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REDESPP Redes de Desporto nos Politécnicos - Ensino, Investigação, Intervenção




HIGHER EDUCATION IN SPORTS RELATED DISCIPLINES: INSIGHTS INTO TEACHING AND RESEARCH

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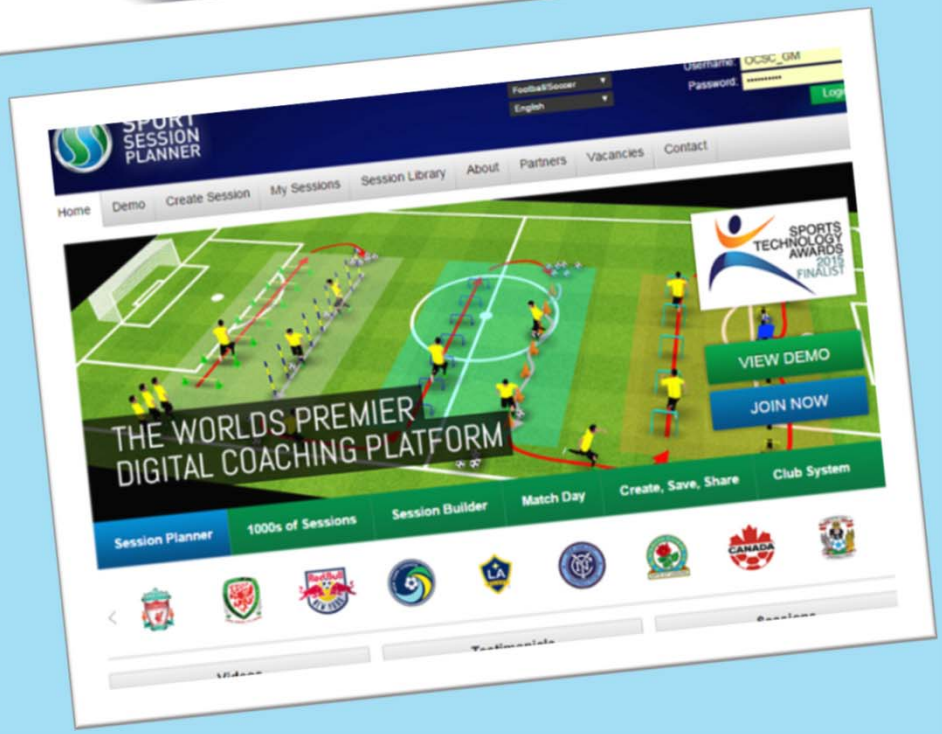
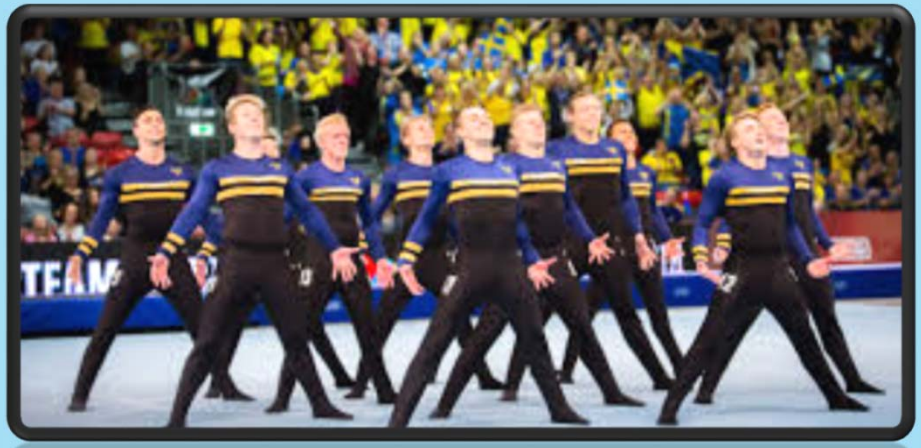
5-11-2018

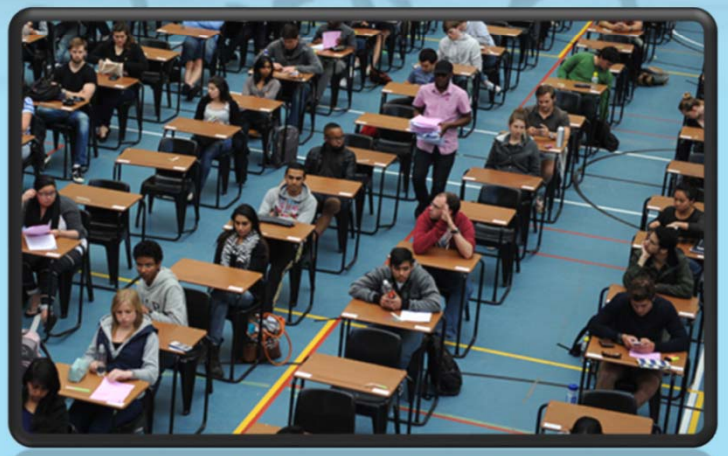
OVERVIEW

- Higher Education of the 21st century:
  - Research led and Applied Sciences Universities
- Teaching and Research in HE
  - Interactive Teaching and Assessment
  - Technology Enhanced and Flipped Learning
  - Research Informed Teaching (RiT)
- Developing a Research community of practice in HE



WHAT HAS CHANGED IN HIGHER EDUCATION IN THE LAST CENTURY?





THE BOLOGNA PROCESS IMPLEMENTATION 1999 - 2018

- How do we recognise and reward good teaching as well as good research?
- How do we remove burdensome recognition procedures to ensure that students and graduates can be mobile?
- And how do we increase the relevance of higher education programmes for a labour market that is in a state of permanent transformation?

HIGHER EDUCATION OF THE 21ST CENTURY IMPACT OF THE BOLOGNA PROCESS

- **58.8 %** of the tertiary education students in Europe are enrolled in first-cycle programmes (Bachelor's or equivalent level);
- **21.7 %** are enrolled in second-cycle programmes (Master's or equivalent level); and
- **16.8 %** are enrolled in short-cycle tertiary education.
- **3 %** of students are enrolled in third-cycle programmes (doctoral or equivalent level)

HIGHER EDUCATION OF THE 21ST CENTURY IMPACT OF THE BOLOGNA PROCESS

- Universities have responsibility for the development of research-related skills as a direct result of the Lisbon and Bologna agreements

  (Griffioen 2013; de Weert and Van der Kaap 2014).

- "All undergraduate students in all higher education institutions should experience learning through, and about, research and inquiry"

  (Healey and Jenkins, 2009, p.3).

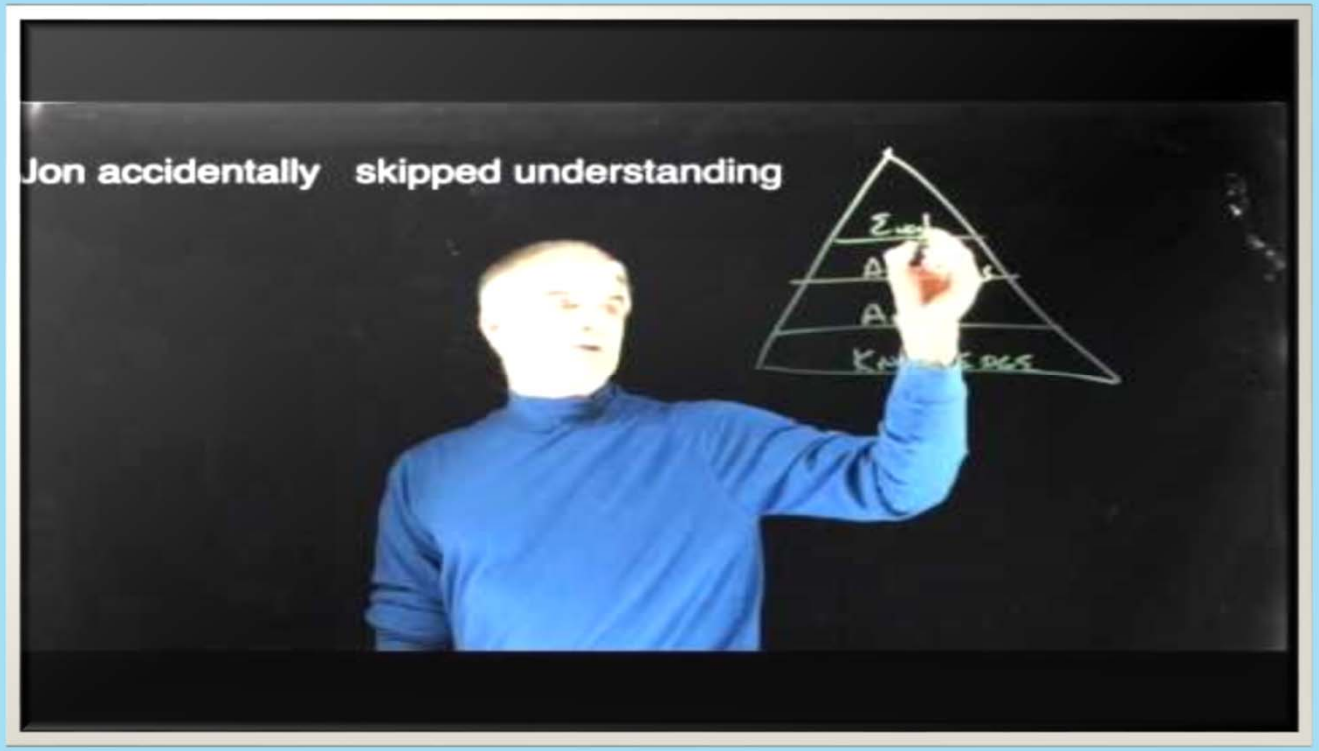
WHAT ARE THE GENERAL SKILLS FOR HE OF THE 21ST CENTURY?

HIGHER EDUCATION SKILLS

- literacies (literacy, numeracy, citizenship, digital, and media);
- competencies (critical thinking, creativity, collaboration);
- character qualities (curiosity, initiative, persistence, resilience, adaptability, leadership)

GRADUATE SKILLS

- Verbal and written **communication skills**.
- **Confidence** and **assertiveness**.
- Ability to manage time. ...
- Lateral and critical thinking skills. ...
- Basic computer skills. ...
- **Emotional intelligence** and **empathy**
- Ability to work in a team

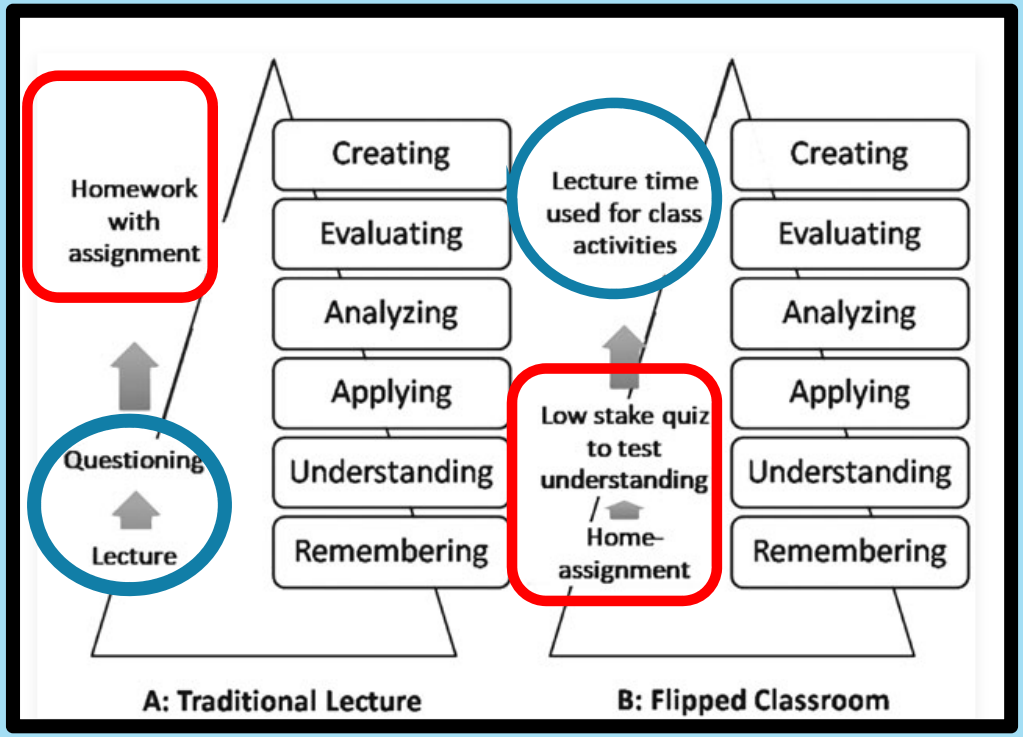


FLIPPED LEARNING (CLASSROOM)

(JON BERGMANN, 2017)

What is flipped learning?

BLOOM'S TAXONOMY: FLIPPED LEARNING



DEFINITION

"Interdisciplinary studies is a process of answering a question, solving a problem, or addressing a topic that is too ***broad or complex*** to be dealt with adequately by a single discipline, and draws on the disciplines with the goal of integrating their insights to construct a more comprehensive understanding"

(Repko, 2011, p.16)

INTERDISCIPLINARY APPROACH TO TEACHING IN HE

WHAT ARE INTERACTIVE TEACHING STRATEGIES IN HE?

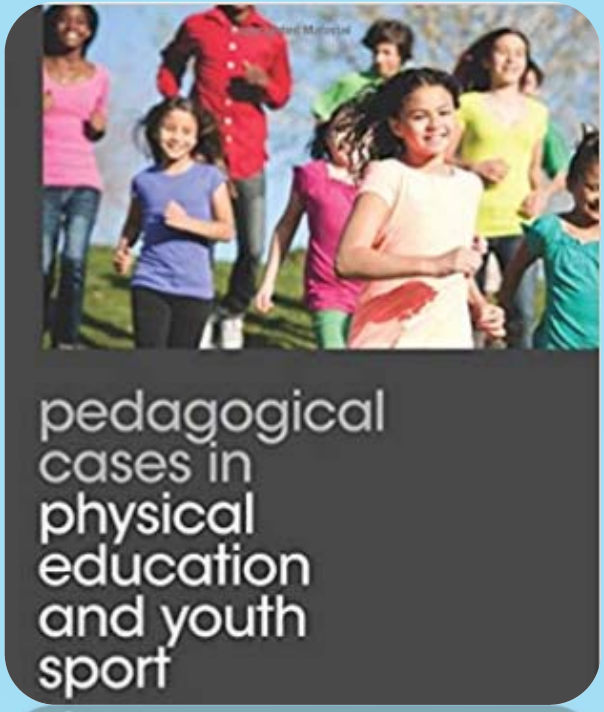
(LYALL, MEAGHER, BANDOLA AND KETTLE, 2015)

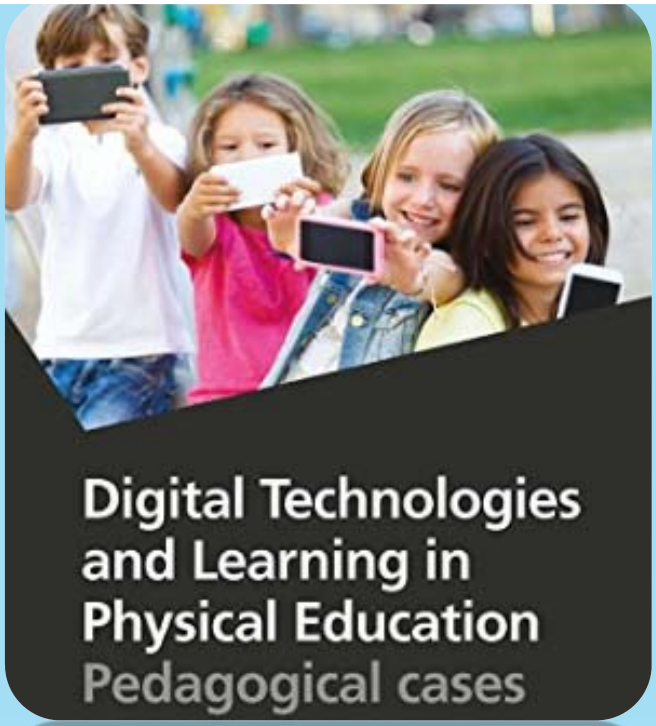
INTERACTIVE METHODS

- Project-based learning (PBL)
- **Case study methods**
- Role-playing
- Simulations
- Virtual methods
- Peer-assessment and review
- Peer-assisted learning (PAL)
- Small-group teaching

CO-TEACHING / TEAM TEACHING

- Co-creation of syllabus and case studies
- Advanced planning and negotiation with co-teacher
- Co-advising with industry representatives
- Taking turns in teaching
- Creating learning community





"SPORT PEDAGOGY IS APPLIED, PRACTICE REFERENCED, MULTI-DISCIPLINARY AND INTERDISCIPLINARY. ITS PURPOSE IS TO CREATE NEW KNOWLEDGE TO SUPPORT PRACTITIONERS IN PHYSICAL ACTIVITY SETTINGS SUCH AS SPORT, EXERCISE, PHYSICAL ACTIVITY AND PHYSICAL EDUCATION"

HTTP://AIESEP.ORG/WP-CONTENT/UPLOADS/2014/11/2012-AIESEP-POSITION-STATEMENT-ON-SPORT-PEDAGOGY.PDF

WHY CASE STUDY?

STAFF VIEWS

- Case study provides a form of inquiry that elevates a view of life in its complexity *(Thomas, 2011)*
- Case study imitate real-life settings and real-world complexities and are highly dependent on students' individual efforts.

(Goodman and Huckfeldt, 2013)

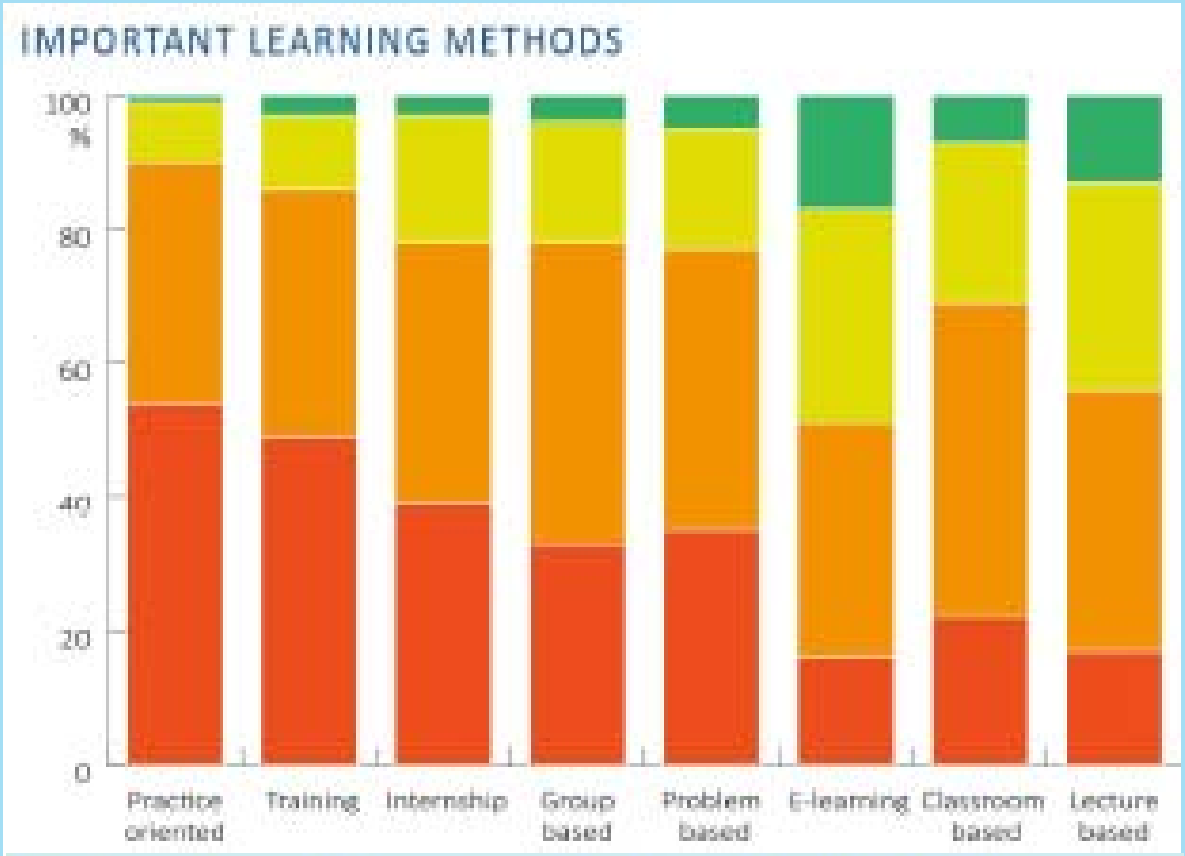
STUDENT VIEWS

- case-based teaching led to students' stronger critical-thinking skills (89.1%)
- better ability to make connections across multiple content areas (82.6%)
- deeper understanding of concepts (90.1%)

(Herreid, 2011)

STUDENT VIEWS:

IMPORTANT LEARNING METHODS (SPEACH PROJECT, 2015-2017)



Unimportant - Impossible
Neutral
Important - Possible
Very Important - Very Possible

The Sport, Physical Education and Coaching in Health (SPEACH) project
Bringing Health Enhancing Physical Activity (HEPA) into sports

Co-funded by the Erasmus+ Programme of the European Union

MODULE DEVELOPMENT

THE CHALLENGE: NUTRITION, DIGITAL TECHNOLOGY AND PHYSICAL ACTIVITY FOR ADULTS

HTTP://SPEACH.HANZE.NL/

The Case: *You (and your team) have been tasked by your professional body to develop a* ***programme of health enhancing physical activity for a new client group, middle-aged adults (40-59****).*

This programme will be piloted in your region in the first instance. Your programme needs to bring together various policies, provisions and stakeholders that provide Physical Activities for this age group. ***The unique characteristic of this programme will be the integration of information and wearable technology*** *to support participants in their journey* ***to participate in walking sports or other physical activities; and the impact of nutrition and physical activity on their health****.*

Runkeeper

Fitbit
By Fitbit, Inc

MODULE TEMPLATES

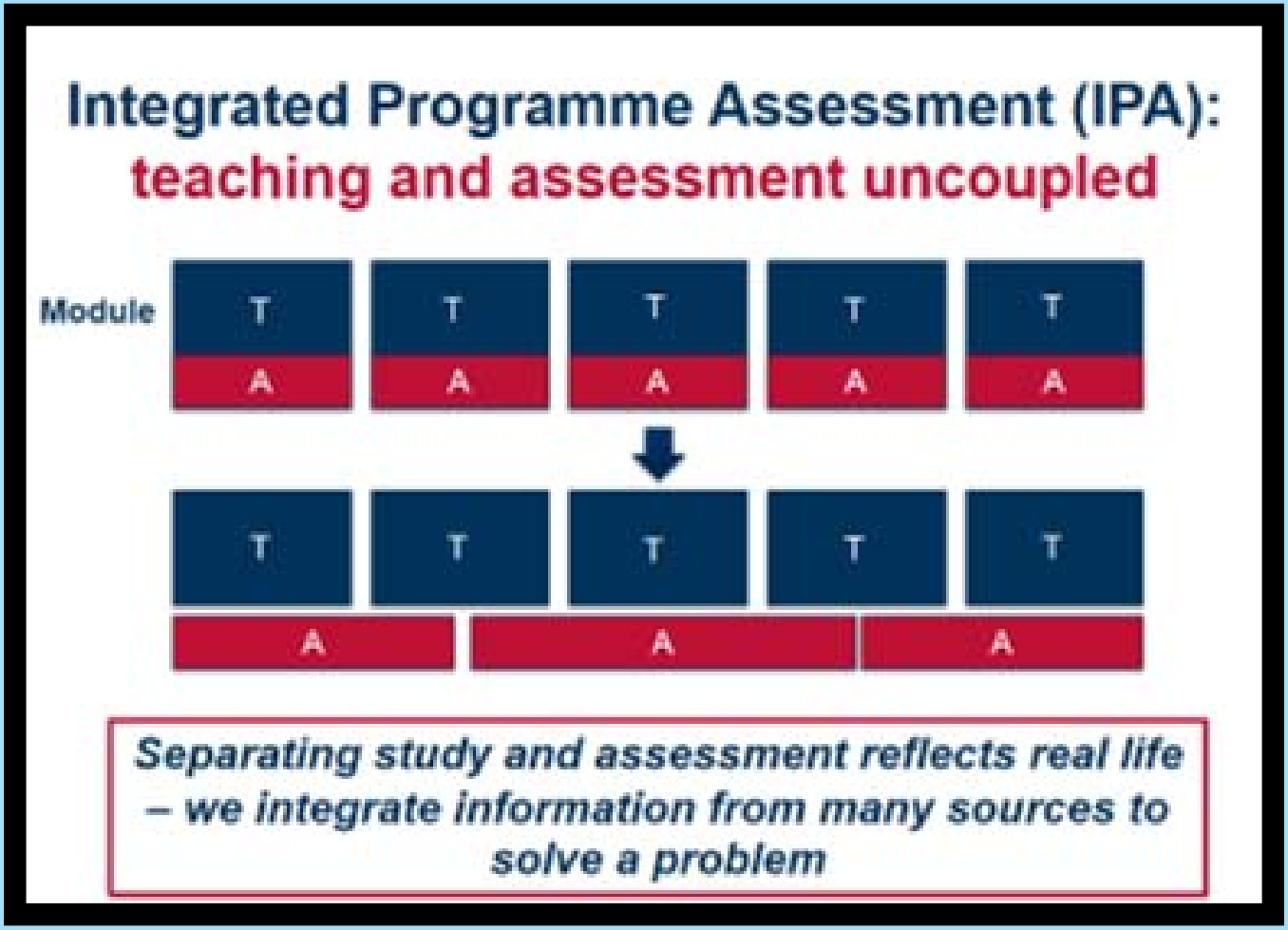
- ***Learning outcomes (LO)***
  - Level 4-5 (Vocational)
  - Level 6 (Bachelors)
  - Level 7 (Masters)

- ****Student assignment(s)***
- Task 1: Knowledge Enrichment Activity (20%)
- Task 2: Assignment: Scientific report (group task) (40%)
- Task 3: Portfolio of engagement with clients and the workplace (individual task) (40%)

Week to week schedule		
Week	**Subject**	**Topic .. Content**
1/2	**Introduction**	**Nutrition and physical activity**
3/4	**Nutrition**	**Concepts and physical activity**
5/8	**Nutrition**	**Physiological applications and HEPA**
9/10	**Field trip**	**Target population settings**
10/11	**Digital technology**	**Technology for health enhancing physical activity**
13/14	**Leadership**	**Practical Workshop: Walking physical activities for participants**
15 -21	**Work based learning**	**Tutor and peer consultations**
22-25	**Preparation Assessment**	**Tutorials**

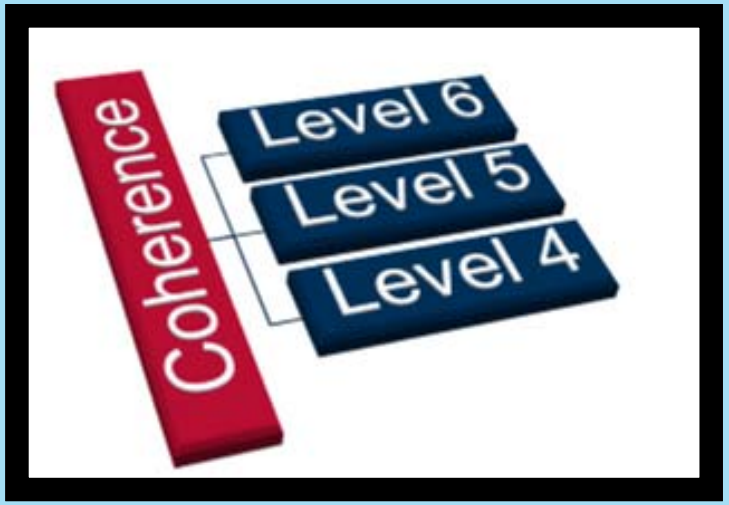
Go directly to our modules

http://speach.hanze.nl/



WHAT ARE INTEGRATED PROGRAMME ASSESSMENTS?

HTTPS://WWW.BRUNEL.AC.UK/ABOUT/AWARDS/INTEGRATED-PROGRAMME-ASSESSMENT



WHAT DOES IPA ASSESSMENT LOOK LIKE?

SYNOPTIC EXAM

- A seen exam- question released 7 days in advance
- At every level, increasing in difficulty and complexity
- Expectation that students will:
  - Integrate knowledge and information from across the degree and wider subject areas
  - Show engagement with, and critical understanding of the primary academic literature
  - Demonstrate understanding of relevant ethical issues

COURSEWORK: PROBLEM SOLVING AND DATA ANALYSIS

- Portfolio of work from three options (chosen from six)
- Different options do different work BUT they all involve solving problems by analysing data
- Fulfil the same learning outcomes

CURRICULAR INNOVATION: TECHNOLOGY AND SPORT RELATED DISCIPLINES

- **Trend #1: Wearable Technology**
  - smart watches, fitness trackers, GPS watches and tracking devices, and heart rate monitors have exploded in popularity over the last several years and the number of people utilizing these tools continues to climb
- **Trend #2: The Ever-Present Sports Arena**
  - drones, tablet displays, cameras, RFID technology, projection screens, location-based SMS messaging and more are being tested in stadiums and other sports facilities to provide more personalized experiences for their fans.
- **Trend #3: Smart Phone Apps**
  - a standard means of tracking, education, and reporting in the efforts of fitness enthusiasts at every level- libraries of workout demonstration videos and prompts to reference while in the gym
- **Trend #4: Virtual Reality**
  - Sports Training in Virtual Reality (STRIVR) Labs
- **Trend #5: Injury Prevention Technology**
  - Sports science companies including Kinduct Technologies, Kitman Labs, and CoachMePlus are delivering results by collecting data, optimizing workout plans, and focusing on in-depth assessments of individual athletes and the ways they move and perform

INTEGRATED PROGRAMME ASSESSMENT (IPA)
BRUNEL UNIVERSITY (UK)

Benefits

Staff

- Assessment burden is reduced
- Marking is shared
- Teaching has become a 'community property'

Students

- Fewer more interesting assessments
- Formative activities supports learning
- Recognise graduate attributes

- Better students outcomes
- Better preparation for employment
- Increased student satisfaction
- Highlighted as good practice by professional bodies

NEW MODELS OF CURRICULUM… SHOULD ALL… INCORPORATE RESEARCH-BASED STUDY FOR UNDERGRADUATES

(RAMSDEN 2008, PP. 10–11

Sports Psychology:
- Psychosocial and organisational-related research
- Mental Health & Wellbeing-related research
- Performance-related research

Exercise and Sport Sciences:
- study of human movement, particularly its cross-disciplinary and interdisciplinary nature
- Nutrition

Sports Coaching:
- Disciplines
- Youth Sports, coach relationships
- Professional athletes – long term athlete development

Teacher Training:

Go to **www.menti.com** and use the code **34 35 94**

What are the challenges of "research" in higher education?

Mentimeter

Time

Collaboration

Show image

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RESEARCH IN HIGHER EDUCATION

RESEARCH EXCELLENCE FRAMEWORK (2014, UK)

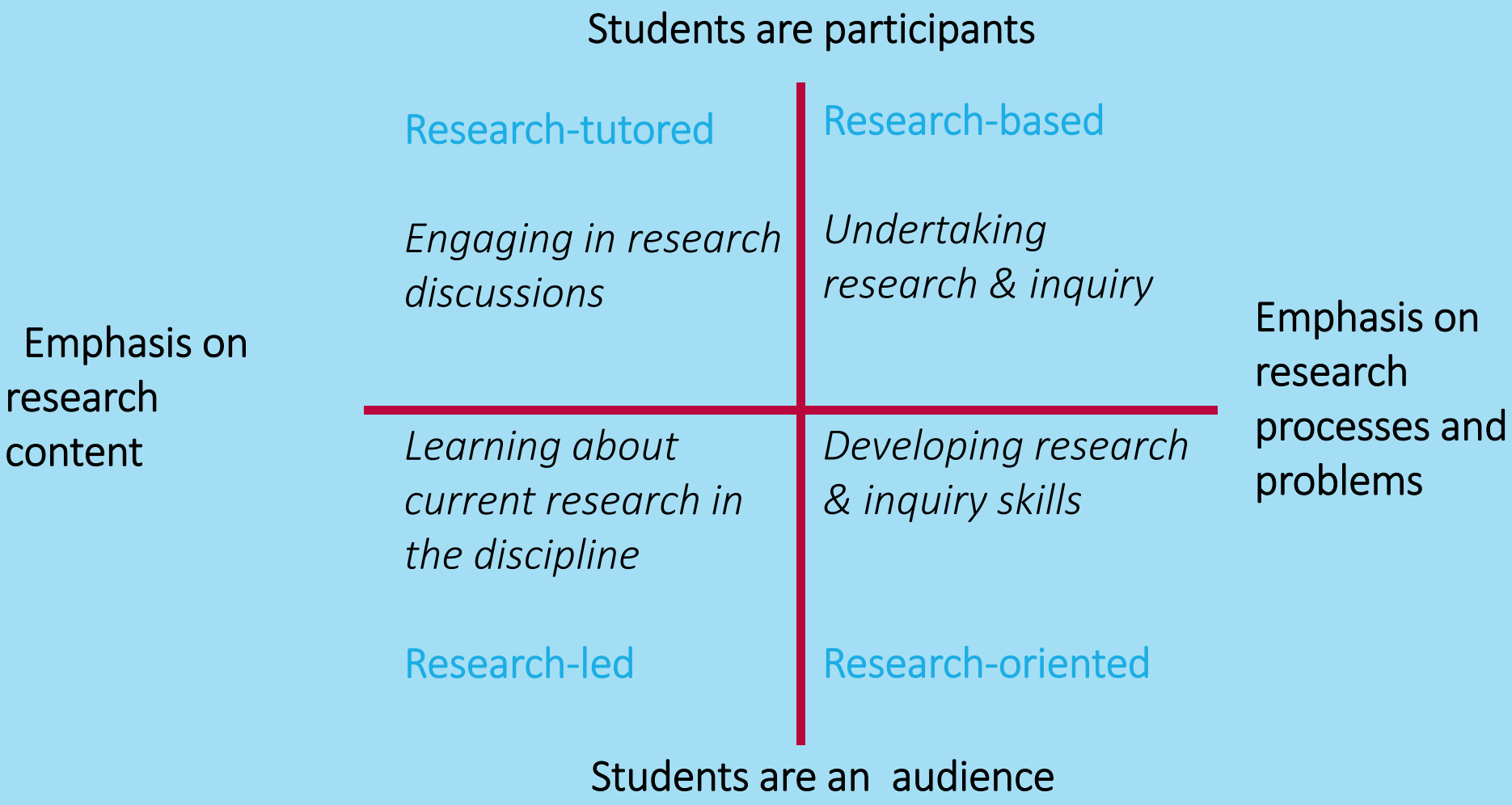
RESEARCH IN HE DEFINED

- **'a process of investigation leading to new insights effectively shared'**

ie disseminated within the wider academic domain

RESEARCH-LED TEACHING

- students benefit from – and want to be **taught by research active academics** - at the leading edge of their fields.
- enables universities to build a **research community** and an academically rigorous learning environment
- is characterised as **enabling students to think analytically, critically and creatively, within and across subject and international boundaries** – just as the best researchers do.



THE RESEARCH-TEACHING NEXUS

Healey and Jenkins (2009, p.7)

WHAT DOES THIS THEORY MEAN IN PRACTICE FOR AN INDIVIDUAL STUDENT?

(HEALEY AND JENKINS, 2009)

There are **four main ways** of engaging undergraduates with research and inquiry:

— research-led: learning about current research in the discipline;

— research-oriented: developing research skills and techniques;

— research-based: undertaking research and inquiry;

— research-tutored: engaging in research discussions

- THE LIVED EXPERIENCE OF EACH STUDENT WILL BE DIFFERENT
- USING HEALEY'S MODEL WE CAN CONCEPTUALISE A RANGE OF WAYS OF EXPERIENCING RESEARCH-LED EDUCATION

WHAT IS "RESEARCH-INFORMED TEACHING"?

- Research informed teaching focuses on ***the processes through which knowledge is produced, places emphasis on developing skills of research and enquiry***, and on developing a research culture in which students are encouraged to think about how knowledge is developed and how they can be engaged in that process.
- ***Immersing students in the relevant disciplinary and departmental research cultures and the process of doing research and enquiry*** can be of wider benefit. Evidence suggests that students who are actively involved in the process of research are more engaged (Baldwin, 2005).
- Making ***reference to relevant academic research*** in the course of subject teaching; this is what Griffiths (2004) terms “research led teaching”.

HOW TO EMBED RIT IN HE

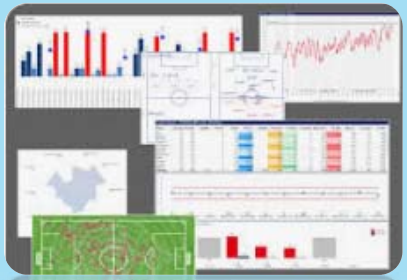
1. Share your enthusiasm for doing research and **examples from your own research experience**.
2. Emphasise the process of knowledge production in your field, by explaining **different methodological approaches within the discipline** and how these have evolved.
3. Include **current research findings** and issues in your teaching, for example, Include cutting edge research and identifying the key questions being explored by current research in the field.
4. Provide opportunities for students to acquire research methods and skills, for example, by building **small-scale research activities into group work or analysing data from existing 'real world' projects.**
5. **Involve students in research activities**, for example, by offering **research placements** to students or encouraging students to **attend research seminars by visiting scholars**.
6. Promote undergraduate research through **publishing student work in departmental newsletters** or **in-house jou**rnals, putting student work on **websites** and exhibiting student work at conferences or university events.

RESOURCES TO EMBED RIT IN HE

SPORT RELATED DATABASES

- SportsDiscus
- Academic Search Premier
- PsychInfo
- ScienceDirect
- Taylor & Francis Online
- Physical Education Index
- PubMed (MEDLINE)
- ERIC (EBSCO)

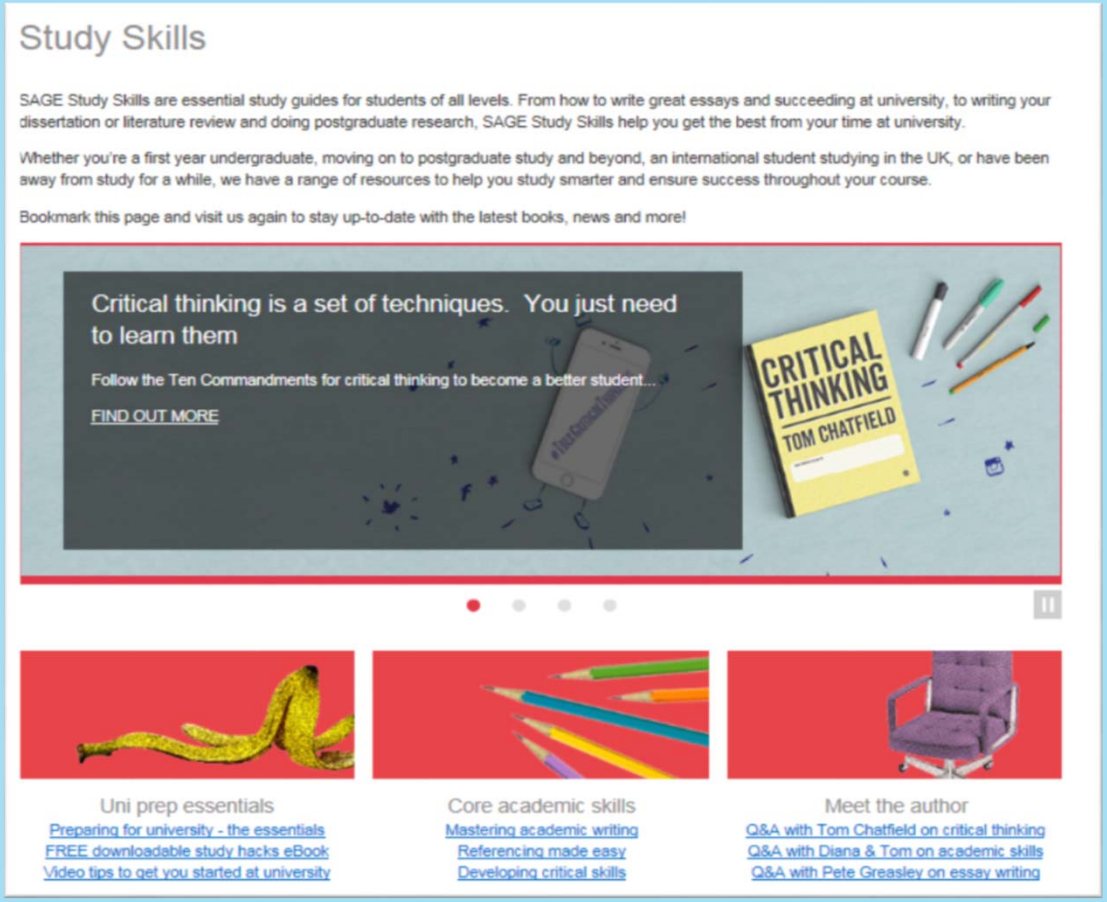
GADGETS AND DEVICES FOR DATA COLLECTION AND ANALYSIS



TRIAL “FREE” RESOURCES

- Critical writing package:
  - consists of six units,
  - interactive journey
  - learn to spot an argument
  - evaluate evidence,
  - understand and account for bias,
  - develop clear, confident, critical writing

- Colleagues could examine or use the package with their own students are free to do so.
- Anonymous on-line survey sharing their comments and criticisms of the package.



CASE STUDY: LINKING FIRST AND SECOND-YEAR ASSESSMENT STRATEGIES THROUGH RESEARCHING THE NEED FOR A LOCAL SPORTS DEVELOPMENT PROJECT IN A WORK BASED LEARNING MODULE AT WEST HERTS COLLEGE, UK

- In the second semester of year one Foundation Degree in Sport Studies (FDSS) students develop a project proposal focused on **researching the need for a local sports development project.**
- Students complete a **project proposal form** which is then presented to a panel for assessment.
- In year two students are encouraged **to approach employers with their year one sports development project proposals, to fulfil the requirements of their double semester work-based learning (WBL) module**
- Students **develop, implement, analyse and reflect** on their implemented project proposals and this forms the basis for a **5,000 word mini final project**.
- Examples include: a proposal to **increase female sports participation** which resulted in a cricket enrichment programme at a local secondary school for year eight female pupils and an employment opportunity for the FDSS student

CASE STUDIES TO ENHANCE GRADUATE EMPLOYABILITY: COMPETITIVE SPORTS, ATHLETES AND EMPLOYABILITY

KINASHS, S., CRANE, L., KNIGHT, C., & MCLEAN, M. (2015)

- Orient the employability curriculum around skills rather than specific jobs.
- ***FROM AN EDUCATOR***: "Educators need to provide from the get-go to students, the idea of the **breadth of roles** out there. You also need to encourage them to think about **skills rather than jobs because the jobs** that the students are going to end up [employed in] in ten years' [time] don't exist yet."
- ***FROM AN EMPLOYER***: "I look for a resume that almost looks like they've been working for four years in addition to studying. They've been playing sport, volunteering or doing community work. I like to find people that look like they've been busy, have a full life, that they're doing a lot of things apart from just studying and sitting in their room."

CHALLENGES WITH RIT IN THE PLACEMENT SETTING

RISKS

- Matching client need, student need and staff expertise.
- Quality of research/work experience
- Ethical and legal concerns

MESSAGE

- Explain benefits of authentic experience
- Students perceive RiT as an opportunity to enhance employment and complete research
- RiT develops graduate attributes:
  - Adaptability, effective communicator, digitally literate, informed, problem solving, critical thinking, leadership and teamwork skills

RESEARCH COMMUNITY OF PRACTICE:
6 STEPS TO ENGAGE STUDENTS WITH RESEARCH

1. Encourage active reading
2. Discuss your research with students
3. Involve your students in your research
4. Highlight co-curricular research opportunities
5. Make the most of your institutional resources
6. Identify research-based activities in the region

DEVELOP STUDENT'S AND STAFF RESEARCH ACTIVITY

- assessments using research methods and data analysis;
- poster and oral presentations;
- dissertation showcases;
- research seminars;
- Conferences;
- Writing workshops;
- Publications – journals, blogs etc
- Collaborative projects
- HE networks

- **Open access**: getting early career researchers on board to ensuring the global south is represented
- **What's the biggest challenge?**
- The biggest challenge facing open access to research might not be technological, not even economic, but cultural.
- Bridging the gap between academics' hunger for quality, reputation and positive assessment and distribution model is key.
- Open access has been for some time now a hub of innovation in publishing technologies, promoting the emergence of academic publishing start-ups and researcher-led projects.
- How to take those to the mainstream, to be recognised by senior academics, administrators and funders, is in my opinion the biggest challenge.

Does your library offer any funding for article processing charges?

75% NO 15% YES 10% WE ARE EXPLORING

INSTITUTIONAL REPOSITORY

RESEARCHGATE

ACADEMIA.EDU

RESEARCH COMMUNITY OF PRACTICE

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THANK YOU FOR LISTENING

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