



NEUE LEHRE – NEUES LERNEN
BOLOGNA.LAB



SESSION 3: STRATEGIES FOR IMPLEMENTING RESEARCH-BASED EDUCATION – 3 MODELS

Presentation for the *HERE seminar “Implementing Research Based Education”*
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What can RBE do for you?

- **Enhance the student experience** -> *RBL is one of many approaches to create a more active and student centred curriculum*
- **Identify potential scientific research talent** -> *a supplementary undergraduate research opportunities (UROP) scheme might achieve this*
- **Make the ,unity of research and teaching' part of your institutional profile** -> *RBL is one way forward*

Model 2: Undergraduate Research Opportunities

Potential:

- to identify high calibre candidates early on in their career (RBL Type 1, B3, C3)
- to give students an opportunity to apply their skills and knowledge to ,real world' problems (UR Type Service Learning, Practice Learning)

Variants:

- **Extracurricular:** the project takes place outside of scheduled teaching hours (e.g. in holidays), students do receive a reference, but no study points (delayed incentives: access/funding to MA/PhD courses? (USP))
- **Integrated:** the project could take place in an optional ,research' or ,service learning' module and replace one or two traditional taught classroom courses. Workload must be carefully calculated.

Model 2a – **Extracurricular** UROPs in existing staff research projects (e.g. USP Brazil, Imperial)



- Requires a research-active department or affiliated research institutes
- Projects that have scope for undergraduate contributions

Potential Issues:

- Incentivising the students? (Work out of term time?)
- Payment and/or recognition (USP)?
- (Assessment/ documentation of student contribution)

Model 2b – **Optional** Service Learning UROPs for Third Party Clients in Class (Ruskin College, Oxford)

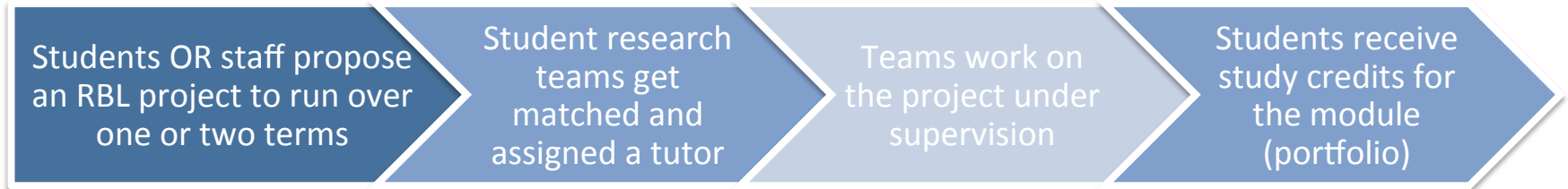


- Suited for subjects with a professional/applied angle
- Could be suited for interdisciplinary work
- Solutions remain mostly theoretical (consultancy)

Issues:

- Acquisition of clients
- Expectation management (clients)
- Legal issues
- Assessment

Model 2c – UROPs in **optional** RBL Modules (HU-Berlin)



- Can extend the existing curriculum
- Can be used to prepare for BA Dissertations
- Suited for Humanities/ Social Sciences (or interdisciplinary groups)
- Difficult to plan long-term (requires minimum no. of students to run)
- Recruitment of supervisors can be tricky (subject interest/recognition)

UROPs Overview

Advantages

- Supplementary/ extracurricular programmes can function as a selection mechanism
- Students can receive first-hand experience of a possible field of work
- Students get to apply their knowledge and skills in a practical way

Disadvantages

- Placements for individual students can be difficult to source, clients for service-learning projects difficult to find
- Not all good students may be able to take part in extracurricular projects
- Difficult to integrate into the core curriculum if provided by ,outsiders‘

Model 3: The Big Challenge - Wholesale Curricular Change

Potential:

- To systematically enhance the student experience through revised teaching, learning and assessment strategies in *core modules* (-> curriculum alignment)

Challenges:

- **Staff reluctance:** experienced academics can find it hard to change the (teaching) habits of a lifetime
- **Staff time:** academics willing to change how they teach often do not have time to develop new ideas or look for inspiration
- **Status of teaching:** traditionally, academic careers are made by research (or administration), but rarely by investing time in teaching
- **Student numbers:** core modules can be oversubscribed in some subject, active pedagogy is based on small group sizes

Case 1 – University of Bremen – Research-Oriented Learning as Part of the Institutional Profile

Long Tradition in Project-Based Learning

- Bremen introduced extracurricular ProjBL in 1971
- Over time student research projects became integrated in many degree curricula („Bremer Model“)
- With Bologna and modularisation, that tradition was almost lost

Excellence in research through Research-Oriented Learning?

- Commitment to RBL in a major bid for government research funding (Exzellenz Initiative)
- €200.000 set aside for a university-wide competition for funding ROL projects – 4 projects fully funded
 - UROP scheme in interdisciplinary Research Cluster (ISIS)
 - Interdisciplinary strand for BSc Psychology and BA Business Studies
 - RBL in Mathematics
 - ProjBL in BSc Physics (5. Semester)

Case 2 – University of Leeds: Using Quality Assurance Cycles to Renew the Curriculum

Linking research and teaching

- Attempt to get active researchers back into teaching
- Departments responsible for mapping their programmes against the Healey-Matrix
- All programmes to have an RBL (A3-C3) capstone project in the final year
- Use of the QM cycles (re-validation of programmes, QAA-visits, Institutional Reviews) to implement change

Does it work?

- Low, reassuring goals: ‚RBE has always been at the heart of what we do...‘
- No specific flanking strategies (staff development?) = paper exercise in rebranding?
- Few indicators on progress to date (started 2011, last documents 2013)

Case 3a – Technical University Hamburg-Harburg

Changing the core curriculum

- Competitive bids for teaching innovation: Professors can apply for support in re-designing one of their compulsory classes
- The bid needs to be discussed with advisors from the Centre for Teaching and Learning (ZLL) prior to submission
- Bids are reviewed by a joint commission of the Deans and the Vice President for Teaching and Learning
- If successful, they receive funding for a 0,5 research/teaching assistant for 3-6 months and 0,25 dedicated staff input from the ZLL
- Rules: BA before MA, compulsory core modules before options and electives, innovations should be transferrable

Spreading RBE principles

- to save on staff costs, TUHH has decreed a 6 months freeze on filling vacancies for teaching/research assistant posts...
- ...unless they sign up for an introduction to RBE with the ZLL
- new staff receive time off other duties whilst on the ZLL training course during those 6 months

Case 3b – Technical University Hamburg-Harburg

The ‚Professorial Lounge‘

- Informal format for senior academic staff to meet with the VP for Teaching and Learning
- Brief Input on a teaching issue from selected colleagues

...how does TUHH do it?

- gets Professors to identify issues in their courses they want to remedy
- gets Professors in touch with the ZLL
- buys time (teaching assistant) and expertise (ZLL staff) to re-design the course
- values good teaching (investment in ZLL, staff development, VP in Professorial Lounge)

Links to the main cases discussed here:

- Imperial College, London:
<http://www.imperial.ac.uk/urop/>
- Technical University Hamburg-Harburg (German only):
[http://cgi.tu-harburg.de/~zllwww/angebot/
weiterqualifizierung/workshops/](http://cgi.tu-harburg.de/~zllwww/angebot/weiterqualifizierung/workshops/)
- University of Bremen (Engl.):
<http://www.uni-bremen.de/en/lehre-studium.html>
- University of Leeds:
<http://curriculum.leeds.ac.uk/project/resources?=2>