

**Tuning ASIA SOUTH EAST  
TASE  
Second General Meeting**

**Subject Specific Competences: presentation of the survey  
results in four subject areas**

**Edurne Bartolomé**

**Kuala Lumpur, 16<sup>th</sup> October 2017**

# Data



## NUMBER OF RESPONDENTS: SUBJECT SPECIFIC COMPETENCES

	Academics	Employers	Students	Graduates	TOTAL
<b>ENGINEERING</b>	260	206	619	310	1395
<b>MEDICINE</b>	312	214	717	286	1529
<b>TEACHING EDUCATION</b>	327	373	387	423	1510

# Analysis

<b>Generic competences</b>	General analysis (common for 4 Subject Areas)	In relation to the 4 groups
		In relation to the 3 variables
	Analysed from the perspective of each Subject Area	In relation to the 4 groups
		In relation to the 3 variables
		In relation to general results
	<b>Subject Specific competences</b>	Analysed from the perspective of each Subject Area
In relation to the 3 variables		

# **SUBJECT SPECIFIC COMPETENCES**

**CIVIL ENGINEERING**

## Data

**Total number of respondents 1395:**

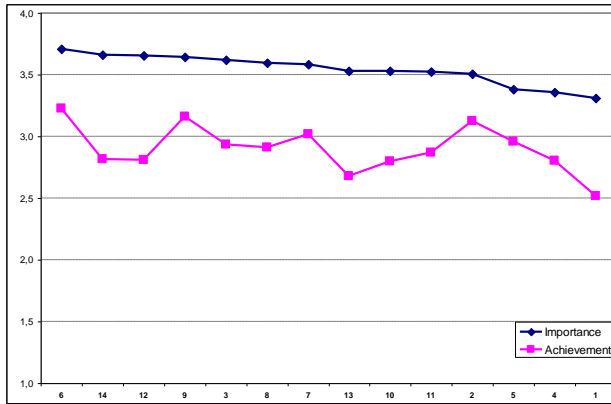
- 310 Graduates
- 206 Employers
- 260 Academics
- 619 Students

# CIVIL ENGINEERING

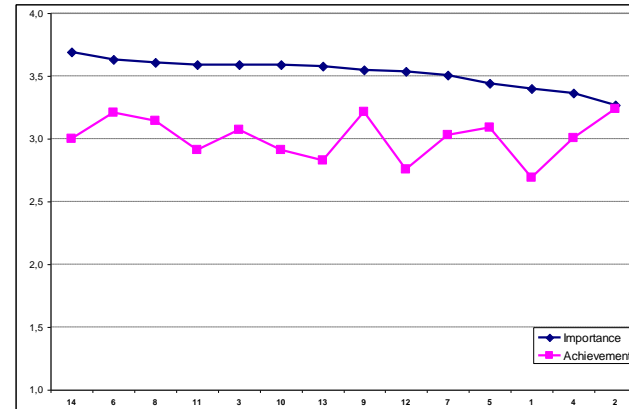
## IMPORTANCE vs. ACHIEVEMENT



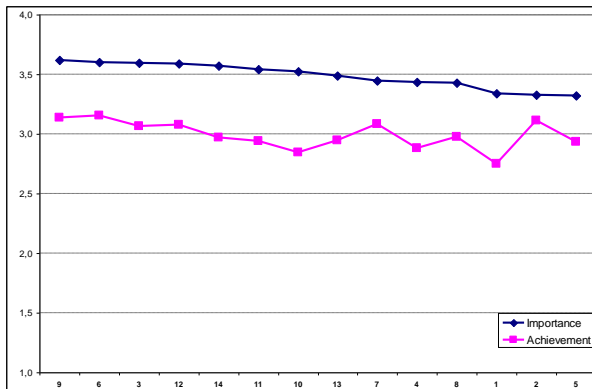
### ACADEMICS



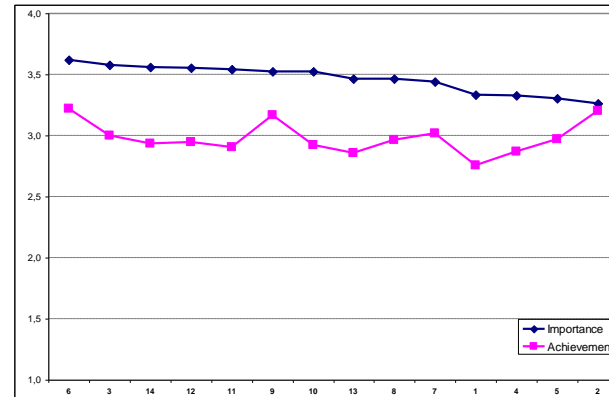
### EMPLOYERS

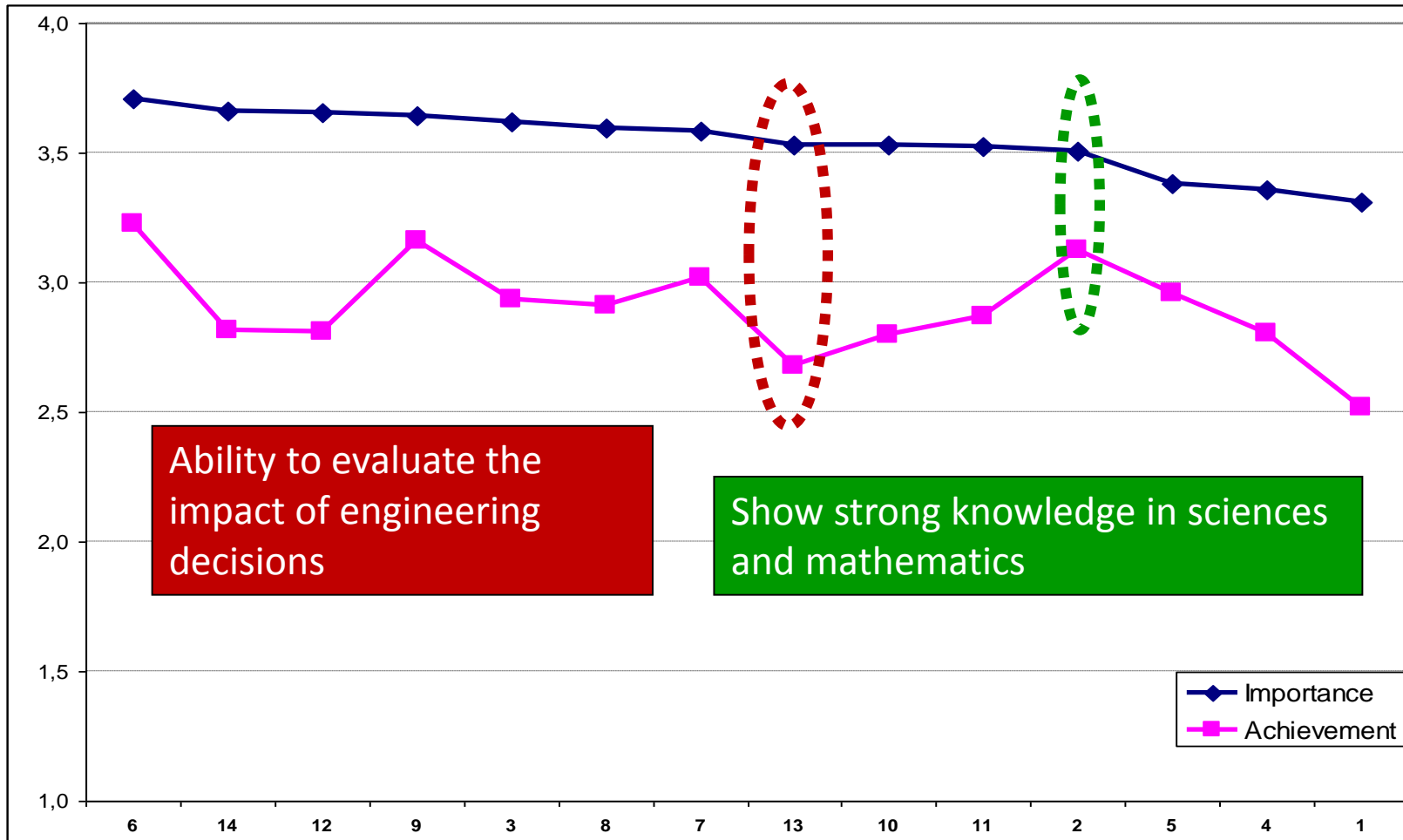


### STUDENTS



### GRADUATES





Ability to evaluate the impact of engineering decisions

Show strong knowledge in sciences and mathematics

#	Description	Importance	Achievement
6	Ability to carry out civil engineering analysis	3,71	3,23
14	Ability to integrate all civil engineering knowledge into a workable system	3,66	2,82
12	Ability to uphold safety	3,66	2,81
9	Ability to design civil engineering elements (e.g : structural, geotechnical, water, transportation...	3,64	3,16
3	Ability to interpret engineering drawings	3,62	2,94
8	Ability to utilise relevant design codes and regulations	3,59	2,91
7	Ability to interpret engineering data from testing	3,58	3,02
13	Ability to evaluate the impact of engineering decisions	3,53	2,68
10	Ability to monitor the progress and quality of civil engineering works	3,53	2,80
11	Ability to identify the appropriate construction technology and methods	3,52	2,87
2	Ability to show strong knowledge in science and mathematics (including statistics)	3,51	3,12
5	Ability to understand principles of material science	3,38	2,96
4	Ability to create algorithm to solve engineering problems	3,36	2,80
1	Ability to demonstrate entrepreneurial attributes (creative, risk taking, resilient and innovative)...	3,31	2,52

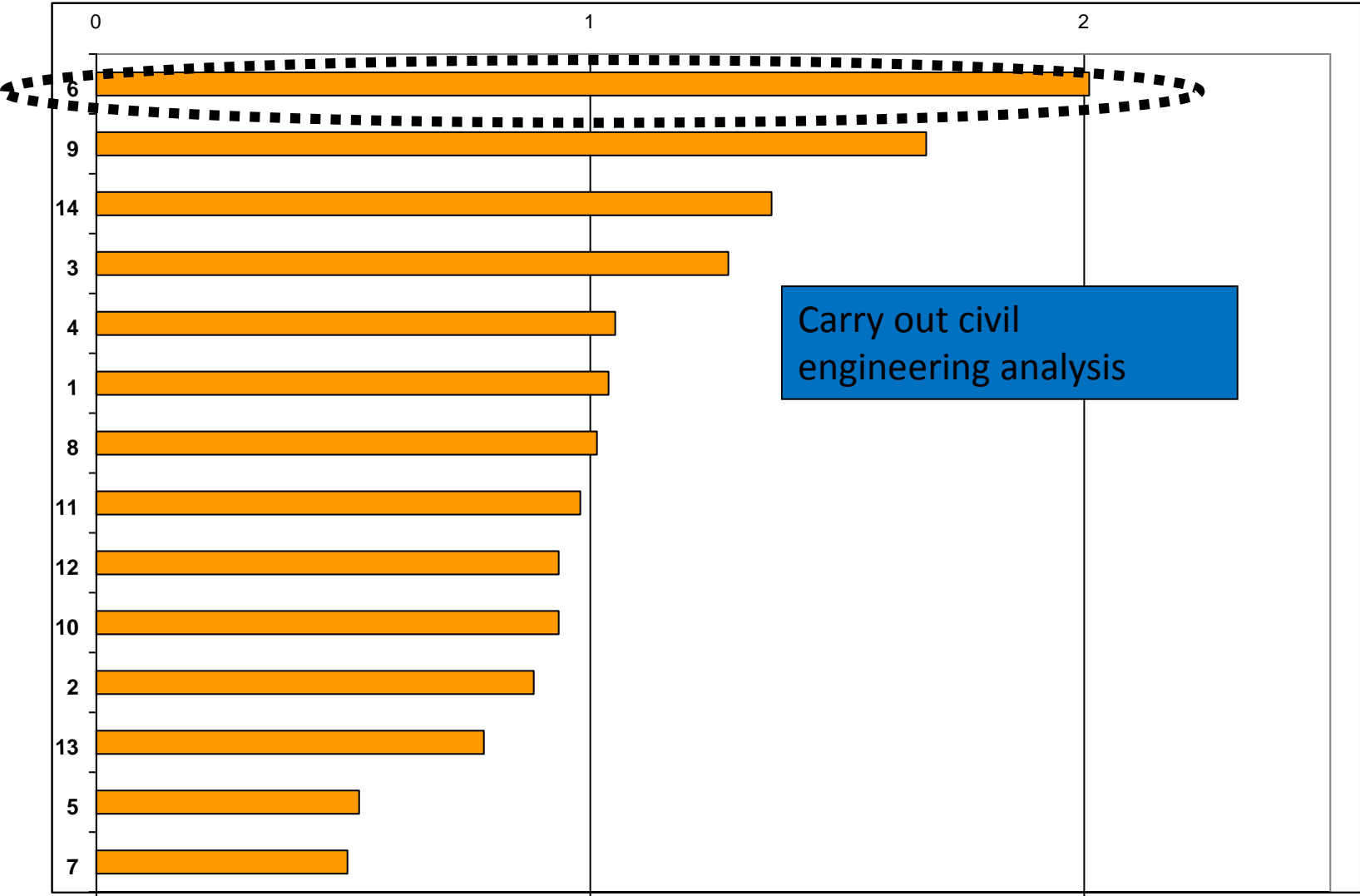


**CIVIL ENGINEERING**

**RANKING**



**GRADUATES**



Carry out civil engineering analysis

# **SUBJECT SPECIFIC COMPETENCES**

**MEDICINE**

## Data

**Total number of respondents 1613:**

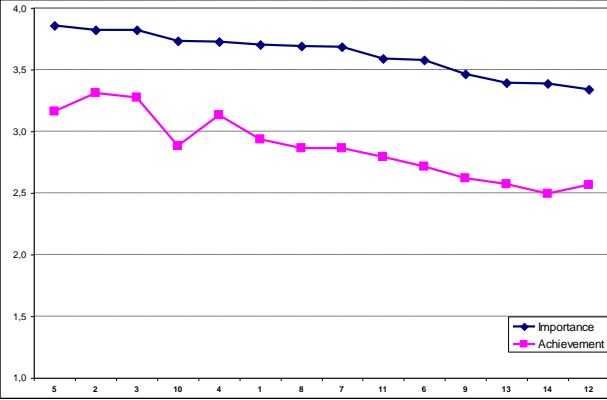
- 305 Graduates
- 224 Employers
- 330 Academics
- 754 Students

**MEDICINE**

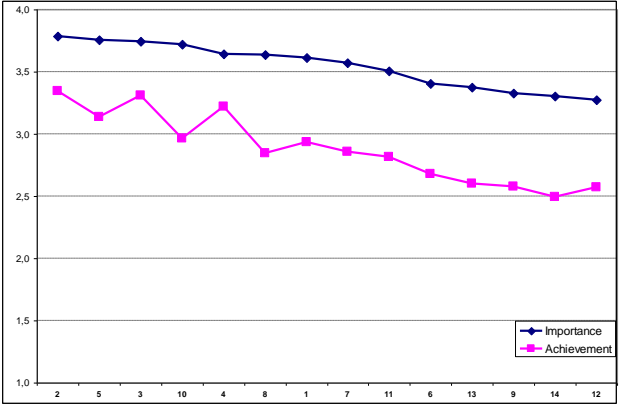
**IMPORTANCE vs. ACHIEVEMENT**



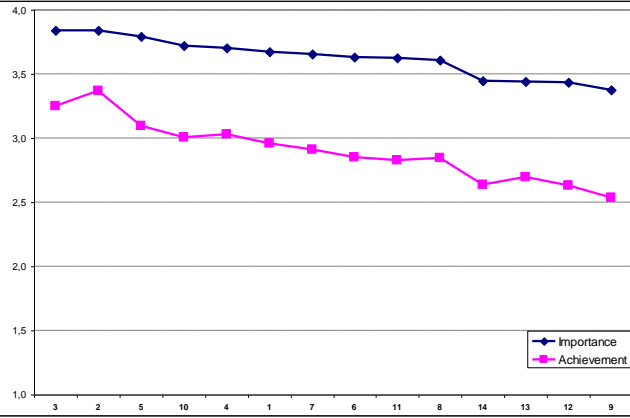
**ACADEMICS**



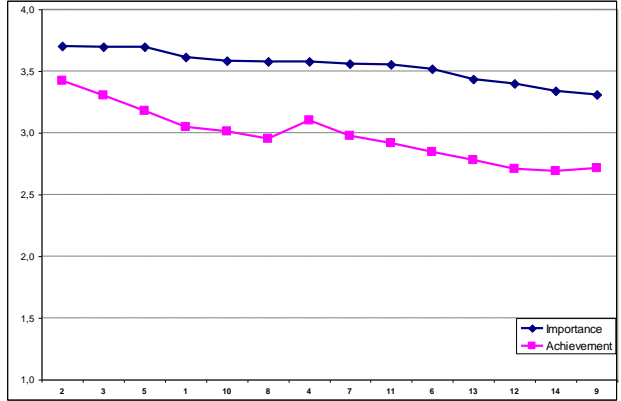
**EMPLOYERS**



**STUDENTS**



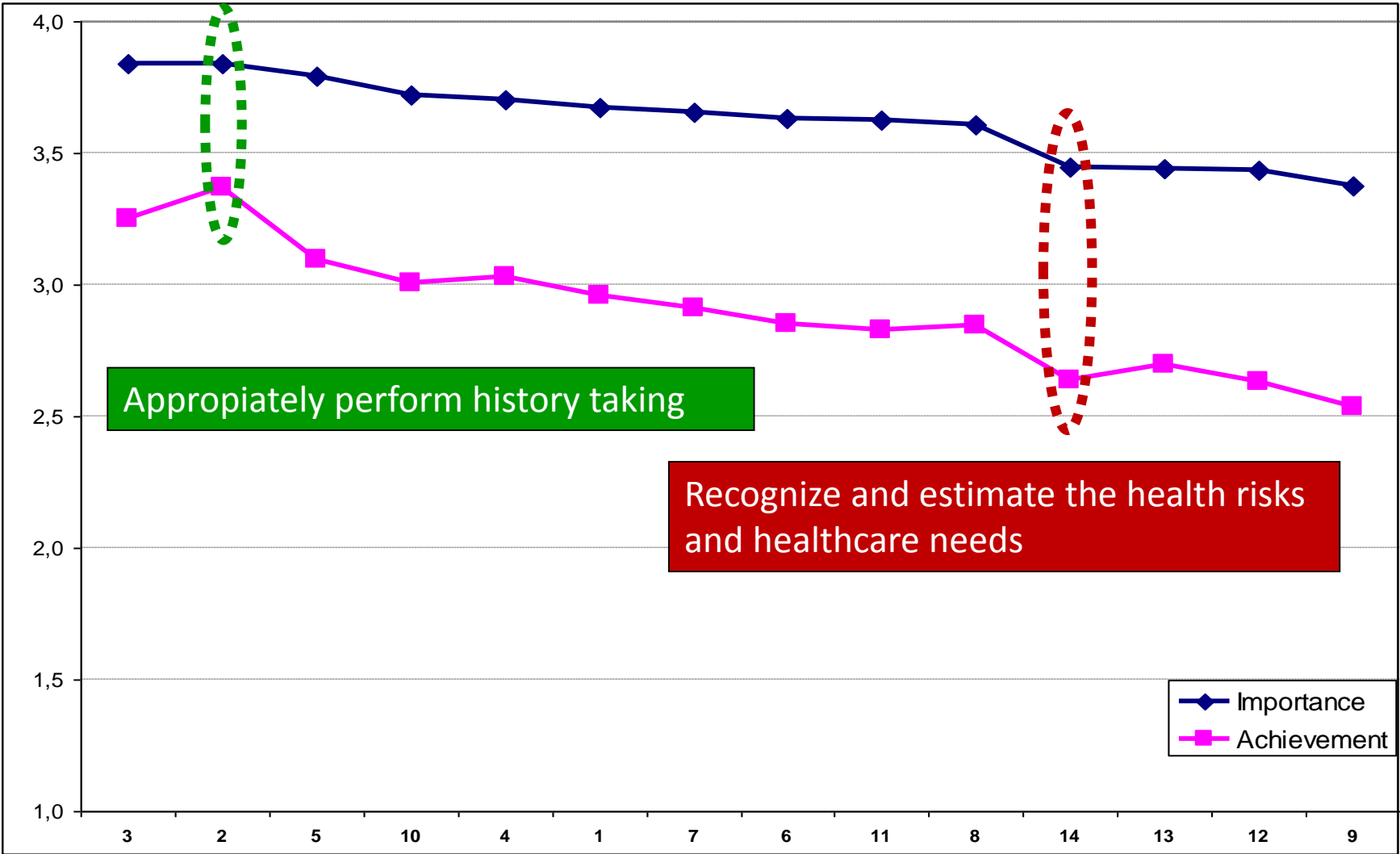
**GRADUATES**



MEDICINE

STUDENTS

IMPORTANCE vs. ACHIEVEMENT



Appropriately perform history taking

Recognize and estimate the health risks and healthcare needs

◆ Importance  
■ Achievement

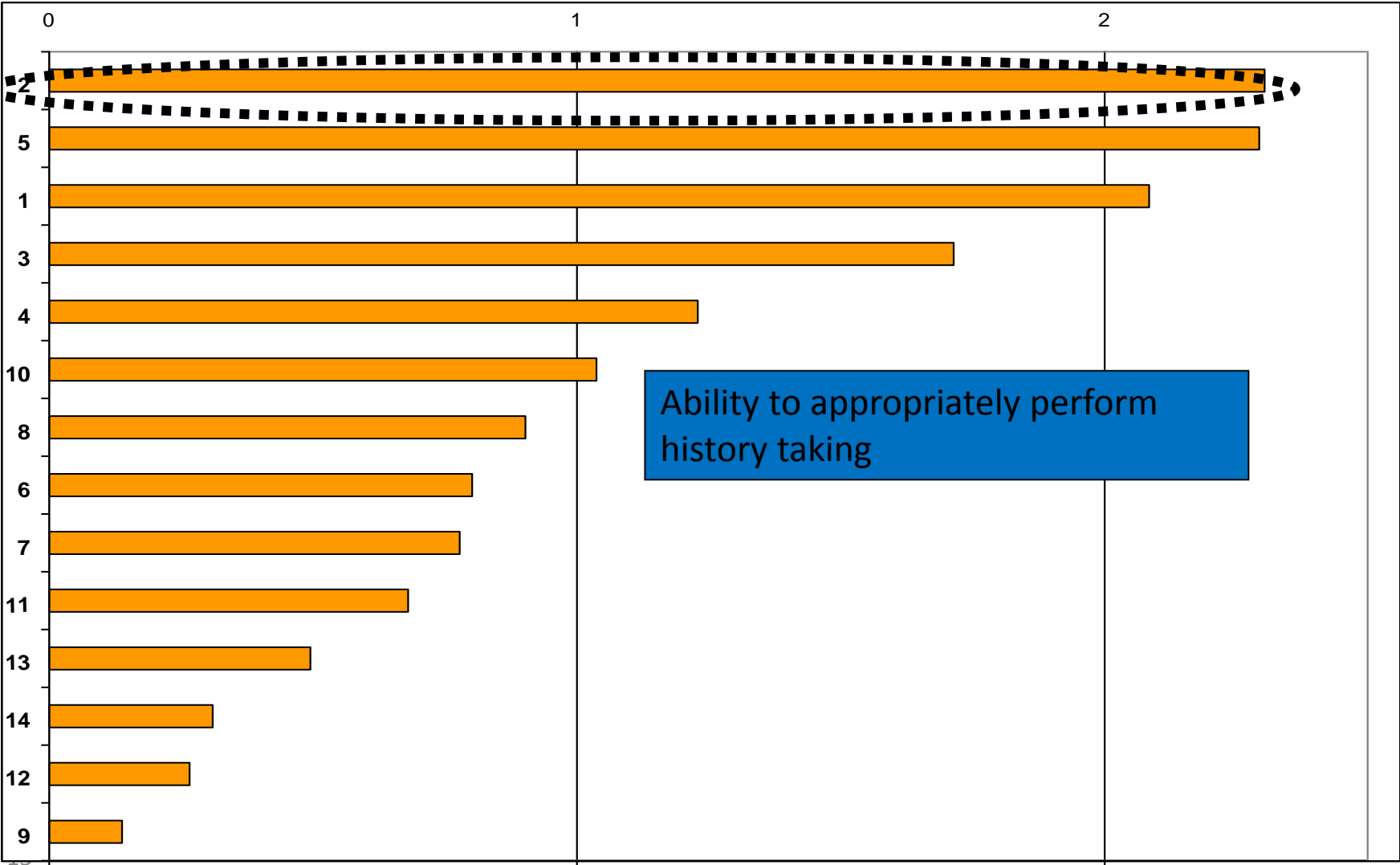
#	Description	Importance	Achievement
2	Ability to appropriately perform history taking	3,79	3,35
5	Ability to integrate clinical and work-up information to make diagnosis and differential diagnosis	3,75	3,14
3	Ability to appropriately perform physical examination	3,74	3,31
10	Ability to ensure and maintain patient safety	3,72	2,96
4	Ability to appropriately perform diagnostic investigation	3,64	3,22
8	Ability to perform consultation with patients and family with empathy	3,64	2,85
1	Ability to practice according to good clinical practice (GCP) in various clinical settings	3,61	2,93
7	Ability to explain the benefit and risk of any therapeutic options	3,57	2,86
11	Ability to promote health and preventive medicine	3,51	2,81
6	Ability to provide appropriate therapy with a biopsychosocial approach	3,41	2,68
13	Ability to demonstrate a balanced dedication to serve the interest of individual patient and the commitment...	3,38	2,60
9	Ability to manage medical record appropriately	3,33	2,58
14	Ability to recognize and estimate the health risks and healthcare needs of a defined population...	3,31	2,50
12	Ability to recognize and address public concerns and controversial issues related to health	3,27	2,57

MEDICINE

RANKING



ACADEMICS



Ability to appropriately perform history taking

# **SUBJECT SPECIFIC COMPETENCES**

**TEACHER EDUCATION**



## Data

**Total number of respondents 1554:**

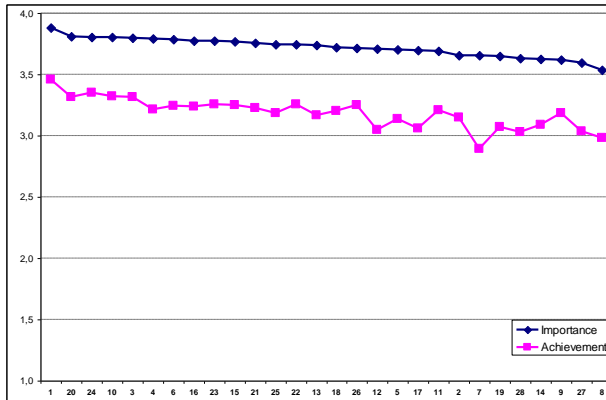
- 436 Graduates
- 391 Employers
- 334 Academics
- 393 Students

# TEACHER EDUCATION

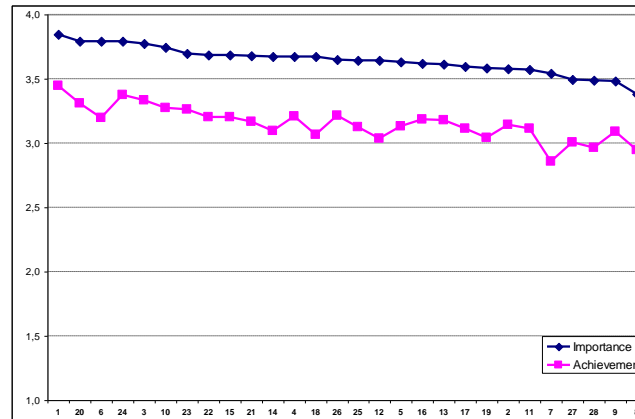
## IMPORTANCE vs. ACHIEVEMENT



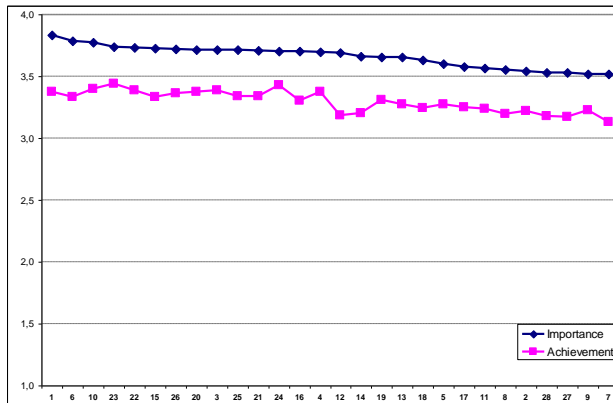
### ACADEMICS



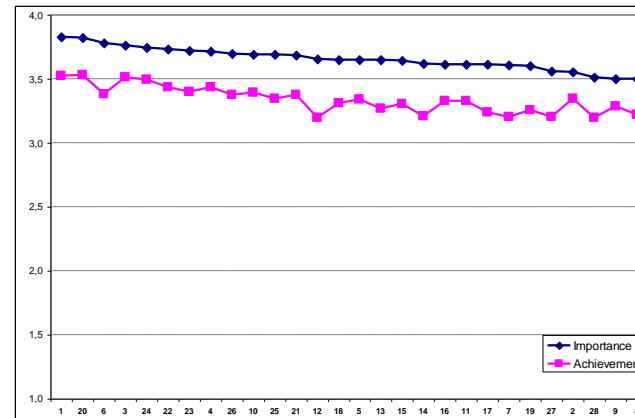
### EMPLOYERS



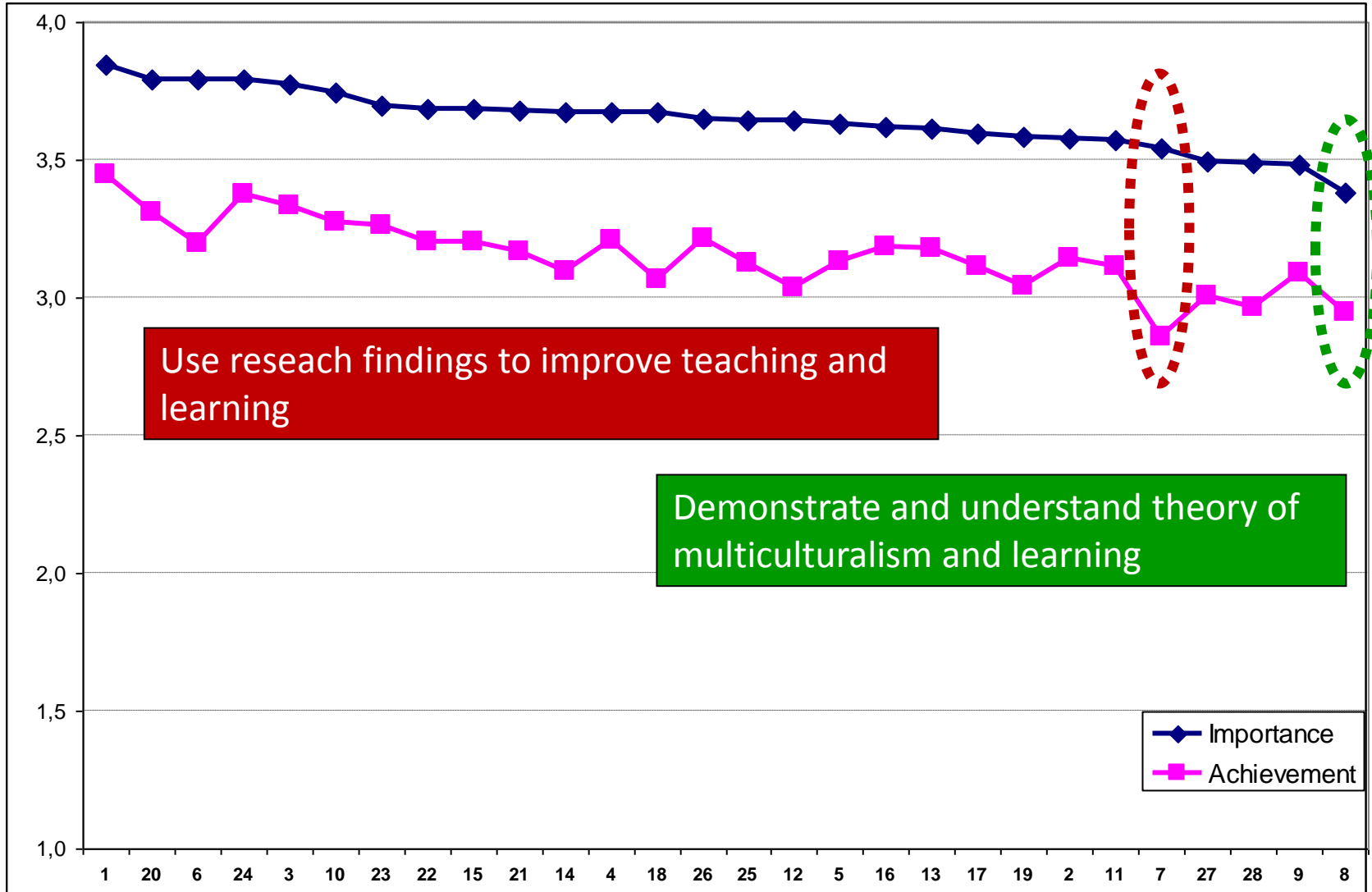
### STUDENTS



### GRADUATES



EMPLOYERS



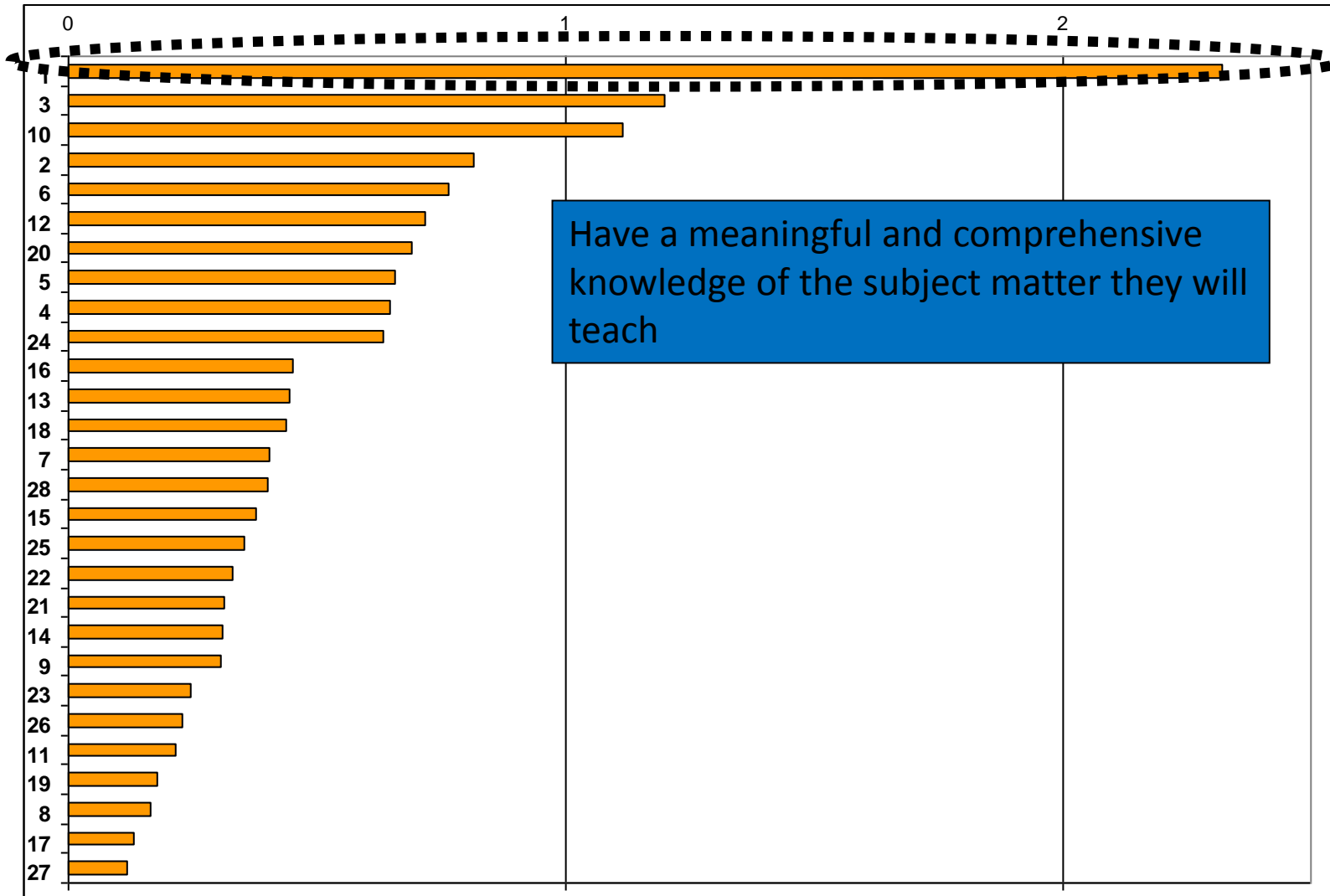
Use research findings to improve teaching and learning

Demonstrate and understand theory of multiculturalism and learning

◆ Importance  
■ Achievement

#	Description	Importance	Achievement
1	Have a meaningful and comprehensive knowledge of the subject matter they will teach	3,83	3,52
20	Ability to demonstrate integrity and professionalism	3,82	3,53
6	Understand the different characteristics of learners	3,78	3,38
3	Understand pedagogy and learning approaches related to a specific specialization	3,76	3,51
24	Ability to demonstrate commitment to the teaching profession	3,74	3,49
22	Ability to respect diversity in working with students, colleagues, families, community members...	3,73	3,43
23	Willingness to learn from students, colleagues, and other professionals	3,72	3,40
4	Comprehend concepts of testing, assessment and evaluation of learning	3,71	3,44
26	Ability to engage with fellow teachers and other professionals to enhance the teaching-learning process	3,70	3,38
10	Ability to select teaching methods, learning activities, and instructional materials or resources...	3,69	3,39
25	Ability to practice reflective thinking to improve their teaching practices	3,69	3,34
21	Willingness to apply innovations to the teaching and learning process	3,69	3,37
12	Ability to facilitate learners' potential development to actualize their various potentials...	3,66	3,20
18	Ability to demonstrate commitment to develop students to reach their potential	3,65	3,31
5	Understand the curriculum development process, its structure, content and expected learning outcomes	3,65	3,34
13	Ability to appropriately utilize information and communication technologies to support...	3,65	3,27
15	Ensure a safe and conducive learning environment	3,64	3,30
14	Utilize appropriate strategies for managing student behavior	3,62	3,21
16	Ability to use appropriate assessment tools and methods to assess, and evaluate...	3,61	3,32
11	Ability to implement curricula related to assigned fields of study	3,61	3,33
17	Ability to utilize assessment data to improve the teaching-learning process	3,61	3,24
7	Able to use research findings to improve teaching and learning	3,61	3,20
19	Ability to demonstrate self-evaluation and use the results for improvement	3,60	3,26
27	Ability to initiate and maintain mutually-beneficial linkages and networks	3,56	3,20
2	Able to understand educational philosophy	3,56	3,34
28	Ability to conduct action research	3,51	3,20
9	Demonstrate understanding of different theories on learner's developmental process	3,50	3,28
8	Demonstrate understanding of theory of multiculturalism and learning.	3,50	3,22

ACADEMICS



Have a meaningful and comprehensive knowledge of the subject matter they will teach

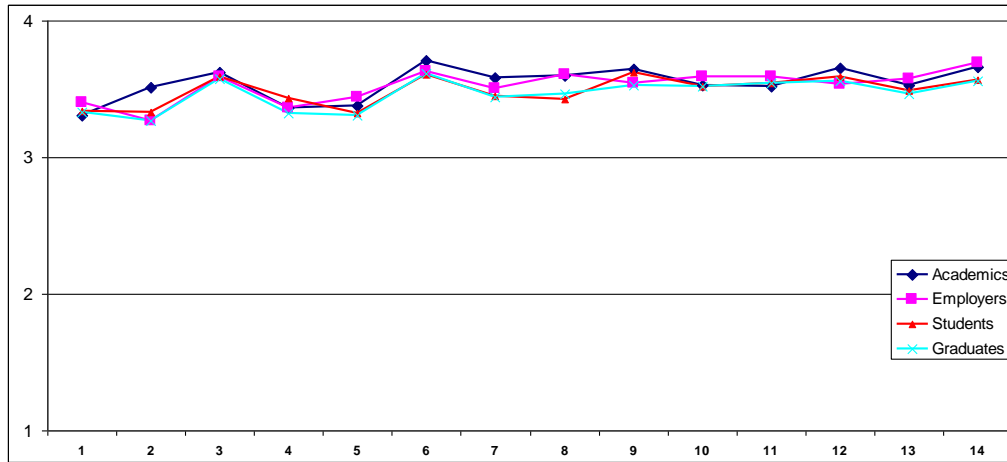
# Analysis

<b>Generic competences</b>	General analysis (common for 4 Subject Areas)	In relation to the 4 groups
		In relation to the 3 variables
	Analysed from the perspective of each Subject Area	In relation to the 4 groups
		In relation to the 3 variables
		In relation to general results
	<b>Subject Specific competences</b>	Analysed from the perspective of each Subject Area
In relation to the 3 variables		

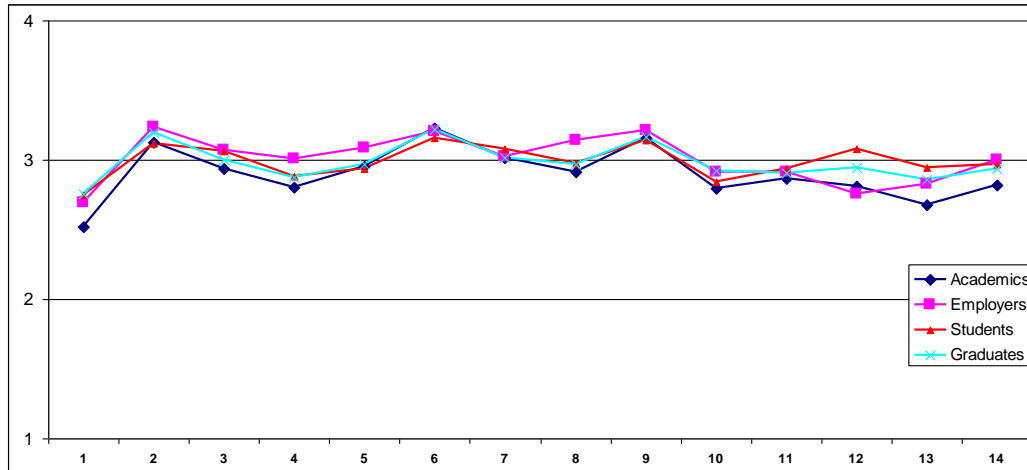
# **SUBJECT SPECIFIC COMPETENCES**

**CIVIL ENGINEERING**

# CIVIL ENGINEERING



## IMPORTANCE



## ACHIEVEMENT



## CIVIL ENGINEERING

### CORRELATIONS AMONG GROUPS



#### IMPORTANCE

	<u>Academics</u>	<u>Employers</u>	<u>Students</u>	<u>Graduates</u>
<i>Academics</i>	1,0000			
<i>Employers</i>	0,6946	1,0000		
<i>Students</i>	0,7903	0,7498	1,0000	
<i>Graduates</i>	0,8178	0,8959	0,9353	1,0000

#### ACHIEVEMENT

	<u>Academics</u>	<u>Employers</u>	<u>Students</u>	<u>Graduates</u>
<i>Academics</i>	1,0000			
<i>Employers</i>	0,8924	1,0000		
<i>Students</i>	0,8544	0,6548	1,0000	
<i>Graduates</i>	0,9605	0,8432	0,8779	1,0000

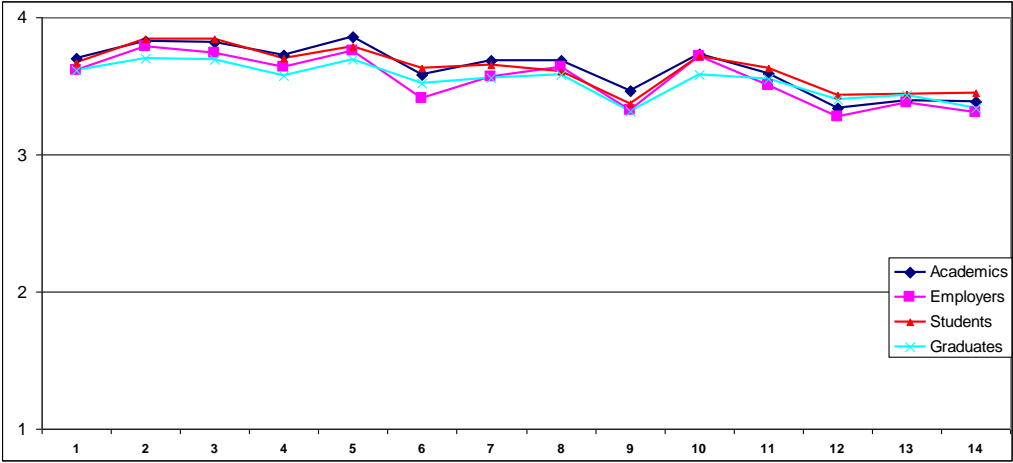
#### RANKING

	<u>Academics</u>	<u>Employers</u>	<u>Students</u>	<u>Graduates</u>
<i>Academics</i>	1,0000			
<i>Employers</i>	0,7153	1,0000		
<i>Students</i>	0,7817	0,7789	1,0000	
<i>Graduates</i>	0,9284	0,8893	0,8484	1,0000

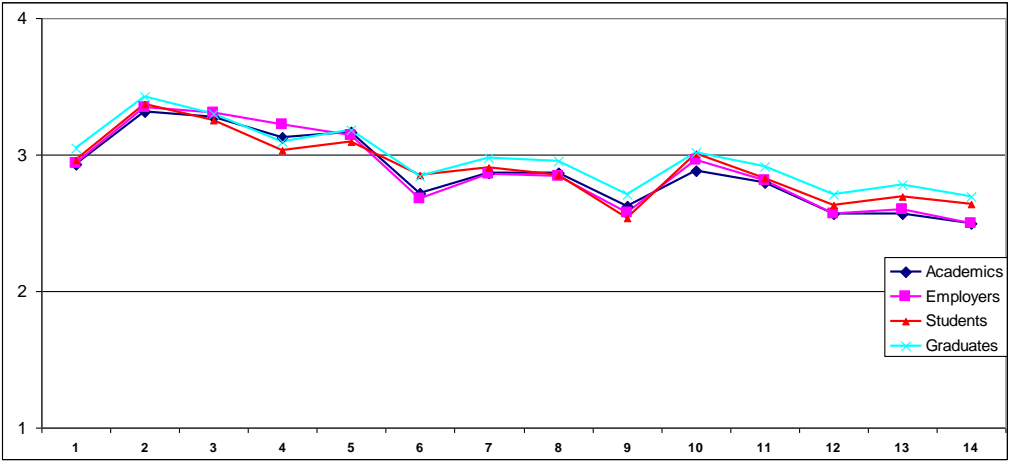
# **SUBJECT SPECIFIC COMPETENCES**

**MEDICINE**

# MEDICINE



## IMPORTANCE



## ACHIEVEMENT

**MEDICINE****CORRELATIONS  
AMONG GROUPS****IMPORTANCE**

	<i>Academics</i>	<i>Employers</i>	<i>Students</i>	<i>Graduates</i>
<i>Academics</i>	1,0000			
<i>Employers</i>	0,9699	1,0000		
<i>Students</i>	0,9481	0,9353	1,0000	
<i>Graduates</i>	0,9348	0,9391	0,9664	1,0000

**ACHIEVEMENT**

	<i>Academics</i>	<i>Employers</i>	<i>Students</i>	<i>Graduates</i>
<i>Academics</i>	1,0000			
<i>Employers</i>	0,9911	1,0000		
<i>Students</i>	0,9526	0,9564	1,0000	
<i>Graduates</i>	0,9794	0,9753	0,9847	1,0000

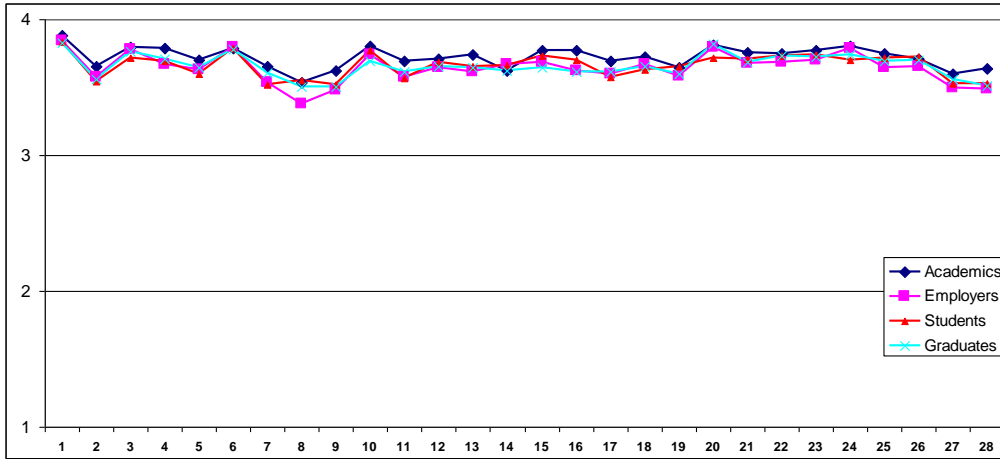
**RANKING**

	<i>Academics</i>	<i>Employers</i>	<i>Students</i>	<i>Graduates</i>
<i>Academics</i>	1,0000			
<i>Employers</i>	0,9571	1,0000		
<i>Students</i>	0,9611	0,9570	1,0000	
<i>Graduates</i>	0,9647	0,9400	0,9788	1,0000

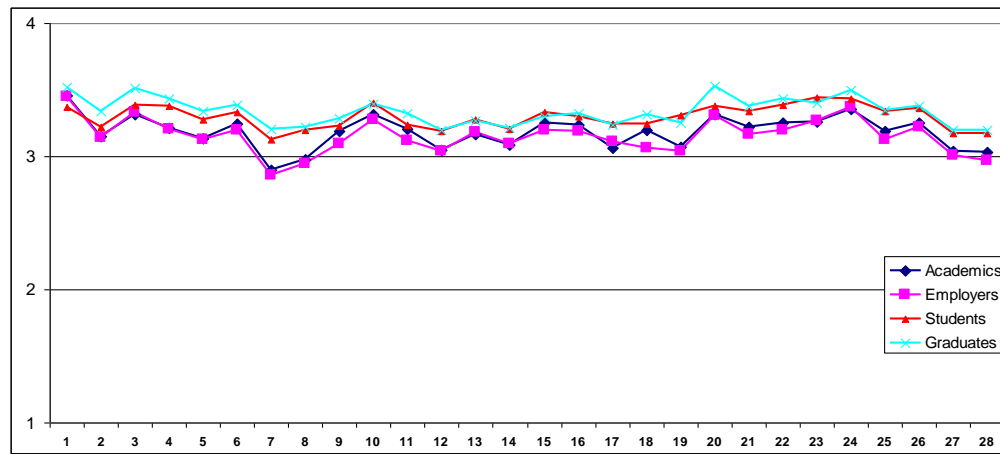
# **SUBJECT SPECIFIC COMPETENCES**

**TEACHER EDUCATION**

# TEACHER EDUCATION



**IMPORTANCE**



**ACHIEVEMENT**

**NURSING****CORRELATIONS  
AMONG GROUPS****IMPORTANCE**

	<i>Academics</i>	<i>Employers</i>	<i>Students</i>	<i>Graduates</i>
<i>Academics</i>	1,0000			
<i>Employers</i>	0,9021	1,0000		
<i>Students</i>	0,8409	0,8605	1,0000	
<i>Graduates</i>	0,8836	0,9365	0,8524	1,0000

**ACHIEVEMENT**

	<i>Academics</i>	<i>Employers</i>	<i>Students</i>	<i>Graduates</i>
<i>Academics</i>	1,0000			
<i>Employers</i>	0,9533	1,0000		
<i>Students</i>	0,8457	0,8642	1,0000	
<i>Graduates</i>	0,8892	0,8941	0,8577	1,0000

**RANKING**

	<i>Academics</i>	<i>Employers</i>	<i>Students</i>	<i>Graduates</i>
<i>Academics</i>	1,0000			
<i>Employers</i>	0,9780	1,0000		
<i>Students</i>	0,9267	0,9160	1,0000	
<i>Graduates</i>	0,9283	0,9350	0,9633	1,0000

## **Some preliminary conclusions ...**

- **Big gaps between importance and achievement**
- **Some subject specific competences strongly linked to generic competences**
- **Differences between importance and ranking**
- **Differences within the 4 groups in terms of importance**



*The  
End*