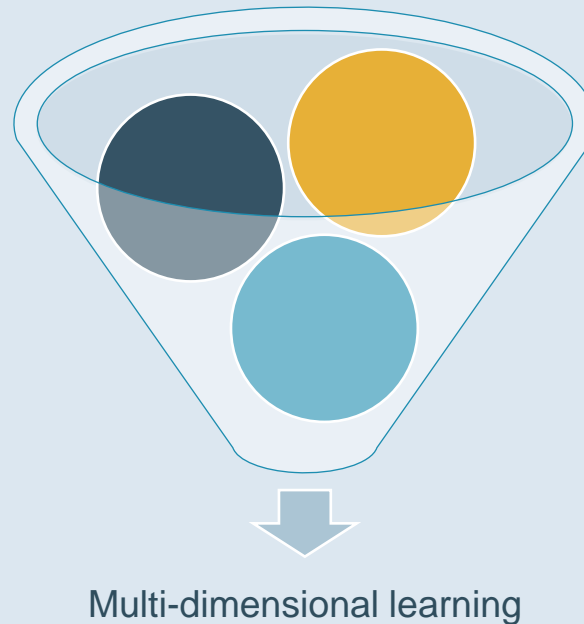


Multi-dimensional learning strategies



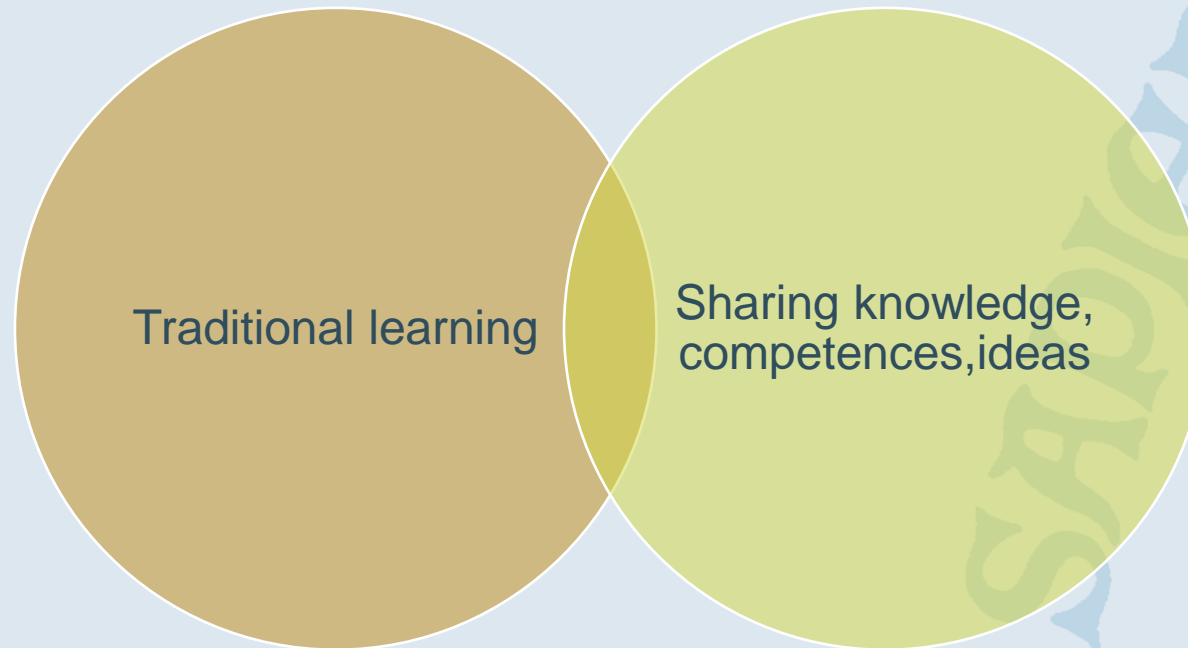
Multi-dimensional learning strategies

A multi-dimensional learning strategy refers to an approach that incorporates various dimensions or aspects to optimise the learning experience and outcomes



Multi-dimensional learning strategies

The focus of this approach is on complementing traditional learning with the exchange of knowledge, competences, viewpoints and ideas between all parties involved in the research endeavour



Recommendation 1

Faculties, departments and doctoral schools should start to **encourage, support, or even require interactions** and discussions between the research supervisor, the ECRs and the supervisee **on the topic covered in the training** in order to put into daily practice what has been learned in the theoretical training.

Recommendation 2

Faculties, departments and doctoral schools should encourage the involvement of supervisors, ECRs and PhD researchers **in discipline-specific RI training sessions that focus on developing the moral character of researchers** to complement what is covered in knowledge-based training.

Recommendation 3

Faculties, departments and doctoral schools should promote the involvement of supervisors, ECRs and PhD researchers in **RI-related activities as follow-ups of discipline-specific training sessions using a virtue ethics approach.**

Recommendation 4

Faculties, departments and doctoral schools should encourage the organisation and participation of supervisors and senior academics (who can play a role as mentors) in **specific sessions on supervision/mentorship practice**.

Recommendation 5

At the level of the research team, the **regular organisation of RI discussion groups within the research team** should be encouraged and supported.

Recommendation 6

Research institutions should encourage **research supervisors to regularly discuss RI-related issues** with the supervisee.



Coming up

- How to prevent research malpractice?
- What does ALLEA say about RI education?
- What do institutions do in terms of RI education?
- Multi-dimensional learning strategy
- Take home messages



Take home messages

Constructive dialogue between senior and junior academics can complement traditional unidirectional top-down learning to better promote individual responsible research practices and the collective RI climate.



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This idea of a multi-dimensional learning strategy emphasises the active participation of all academics (senior and junior) involved in research in various learning activities.

Take home messages

Constructive dialogue between senior and junior academics can complement traditional unidirectional top-down learning to better promote individual responsible research practices and the collective RI climate.

This idea of a multi-dimensional learning strategy emphasises the active participation of all academics (senior and junior) involved in research in various learning activities.

This approach can create a dynamic learning environment in which all parties are actively involved and which goes beyond the traditional one-way flow of information from teachers to students.



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Constructive dialogue between senior and junior academics can complement traditional unidirectional top-down learning to better promote individual responsible research practices and the collective RI climate.

This approach can create a dynamic learning environment in which all parties are actively involved and which goes beyond the traditional one-way flow of information from teachers to students.

This idea of a multi-dimensional learning strategy emphasises the active participation of all academics (senior and junior) involved in research in various learning activities.

This learning strategy can help create a more inclusive and diverse learning environment by fostering empathy, respect and mutual understanding and encouraging constructive dialogue.

Thank you

Q&A



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