3Rs implementation in Education and Training: Felasa accredited courses

www.felasa.eu
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How to implementate the 3Rs in Education and Training?

Lessons from felasa accredited courses
Directive 2010/63 on the protection of animals used for scientific or educational purposes

Members States shall apply from 1st January 2013
Directive key points: a culture of care

• 3Rs implementation
• Education
  • Non-human primates
  • Project evaluation & severity assessment (mild, moderate, severe)
• Re-use
• Local Permanent Animal Welfare body
• New requirements for care and the accommodation
Directive key points

3Rs implementation (article 4 - 2010/63/EU)
Directive key points

3Rs implementation (art 4)
3Rs implementation (art 4)

Replacement

Reduction

Refinement

...a practical strategy for researchers
3Rs implementation (art 4)

- Replacement
- Reduction
- Refinement

**Combination of the 3Rs**

« Any modification of a procedure resulting in the *replacement*, or in the *reduction* of the number of animals used, or in *The refinement* of painfull techniques »

David Smyth, 1978
Replacement alternatives
Substituting live animals (absolute or relative replacement)

Reduction alternatives
Reducing the number of animals used

Refinement alternatives
Refining welfare and
Refining methods used in procedures (Eliminating or reducing to the minimum any possible stress, pain, lasting harm, discomfort)
Directive key points

Education: initial & continuing (Article 23 - 2010/63/EU)

**Article 23**

**Competence of personnel**

1. Member States shall ensure that each breeder, supplier and user has sufficient staff on site.

2. The staff shall be adequately educated and trained before they perform any of the following functions:
   
   (a) carrying out procedures on animals;
   
   (b) designing procedures and projects;
   
   (c) taking care of animals; or
   
   (d) killing animals.
EU Directive 2010/63
(art 23, annex V)

EC Guidance document
(Feb 2014)
Felasa Recommendations for the Accreditation of Education and Training courses in LAS

EC Guidance document: Modules and Learning Outcomes (Feb 2014)

EU Directive 2010/63
Felasa E&T accreditation

Acquisition of knowledge ➔ Practice - experience ➔ Development of deeper learning-critical thinking ➔ Competence

FELASA Accreditation of Initial Modular Training ➔ the first steps of the education process - acquisition of basic knowledge and skills
### Felasa E&T accreditation

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<td>Persons taking care of animals (Art. 23)</td>
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<td>C</td>
<td>Persons responsible for directing animal experiments (Art. 23)</td>
<td>B + (A+C+D)</td>
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- Persons killing animals (Art. 23) | D
FELASA accreditation

Course Application (new or renewal)

- checked by E&T Board
  - Pass
    - Course is accredited
      - FELASA Certificates can be issued
  - Fail
    - Audit
      - Pass
        - Course is deleted from the accredited course list
          - FELASA Certificates cannot be issued
      - Fail
Audit Report

- Audit Template
  - Documentation (before and during audit)
  - Review of the course
  - Principal findings
- Commendations & Recommendations
19 courses distributed throughout Europe were analyzed
Our sample: 19 courses under Felasa category accreditation.
Audits reports recommendations

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General organization & theoretical part

COMMUNICATION IS ESSENTIAL

ASSESSMENT SHOULD FOCUS ATTENTION
Recommendations in practicals

- Assessment: Lacking or to improve (10 courses)
- Best practices: 16 courses out of a total of 19
Recommendations in practicals

- Best practices
  - Assessment
- Best practices recommendations
- Checklist
- Refinement
- Biosafety

16

10
What are **best practices** in practicals?

Detailed **checklist** of procedures is needed

**Biosafety** : place the student in a professional context

**3Rs implementation** : Clear demonstration needed

- Is the use of animals justified?
- Is the use of live animals preceded by replacement alternatives?
Replacement ?
No animal use?

Charts, slides, manuals
Models, simulators, mannekins
Computer programs & CD-ROM
Films, video
Virtual reality
Ethically sourced cadavers
Slaughterhouse material,
Preserved material (formalin, latex)
General tiered approach
EC guidance document, 2014

- No animal use
- Cadavers
  - Non-recovery (anesthetised)
  - Mild procedure on conscious animals: Training should begin with handling techniques
- Live animals

“In order to be able to guide students to treat animals humanely, no alternative to working with live animals exists today.” (Gyger et al., 2018. Laboratory Animals. https://doi.org/10.1177/0023677218788105)
Replacement? Yes Videos, suture pads, mannekins, Cadavers
The 3Rs implementation in practicals

Replacement

Reduction

Number of animals/species /student?

Refinement

Procedures mild or non-recovery
Ratio students/trainer (5 max)
Best practice in anaesthesia.
Caring for animals (Room, teachers ...)

Justification for the use of live animals.
Educational project authorization
The 3Rs implementation in practicals

- Replacement
  - Justification for the use of live animals.
  - Educational project authorization

- Reduction
  - Number of animals/species/student?

- Refinement
  - Number of procedures/animal?
Conclusion

Which lessons to improve the effectiveness of the courses?

Communicate!

Take care of assessment, for written exam and in practicals

Use Best practices in practicals (Biosafety, 3Rs)