



REFLEX: Conclusions and Policy Implications

The Flexible Professional in the Knowledge Society:
Results From a European Study

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The REFLEX Survey

- 15 European countries + Japan
- 35.000 graduates 5 years after leaving HE
- Financed by EU 6th Framework program and national funds
- Start in March 2004 – Final report in October 2007

Three trends:

- Knowledge society: growing importance of human capital
- Transitional labour market: growing importance of flexibility
- Globalisation: growing importance of internationalisation

.... resulting in five demands:

- Professional expertise
- Functional flexibility
- Innovation and knowledge management
- Mobilisation of human resources
- International orientation

Demands more or less universal

- Required level relatively high
- Applies more or less to all REFLEX countries, with small variations
- Applies more or less equally to all 5 competence areas

Shortage/surplus per demand:

- about 10% on average has a lower level than required (shortage)
- less shortages for innovation and knowledge management
- about 15% on average has a higher level than required (surplus)
- greater surplus for innovation and knowledge management, smaller for mobilization of human resources

European graduates fare well in the labour market

Small proportion ends up in an elite position, but...

- just 4% are unemployed
- majority works in jobs requiring generalist or specialist training in higher education
- human capital produced is largely used (majority is in paid employment with high degree of utilisation of knowledge and skills)

Still room for improvement

- one out of four working graduates indicates that their competences are insufficiently used
- labour market problems in some countries and fields of study (humanities, Southern-European countries, but also the UK)

Higher education usually provides a good basis to enter the labour market

- in the short term (as a basis for starting work: 60% satisfied, 15% unsatisfied)
- in the longer term (as a basis for future career: 50% satisfied, 20% unsatisfied)
- graduates most satisfied about HE as basis for personal development (average of 70%)
- only 20% indicated that HE provided a good basis for developing entrepreneurial skills

Professional expertise a strong point of European higher education

- Almost 40% of graduates consider mastery of own field a strong point of their program
- Analytical thinking (37%) and ability to acquire new knowledge (30%) also highly rated
- Foreign language skills, ability to assert authority, negotiating and presentation skills often considered weak points of HE

Professional expertise most important predictor of labour market success

- Strong effects especially on wages and skill utilization (even when working outside one's own domain)
- Competences related to mobilization of human resources also promote labour market success
- Competences related to functional flexibility not directly rewarded, but play a role in helping graduates faced to cope with change and instability
- Competences related to innovation and knowledge management show mixed economic rewards (reduced risk of overeducation, increased utilization of knowledge and skills, but no impact on wages and a negative effect on employment chances)
- Experience abroad has a positive effect

What can higher education do?

- Skills production function: the role of higher education in imparting relevant competences
- Allocation function: the role of education in allocating graduates to the labour market
- Both goals clearly connected, but distinct
- HE characteristics relevant to these two goals also distinct

Effect program characteristics (1)

- Demanding programs produce the best graduates but do not necessarily lead to better outcomes on the labour market
- Programs that are academically prestigious produce good graduates, and lead to good outcomes, especially in helping graduates to enter elite positions

Effect program characteristics (2)

- A strong vocational orientation good for developing professional expertise (not for other competences), giving a strong basis to enter the labour market and develop their career in mass specialist jobs
- Employers being familiar with the program has a negative effect on developing competences, but very strong positive effect on labour market outcomes
- Some support for a dual orientation in HE: successful programs either have a strong vocational orientation or a strong academic one

Effect modes of teaching

- Some support for student-centered methods, like problem-based learning: they provide a good basis to start working and develop career
- But traditional methods often more effective in imparting relevant competences: stressing theories and facts and practical knowledge are important components to develop expertise and this professional expertise is crucial for later labour market success

Role of assessment

- Curriculum is not the only force that drives learning
- Assessment drives learning as well: often neglected, but very important
- Some evidence for positive effects of using written assignments and oral presentations on developing competences and providing a good basis to start working and develop future career
- Negative effects of using multiple choice exams as dominant way of assessing students

The role of other experiences

- Work experience related to study program is very good, both for developing competences and for labour market outcomes
- Non-relevant work experience is a waste of time: it does not affect competences or labour market outcomes
- Voluntary work and study/work abroad during HE is positive for developing competences and increases wages
- Internships do not affect competences, but they do facilitate a smooth transition

The effect of personal characteristics

- Females have lower wages (even when they are career-oriented!) and are more often unemployed
- No effects of social background once you control for educational experiences and other variables
- Role of social network: helps to stay out of lower level jobs

The effects of study behaviour

- Strong effects of grades on outcomes
- But no effect of actual study behaviour: doing more than is needed to pass the exam, striving for the highest marks, or number of study hours have no effect on outcomes!
- This mirrors the findings of following a demanding program: good for your competences, but no direct economic reward

Policy Implications (1)

- Higher education could be more demanding
- More attention needs to be paid to developing professional expertise in higher education
- Higher education needs to be more internationally oriented
- The dual orientation of higher education should be strengthened
- Encourage the development of relevant work experience, and discourage non-relevant experience
- Innovative teaching methods should always be combined with sufficient attention to theory and practical knowledge
- Pay attention to assessment methods
- Don't overestimate the effects of internships

Policy implications (2)

- Employers could make more use of graduates' competences
- Employers should be more open to women at all levels of their organizations
- A little flexibility at the start of one's career doesn't do any harm
- Studies like CHEERS and REFLEX become more valuable when conducted on a regular basis, e.g. every 5 years
- Graduate data should be supplemented by data on employers