

Advancement of pharmacy education in Europe – for the new generation in pharmacy

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SEE Quality in Pharmacy Summit, 23-24 October 2015, Belgrade (Serbia)



Pharmacy Education

- Pharmacy curricula need to prepare student for the role(s) they will play in society after graduation
- Broad guidelines are given in worldwide, European or national contexts, but further specification is necessary to accommodate differences in position and professional profiles of pharmacists in different countries
 - FIPEd Global Competency Framework (2012)
 - EU directives 2005/36/EU, 2013/55/EU
 - Phar-QA project (2013-2016) → European Competency Framework
- Specification of competencies can be used to guide the construction of new curricula or the 're-engineering' of existing curricula



Competency-based education (CBE): Why?

- Preparation for professional life: effective treatment, patient safety
- Accountability: It is considered no longer acceptable to simply *assume* that competence is automatically reached by education and training
- Explicit demonstration of competence is required to satisfy accreditation and/or governing bodies
- The concept of competency-based education is developing since the 1960's for professional (and vocational) higher education:
 - teacher education Whitty & Wilmott (1991)
 - medicine Frank et al. (2010)
 - dentistry Spielman et al. (2005)
 - psychology Falender & Shafranske (2012)
 - pharmacy Bates & Bruno (2008)



What is professional competence?

- Psychology: “the overall or integrated professional abilities”
- Medicine: “The array of abilities across multiple domains or aspects of physician performance in a certain context. Statements about competence require descriptive qualifiers to define the relevant abilities, context, and stage of training”
- Competence is multi-dimensional, dynamic, contextual and developmental. It changes with time, experience, and setting
- Competence is progressive: For each aspect or domain of competence, the spectrum of ability varies from novice to mastery. At any given point in time, and in a given context, an individual will demonstrate greater or lesser ability



European Competency Framework

- Several projects, sponsored by the European Union and EAFP
- Pharmine (finished)
 - Databank of universities and organizations
 - Country profiles (Pharmacy and Pharmacy Education)
 - Position papers: Atkinson J *et al.*
- Phar-QA (running): Quality Assurance
 - Delphi process (> 1200 respondents)
 - Description of (ranked) competencies → available 2016
 - Database of educational experts
 - Summerschool 'Pharmacy Education and Training'
- Phar-IN (running)
 - Competencies for industrial pharmacists in the field of biotechnology
 - Online courses in biotechnology



The Phar-QA project (2013-2016)

■ Project management

- Jeffrey Atkinson, Nancy
- Kristien de Paepe, Brussels

■ Project partners, advisers

- Antonio Sanchez Pozo, Granada
- Dimitrios Rekkas, Athens
- Daisy Volmer, Tartu
- Jouni Hirvonen, Helsinki
- Borut Bozic, Ljubljana
- Agnieszka Skowron, Krakow
- Constantin Mircioiu, Bucharest
- Annie Marcincal (EAFP), Lille
- Andries Koster (EAFP), Utrecht
- Keith Wilson (EAFP), Birmingham
- Chris van Schravendijk (Medine), Brussels



Phar-QA: competences

- Personal competences
 - learning and knowledge
 - values
 - communication and organizational skills
 - knowledge of the science of medicines
 - understanding of industrial pharmacy
- Patient care competences
 - patient consultation and assessment
 - need for drug treatment
 - drug interactions
 - provision of drug product
 - patient education
 - provision of information and service
 - monitoring of drug therapy
 - evaluation of outcomes

Atkinson J, Rombaut B. The 2011 PHARMINE report on pharmacy and pharmacy education in the European Union. *Pharmacy Practice (Internet)* 2011 Oct-Dec;9(4):169-187.

PHARMINE Report

The 2011 PHARMINE report on pharmacy and pharmacy education in the European Union

Jeffrey ATKINSON, Bart ROMBAUT.
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Review

Systems for Quality Assurance in Pharmacy Education and Training in the European Union

Jeffrey Atkinson ^{1,*}, Bart Rombaut ², Antonio Sánchez Pozo ³, Dimitrios Rekkas ⁴, Peep Veski ⁵, Jouni Hirvonen ⁶, Borut Bozic ⁷, Agnieszka Skowron ⁸, Constantin Mircioiu ⁹, Annie Marcincal ¹⁰ and Keith Wilson ¹¹

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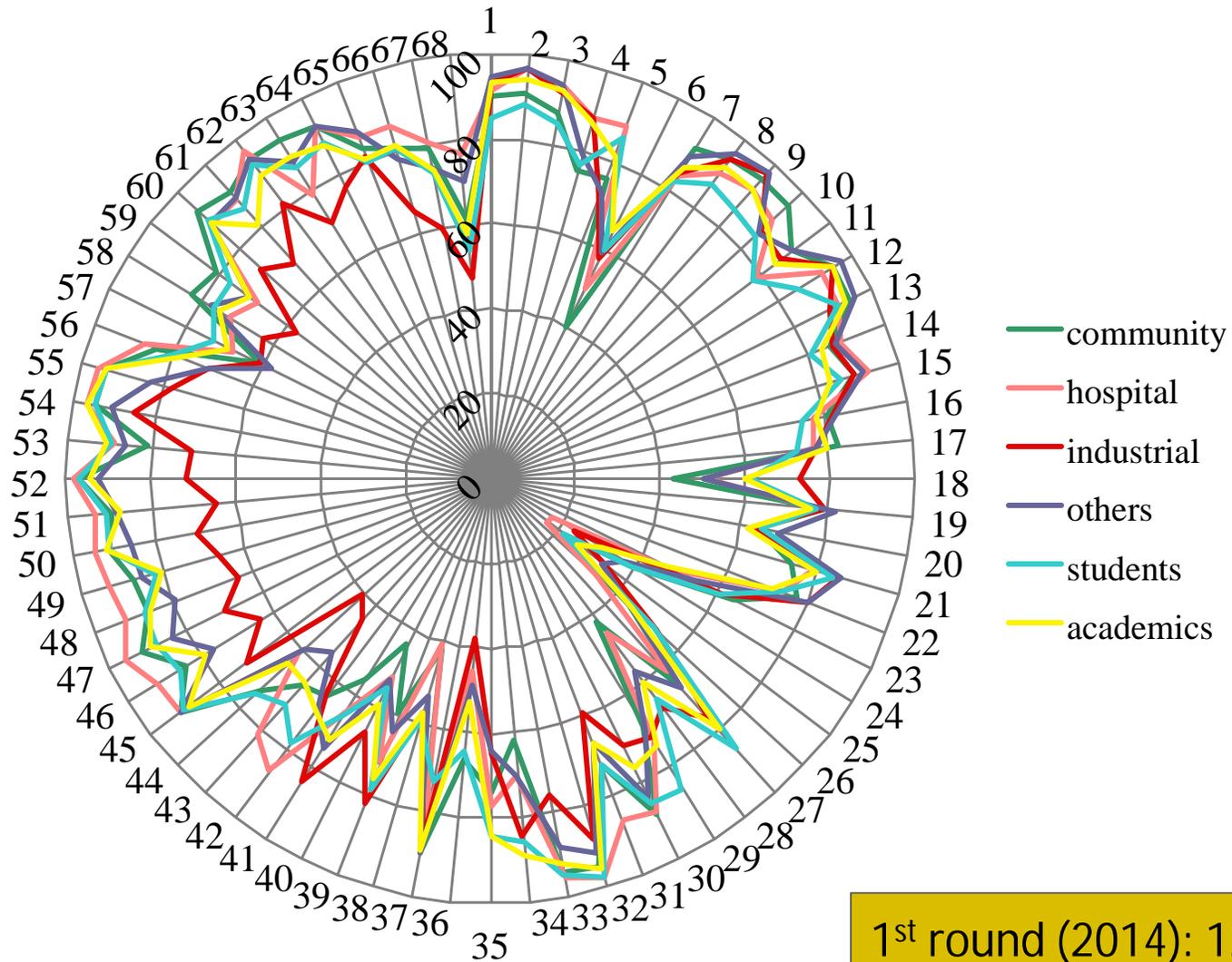
Review

The Production of a Framework of Competences for Pharmacy Practice in the European Union

Jeffrey Atkinson ^{1,*}, Bart Rombaut ^{2,†}, Antonio Sánchez Pozo ³, Dimitrios Rekkas ⁴, Peep Veski ⁵, Jouni Hirvonen ⁶, Borut Bozic ⁷, Agnieszka Skowron ⁸, Constantin Mircioiu ⁹, Annie Marcincal ¹⁰ and Keith Wilson ¹¹



Phar-QA competences: 1st round

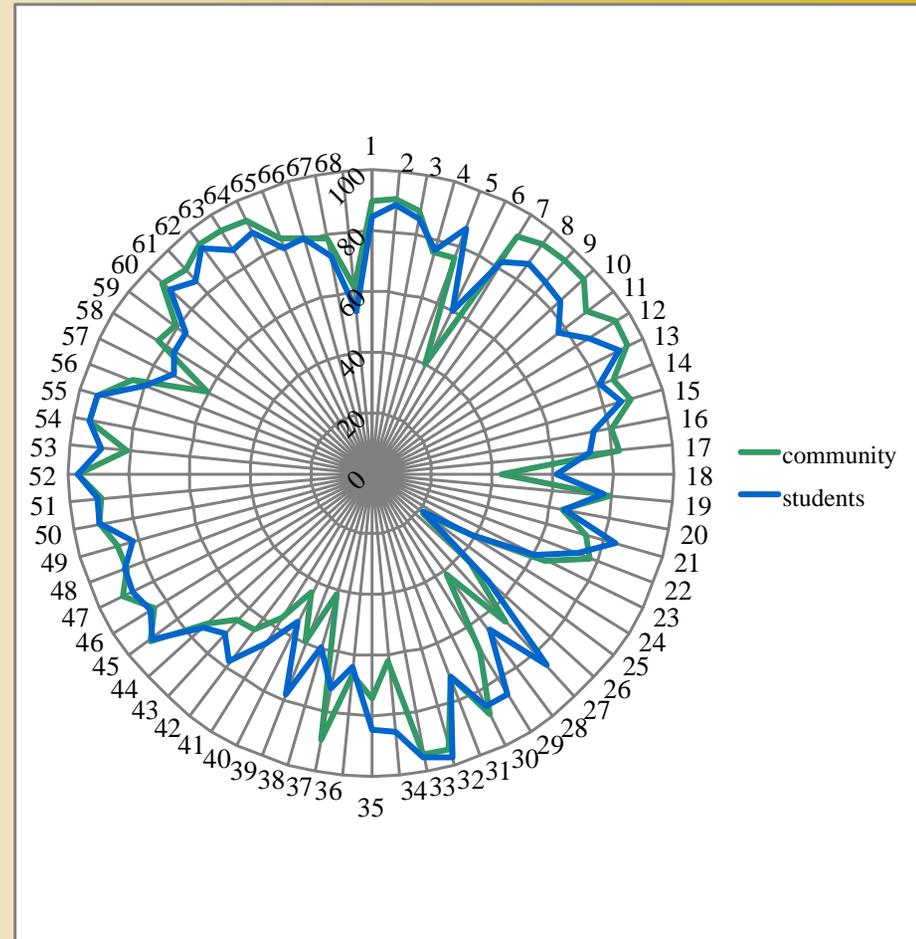
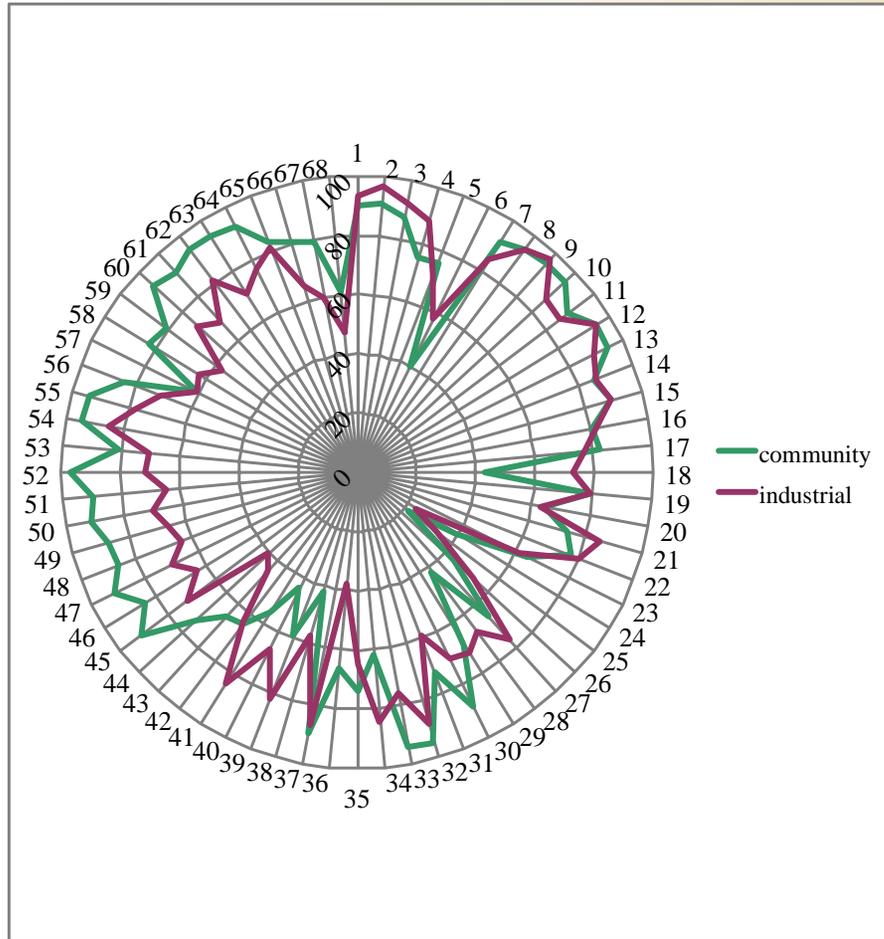


1st round (2014): 1245 respondents

2nd round (2015): running



Community, industrial, student pharmacist



Personal competences

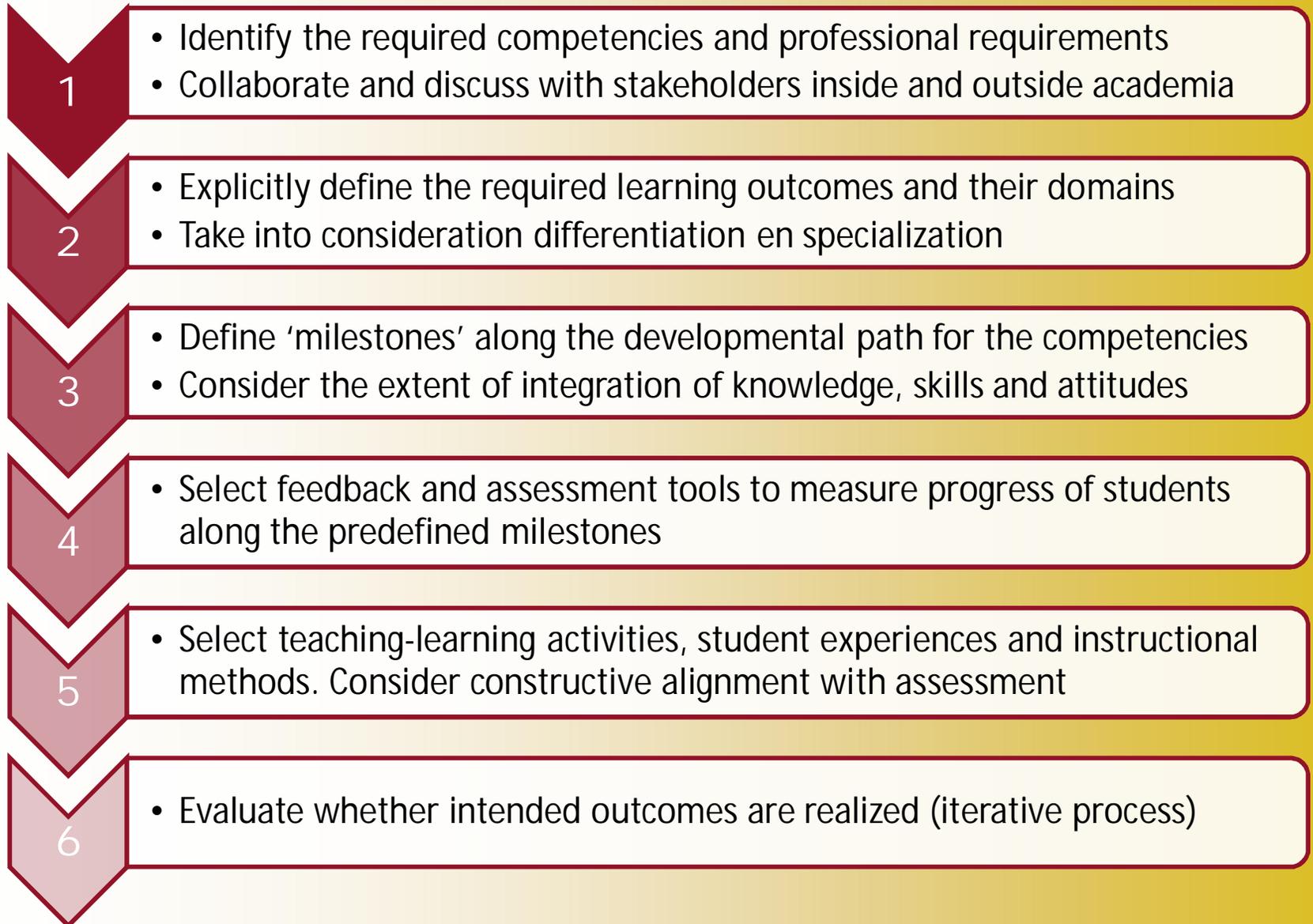
- 1-7 learning and knowledge
- 8-12 values, ethics
- 13-23 communication and organizational skills
- 24-37 the science of medicines
- 38-42 understanding industrial pharmacy

Patient care competences

- 43-52 consultation, guidance
- 53-57 drug providing
- 58-63 information, education
- 64-68 monitoring, evaluation



Curriculum design for CBE

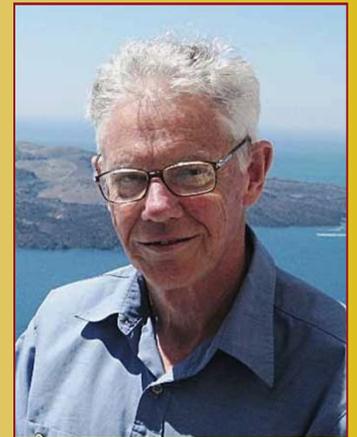


Learning outcomes: design of TLE

- The teaching-learning environment comprises all components in the teaching system:
 - the curriculum and its intended outcomes
 - the assessment tasks
 - the teaching methods
 - the physical environment and the regulations
- Use constructive alignment to design students' assessment, learning activities, focusing on level-3 teaching

Level 3. Focus: what the student does

Learning is the result of students' learning-focused activities, resulting from their own perceptions and inputs, and of the total teaching context. Focus must be on all components in the systems.



John Biggs



Quality of teaching and teachers?

- Quality of teaching?
 - Are our accreditation systems aligned with the idea of competency-based education?
 - National and/or regional differences or similarities?
 - Efficiency of accreditation for smaller countries?
- Teacher competence?
 - Are our (University) teachers prepared and able to develop and implement competency-based education?
 - Is teacher competence part of the accreditation system?
 - Training and coaching for teachers?
- Teaching qualifications?



Teacher quality (Utrecht)



Quality assurance (QA)

- University requirement: all teaching staff must hold a relevant teaching qualification (basic or senior)
- Utrecht University offers a program for educational leadership (Centre of Excellence for University Teaching, CEUT)

Continuous professional development (CPD)

- CPD is stimulated by monthly informal 'Teacher-for-teacher'-meetings, a Journal Club and training for problem- and project-based teaching
- Educational (action) research projects



Teacher quality: role for EAFP?

- Information (www.eafponline.eu):
 - member institutions, previous conferences
 - Pharmine, Phar-QA, Phar-IN projects
- Exchange: Annual conference
 - May 12-14, 2016: Chatenay-Malabry (Paris)
- Coaching:
 - Summer course 'Pharmacy Education and Training'
 - July 18-22, 2016: Utrecht, the Netherlands
 - www.utrechtsummerschool.nl (course M47)
- Guidance, support:
 - Phar-QA: European Competencies (February 2016)
 - Consultancy Agency (foreseen for late 2016)



Conclusion

Specification of learning outcomes can be very helpful for the design and evaluation of competency-based curricula.

Constructive alignment of all aspects of the teaching-learning environment (outcomes, assessment, teaching formats) will allow pharmacy students to become competent practitioners and/or pharmaceutical researchers.

EAFP can and wants to play a role in enhancing curriculum and teaching quality by providing information, exchange, coaching, guidance, support.

Important references

1. Frank J.R. *et al.*, Competency-based medical education: theory to practice. *Med. Teacher* 32, 638-645 (2010)
2. Biggs J. and Tang C., *Teaching for quality learning at university* (4th ed.). Society for Research into Higher Education, Open University Press (2011)



PHAR-QA
by Pharmite



Quality Assurance in European Pharmacy Education and Training.



Thank you for your attention

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