Institutional impact of research integrity trainings – lessons learned at HHU Düsseldorf

UKRIO research integrity webinar: research culture

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I. Background: HHU and German Code of Conduct

II. Development @ HHU Düsseldorf: Important milestones, current state, foreseeable developments

III. iGRAD's training course on good research practice

IV. Lessons learned
Heinrich Heine University Düsseldorf
Short profile

Facts and figures:

- Founded 1965 (from Medical Academy Düsseldorf, est. 1907)
- One campus:
  - 5 Faculties (Mathematics & Natural Sciences, Medicine, Arts & Humanities, Law, Economy)
  - Düsseldorf University Hospital
  - University and State Library
- Students¹: 37,526
- Doctoral researchers²: 4,185
- Heine Research Academies:

  ![Image 1](https://www.hhu.de/fileadmin/titelbild/HHU_2019_1150x550px_01.png)

¹: Flyer "University Facts and Figures 2019/2020" (as of 01.11.2020), ²: Calculation of Heine Research Academies (Data from Faculties and Dept. Controlling as of 20.11.2020);
photos: © Düsseldorf Marketing & Tourismus GmbH (top), © HHU/Lisa Schäfer (middle), © HHU/Ivo Mayr (bottom)

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Research integrity in Germany:

19 Guidelines + Explanations
→ Defining professional ethos
→ 3rd level of Code: DFG online portal incl. FAQs, discipline specific information and case studies
→ Code supplements existing norms and regulations
→ To be implemented by research institutions, funding bodies or publishers in form of binding regulations

Establishing a vivid research integrity culture @HHU Düsseldorf: Important milestones

- **2002** HHU Senate: Enacts “Rules on the principles for safeguarding good research practice at HHU Düsseldorf”.
- **2007/08** FMNS: First doctoral research programs implement self commitment to HHU’s GRP rules as part of agreements on supervision or stipend approvals.
- **2009** FMNS: Foundation of iGRAD ➔ Self commitment to HHU rules for members + decision to establish GRP course in curriculum.
- **2010** MedF: Foundation of medRSD.
  - FMNS/iGRAD: Start of GRP-courses (mandatory for members) and confidential conflict counselling for early stage researchers and doctoral supervisors (for whole Faculty).
- **02/2011** German prominent case (Bayreuth) ➔ Follow-up discourse + recommendations: Serious considerations @ HHU.

- **12/2011** FMNS: Revision of doctoral regulation ➔ GRP-course (iGRAD) now mandatory for DR at FMNS.
  - MedF: Revision of doctoral regulation ➔ Membership in medRSD (incl. curriculum) now mandatory for medical DR.
- **01/2012** FAH: philGRAD founded, GRP course for doctoral members
- **05/2012** FAH: First GRP courses in doctoral programs at FAH. Prominent German case (FAH/HHU): Serious considerations across HHU.
- **09/2012** FLaw: GRP rules for Law (German Law Faculties Association.) ➔ Revision of doctoral regulation ➔ Mandatory GRP instruction.
- **10/2012** FMNS/iGRAD: Pilot in BSc-studies Biology ➔ GRP transparently implemented in obligatory module “Key qualifications”.
- **11/2012** MedF/medRSD: First GRP courses for supervisors (voluntary) and medical doctoral researchers (obligatory).
- **12/2012** HHU Senate: Start of HHU GRP rules’ revision.
Establishing a vivid research integrity culture @HHU Düsseldorf: Important milestones

- **01/2013** FAH/philGRAD: Start of regular GRP courses for DR of FAH.
- **04/2013** iGRAD/medRSD/philGRAD: Association of Heine Research Academies established → e.g. collaboration and joint quality standards for GRP courses.
- **07/2013** FMNS: Start of faculty wide discussion on revision of doctoral regulation.
- **11/2013** FBAE: Revision of doctoral regulation: Instruction on HHU’s GRP rules now mandatory for DR of FBAE.
- **12/2013** MNF: Revision of doctoral regulation → Supervision agreement, yearly progress reports, independent mentor, etc. now obligatory.
- **02/2014** HHU Senate: Enacts revised GWP rules (considering all relevant GRP/RI recommendations and guidelines until 2013).
- **11/2014** HHU President’s office: Initiation of university-wide discussion and consolidation process on GRP standards and quality measures in doctoral education

Current state of development @HHU Düsseldorf 2020

- **Implemented in doctoral regulations of HHU’s five faculties:**
  - 5/5: Mandatory GRP course and/or Mandatory instruction on GRP rules
  - 5/5: Written agreement on supervision
  - 4/5: Regular written progress reports [FMNS + FMed + FAH + FBAE]
  - 4/5: Independent second supervisor/mentor [FMNS + FMed + FAH + FLaw]
- **Heine Research Academies: GRP courses** offered on regular basis. For Doctoral researchers (@4.5/5 Faculties) + central courses for Postdocs
  - Yearly average @HHU: ~45 GRP courses for up to ~800-900 participants.
  - Joint agreements with collaborating research institutions on GRP courses.
  - HHU’s GRP courses meanwhile demanded across Germany
- **GRP courses linked to conflict counselling offers** [FMNS + FMed + FAH]
- **MedF:** GRP course compulsory for “Habilitation” and appointment of extraordinary professors
- **Study programmes:** Increasing transparent implementation of GRP as topic of Bachelor-/ Master modules
Foreseeable future developments
@HHU Düsseldorf

- **10/2020:** HHU Senate enacts revised version of HHU’s GRP rules:
  - Revisions of DFG code of conduct (2019) implemented
  - Considering 17 additional relevant GRP recommendations/guidelines
  - More stronger focus on prevention of misconduct and immediate (possible) correction of mistakes, not mainly on “punishing” misconduct.
  - Strengthening and increasing professionalisation of GRP ombudspersons (new: at least one ombudspersons from non-professorial academic staff)
  - Transparent implementation of GRP as topic of all study programmes @ HHU
  - GRP relevant consolidations and revisions of rules and regulations for study, examination, doctoral education and “habilitation”
  - Establishment of HHU-wide GRP event series addressing RI related topics for all career levels
  - Implementation of GRP as integral part of HHU’s welcoming culture (addressing all incomings)

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iGRAD’s training course on Good Research Practice

- **Time point:** Beginning of doctoral research/“brush up” Postdocs (e.g. incomings)
- **Type:** Seminar with discussion, reflexion and exercise phases
- **General Concept:**
  - Learning objectives of the curriculum recommended by the German Research Ombudsman, (hereby essential condensation of all modules).

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iGRAD’s training course on Good Research Practice

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**General Concept:**
- Learning objectives of the curriculum recommended by the German Research Ombudsman, (hereby essential condensation of all modules).
- Focus on all (for early stage researchers) relevant guidelines of DFG code of conduct. Specific complementation by additional content.
- Discipline related work on all modules. Condensation by specific methods and minimization of redundancies.
- Complemental topics: Basics research theory/ethics, dealing with conflict.
- Participant specific: Introductions to rules, procedures, contact points of all institutions (university and collaborating institutions).

- **Duration/participants:** ~8 h (or 2x4 h online) /~12-24 participants
- **Methods:** Dialogical inputs, participant-specific cases, focussed single and group work, discussions, reflections
- **Possible Variations:** Discipline specific or interdisciplinary course adjustments, Supplementary topics: Theory of Science, ethics, case studies, etc.

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Content & structure iGRAD’s training course

I. Basics of responsible conduct and professional ethos of a researcher
   Ia. Introduction: Research, ethical principles and ethos
   Ib. Basic (inter-)national recommendations and regulations
   Ic. Research misconduct: Definition, elements of offense, examples, possible reasons and consequences

II. General Responsibilities
   Iia. Quality management, research design, documentation and data management
   Iib. Providing public access, authorship and publication process
   Iic. Supervision: Expectations, roles and responsibilities
   IId. Organizational culture: Collaboration, communication, dealing with conflict
   Ile. Procedures in case of suspicion and relevant contact persons

III. Important specific responsibilities
   IIIa. Important issues prior to data collection: Authorization or permission relevant research
       [IIib. Research on animals]*
       [IIlc. Research on humans]*
       [IIId. Surveys, Interviews, Data privacy and security]*

   * Depending on disciplinary background and research projects of participants
Lessons learned: Individual experiences from 10 years of iGRAD’s GRP training courses

- **Lesson 1: Initially people will not be happy the moment courses become compulsory…**
  - Average score of iGRAD’s GRP course evaluation dropped after course became mandatory + increase of general complaints, in particular that courses became mandatory (→ “shooting the messenger”)
  - After 2-3 years: Re-improvement of average evaluation score (now frequently higher than before) + general complaints and questioning of compulsiveness virtually vanished.
  - Currently frequent feedback like e.g.: “important topic”, “GRP topics now more clear”, “will change aspects of my conduct”, etc.
  - …but will get used to it.

- **Lesson 2: Do not underestimate doctoral researchers as possible multipliers…**
  - Initially similar observation during GRP courses of iGRAD, but decreased within following years.
  - Meanwhile rare observation, mainly connected to previous experiences (other institutions).
  - Doctoral researcher report now more frequently: GRP relevant topics discussed during project discussions, journal clubs in groups/by supervisor, GRP relevant expectations expressed by supervisors, etc.
  - …they might contribute to distribution of GRP knowledge over time.

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Variation(s) of one/more of the following questions heard every course:

- “Why didn’t our supervisors tell us about GRP regulations?”
- “Do our supervisors also know about the GRP regulations?”
- “Are there GRP workshops for supervisors?”

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Lessons learned: Individual experiences from 10 years of iGRAD’s GRP courses

**Lesson 3: With time, an impact on institutional GRP culture is possible…**

- Doctoral and postdoctoral researchers and even supervisors are increasingly aware of confidential conflict counselling opportunities.
- Important development: Seeking advice at earlier conflict stages than in previous years.
- Doctoral researchers and supervisors appear less challenged, when uncertain about aspects of GRP topics → Seek advice more frequently.
- Observation in GRP courses: Meanwhile participants generally show a more profound understanding of GRP topics than in previous years.

**Lesson 4: …even evident from data…**

Lessons learned: Results from 2019 DR survey of National Academics Panel Study (DZHW)

<table>
<thead>
<tr>
<th>Doctoral Researchers of participating German Universities (w/o HHU)</th>
<th>Yes</th>
<th>HHU_mean</th>
<th>No</th>
<th>DE_mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHU</td>
<td>95% (933)</td>
<td>95% (933)</td>
<td>5% (46)</td>
<td>7% (74)</td>
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<tr>
<td>HHU Faculty of Maths &amp; Nat. Sci.</td>
<td>98% (901)</td>
<td>98% (901)</td>
<td>2% (18)</td>
<td>2% (21)</td>
</tr>
</tbody>
</table>

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</tr>
</thead>
<tbody>
<tr>
<td>HHU</td>
<td>80% (739)</td>
<td>80% (739)</td>
<td>20% (180)</td>
<td>10% (100)</td>
</tr>
<tr>
<td>HHU Faculty of Maths &amp; Nat. Sci.</td>
<td>94% (827)</td>
<td>94% (827)</td>
<td>6% (52)</td>
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</tr>
</tbody>
</table>

Notes:
- Own calculations/translations based on data from 2019 survey of National Academics Panel Study (cf. https://www.nacaps.de/), CC-BY-NC-SA 4.0
Questions?