

Health professions' education – current recommendations and expectations

Martin Henman

School of Pharmacy and Pharmaceutical Sciences

Trinity College Dublin



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ReFEEHS

Recognises that professional vocational education is being influenced by;

- Rapid growth in biomedical science knowledge
- Requirement to address the health needs of the community that they serve
- EU policies on Regulated Professions
 - Qualifications Framework
 - Automatic recognition of title
 - Free movement



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Current norms

- Qualifications Framework
- Quantification of learning activity
- Learning Outcomes
 - Programme
 - Module/Course
- Competency-Based curricula
- Experiential learning
- Interprofessional learning
- Progression/Link to Professional Practice – Continuing Professional Development
- Accreditation & Quality Assurance



European Higher Education Area

Work plan 2015-2018

- Monitoring
- Implementation
- Dealing with non-implementation
- Support for Belarus
- International co-operation

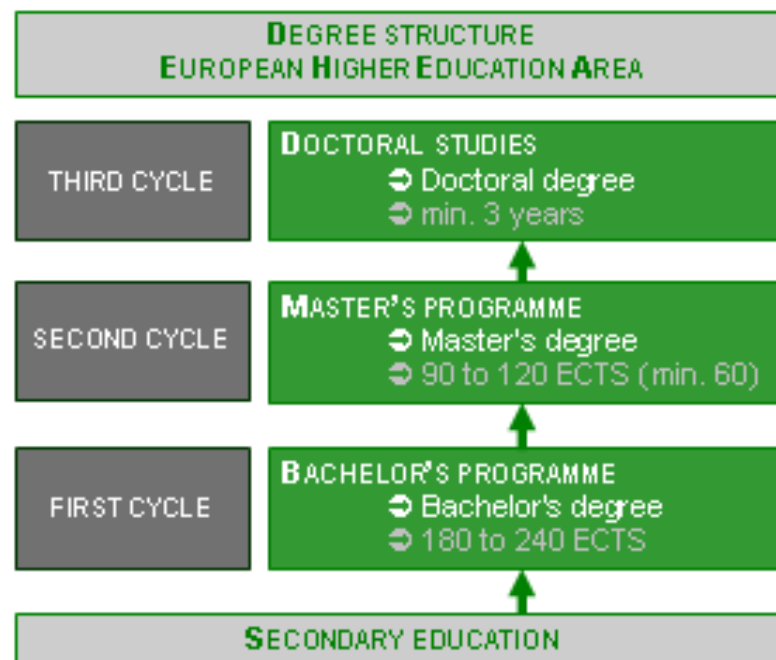


Members



Bologna & harmonisation

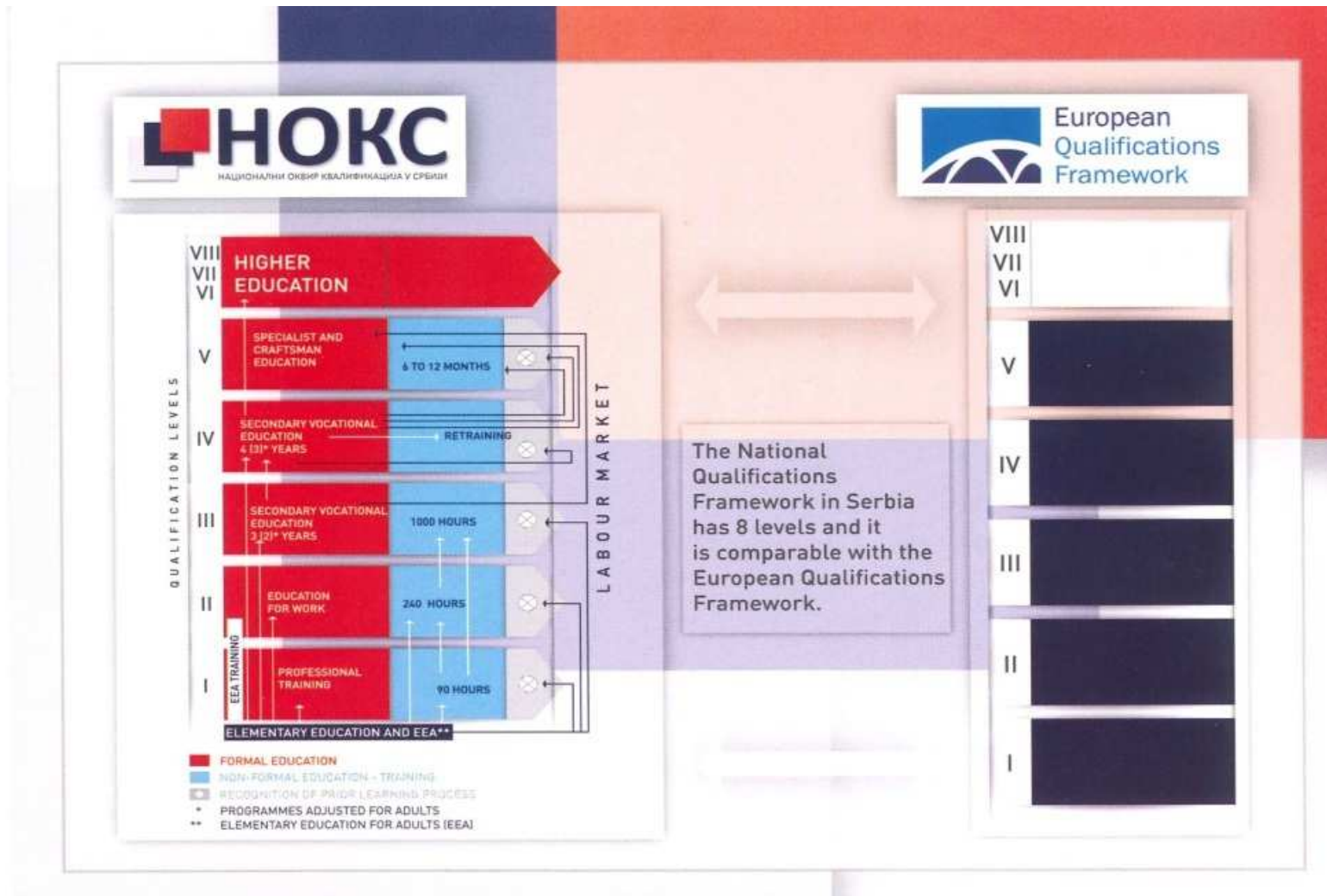
- Bachelor – 3-4y x 60 ECTS
- Master – 1-2y x 90 ECTS
- Doctoral 3-4y



- However, some professional vocation courses are exceptions
 - Medicine – Bachelors -5y
 - *But student is awarded three degree – B Medicine, B Surgery and B Obstetrics – MB, BCh, BAO*



Serbian National Qualifications Framework



Quantification - ECTS

- A credit system designed to make it easier for students to move between countries
- Based on the learning achievements and workload they can transfer their ECTS credits from one university to another
- They are added up to contribute to an individual's degree programme or training
- However, the quantification of the workload is the most influential aspect



Level descriptors - Dublin Descriptors

- Generic statements of typical expectations of achievements and abilities associated with awards that represent the end of each of a (Bologna) cycle or level.
- Phrased in terms of competence levels, not learning outcomes
- Distinguish in a broad and general manner between the different cycles.

Comprise five components:

- knowledge and understanding
- applying knowledge and understanding
- making judgements
- communication
- lifelong learning skills



Dublin descriptors - First Cycle

- Have demonstrated knowledge and understanding in a field of study that builds upon and their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study;
- Can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study;
- Have the ability to gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues;
- Can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences;
- Have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.



Dublin descriptors - Second Cycle

- Have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with Bachelor's level, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research context;
- Can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study;
- Have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements;
- Can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously;
- Have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous.



Quantification of learning activity

- European Credit Transfer (and accumulation) System
- ECTS credits represent the workload and defined learning outcomes ("what the individual knows understands and is able to do") of a given course or programme.
- Workload is an estimation of the time the individual typically needs to complete all learning activities such as lectures, seminars, projects, practical work, work placements and individual study required to achieve the defined learning outcomes in formal learning environments.
- One credit corresponds to 25 to 30 hours of work and 60 credits would be completed in a standard academic year, usually broken down into several smaller components. In most cases, workload ranges from 1,500 to 1,800 hours for an academic year.
- The correspondence of the full-time workload of an academic year to 60 credits as the equivalent of a full year of study or work is often formalised by national legal provisions.
- It should be recognised that this represents the typical workload and that for individual students the actual time to achieve the learning outcomes will vary.



ECTS - Courses & Modules

- Bachelors course = 60 ECTS per year
- Modules will be measured in ECTS
 - Standard size =? 5ECTS ~120-130h
 - 12 Modules per year
- Module components
 - Contact time – lectures, practicals, workshops etc...
 - Assignment completion & submission
 - Guided study – reading, online study, information retrieval
 - Assessment
- Components link to Assessment strategy and to Learning Outcomes



Learning outcomes

- Statements of what a learner knows, understands and is able to do on completion of a learning process.
- Achievement has to be assessed through procedures based on clear and transparent criteria.
- They are attributed to individual educational components and to programmes as a whole.
- They are also used in European and national qualifications frameworks to describe the level of the individual qualification.



Assessment

- Descriptions of what the learner is expected to do and at what level, in order to achieve learning outcome.
 - If the L.O = Skill then, Demonstrate = Assessment
- The assessment methods and criteria for an educational component have to be appropriate and consistent with the learning outcomes that have been defined for it and with the learning activities that have taken place.
 - And the amount of time allocated to those activities

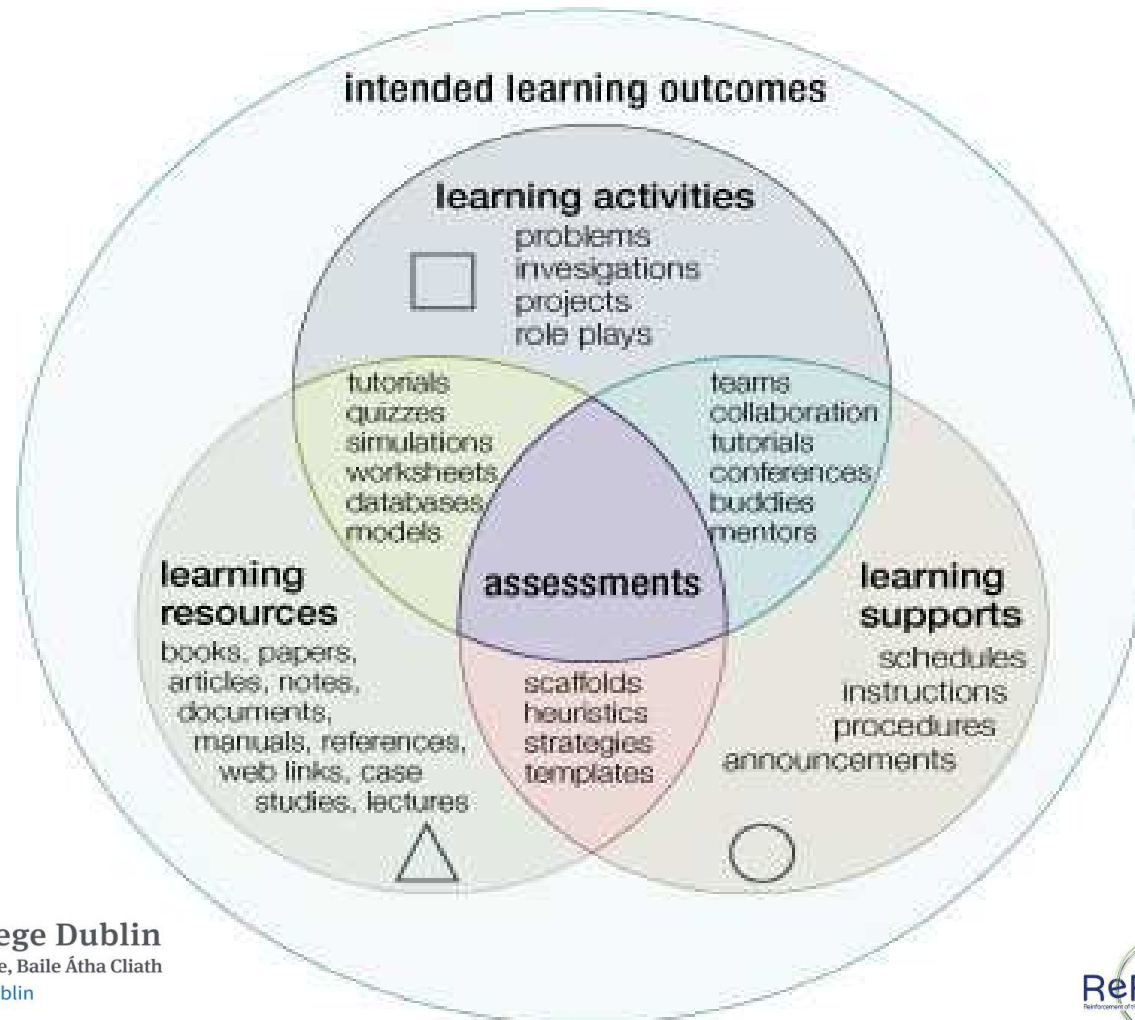


Learning Outcome linked to Assessment Criteria

| Learning outcome | Assessment criteria | | | | |
|--|---|--|--|--|---|
| | Grade 1 | Grade 2 : 1 | Grade 2 :2 | Pass | Fail |
| <p>On successful completion of this module, students should be able to:</p> <ul style="list-style-type: none"> ■ Summarise evidence from the science education literature to support development of a line of argument. | <p>Outstanding use of literature showing excellent ability to synthesise evidence in analytical way to formulate clear conclusions.</p> | <p>Very good use of literature showing high ability to synthesise evidence in analytical way to formulate clear conclusions.</p> | <p>Good use of literature showing good ability to synthesise evidence in analytical way to formulate clear conclusions</p> | <p>Limited use of literature showing fair ability to synthesise evidence to formulate conclusions.</p> | <p>Poor use of literature showing lack of ability to synthesise evidence to formulate conclusions</p> |



Visualising achieving Learning Outcomes



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Competence-based education

What do you want your students to be able to do?

Education

Remember

Solve problems

Demonstrate Skill

Simulation

Assessment

Practice

- Apply
- Interpret
- Resolve unknowns
- Experiential
- Performance



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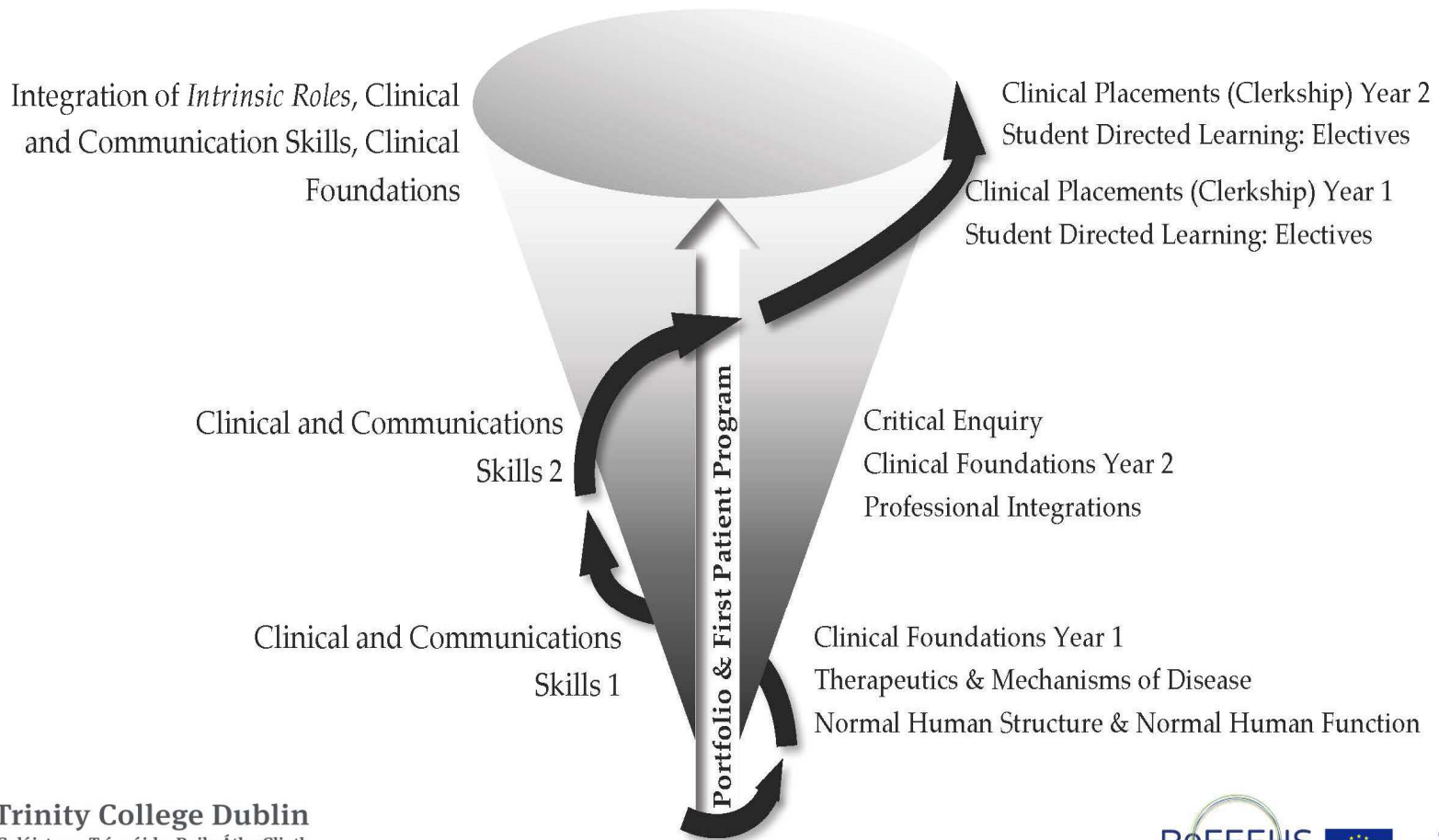
Competence

- The ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development.
- It may be described in terms of responsibility and autonomy.
(The European Qualifications Framework (EQF))
- Fostering competences is the object of all educational programmes.
- Competences are developed in all course units and assessed at different stages of a programme.
- Some competences are subject-area related (specific to a field of study), others are generic (common to any degree course).
- It is normally the case that competence development proceeds in an integrated and cyclical manner throughout a programme.



Combined

Spiral Curriculum Queen's University School of Medicine



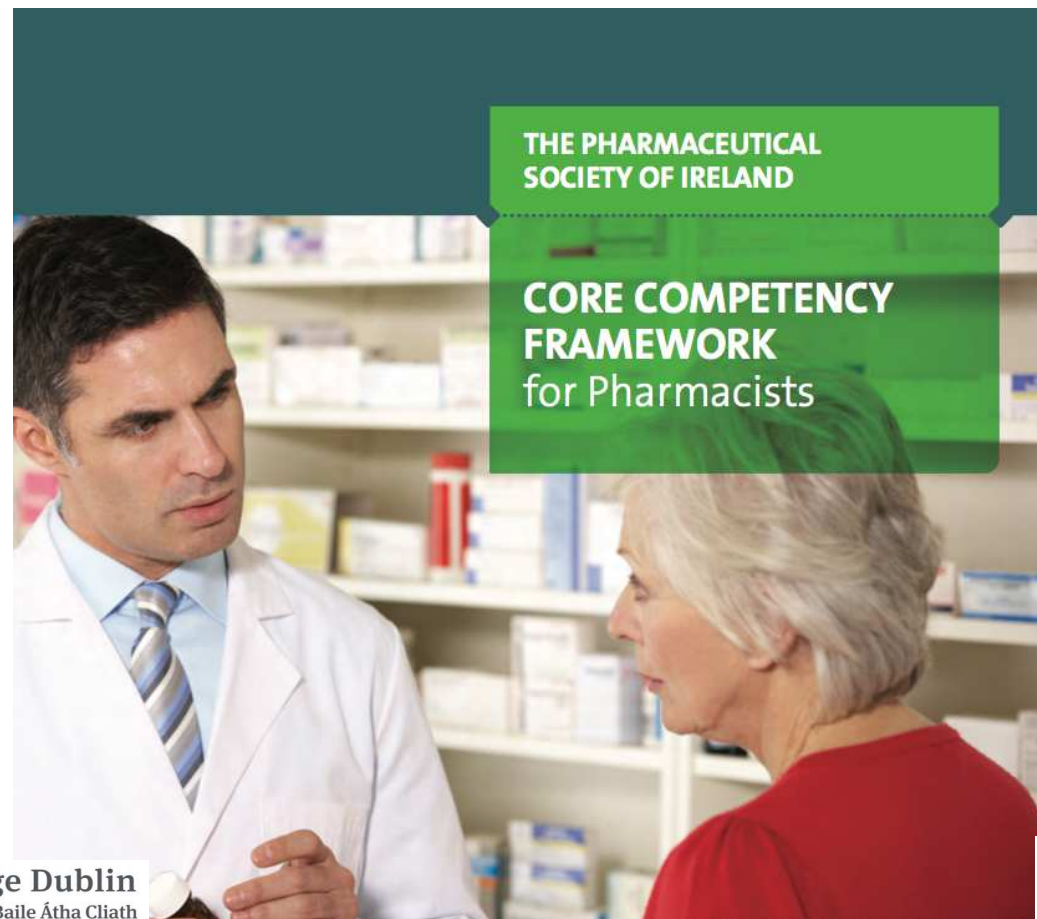
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Core Competency Framework

Health Professionals' education must enable them to Practice.....so students must.....



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Core Competency Framework - Ireland

6 Domains → 25 Competences → 177 Behaviours!

SMART?

| Domain | Competency |
|---|---|
| Professional practice | <ul style="list-style-type: none"> Practises 'patient-centred' care Practises professionally Practises legally Practises ethically Engages in appropriate continuing professional development |
| Personal skills | <ul style="list-style-type: none"> Leadership skills Decision-making skills Team working skills Communication skills |
| Supply of medicines | <ul style="list-style-type: none"> Manufactures and compounds medicines Manages the medicines supply chain Reviews and dispenses medicines accurately |
| Safe and rational use of medicines | <ul style="list-style-type: none"> Patient consultation skills Patient counselling skills Reviews and manages patient medicines Identifies and manages medication safety issues Provides medicines information and education |
| Public health | <ul style="list-style-type: none"> Population health Health promotion Research skills |
| Organisation and management skills | <ul style="list-style-type: none"> Self-management skills Workplace management skills Human resources management skills Financial management skills Quality assurance |



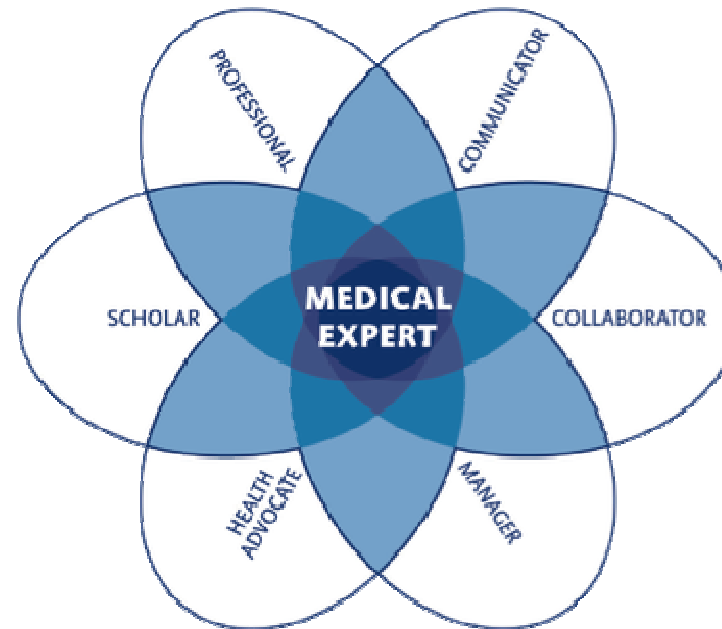
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What do you want your students to do =
What do you want a pharmacist to be?

- Authority
- Values
- Attitudes
- Principles
- Morals
- Accountability



THE
CANMEDS
ROLES FRAMEWORK



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Experiential education (EE)

- Supervised, structured or semi-structured teaching and learning activities that take place in a practice setting
- Real-life situations and inter-personal interactions with patients, caregivers
- And with other health professionals

Work-based learning

- Learning delivered by a university, college or other training provider in the workplace, normally under the supervision of a person from the same company as well as a professional teacher from outside the company (Scottish Funding Council, 2015).



Learning Opportunities in Experiential Education

- Extended range
- Taking a patient history – patient's attitude to medicines
- Communication skills - from basic to empathy
- Drug-Related Problems – Actual vs Potential
- Concrete situations in which the evidence base is poor, lacking or contradictory
- Making decisions on balance of available information
- Benefits & limitations of guidelines
- Pharmacists' roles (services)
 - *Leading Practitioners*



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Tirana

Types of Experiential – Trinity College

Work Experience



- Not required by external body e.g. Regulator
- Required by University
- Student seeks Practice in which to gain experience
- Tutor/Preceptor volunteer
- Student development
- Practice experience
- Structured
- Assessed
- Feedback
- Reflection

Placement/Rotation/Internship

- Required by Regulator
 - Governed by their rules
- University arranges place for student
- Tutor/Preceptor recruited & trained ...& rewarded?
- Student development
- Practice experience
- Structured
- Assessed
- Feedback
- Reflection



Student's views

Table 41: Respondents' level of agreement or disagreement with two statements relating to placement education

| Statement | Strongly agree | Agree | Neither agree nor disagree | Disagree | Strongly disagree |
|---|----------------|----------------|----------------------------|---------------|-------------------|
| Professional placements should be compulsory in at least one year of study (n=580) | 72% (n=415) | 24% (n=141) | 2% (n=13) | 2% (n=10) | 0% (n=1) |
| Professional placements should be compulsory in all years of study (n=579) | 40% (n=229) | 31% (n=182) | 14% (n=83) | 13% (n=76) | 2% (n=9) |



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**PHARMACY EDUCATION AND
ACCREDITATION REVIEWS
(PEARs) PROJECT**

Interprofessional education (IPE)

- Occasions when two or more professions learn with, from and about each other to improve collaboration and the quality of care (CAIPE, 1997)
- WHO published the Framework for Action on Interprofessional Education & Collaborative Practice
- European Healthcare Students' Associations



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Preparation for IPE

- Patient cases – paper/online
 - Pre-session preparation by each professional
 - Facilitated discussion
 - Reflection for own module
- Read/Watch & review case told as story
- Role play in virtual environment

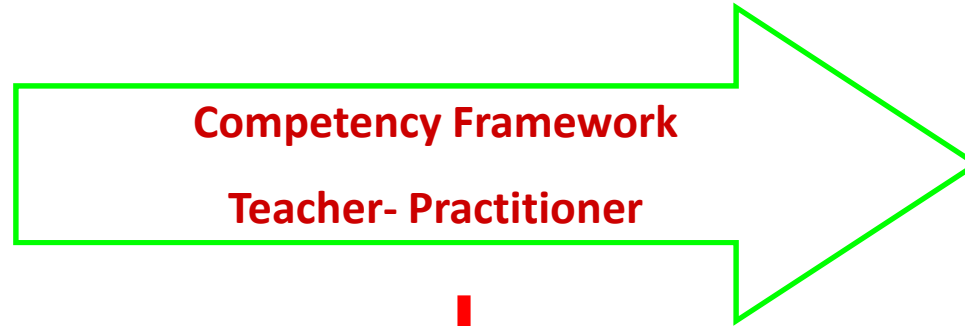


Professional work environment

- Students' must present their knowledge, recommendations to others
- They must work with less qualified but more knowledgeable people
- They must meet not only academic standards, but also professional practice, follow workplace procedures, co-ordinate with others, account for their actions
- Appreciation of the environment & of meeting patients helps students learn from the experience of others
- Working with Professional environments alters Academic practice



Learning & Working...different cultures?

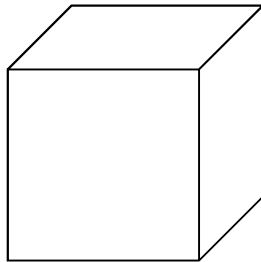


Adapted from G. Davies

Undergraduate Learning Environment

Guided study material

Learning Support



Peer contact

Tutor Access

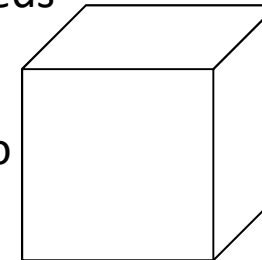
Defined curriculum

Regular Appraisal

Employees learning in the workplace

Unable to identify learning needs

Limited Opportunity to learn



Individualised Curriculum

Limited Tutor Support

Infrequent Appraisal

Academic Competences

Practice Competences



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Assessment

- Of workplace learning
- CAPA (Corrective Action, Preventative Action)
 - Competency Assessment Performance Assessment

Table 2: The five-point Bondy rating scale³

| Scale label | Score | Standard of procedure | Quality of performance | Level of assistance required |
|--------------------|----------|--|---|--|
| Independent | 5 | Safe Accurate Achieved intended outcome Behavior is appropriate to context | Proficient Confident Expedient | No supporting cues required |
| Supervised | 4 | Safe Accurate Achieved intended outcome Behavior is appropriate to context | Proficient Confident Reasonably expedient | Requires occasional supportive cues |
| Assisted | 3 | Safe Accurate Achieved most objectives for intended outcome Behavior generally appropriate to context | Proficient throughout most of performance when assisted | Required frequent verbal and occasional physical directives in addition to supportive cues |
| Marginal | 2 | Safe only with guidance Not completely accurate Incomplete achievement of intended outcome | Unskilled Inefficient | Required continuous verbal and frequent physical directive cues |
| Dependent | 1 | Unsafe Unable to demonstrate behavior Lack of insight into behavior appropriate to context | Unskilled Unable to demonstrate behavior/ procedure | Required continuous verbal and continuous physical directive cues |
| X | 0 | Not observed | | |



Developing Health Care Professionals

“Does inadequate education at one level of training affect skills at subsequent levels? If so, then college may be the most critical period for developing important habits, attitudes, and clinical reasoning approaches.....and may influence subsequent clinical competencies”

Goldstein et al, Acad Med. 2005;80:423-433.



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Skopje



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Progression



- Independent practice in a supervised environment
- Supervised practice
- Patient talks
- Practitioners
- Observation of practice
- Simulation of practice



Beyond Qualification

- Continuous Professional Development
- Institution to support CPD
- Competency framework



- Team evaluation
- Networked CPD Communities
- Ethics

- Professional & Practice dilemmas
- All of staff, not only pharmacists
- Reflective approach & Facilitated discussion

'Accountable in the light of public, professional and personal norms and values' (Verkerk et al, 2006)



Organisation

- School Executive
- School Committee

- Programme - Director of Teaching & Learning
- Academic year - Year co-ordinator
- Module - Module co-ordinator
 - Element
- Programme Management Committee



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Student motivation/empowerment

- Feedback on academic work
- Year representatives
 - Attend Programme Management Committee
 - Have their own Student Forum, facilitated by an academic Tutor
- Feedback surveys – on Modules, on Years
- Student feedback on feedback - Close the loop
- Public commitment to Code of Conduct for students
- FIP Oath?

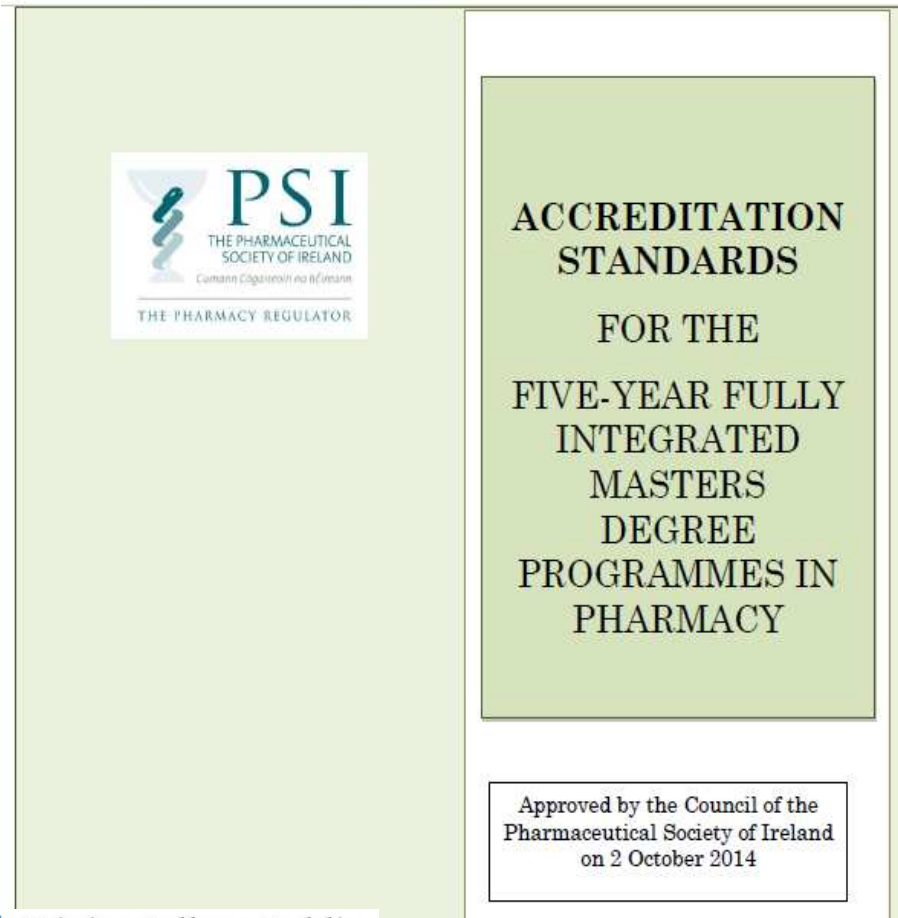


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Regulator's Accreditation Standards



- 8 standards
- 47 criteria
- Interpretation
 - University - Panel



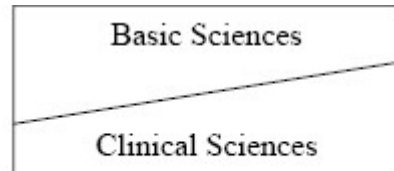
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Integration

Not,



Wedge approach to vertical integration

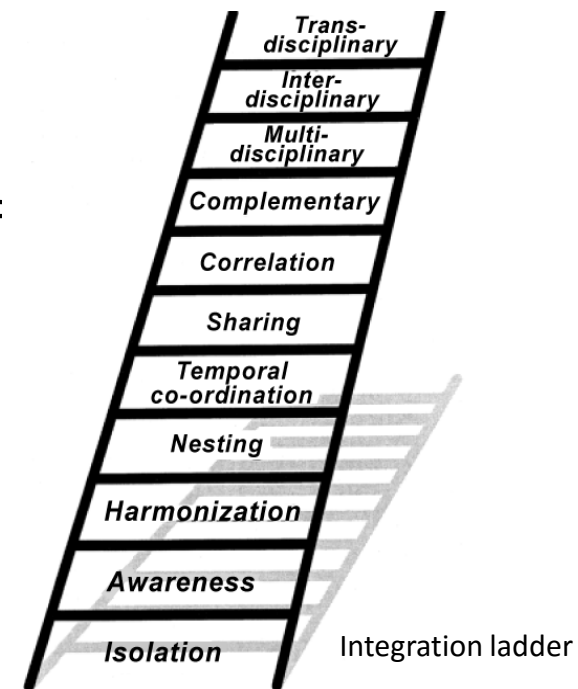


Jerome Bruner

Instead,

- Interdisciplinary - 'a study of a phenomenon that involves the use of two or more academic disciplines simultaneously'
Jarvis, 1990
- Pharmacist & non-pharmacist academic staff teaching together
- More than one teaching method being employed in the same session
- More than one assessment method
- Holistic final assessments

Atwa & Gouda, 2014



Integrated 5 year Programme

- Statutory Instrument 377 of 2014 – integrates Internship into programme
- Offered by all three Schools in Ireland from 2015
- 12 months Internship broken in two parts – now = 14 months
- Additional Statutory 2 week placement in year 2.

Placement Structure for the Five-Year Fully Integrated Masters Degree Programme in Pharmacy

Approved by the PSI Council on 2 October 2014

| | Sept | Oct | Nov | Dec | Jan | Feb | Mar | April | May | June | July | Aug | |
|--------|------------------------|-----|-----|-----|-----------------------------|-----------------------------|-----------------------------|------------------------|-----|---|--------------------------------|-----|--------------------------------|
| Year 1 | Standard Academic Time | | | | Standard Academic Time | | | | | | | | |
| Year 2 | Standard Academic Time | | | | Dispersed Shadow Placements | Dispersed Shadow Placements | Dispersed Shadow Placements | Standard Academic Time | | | | | |
| Year 3 | Standard Academic Time | | | | Standard Academic Time | | | | | | Professional Registration Exam | | |
| Year 4 | Standard Academic Time | | | | Standard Academic Time | | | | | | | | |
| Year 5 | Standard Academic Time | | | | Standard Academic Time | | | | | | | | Professional Registration Exam |
| | Semester 1 | | | | Semester 2 | | | | | This period is: Summer for Years 1-3 Start Semester 1 for Year 4 Semester 3 for Year 5 | | | |

| Key Indicator | |
|--|-----------|
| Standard Academic Time | Blue |
| Practice Placements Year 4: Sept-Dec. and Year 5: Jan-Aug. are statutory placements | Dark Blue |
| Denotes dispersed Shadow Placements in Year 2 | Brown |
| Denotes Professional Registration Exam after conclusion of 8 month placement | Green |



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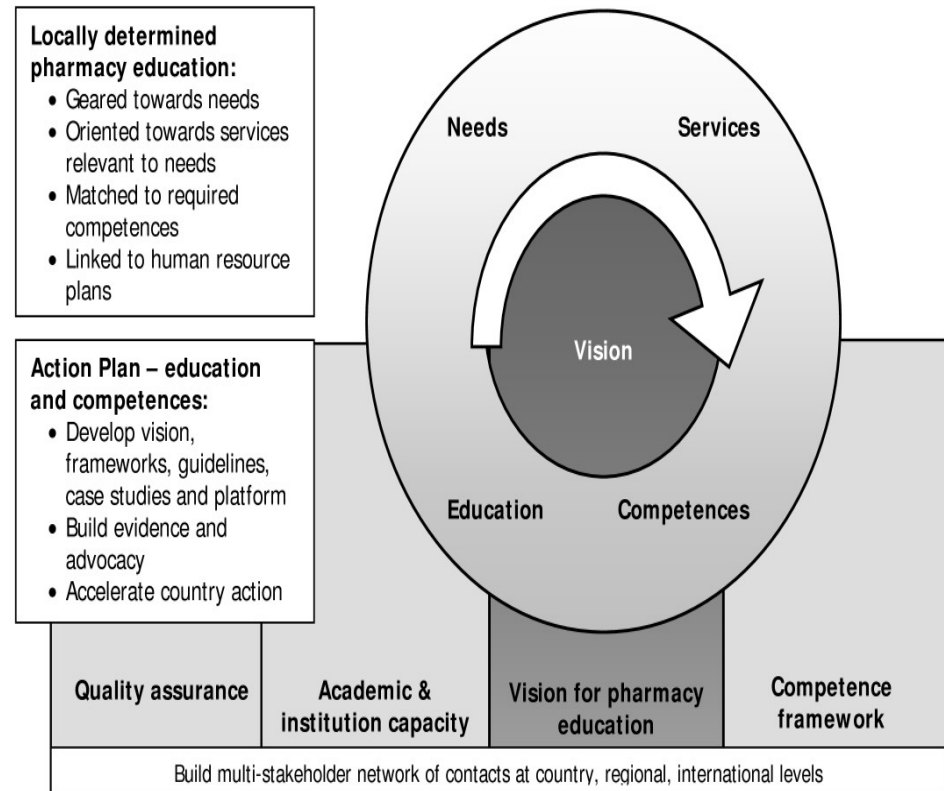


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Curriculum planning

Reverse engineering

- What Competencies do our students need?
- What Learning Outcomes will align with these?
- What Assessment will provide evidence of those Outcomes?
- What teaching methods can we use to deliver the content and prepare students for the assessment?





Go Raibh Maith Agaibh.

Havla Vam



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