

PHARMINE

WP7 - DEV

J. Atkinson, PCN, Villers, France

Oslo, 20/6/2009

Part 1

The PHARMINE databank

MS ACCESS

The PHARMINE databank

240 HEIs, professional
organisations...

46 countries

All entries have been
checked

type:	EDU-UNIV
institution:	Faculteit Geneeskunde en Farmacie
univ - acronym:	Vrije Universiteit Brussel
street:	Laarbeeklaan 103
zip:	1090
city:	Brussels
country:	Belgium
website:	www.vub.ac.be/MICH/
Director forename:	Bartholomeus
surname:	Rombaut
e-mail:	brombaut@vub.ac.be
teleph:	32 2 477 44 97
mobile:	32 479 956 871
fax:	32 2 477 74 95
other contact forename:	Rudy
contact surname:	Verbinnen
contact e-mail:	rverbin@vub.ac.be

institution	univ - acronym	street	zip	city	Director forename	surname	teleph	fax	e-mail	website
Departement Farmaceutische Wetenschappen	Universiteit Antwerpen	Universiteitsplein 1	B-2610	Antwerpen	A.	Haemers	32-(0)3 820 27 27		haemers@uia.ua.ac.be	far-www.uia.ac.be/far/
European Health Management Association	EHMA	4, rue de la Science	1000	Brussels	Céline	Van Doosselaere	32 2 502 65 25		celine@ehma.org	
Orde der Apothekers		Henri Jasparlaan 94	1060	Brussels	Piet Francis	Van Maercke	32 2 537 4267		info@ordredespharmacien s.be	
European Association of Hospital Pharmacists	EAHP	3 rue de l'Abbé Cuypers	1040	Brussels	Catherine	Hartmann	32 2 741 68 22	32 2 734 79 10	president@eahponline.org	www.eahp.eu
Pharmaceutical Group of the European Union	PGEU	Rue du Luxembourg 19-21	1000	Brussels	John	Chave	32 2 238 08 18	32 2 238 08 19	john.chave@ogeu.org	www.pgeu.org
Centrum Wetenschappelijke Ontwikkeling voor Apothekers	CWOA	Archimedesstraat 11	1000	Brussels	Jan	Saevels	32 2 285 42 00		saevels.jan@mail.apb.be	
Faculteit Geneeskunde en Farmacie	Vrije Universiteit Brussel	Laarbeeklaan 103	1090	Brussels	Bartholome us	Rombaut	32 2 477 44 97	32 2 477 74 95	brombaut@vub.ac.be	www.vub.ac.be/MICH/
European Pharmaceutical Students' Association	EPSA	Rue de Luxembourg 19-21	1000	Brussels			32 40 21 321 36 46	32 40 6 721 67 58 11	sg@epsa-online.org	www.epsa-online.org
Institut de Pharmacie	Université Libre de Bruxelles	Campus Plaine 205/5	1050	Brussels	Jean	Neve	32 2 650 51 77	32 2 650 59 29	jneve@ulb.ac.be	www.ulb.ac.be
Instituut voor Permanente Studie voor Apothekers	IPSA	Antwerpselaan 34	1000	Brussels	Leen	Claes	32 2 219 00 39	32 2 219 00 49	leen.claes@ipsa.be	
Fac. De Médecine	Université Catholique de Louvain	Av. E. Mounier, 50	1200	Bruxelles	D.	Moulin	32 764 5020	32 764 5035	JeanPaul.Remon@rug.ac.b e	www.ucl.ac.be/etudes/md/ph armacie/intro.html
Faculteit Farmaceutische Wetenschappen	Universiteit Gent	Harelbekestraat 72	9000	Gent	Inge	Van Tongelen	32 9 264 80 43	32 9 264 81 87	inge.vantongelen@UGent. be	www.rug.ac.be/

Use of the databank

Partners for new

projects

Now have experience

Life-long learning (PD)

Distance learning (WP5)

Vocational training (VAE)

ERAMUS MUNDUS

Part 2

The PHARMINE survey of European HEIs delivering pharmacy E&T

Those involved:

Jeff Atkinson - P9

Lea Noel - P1

Daisy Volmer - associated partner

Tartu

Pharmine survey



Lifelong Learning Programme



Education and Culture DG

PHARMINE
Pharmacy Education
in Europe

The PHARMINE survey of European higher education institutions delivering pharmacy education & training

V1

*If you encounter any problems when filling out this form please contact the leader of PHARMINE work program WP7:
jeffrey.atkinson@orange.fr*

PHARMINE

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Executive Director: Jeff Atkinson, Pharmacolor Consultants Nancy, Villers, France. jeffrey.atkinson@orange.fr

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Website: www.pharmine.org

Survey chapters

- ◆ Chapter 1. Organization of the activities of pharmacists, professional bodies.
- ◆ Chapter 2. Pharmacy HEIs, students and courses.
- ◆ Chapter 3. Teaching and learning methods.
- ◆ Chapter 4. Subject areas.
- ◆ Chapter 5. Impact of the Bologna principles.
- ◆ Chapter 6. Impact of EC directive 2005/36/EC.
- ◆ Chapter 7. Quality assurance.

Chapter 1

- ◆ Organization of the activities of pharmacists, professional bodies:
 - ◆ description of
 - ◆ community pharmacy system,
 - ◆ hospital pharmacy system,
 - ◆ pharmaceutical and related industries,
 - ◆ other sectors of activity for pharmacists,
 - ◆ roles of professional associations,
 - ◆ competences and roles of pharmacists,
 - ◆ pharmacy assistants

Chapter 2

- ◆ Pharmacy HEIs, students and courses
 - ◆ total number of HEIs,
 - ◆ organization of HEIs,
 - ◆ national level and “home university” level:
 - ◆ number of teaching staff and students,
 - ◆ entry requirements,
 - ◆ fees per year,
 - ◆ length of the course,
 - ◆ specialization,
 - ◆ past and present changes in E&T.

Chapter 3.

Teaching and learning methods

Student hours						
Method	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
HEIs courses						
Lecture						
Tutorial						
Practical						
Project work						
Traineeship						
Hospital						
Community						
Industrial (academic or industrial)						
Other (please specify)						
Electives						
Choice						

Chapter 4 Subject areas

- ◆ Based on EAFF TEMPUS project (Bourlioux, 1994) subject areas
- ◆ Important in recommendations to the EC on core curriculum

Chapter 4

- ◆ Subject area I: Chemical sciences "CHEMSCI"
- ◆ Subject area II: Physical and Mathematical Sciences "PHYSMATH"
- ◆ Subject area III: Biological Sciences "BIOLSCI"
- ◆ Subject area IV: Pharmaceutical Technology "PHARMTECH"
- ◆ Subject area V: Medicinal and therapeutical sciences "MEDISCI"
- ◆ Subject area VI: Law and social sciences "LAWSOC"
- ◆ Subject area VII: Generic competences "GENERIC"

Chapter 5

- ◆ **Impact of the Bologna principles:**
 - ◆ comparable degrees/Diploma Supplement;
 - ◆ two main cycles (B+M);
 - ◆ ECTS system for credits, links to LLL;
 - ◆ obstacles to students and staff mobility;
 - ◆ involvement in European programs for QA;
 - ◆ Erasmus exchange programs for staff and students

Chapter 6

- ◆ Impact of EC directive 2005/36/EC to E&T:
 - ◆ course length -
 - ◆ training of at least five years,
 - ◆ four years of full-time theoretical and practical training,
 - ◆ course content -
 - ◆ the balance between theory and practice is sufficient to maintain the university character of the training,
 - ◆ subject areas for course of training for pharmacist,
 - ◆ traineeship -
 - ◆ six-month traineeship in a pharmacy.

Chapter 7

◆ Quality assurance

- ◆ based upon the US Accreditation Council for Pharmacy Education (ACPE) 2007 standards;
- ◆ self-evaluation of existing system
 - ◆ availability of QA system
 - ◆ mission, planning and evaluation,
 - ◆ organization and administration,
 - ◆ curriculum,
 - ◆ students,
 - ◆ faculty staff,
 - ◆ facilities and resources.

Status of the survey (June 2009)

May 2009: survey sent out to 60 HEIs

First versions received from:

Latvia, Estonia, Czech Republic, Finland, Bulgaria,
Hungary, Romania (n=7)

Expected soon:

Ireland, Belgium, Germany, Denmark, Greece, France,
Norway, Italy (n=8)

Generally at least 2 HEIs per country.

Handling will take *circa* 3-4 months per HEI

People involved: HEIs, professional
organisations, governments...

Statistical analysis

(SPSS, SyStat, nQuery)

Non-parametric models? (is this valid with >2 independent variables?)

Parametric multivariate analysis

- will work
- probably robust enough
- combine with non-parametric

Hard data: do not stigmatise

Example of hypothesis to be tested:

1. in teaching methods, is an important place given to independent learning (project work, electives...) compared to that given to lectures?

Statistical analysis for hypothesis 1

Example:

variable 1: teaching methods (n=5)

variable 2: years (n=5)

variable 3: countries (n=3, CZ, LV, FI)

dependent variable: hours

Only variable testing significantly:
teaching method ($F = 4.6, P < 0.05$)

Two-way interactions ($P > 0.05$)

Three-way interactions (not tested)

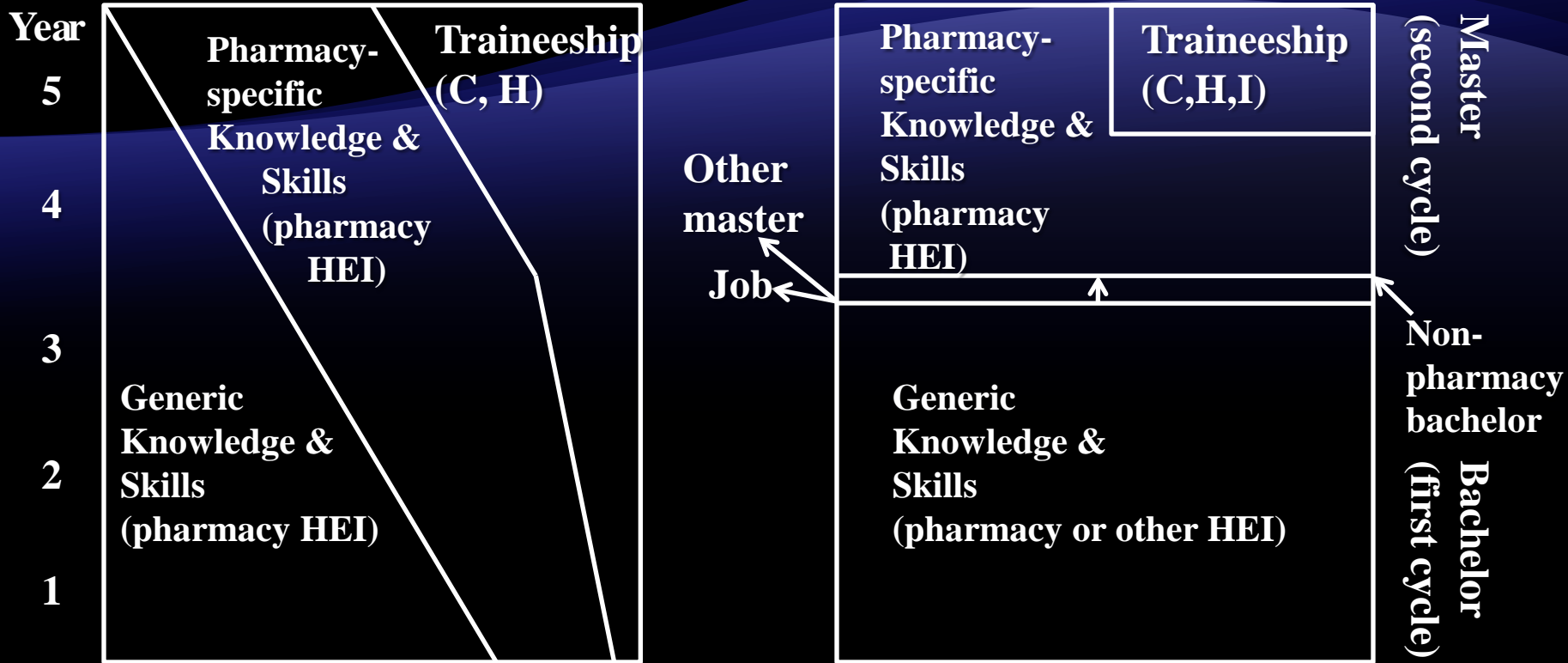
Statistical analysis of hypothesis 1

- time spent on method varies from 15 (project work) to 37% (lectures)
- time spent on lectures is greater than that spent on other methods ($P < 0.05$)

Hypothesis to be tested:

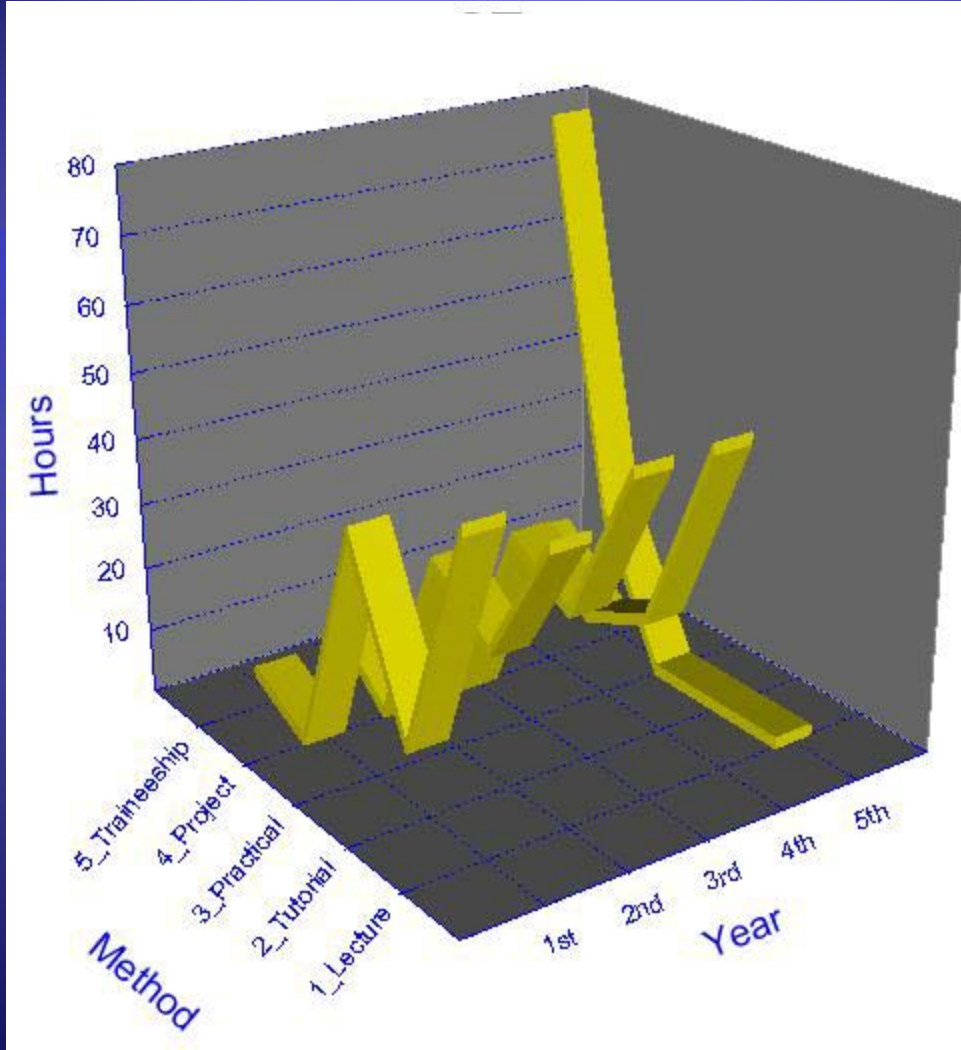
2. does traineeship come in early in E&T?

Professional pharmacy practice



Sectoral profession model
Seamless “tunnel”
Aim: recognition of Professional qualifications

Bologna model
Two cycles/tiers
Aim: European Higher Education Area (EHEA)



Graphical
representation of
2-way ANOVA on
hours (%) spent on
different teaching
methods
throughout the 5
year course

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