

8. VALUE OF KNOWLEDGE: SKILLS, COMPETENCES, OPINIONS

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8.1. Introduction

Education and training policies are central to the creation and transmission of knowledge, and are a determining factor in each society's potential for innovation. That is why lifelong learning and key competences¹ are nowadays a focus for the European Union and are the leading ideas of the so-called Lisbon process. It is important to bear in mind that not only young people, but adults, too, should participate in lifelong learning activities. This is essential if the human resources potential in Europe is to be tapped fully. Some of the key competences have been asked and measured in the Eurobarometer surveys, and so we have tried to use these data to gain a picture of some key competences among the inhabitants of the Union – namely in the fields of science, foreign languages and economic understanding.

8.2. Competences in natural science, foreign languages and economics in Europe

a) Scientific knowledge is satisfactory in the majority of the countries

In January and February 2005, a special Eurobarometer survey was conducted into the scientific knowledge of Europeans. Scientific competences were measured using 13 quiz items (see Table 8.1). Analysis of the data shows that, as a sex, men are far more interested in new inventions and technologies than are women (40% of men “very interested” compared with only 21% of women). The age category also shows that the youngest people show significantly more interest in these issues than do older people, especially those aged 55 and over (14 percentage points separate the two categories). The level of education reveals that people who have studied until the age of 20 or above (and those still studying) show far more interest in this topic than do people with lower levels of education (European Commission 2005).

¹ Key competences are those competences that all individuals need for personal fulfilment and development, active citizenship, social inclusion and employment. There are eight key competences that are considered to be important in making Europe competitive: (1) communication in the mother tongue; (2) communication in foreign languages; (3) mathematical competence and basic competences in science and technology; (4) digital competence; (5) learning to learn; (6) social and civic competences; (7) sense of initiative and entrepreneurship; and (8) cultural awareness and expression.

Quiz statements (T = true; F = false)	True %	False %	Don't know/ Not applicable %
The Sun goes around the Earth	29	66	4
The centre of the Earth is very hot	86	7	7
The oxygen we breathe comes from plants	82	14	4
Radioactive milk can be made safe by boiling it	10	75	15
Electrons are smaller than atoms	46	29	25
The continents on which we live have been moving for millions of years and will continue to move in the future	87	6	8
It is the mother's genes that decide whether the baby is a boy or a girl	20	64	16
The earliest humans lived at the same time as the dinosaurs	23	66	11
Antibiotics kill viruses as well as bacteria	43	46	11
Lasers work by focusing sound waves	26	47	28
All radioactivity is man-made	27	59	14
Human beings, as we know them today, developed from earlier species of animals	70	20	10
It takes one month for the Earth to go around the Sun	17	66	16

Table 8.1: Proportion of wrong and right answers to the scientific quiz items

Source: European Commission (2005).

Note: Figures in bold show the correct answers.

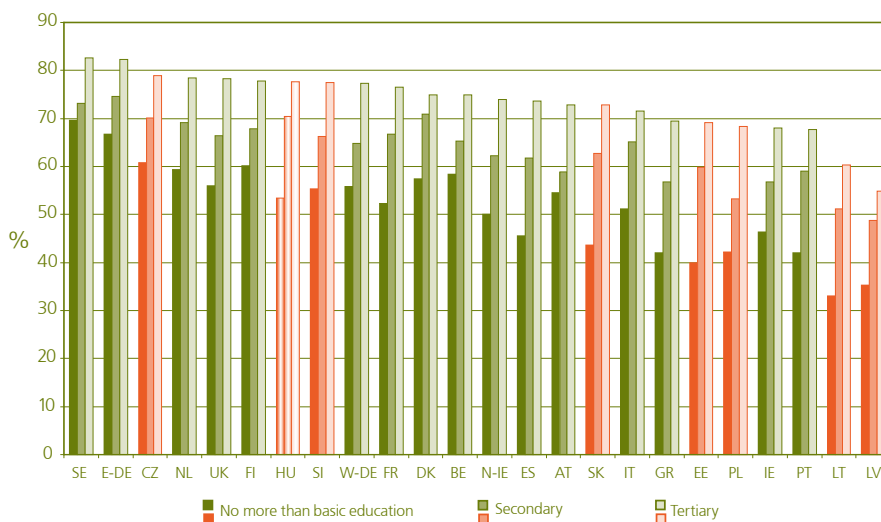
The more educated one is, the more correct answers are given; this is true of every country. However, some countries do better. The inhabitants of Northern Europe did quite well at this scientific test – especially the Scandinavians, Czechs and eastern Germans, who did very well (see Figure 8.1). It is interesting that people living in the western part of Germany lag behind in this respect.² Perhaps it is more striking that Swedish people with a basic education gave more correct answers than highly educated Portuguese, Lithuanian or Latvian people. The gap in scientific knowledge by level of education varies from negligible to large. In Sweden and eastern Germany, the variation in the scientific knowledge of people with different levels of education is small; nor is it large in Finland, Belgium, the Netherlands or Austria. On the other hand, it is quite big in the Baltic states (Estonia, Lithuania) and Northern Ireland. These results make it clear that across Europe the same apparent level of education can

² Here and throughout, Northern Ireland, eastern Germany and western Germany are analysed separately, even though they are not independent countries. In terms of their cultural heritage and history, they differ from the other parts of the United Kingdom or Germany as a whole, and this has a considerable impact on the focus of our analysis.

Figure 8.1: Proportion of right answers given to the quiz, by level of education and country (excluding people still studying)

Source: Special Eurobarometer 63.1, 2005 on science and technologies.

conceal wide differences in skills and competences, which makes comparison of national diplomas tricky.



b) Foreign language competence varies greatly across Europe

The report compiled on the basis of the results of the special 2005 Eurobarometer study of language skills in Europe indicates that, compared to the results obtained in 2001, the proportion of those who know at least one foreign language had increased by nine percentage points (from 47% in 2001 to 56% in 2005) (European Commission 2006). But attention should be paid to the fact that in six member states the majority of the population indicated that they did not know any foreign language. This is the case in Ireland (66%), the United Kingdom (62%), Italy (59%), Portugal (58%), Hungary (58%) and Spain (56%). It is also the case in the accession country of Romania (53%) and the candidate country Turkey (67%).

But this picture changes a little if we look at motivation to learn another language.³ Although the majority of Turkish people do not speak a foreign language, they are very open and motivated to learn one. On the other hand, in Portugal, Hungary, Northern Ireland and Bulgaria a fifth or more of the people speak no foreign language and do not want to learn one (Figure 8.2). If we regard the population of Europe as a latent pool of human capital to be developed, some individuals unfortunately exclude themselves from it, and this is more typical of the countries listed

³ In the survey, people were asked about their motivation for learning a new language. Some 10% of Europeans spontaneously replied that they did not want to learn a new language. From the figures, we constructed four groups for examination: those who speak a language other than their mother tongue and are open to learning another one; those who speak a foreign language but do not want to learn a new one; those who do not speak a foreign language but want to learn one; and those who neither speak a foreign language nor want to learn a new one in the future.

above. It is worth mentioning that those countries where the mother tongue is a world language, the proportion of people who speak two or more languages is low (Spain, France, Northern Ireland, Great Britain). The Baltic states are in a special position, since most of their inhabitants speak Russian. Therefore it is quite sad that, in those countries where the mother tongue offers limited scope for communicating in Europe, the majority of those who cannot speak another language do not want to learn one.

This goes hand in hand with the low rate of learning activity among adults. Although Portugal and Hungary are carrying out reforms in the field of foreign language teaching,⁴ the adults in these countries are the least active in lifelong learning. However, countries where natural scientific knowledge is not so strong can score much higher on foreign languages. A large section of the people of Cyprus and Malta speak a foreign language because of the vibrant tourism sector and bilingual schools. On the other hand, the low achievement of the other Southern European countries is due to poor opportunities (at least until the beginning of this decade) to learn languages at school.

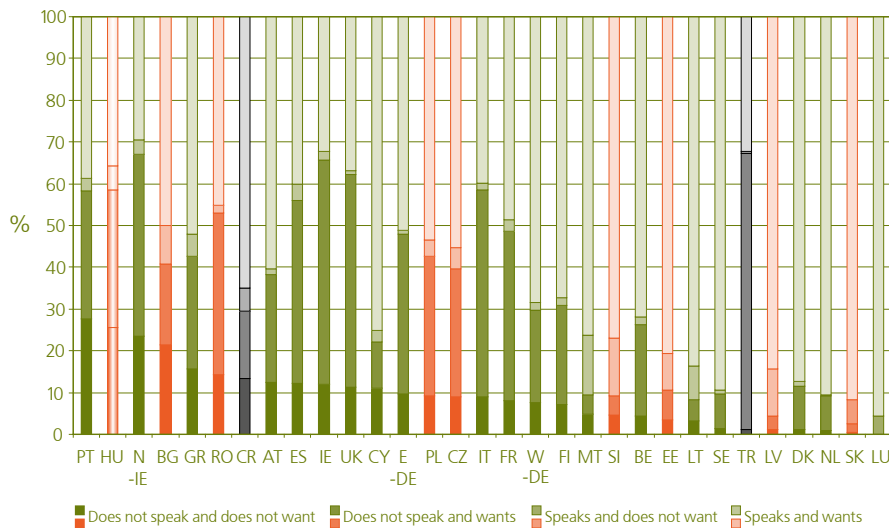


Figure 8.2: Proportion of people who do or do not speak a foreign language and do or do not want to learn a new one

Source: Special Eurobarometer 64.3, 2005 on languages.

⁴ In Portugal, the initial cycle of basic education has been reformed recently, offering a whole-day school programme, with extra foreign language learning activities. In Hungary, an extra year has been inserted into secondary education that is dedicated to the learning of a second foreign language.

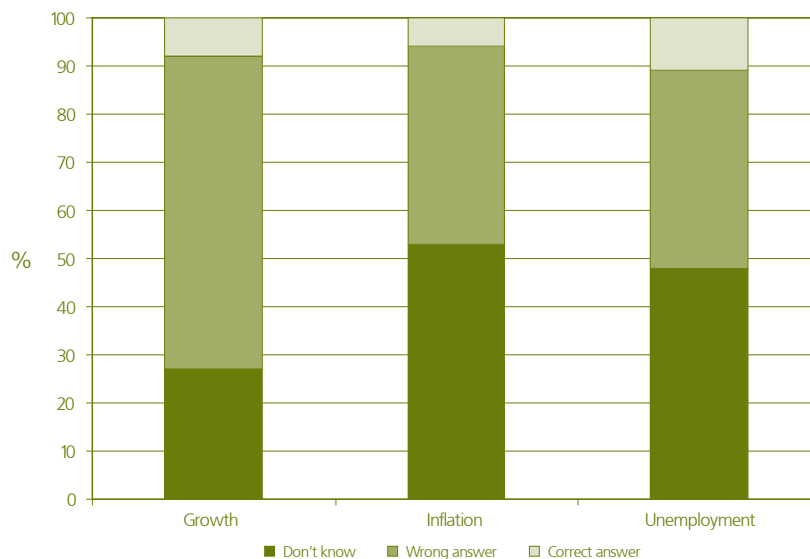
c) Economic knowledge is poor across Europe

A 2007 Eurobarometer survey sought to measure the extent to which Europeans understand economic issues. One of the most striking results of the survey lay not in respondents' replies to the questions, but rather in the very high proportion who spontaneously said that they did not know what to answer. This applies to all knowledge-related questions generally, and needs to be borne in mind during analysis of the results. Roughly half of all respondents answered "don't know" instead of offering their estimates of the national growth, inflation and unemployment rates. The report explains this phenomenon thus: "The high proportions of 'don't know' answers can, most probably, be explained by the nature of the topic – that seems to be unfamiliar and distant to large shares of the population" (European Commission 2008).

The special survey examined how familiar Europeans are with three major economic indicators: the growth rate, the inflation rate and the unemployment rate. Almost half of those interviewed did not dare estimate the rate of inflation. More people plucked up the courage to say something about the growth rate – but interestingly, here we found the highest rate of wrong answers! Europeans are rather better informed about the rate of unemployment (Figure 8.3).

Figure 8.3: The proportion of correct and incorrect answers to some economic indicators in European countries

Source: Special Eurobarometer 67.2, 2007.



At the country level, there are large discrepancies to be found between individual countries. While more than a third of Slovaks (35%) and French (46%), as well as 38% of Danes, knew at least one of the official rates of economic growth, price inflation or unemployment, only 10% of Romanian, 12% of Cypriot and 9% of Bulgarian and Maltese respondents estimated correctly one or more of these rates.⁵ Taking the

⁵ An answer was considered correct if it was in the range +/-20% of the official data.

answers given to the three questions together, a fifth of Europeans could give at least one correct answer (see Figure 8.4).

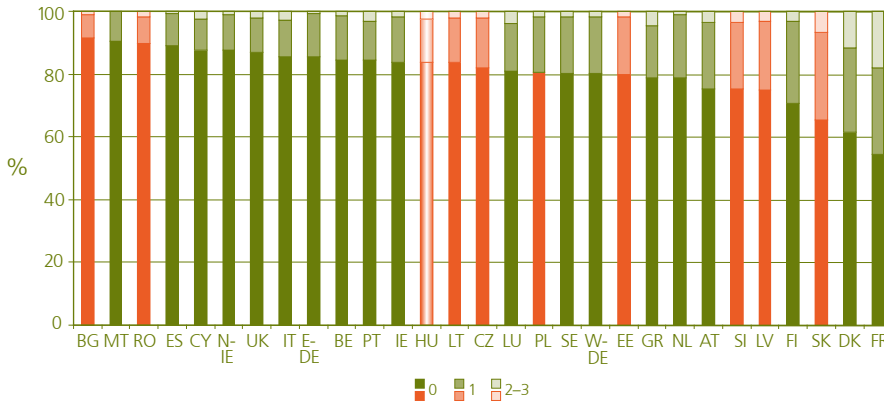


Figure 8.4: Percentage of those who did not answer or did not know the right answer, and of those who gave one or more (2–3) right answers regarding economic indicators

Source: Special Eurobarometer 67.2, 2007.

From the answers given to the three questions about economic indicators, we constructed an index, where 0 was assigned to wrong or “don’t know” answers and 1, 2 or 3 to correct answers (depending on the number of correct answers). This index has been standardized to give an illustrative picture as to the economic knowledge of Europeans. Southern European countries and English-speaking countries (Northern Ireland and Great Britain) did not perform well, while the French, Danes and Slovaks appeared to be well informed (Figure 8.5). Slovakia’s achievement is worthy of note. What is also interesting is that, while they did not perform particularly well in the other two competency fields, France and Slovakia are among the top-ranking countries on this measurement.



Figure 8.5: Value of the complex index on familiarity with general economic indicators, by country

Source: Special Eurobarometer 67.2, 2007.

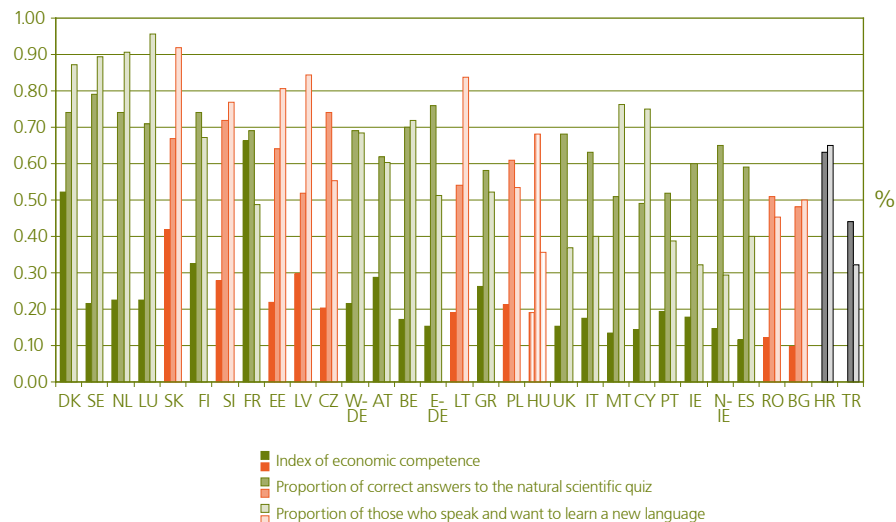
d) 8.2.4 The competences together

We tried to make an overall evaluation of the competences of Europeans in the given fields. We put the standardized economic competence index, the rate of correct answers to the scientific quiz and the proportion of those who speak a foreign language

and are motivated to learn another one together in a single graph. We ranked the countries on the three scales and created a complex ranking. Southern Europeans are low achievers in all three fields, as are Ireland and Northern Ireland. In the middle we find the Continental countries and the Baltic states. The highest competences in the fields under examination are achieved by the Northern and Western countries and Scandinavia. Slovakia is an exceptional case, thanks to the relatively large proportion of foreign language speakers who are motivated to learn and its higher level of familiarity on economic questions (Figure 8.6).

Figure 8.6: Scientific, foreign language and economic competences in Europe

Source: Special Eurobarometer 67.2, 2007; Special Eurobarometer 64.3, 2005 on languages; Special Eurobarometer 63.1, 2005 on science and technologies.



8.3. Attitudes to and notions of scientific development

As well as the Eurobarometer survey of 2005, the last wave of the World Values Survey dealt with people’s attitudes to scientific developments. More than half (57.7%) of the Europeans interviewed in the fifth wave of the World Values Survey thought that scientific advance would help us; 14% responded that it would harm us; and 28% were ambivalent about the role of science. The most optimistic nations are Spain and Romania; the most ambivalent are Slovenia, the Netherlands, Cyprus, Italy and Hungary; and the highest proportion of pessimistic answers was given by the French and British (Figure 8.7).

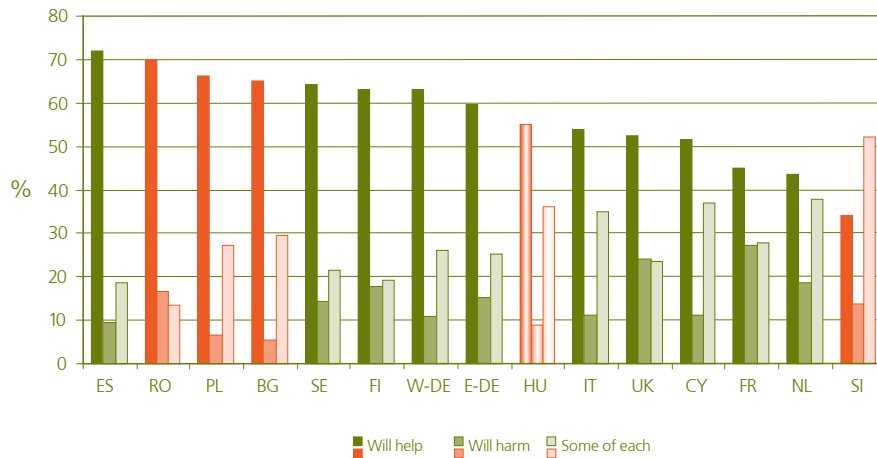


Figure 8.7: Opinion about scientific advance among the Europeans, by country

Source: World Values Survey, wave 5 (2005–07).

Note: N = 15,383.

Men (61%) are clearly more optimistic about the role of science than are women (55%), and this is true even when the figures are controlled for by education: both educated and less well educated women are more pessimistic than their male peers. The higher level of education one has, the more optimistic one is about the role of science (as might be expected). Strangely, though, optimism is not correlated with age. If age is combined with level of education, then we find that, among the educated, older people are more optimistic about scientific development, while younger people are more sceptical (Figure 8.8). This may be due to the more reflective and “greener” approach of young people, whereas the older generation was socialized in a period when modernization and technological development were uncritically regarded as progressive things.

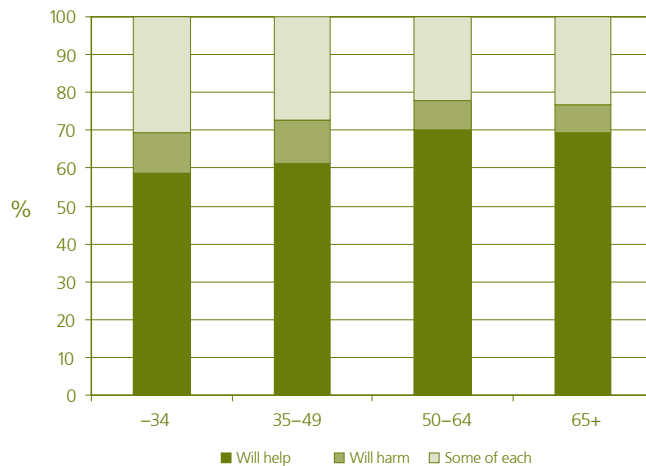


Figure 8.8: Opinion of scientific advance, by age among educated people in the European countries

Source: World Values Survey, wave 5 (2005–07).

Older people seem more eager to say “yes”, and that is why they agree with almost everything. Young people have a more consistent view. This seems to hold true for countries, as well. We constructed an index from four items,⁶ and we can see that the most optimistic on science are the Northern European countries (Germany, Sweden); the ex-socialist Central European countries (plus Finland) are average; and the Southern European countries are the most sceptical (or perhaps better to say “confused”). Despite the fact that the Spanish largely think that science and technology make our lives healthier and easier, a lot of them also think that we need more faith and that science changes our lives too rapidly. Swedes and Germans seem to be more consistent: their optimism about science goes hand in hand with lower values for the sceptical items (Table 8.2).

Table 8.2: Optimists and sceptics in certain European countries (mean figures)

Source: World Values Survey, wave 5 (2005–07).

Notes:

Answers given on a scale of 1 to 10.

N = 11,076.

Countries	Science and technology are making our lives healthier and easier	Because of science and technology there will be more opportunity	Science and technology make our way of life change too fast	We depend too much on science and not enough on faith	Standardized index
Eastern Germany	7.3	7.9	6.8	4.7	0.4
Sweden	6.7	7.4	6.8	3.8	0.4
Western Germany	7.2	7.7	6.8	5.2	0.3
Slovenia	6.7	7.1	7.2	4.7	0.1
Romania	7.7	8.2	7.3	6.7	0.1
Finland	6.6	7.2	6.6	5.8	0.0
Hungary	7.1	7.2	7.2	5.7	0.0
Poland	6.9	8.0	7.7	6.2	-0.1
Spain	7.2	7.0	7.4	6.2	-0.1
Cyprus	3.4	3.2	2.3	3.9	-0.2
Italy	6.3	6.4	6.8	6.1	-0.3
Bulgaria	6.9	7.6	7.9	7.1	-0.3
Overall	6.7	7.0	6.7	5.6	0.0

The OECD’s Programme for International Student Assessment (PISA) surveys provide an opportunity to compare – in a loose way – the natural scientific competence of adults and of school pupils. We can make this picture more sophisticated by evalu-

⁶ We sum the two optimist items’ values (science makes our lives healthier and science gives more opportunity) and subtract the two sceptical items’ values (changes are too fast and more faith needed), and then the index is standardized.

ating attitudes towards scientific advance, together with indicators measuring some scientific competence. We can say that more scepticism (lower value of attitude index) tends to go together with a lower level of achievement (both in the quiz and in the PISA survey) and vice versa, though this correlation is weak. If we take the cases of Finland, the Netherlands and Slovenia, one can see that all three countries have good achievements among their adults and pupils in terms of scientific competence; however, they have very different average attitudes towards scientific development. The Dutch are optimistic; the Finnish are in the middle; and the Slovenes are sceptical about scientific advance (Table 8.3). People in the ex-socialist countries generally have an above-average belief that science is making our way of life change too rapidly. On the other hand, Southern Europeans feel that we depend too much on science and not enough on faith. The scepticism to be observed in these two parts of Europe is different in origin. One can observe here, too, that the inhabitants of the Northern and Western European countries have a more consistent view of science, and their knowledge is in harmony with their optimism about the effects of scientific advance. In the South, people are more sceptical, and this seems to be coherent with their more tenuous grasp of science. Central European –especially ex-socialist – countries have good scientific knowledge, but this is accompanied by much greater scepticism as to the effects of scientific development. It is worth mentioning that there are some countries (Sweden, Denmark, Luxembourg) where the adults emerged in a better light than the 15-year-old pupils who took the PISA test (although it is hard to compare the two, since PISA is a real competence-based test, while what the adults took was only a quiz). The most optimistic countries were the Netherlands, Denmark and (exceptionally for an area with a socialist past) eastern Germany. The achievement of Finland is breathtaking: it has the highest mean for the PISA test, and a fifth of all 15-year-old Finns performed at the highest (5th and 6th) levels.

Table 8.3: Some characteristics of attitude towards science and scientific competence in European countries

Source: Special Eurobarometer 63.1, 2005 on science and technologies, and PISA 2006, OECD.

Notes:

PISA 5–6 (%): the proportion of 15-year-old pupils who were at proficiency level 5 or 6 on the PISA science scale (2006).

PISA mean: Mean score in student performance on PISA science scale (2006).

Index of attitude to scientific developments is made up of two subsamples: standardized (life comfort – future) + standardized (ways of life – faith) (Special Eurobarometer 63.1, 2005).

Country	Science makes our lives healthier	Thanks to science there will be more opportunities in the future	Science makes our ways of life change too fast
	Mean on a scale 1–5, 1 = disagree strongly, 5 = agree strongly		
Sweden	4.0	4.3	3.6
Germany (eastern)	4.4	4.3	3.3
Czech Republic	3.9	4.1	3.9
Denmark	4.0	4.3	3.1
Finland	3.9	4.0	3.1
The Netherlands	3.9	4.3	3.2
Slovenia	3.8	3.7	4.0
Luxembourg	4.0	4.1	3.7
Belgium	4.1	3.9	3.5
France	3.9	3.8	3.4
Germany (western)	4.2	4.0	3.3
United Kingdom	4.1	4.1	3.2
Hungary	4.2	4.2	3.5
Slovakia	3.9	4.0	4.0
Northern Ireland	4.0	3.9	3.1
Estonia	4.3	4.6	3.7
Croatia	4.0	4.1	4.0
Italy	3.9	3.9	3.6
Austria	3.9	3.9	3.6
Poland	4.1	4.4	4.1
Ireland	4.0	4.0	3.2
Spain	4.0	3.9	3.9
Greece	3.8	4.0	4.5
Lithuania	4.3	4.5	3.5
Latvia	3.9	4.4	3.7
Portugal	4.1	4.1	3.8
Malta	4.3	4.2	4.2
Romania	4.3	4.3	3.8
Cyprus (Republic)	4.2	4.2	4.5
Bulgaria	4.0	4.4	4.1
Turkey	4.3	4.1	4.1
Total/OECD	4.1	4.1	3.6

We depend not enough on faith	The percentage of correct answers to the quiz (%)	Proportion of the best (5–6) achievers in PISA science test 2006 (%)	Mean of competence in science at PISA 2006 (points)	Index of science attitude (mean)
3.0	79	8	503	0.2
2.6	76	12	516	0.5
3.3	74	12	513	-0.2
2.8	74	7	496	0.4
3.1	74	21	563	0.1
2.6	74	13	525	0.4
2.8	72	13	519	-0.2
3.1	71	6	486	0.0
2.8	70	10	510	0.1
2.8	69	8	495	0.0
3.2	69	12	516	0.1
3.0	68	14	515	0.2
3.3	68	7	504	0.1
3.4	67	6	488	-0.3
3.3	65			0.1
3.2	64	12	531	0.2
3.3	63			-0.2
3.3	63	5	475	-0.1
3.4	62	10	511	-0.1
3.2	61	7	498	0.0
3.2	60	9	508	0.1
3.3	59	5	488	-0.2
3.2	58	3	473	-0.4
3.4	54			0.2
3.6	52			-0.1
3.4	52	3	474	-0.1
3.7	51			-0.2
3.8	51			-0.1
3.4	49			-0.3
3.6	48			-0.2
3.6	44	1	424	-0.2
3.2	63	9	491	

8.4. Factors for getting ahead in life

It is widely believed by European Union citizens that getting a good education and working hard are the two most important elements in getting ahead in life (61% and 45%, respectively). And this belief is shared by all the various socio-demographic groups identified by the survey. There are, however, certain differences in the intensity of this view (and with regard to other factors that matter). A comparison between men and women shows that women consider getting a good education to be more important (65%, compared with 60%), while men are more inclined to consider working hard to be important (47%, compared with 43%) (European Commission 2007).

If we look more closely at the data, we again find some interesting features. Getting a good education is regarded as a very important factor of success in Western European countries, but in ex-socialist countries this belief is much lower. Working hard is a very important factor in the English-speaking countries, but in the Czech Republic, Germany and the Baltic states less importance is attached to it. Knowing the right people is a very important factor according to people in eastern Germany, while Hungarians believe that coming from a wealthy family is a dominant factor in one's career.

The PISA database contains some figures about the relationship between a student's background and his or her achievement. The correlation is typically very high in Central Europe, especially in Hungary and Germany. One might think that the importance attached to the factor "coming from a wealthy family" may have some correlation with this indicator. If we examine the numbers, we can see that this is partly true, since in some of the ex-socialist and Central European countries (Austria, Bulgaria, Hungary) a high correlation between economic, social and cultural status (ESCS) and pupil performance in the science test goes hand in hand with the greater importance attached to coming from a wealthy family. But there are countries where there is a relatively high correlation between the ESCS index⁷ and pupil performance and yet where no great importance is attached to coming from a wealthy family. Typically these are the traditional Western European countries, like France, Belgium or the Netherlands, but in this group we also find Slovenia and Slovakia. Interestingly, in the Baltic states both the correlation between the family background of pupils and their scientific achievements and the level of importance attached to a wealthy family for getting ahead in life are low (Table 8.4).

⁷ The PISA index of economic, social and cultural status (ESCS) was created to capture wider aspects of a student's family and home background than just occupational status. It was derived from the following variables: the highest international socio-economic index of occupational status (HISEI) of the father or mother; the index of highest educational level of parents (HISCED) converted into years of schooling (for the conversion of levels of education into years of schooling); and the index of home possessions, obtained by asking students whether they had certain items at home (OECD 2007).

Country	Getting a good education %	Working hard %	Knowing the right people %	Coming from a wealthy family %	Strength of relationship between science in PISA 2006 and the ESCS %*
Austria	58	44	31	16	15.4
Belgium	63	49	20	5	19.4
Bulgaria	48	39	21	14	24.1
Cyprus	73	46	22	10	
Czech Republic	47	29	31	11	15.6
Denmark	83	43	29	2	14.1
Estonia	67	41	28	3	9.3
Finland	68	54	26	5	8.3
France	59	54	20	5	21.2
Germany (eastern)	73	31	39	8	
Germany (western)	82	27	26	8	19.0
United Kingdom	77	70	21	4	13.9
Greece	54	57	29	10	15.0
Hungary	33	40	29	31	21.4
Ireland	74	60	19	5	12.7
Italy	47	44	33	18	10.0
Latvia	69	15	36	5	9.7
Lithuania	67	23	28	8	15.2
Luxembourg	76	36	23	4	21.7
Malta	76	27	18	5	
Netherlands	61	36	22	2	16.7
Northern Ireland	81	76	17	6	
Poland	57	36	32	12	14.5
Portugal	67	37	20	14	16.6
Romania	50	40	22	18	16.6
Slovakia	49	35	35	7	19.2
Slovenia	61	42	34	4	16.7
Spain	50	50	18	9	13.9
Sweden	67	41	54	3	10.6
Total	61	45	26	10	

Table 8.4: The proportion of those who think that good education, hard work, knowing the right people and coming from a wealthy family are important for getting ahead in life

Source: Eurobarometer 66.3, 2007 and PISA 2006, OECD.

*Percentage of explained variance in student performance.

The regular reports on education in the OECD countries (Education at a Glance) give some figures for the rate of return of each level of education. Interestingly, one finds that, in those countries where the rate of return of higher education is very high, getting a good education is seen as less important in getting ahead (Figure 8.9). The higher the rate of return of education, and the greater the correlation between family background and pupil achievement, the lower the importance that is attached to education for getting ahead in life. This may be explained thus: educated people are relatively scarce in these countries, since people (especially those who are older and less well educated) have traditionally attached less importance to education and are less motivated to learn (see the motivation to learn a foreign language); meanwhile, the greater correlation between socio-economic status and achievement in the areas of competence indicates selectivity of the school system. So, the more selective a school system, the scarcer are the skilled human resources, and the higher the rate of return they can command. Strangely, the more open an education system, the more people regard education as important. This leads to a smaller shortfall in the educated labour force.

Figure 8.9: Percentage of those who think education is important to get ahead in life, internal rate of return of higher education among men and correlation between family background and level of scientific competence of pupils

Source: Eurobarometer 66.3, 2007; PISA 2006, OECD; Education at a Glance, 2008, OECD.



8.5. Conclusion

The map of key competences in Europe is very varied. The level of *natural scientific knowledge* is quite good and fairly even across the socio-economic groups of Northern Europe. It has a good foundation in Central Europe as well, but the gap between people with different levels of education is quite large. The performance of Southern Europe is weaker in this respect. However, scientific notions (or visions) are very divergent and seem to be associated more with the culture and tradition of the countries than with the actual level of knowledge. The inhabitants of Northern European coun-

tries (Germany and Scandinavia) have a coherent approach to scientific advance: they have a coherent point of view, which is in harmony with their competences. Southern Europeans are somewhat incoherent (or confused) as to their notions of science. Central European countries, and especially the post-socialist ones, are sceptical about the effect of scientific developments, despite the fact that their competences are fairly adequate in this field.

As for the ability to speak at least one *foreign language*, the pattern for this competence differs from the scientific competence and the map of Europe is more patchy. Some of the Southern European countries, like Cyprus or Malta, do quite well in this sphere. On the other hand, those nations that have a world language as their mother tongue do not perform so well. It is quite striking to see how low the level is of foreign language speakers in the English-speaking countries. But there are some countries where the situation appears catastrophic. More than a fifth of adults in Portugal, Hungary and Bulgaria do not speak any foreign language and – what is even sadder – do not even want to learn one! If Europe wants to have a knowledge-driven society and economy, there must be open and effective communication among the inhabitants. One of the biggest barriers is the lack of knowledge of a foreign language. Reform of language teaching is taking place in schools, but much less is happening in the field of lifelong learning – in the adult world.

While scientific competence is fairly satisfactory, and while language competence (though generally not so good) is nevertheless high in some countries, it is worrying that the level of familiarity with *economic issues* is very low almost right across Europe (Slovakia and France being honourable exceptions). Without an elementary knowledge of economic issues, Europe's desire to become the most competitive region in the world might well remain but a dream. Much more work and much wider and far-reaching community activity are needed.

Education is regarded as a very important factor for getting ahead in life, as is *hard work*. However the further east we go in Europe, the greater the divergence to be observed in importance factors. Whereas in the Anglo-Saxon world, good education and hard work tend to go together, in Central Europe these factors interact differently or one is regarded as a substitute for the other. This may be because the more selective school systems, the weaker role of the market and the dominance of the state lead to a separation in people's minds between hard work and good education. They may not see that education also means hard work, or they may think that a diploma is just a piece of paper or a passport to the good workplaces, where there is no real feedback later on the quality of performance.

Further results of the WVS show that people in the ex-socialist countries usually disagree that people are paid for their efforts or their skills. Scepticism and fatalism are the real enemies of these societies. Fortunately, there are some good examples showing that this mentality can be changed: Slovenia and particularly Slovakia seem to perform relatively well in the key competences and also nurture positive attitudes towards learning and motivation to undertake learning.

References

- European Commission (2005) *Europeans, Science and Technology*, Special Eurobarometer 224, June, available at: http://ec.europa.eu/public_opinion/archives/ebs/ebs_224_report_en.pdf
- European Commission (2006) *Europeans and their Languages*, Special Eurobarometer 243, February, available at: http://ec.europa.eu/public_opinion/archives/ebs/ebs_243_sum_en.pdf
- European Commission (2007) *European Social Reality*, Special Eurobarometer 273, February, available at: http://ec.europa.eu/public_opinion/archives/ebs/ebs_273_en.pdf
- European Commission (2008) *Europeans' Knowledge of Economic Indicators*, Special Eurobarometer, April, available at: http://ec.europa.eu/public_opinion/archives/ebs/ebs_special_eco_ind_en.pdf
- OECD (2007) *Pisa 2006: Science Competencies for Tomorrow's World*, available at: www.oei.es/evaluacioneducativa/InformePISA2006-FINALingles.pdf
- OECD (2008) *Education at a Glance*, available at: www.oecd.org/document/9/0,3343,en_2649_39263238_41266761_1_1_1_1,00.html