Statistics Finland

Participation in adult education and training in Finland

Adult Education Survey 2000

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Foreword

The Adult Education Survey 2000 is the fourth survey made by Statistics Finland on the subject of participation in adult education and training covering the adult population resident in Finland. The data collection for the first survey was made in 1980, for the second one in 1990 and for the third in 1995. The Adult Education Survey 2000 was financed by the Finnish Ministry of Education and carried out as a joint project between the Ministry of Education and Statistics Finland.

The population for the survey are permanent residents of Finland aged between 18 and 79. A total of 5,000 persons were selected for the sample by systematic sampling. In all, 3,600 interviews were carried out. The data were collected by personal interviews between February and June 2000.

Information about the Adult Education Survey 2000 is also available on Statistics Finland's Internet pages and in the publication On the Road to the Finnish Information Society III.

The researcher group responsible for analysing the research data included: Irja Blomqvist, Helena Niemi, Eeva Nyyssönen and Timo Ruuskanen, who have also written this report. The publication contains information about adults' participation in education and training, studying, willingness to study, need for studying and obstacles to participation. In addition, it describes the organisers, contents, volume and effects of education and training, and adults' self-directed studies, computer use and foreign language skills. The report concludes with a table package containing detailed information and a technical report describing the quality of the research data including an analysis of survey non-response.

I hope this publication will provide material for education-related planning and decision-making as well as stimulate further research. The results will probably bring more information to the ongoing discussion on the meaning of human capital for the economic and social success of society.

Riitta Harala
Director, Population Statistics

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Principal results

Participation in adult education and training increased

The rate of participation in adult education and training by persons aged 18–64 years in 2000 was 54%. This represents almost a doubling of the rate within 20 years and a growth of about 6 percentage points since 1995.

Women were more active in this respect than men and their activity did not decline with age in the same way. The peak participation rate for women occurred in the age range 35–54 years and that for men at 25–34 years. Participation was highest in the urban areas.

Participation in adult education and training was closely dependent on the level of educational attainment, in that the higher the level of education that a person possessed, the greater the likelihood of participation in adult education and training. Analysis in terms of socio-economic group similarly showed those in higher positions at work to participate in adult education and training the most. The differences between the groups representing level of basic education and socio-economic group were more pronounced among the men.

The adults who were at work took part in adult education and training more frequently than those who were unemployed or outside the labour force, 63% having done so in the previous year as compared with 37% and 36%, respectively.

Participation in adult education and training was affected most by socio-economic group, secondly by level of education and thirdly by employment status.

The increase in participation in adult education and training was also reflected in the number of days of attendance during the year. Where the figure in 1990 had been about nine days per head of population aged 18–64 years, it had risen to 11 days in 1995 and to 13 days by 2000.

The women recorded more days of adult education and training per year than the men, and those with a high level of educational attainment more than those with a low level. On the other hand, the unemployed achieved twice as many days of attendance as the working population.

Adult education and training served general interests …

Over half a million people aged 18–64 years in Finland, or 18% of that sector of the population, 24% of the women and 12% of the men, took part in adult education and training out of general interest or because of their hobbies or pastimes during the year in question. These proportions have remained more or less constant since 1980. The main subjects studied for such purposes were fine and applied arts, physical education and foreign languages, and the main places of study were the local adult education centres or institutes.

… and the needs of people's work or occupation

Participation in adult education and training connected with one's work or occupation was nevertheless much more common, involving practically a half of the labour force during the year 2000.

The majority of those who had taken part in adult education and training for their work or occupation had received support from their employer, i.e. this could be regarded as employer-sponsored training. This involved 56% of the employees in the year in question, with participation again being affected by the person's socio-economic group and basic education, although also by the size of the establishment at which he/she worked. The larger the company, the greater the proportion of its employees received employer-sponsored training.

The number of days of employer-sponsored training per employee had risen markedly between 1995 and 2000, from 5 to almost 7.

Adults also undertook self-directed studies

One in five of the population aged 18–64 years had studied independently, outside the formal education system, for at least 20 hours during the year, the young people, those with a high level of educational attainment and those of high socio-economic group doing so to a greater than average extent. The content of this study was mostly information technology.

Opportunities at work to apply the knowledge learned and solve problems together

The majority of those who were at work felt that they had plenty of opportunities to use the new knowledge and skills that they had learned and to develop their own abilities and professional competence. Only 14% were of the opinion that they needed more training in order to cope with their work properly. Most people had resolved problems with the help of their colleagues and experts on hand at their place of work, but a half of those who had encountered problems had also resorted to outside experts, further training or the professional literature.

Over half of the adults needed further training …

Over a half of the respondents aged 18–64 years indicated that they needed adult education and training of a kind that would enhance their professional skills and advance their career. This applied particularly to training in information technology, which was mentioned as necessary by 27%. Instruction in languages and business economics were mentioned the next often. Every second respondent indicated an intention to participate in training during the coming year, this being greatly influenced by the perceived need for training and participation during the preceding year.

… but awkward working hours and pressure of work were often barriers to this

The most common obstacles preventing or interfering with adult education and training at the person's own expense in his or her leisure time were tiredness and financial considerations, although the most powerful individual barriers arose in the form of awkward or irregular working hours. Likewise, a major barrier to employer-sponsored training arranged by the employer in working time was felt to be pressure of work.

Three fourths of the adult population had used a computer

It was found that 69% of the population aged 18–64 years had used a computer within the last year and a half within the last two days. Altogether 74% had used one at some time, at work, at home or elsewhere.

The young people, those with a high level of basic education, the white-collar employees and the students made the most use of computers. Computers had been used most frequently for text editing, although almost as often for searching information from the information networks and for communicating by e-mail.

The main ways in which the adults had learned to use a computer were by themselves through trial and error, and with the help of colleagues, friends or family members.

Four fifths of the adults claimed knowledge of a foreign language

Four out of every five respondents aged 18–64 years claimed at least some knowledge of one or more foreign languages. Almost two thirds mentioned two languages,

a third at least three and 13% at least four. The best knowledge was claimed by the young people, the women and those with the highest level of basic education.

English was the most common foreign language and the best known, with almost three fourths of the adults able to speak it to some extent. The second most common was Swedish and the third German.

A fifth of the respondents stated that they needed teaching in foreign languages, while only 6% had actually received such teaching over the past year and 3% had studied languages by themselves.

About 12% of the population aged 65–79 years participated in adult education

About 12% of the respondents aged 65–79 years said that they had participated in adult education during the last year, with no difference between the men and women. The great majority had attended courses at adult education centres or institutes connected with their own hobbies or interests, the most popular subjects being fine and applied arts and physical education.

The most serious barriers to participation in this age group were health and age problems and lack of interest.

1 Introduction

Emphasis on the philosophy of lifelong learning

The turn of the millennium has been a significant milestone both in Finland and internationally for the shaping of adult education policy and for the development of adult education statistics. The Parliamentary Working Group on Adult Education completed its work at the end of January 2002 and submitted a report to the Ministry of Education containing a national strategy for adult education policy over the period 2002–2010 based on the notion of lifelong learning (Ministry of Education 2002a). Further work on preparing for implementation of the main proposals had begun in separately appointed working groups at the stage when opinions were still being gathered on the report itself.

One strategic goal that the European Union has set for itself, initially at the meeting of the European Council in Lisbon in March 2000, with ratification at the Stockholm meeting in March 2001, is that it should become the most competitive and most dynamic information-based economy in the world, and it has also declared that one of the key concepts in achieving this goal will be that of lifelong learning. This is emphasised as a means of improving member nations' competitive capabilities and levels of employment, and at the same time of preventing alienation from society and promoting active citizenship and personal development (EU 2001).

The *Memorandum on Lifelong Learning* published by the European Commission in November 2000 is based on conclusions reached during the European theme year in 1996 and on experiences gained at the European level and in member countries. The memorandum led to an extensive pan-European programme of hearings and discussions involving not only European organisations but also the relevant national instances. The results of these broad-based discussions were summed up in a further European Commission publication issued in November 2001 entitled *Making a European Area of Lifelong Learning a Reality* (EU 2000, 2001).

The relevant EU documents share the unanimous opinion that knowledge and expertise are in a key position as far as the economic growth and competitiveness of nations are concerned, and the significance of the accumulation of human capital for the success of information and knowledge societies is emphasised in numerous connections. The principle of lifelong learning entered the discussion in precisely this context, but the emphasis has also shifted somewhat towards non-economic justifications for this philosophy as well. Apart from the skills required in our work, importance has also been attached to knowhow that can promote our functioning in social networks and can be regarded as essential to our activity as citizens and the proper workings of democracy. The OECD is another international organisation that emphasises the importance of both human and social capital for the welfare of nations (Committee Report 1997:14; EU 2000; OECD 2001a, 2001b).

Lifelong learning assigns a central role to learners, their motivation and their abilities to learn, and this concentration on the learner has shifted the demand for survey data away from data on the education system and towards data on individual learners.

The European statistical authority Eurostat put forward a proposal in April 2002 for a data acquisition system for compiling statistics on learning among adults throughout the EU over longer intervals in time, at the core of which would be regular execution of the Adult Education Survey (EU-AES), directed at individuals, and the Continuing Vocational Training Survey (CVTS), concerned with staff training arranged and paid for by companies. In addition to these two surveys, intended to be carried out in 2006 and 2011 (AES) and 2005 and 2010 (CVTS), the programme also contained a proposal for more restricted data acquisition modules to be included in

the household surveys conducted in the intervening years. Such a system would guarantee a supply of data on participation in adult education and training and the volume of such participation in every year up to 2011, and possibly a more extensive evaluation of the impact of the lifelong learning strategy in 2008 (EU 2002).

The OECD has also devoted considerable resources to the gathering of information on adult learning and participation in education. An investigation was commenced in 1999 into the adult education policies of nine countries, including Finland, where the Ministry of Education published a national report on the state of adult education, prepared for the benefit of the OECD experts and their subsequent evaluation of the strengths and weaknesses of the adult education system. The OECD itself will issue a final comparative report on adult education in all nine participating countries by the end of 2002 (see Ministry of Education 2002b).

Work on developing a Continuing Education and Training (CET) module began in 2001 under the direction of the OECD, with the intention of producing a proposal regarding relevant issues in adult education, data acquisition techniques and survey procedures. A report representing the outcome of the first stage in this work is due to be completed by autumn 2002.

Adult Education Survey 2000

The Adult Education Survey 2000 is the fourth survey to be carried out by Statistics Finland into participation in education by the country's resident adult population. Data for the first such survey were gathered in 1980, for the second in 1990 and for the third in 1995. The 2000 survey was a joint project financed by the Ministry of Education.

One aim of the Adult Education Survey of 2000 was to produce results capable of being compared with those of its predecessors in 1990 and 1995 while at the same time enabling the principal indicators to be compared with those of similar surveys carried out in other countries (see, for example, Statistics Canada 2001). A further aim was to provide information that would permit the evaluation of lifelong learning, in which the emphasis would be on describing the degree to which the adult population participates in such education and its distribution in this respect.

The basic population considered for this purpose was that of persons aged 18–79 years permanently resident in Finland. The data were collected in February – June 2000 by means of personal interviews, yielding a response rate of 74%. More detailed accounts of the data acquisition techniques, the nature of the resulting material and the subsequent processing of this are provided in the Technical Report at the end of this volume. The questionnaire form has been published separately.

Definition of adult education

The Adult Education Survey 2000 set out to examine participation in education as a whole by persons in the defined age range and not only participation in adult education and training. Thus participation was examined over the whole of the respondent's life, including the person's level of formal schooling, involvement in training courses arranged by a place of work or professional organisation and courses attended abroad. More detailed information was then elicited on the adult education that the respondent had received during the 12 months prior to the interview, defined according to the organisation providing it.

All study modules in which the respondent had participated for at least six hours were recorded, including ones that had never been completed. Education itself was defined in this context as activity especially arranged and organised for the purpose of bringing about learning, typically taking place according to a predefined curriculum or syllabus and having an identifiable provider or responsible instructor. Regular following of educational radio or television programmes was also counted, similarly

participation in conferences, seminars or the equivalent, although none of these was subject to the same detailed questioning as in the case of adult education as such.

Respondents were presented with a list of educational organisations from which they were to choose the forms of education in which they had participated in the preceding 12 months or prior to that. The list was intended to jog their memories regarding events in which they might have participated, so as to reduce memory-related error. As a certain amount of over-reporting also tends to occur in surveys of this kind, as people wish to give replies that are socially acceptable, respondents were allowed to report having taken part in educational courses or events earlier although not in the last 12 months.

Since the hope was to obtain as detailed information as possible on all the adult education courses and events that the respondents had attended within the last 12 months, they were asked about the content of each, the provider, whether it had been arranged by an employer or professional organisation, whether it was connected with some position of trust or with a hobby or pastime, or whether it was a matter of general education purposes, and similarly about whether it had taken place in working time or in the respondent's own time, who had paid for it and how many days (or hours) this instruction had taken up in the last 12 months.

In view of the repetitive nature of the questionnaire and the resulting burden on the respondent, the questions about the effects of the instruction, qualifications obtained by virtue of it, reasons for taking part and on whose initiative it was undertaken were focused on only one randomly chosen course or event. The procedure for choosing this course and its reliability were tested prior to the data acquisition phase.

The questionnaire also asked about self-directed studies, i.e. purposeful study undertaken by the respondent outside the sphere of organised, formal education. The questions on this had been elaborated for the purposes of the 1990 Adult Education Survey, although not specifically as measures of informal learning. They were intended to apply only to purposeful study lasting a minimum of 20 hours.

Content of this publication

The main emphasis in this report is on the description of participation in adult education and training and the structures of such participation (Chapters 2 and 3), i.e. the extent to which the whole population and various sectors of the population may be said to participate in adult education in general and in job or occupation-related adult education and training and in in-service training in particular. Attention is also paid to self-directed studies (Chapter 4) and to features of job descriptions that are connected with study (Chapter 5).

Results regarding adults' information technology skills are presented in Chapter 6, such skills being restricted in this context to the frequency of use of a computer for various purposes (website data searches, reading online magazines, text editing, sending and receiving of emails, etc.).

Respondents to the questionnaire were also asked to evaluate their own language skills on the basis of the 6-point European Council scale, which was adapted to a suitable form for use in the interviews. These results are given in Chapter 7.

Chapters 8 and 9 are concerned with the perceived benefits of adult education and training, the need for it, intentions to participate in it and barriers to participation.

The data presented in Chapters 2–9 are based on a population of adults aged 18–64 years, partly in order to facilitate comparison with earlier material on adult education, which was restricted to this age range and did not include data on persons aged over 64 years at all. Chapter 10 is then devoted to adult education and learning experiences in the 65–79 year age group.

No international comparisons of participation in adult education and training are included in this report, as information of this kind has been published elsewhere. Rel-

atively recent data on proportions of the adult population participating in education and the volume of this participation, based on internationally comparable material, have been presented in the Ministry of Education publication *Suomen aikuiskoulutuspolitiikan teematutkinta* (2002) (A thematic survey of Finnish adult education policy) and in the book *Curious Minds: Nordic Adult Education Compared*, edited by Tuijnman and Hellström (2001). Both of these are based on the OECD (Second) International Adult Literacy Survey. The definitions of adult education used in that survey deviate somewhat from those used in the Adult Education Survey 2000, however, so that the proportions of the population participating in education as quoted here cannot be compared directly with the OECD figures. On the other hand, the structures of participation and the distribution among sectors of the population can be compared between countries. The reader can easily perceive from the later chapters of this report that scarcely any changes in the structures of participation have taken place in Finland since 1998, the year in which the OECD Second International Adult Literacy Survey was conducted.

The numbered chapters in this report are followed by a description of the concepts and classifications employed and a technical account of the material. Finally, the report carries an Appendix consisting of 28 statistical tables.

2 Participation in adult education and training in 2000

2.1 Extent of participation and its structure

Rate of participation and the distribution within the population

Almost 1.8 million Finns engaged in adult education and training.

Almost 1.8 million people aged 18–64 years in Finland took part in education or training arranged specifically for adults in the year 2000, representing some 54% of the population in this age group.

Women more active than men.

Women participated in adult education and training more frequently than men, with 59% of those in the adult age group doing so in the year in question, amounting to virtually one million women, while the participation rate for men was ten percentage points lower, 49%, or approximately 800,000 men.

The highest rate of participation was achieved in the age group 25–44 years, where two thirds of the population were involved (Figure 2.1.1), and the lowest in the age group 55–64 years, only one third. About every second person aged under 25 years took part in adult education and training.

Women's participation did not decline with advancing age as sharply as men's participation.

Advancing age had less effect on the education habits of women than of men in this population, in that it was the 35–44 year and 45–54 year age groups that were most active in the case of the women, both having about two thirds participating in some form of adult education, whereas the most active male group was that aged 25–34 years, with 64% participating (Figure 2.1.2). The lowest participation rate for both genders was recorded in the 55–64 year age group, about 40% for women and about 25% for men.

Women undertook adult education and training more frequently than men in all age groups apart from 25–34 years, the differences in favour of the women being greatest at the ages of 45–54 years, 55–64 years and under 25 years.

The differences in participation rates were greater among the men than among the women, the proportion in the best age group, 25–34 years, being more than twice that in the poorest, 55–64 years, whereas the proportions for the women remained more or less constant up to the age of 55 years.

Higher participation rates among those with the highest level of initial education.

Participation in adult education and training was closely tied to the level of initial education received (Figure 2.1.3), so that where three fourths of those who had achieved a tertiary qualification had taken part in adult education courses or events during the year 2000, this applied to only just over a third of those with less than upper secondary education and about a half of those with an upper secondary qualification.

Nevertheless, the women in the latter two groups still took part in adult education and training more readily than the men (Figure 2.1.4), over a half of those with an upper secondary education compared with well under a half of the men, and about 43% of those with primary or lower secondary education as compared with 32% of the men.

As in the case of age, the differences in participation rate between the categories of initial education were greater among the men than among the women.

White-collar employees and full-time students make most use of adult education services.

The socio-economic category with the highest participation in adult education and training was that of the upper white-collar employees, more than four out of every five having taken such courses in 2000 (Figure 2.1.5). These were followed by the lower white-collar employees and the full-time students. These results were entirely consistent with those of the examination in terms of initial education, since three fourths of those who had tertiary education were either upper or lower white-collar employees. Correspondingly, about a half of those who had only primary or lower secondary education were either blue-collar workers or receiving a pension, the two socio-eco-

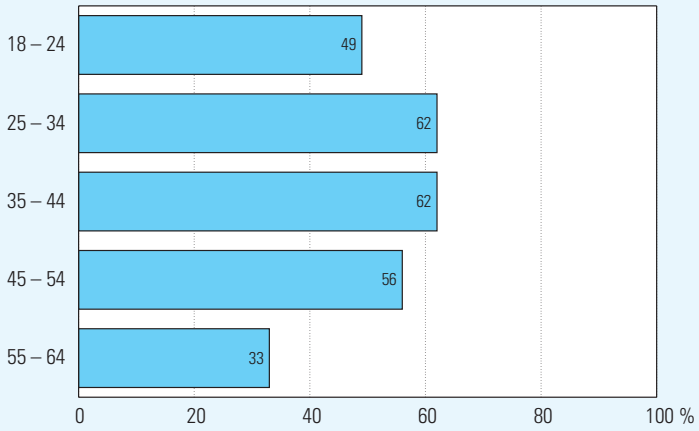


Figure 2.1.1
Participation in adult education and training by age in 2000 (population aged 18–64)

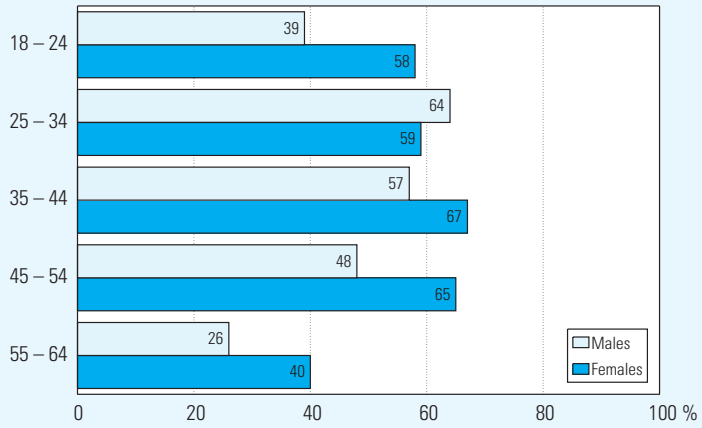


Figure 2.1.2
Participation in adult education and training by age and gender in 2000 (population aged 18–64)

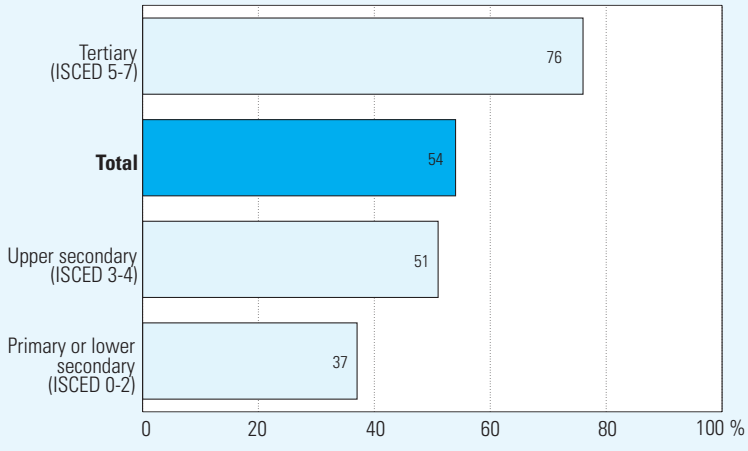


Figure 2.1.3
Participation in adult education and training by highest level of educational attainment in 2000 (population aged 18–64)

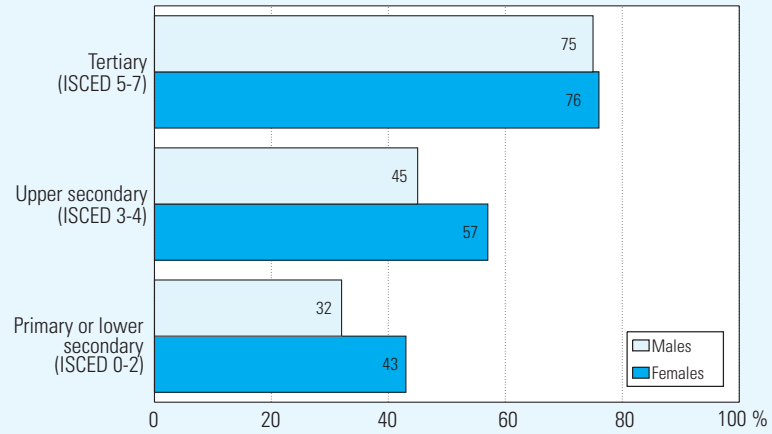


Figure 2.1.4
Participation in adult education and training by highest level of educational attainment and gender in 2000 (population aged 18–64)

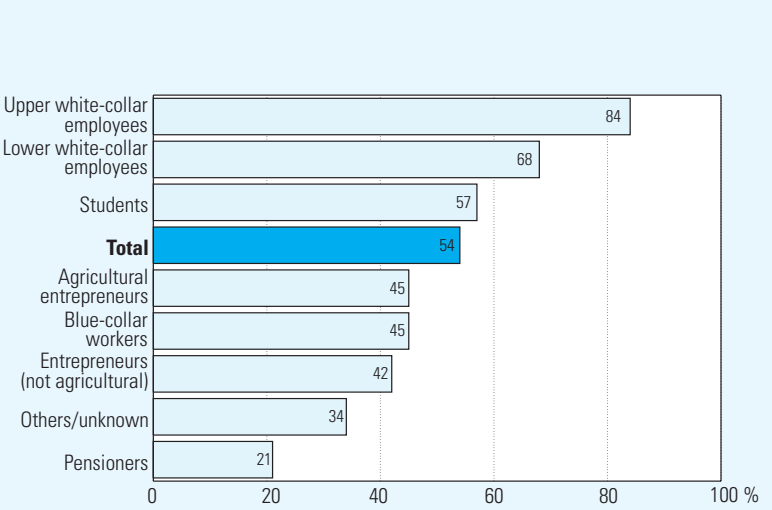


Figure 2.1.5
Participation in adult education and training by socio-economic group in 2000 (population aged 18–64)

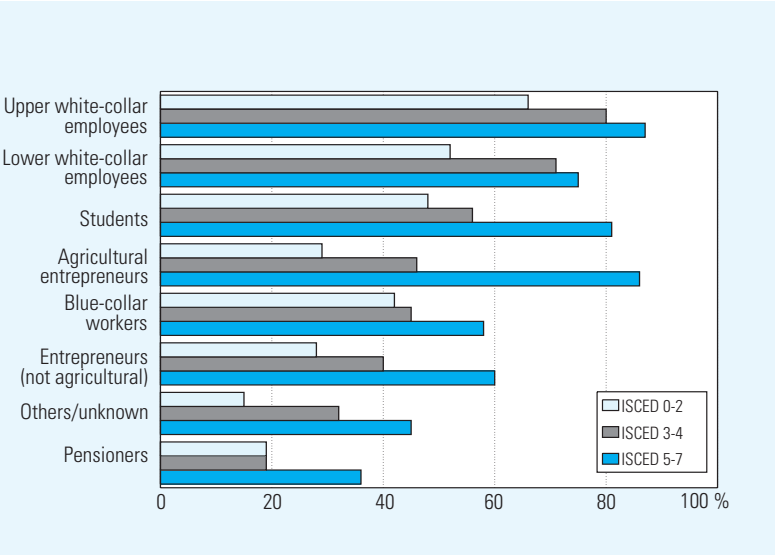


Figure 2.1.6
Participation in adult education and training by socio-economic group and highest level of educational attainment in 2000 (population aged 18–64)

nomic groups with the lowest adult education participation rates, less than half and only one in five, respectively.

The pattern of participation according to socio-economic category remained the same even when allowance was made for the level of initial education, however, in that those with high level of education participated in adult education more frequently than those with low level of education in every socio-economic category (Figure 2.1.6).

Women were found to participate in adult education more frequently than men in three of the socio-economic categories: students, entrepreneurs (not agricultural) and pensioners (Figure 2.1.7). In all the other cases the differences were not statistically significant. The greatest discrepancy between the genders in this respect was found among the pensioners, as is consistent with the above analysis by age groups. Here the women participated about twice as frequently as the men.

The difference between the genders also behaved in the same manner as for the other background variables considered above, in that a higher socio-economic group influenced participation in adult education and training more among the men than among the women.

A much higher proportion of employed persons than unemployed in adult education and training.

Persons who were employed took part in adult education more often than did those who were unemployed or outside the labour force (students, conscripts, pensioners or home makers), the figures being 63% for the employed population, 37% for the unemployed and 36% for those outside the labour force.

The women in all three of these groups attended adult education more often than the men (Figure 2.1.8).

Within the employed population the highest rates of participation, around two thirds, were achieved in the age groups 25–54 years, as compared with over a half of those under 25 years or 55–64 years of age (Figure 2.1.9). The most active group among the unemployed was that aged 25–34 years, almost a half of whom had been engaged in adult education in the course of the year, whereas only a fifth of those in the oldest age group, 55–64 years, had done so. About a half of those outside the labour force in the 18–44 year age groups had participated in adult education.

Participation was less tied to age among the working population than among the unemployed and those outside the labour force. This finding concerning the population outside the labour force was obviously influenced by the fact that the students raised the proportion in the younger age groups while the pensioners lowered it in the older age groups.

The pattern of participation according to employment situation remained more or less unchanged even when allowance was made for the level of education (Figure 2.1.10), although it was the well-educated in all three categories, employed, unemployed and outside the labour force, who were the most active. The effect of initial education was least marked in the case of the unemployed, where it was not statistically significant, but this was partly attributable to the small number of unemployed persons in the sample.

One interesting observation is that the proportions of unemployed persons and those not belonging to the labour force but having tertiary education who participated in adult education were only slightly higher than that of the employed persons with less than upper secondary education who did so. In other words, employment had a greater effect on participation in adult education and training among those with tertiary education than among those with an upper secondary qualification or less than upper secondary education.

Highest participation in urban municipalities, lowest in rural districts.

The inhabitants of urban municipalities[1] were engaged in adult education more frequently than those of other types of local government district, the lowest proportion, about a half, being recorded for the rural districts.

1 The municipalities are divided for statistical purposes into three types on the basis of population and the proportion of inhabitants living in built-up areas: urban, semi-urban and rural. For more details, see Concepts and Classifications.

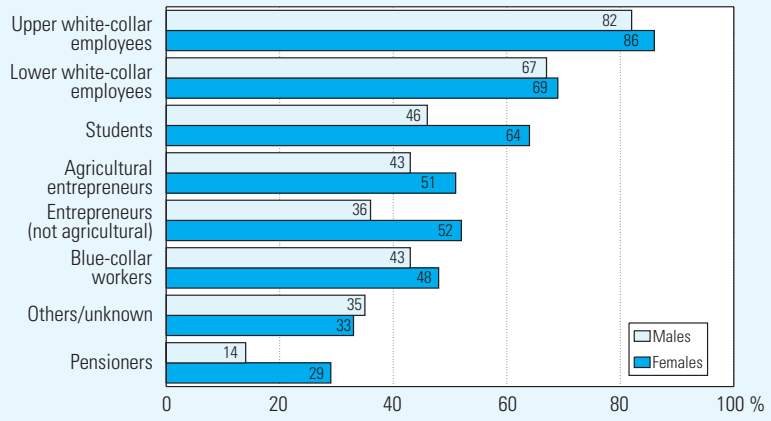


Figure 2.1.7
Participation in adult education and training by socio-economic group and gender in 2000 (population aged 18–64)

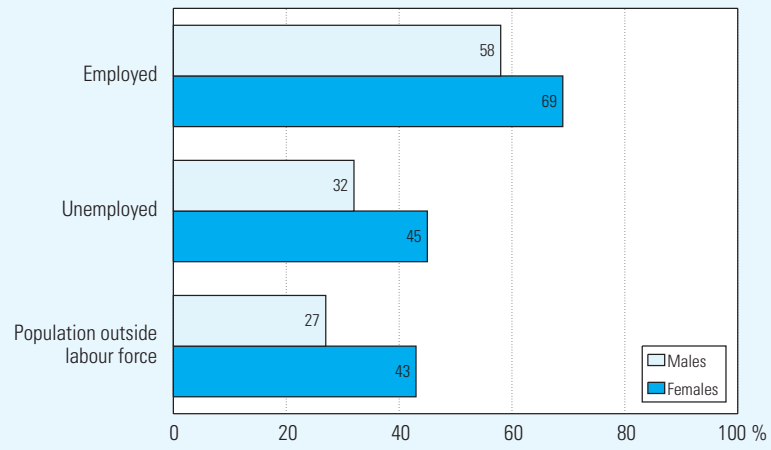


Figure 2.1.8
Participation in adult education and training by labour market situation and gender in 2000 (population aged 18–64)

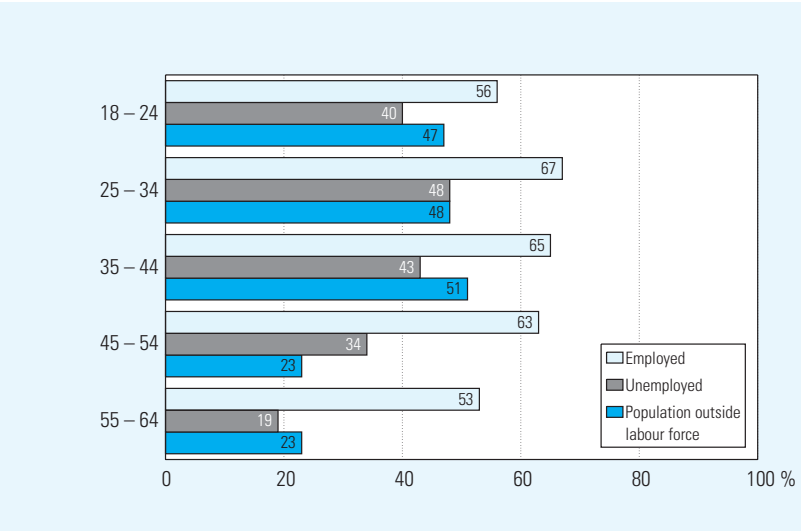


Figure 2.1.9
Participation in adult education and training by age and labour market situation in 2000 (population aged 18–64)

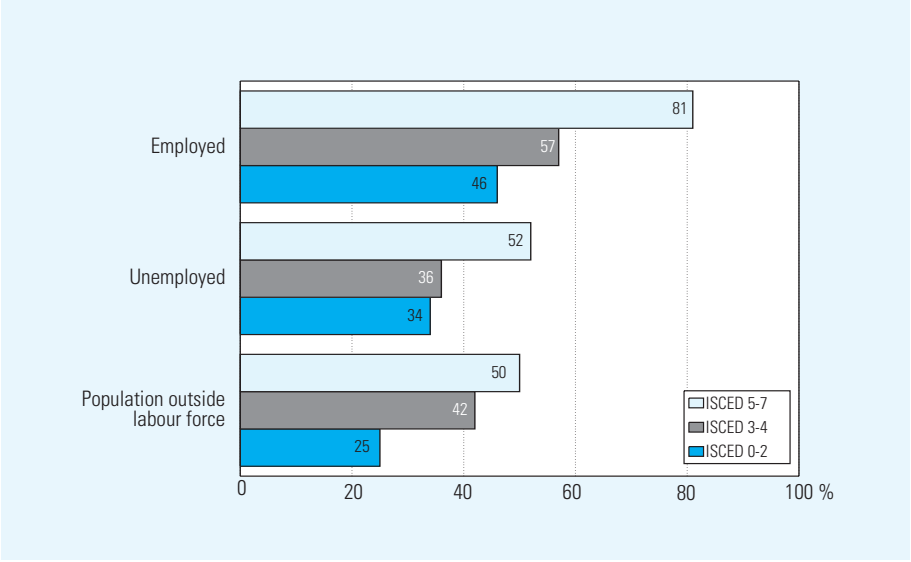


Figure 2.1.10
Participation in adult education and training by labour market situation and highest level of educational attainment in 2000 (population aged 18–64)

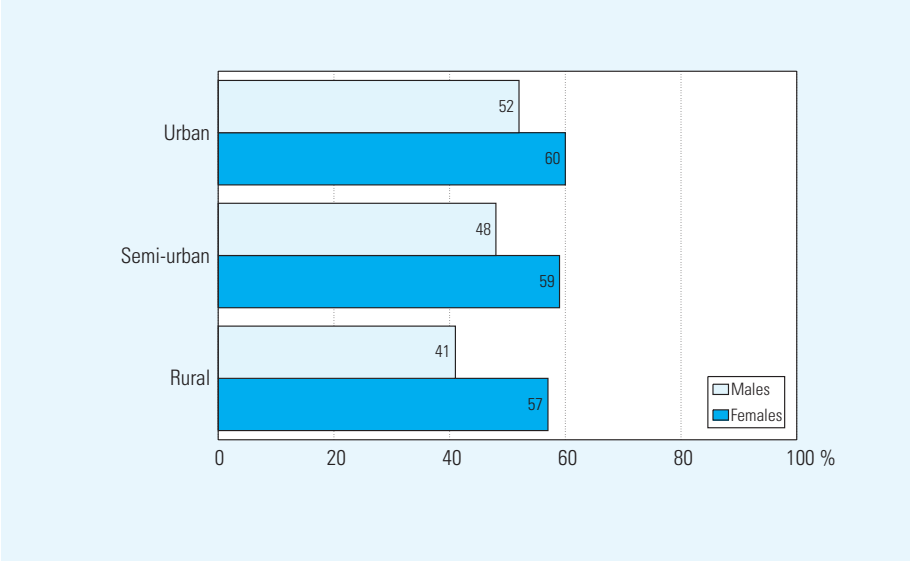


Figure 2.1.11
Participation in adult education and training by type of municipality and gender in 2000 (population aged 18–64)

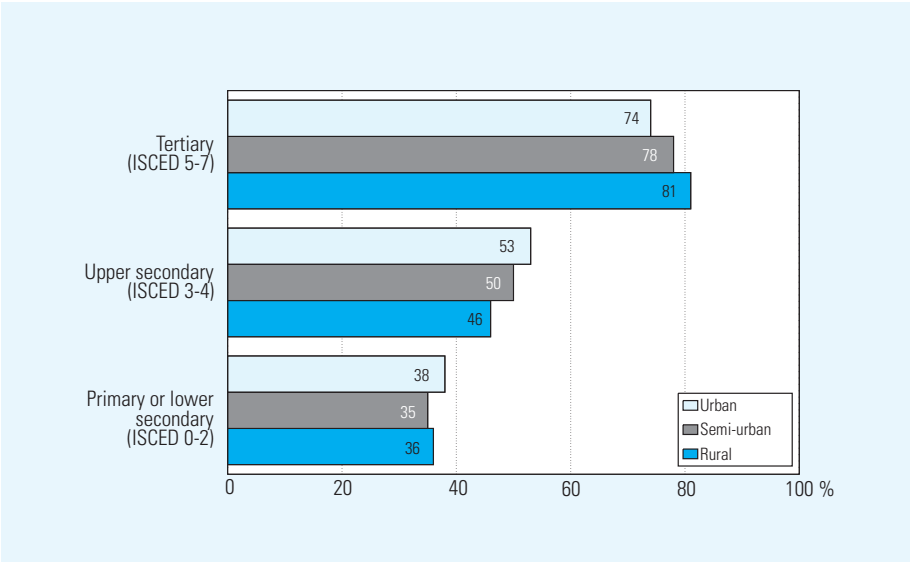


Figure 2.1.12
Participation in adult education and training by highest level of educational attainment and type of municipality in 2000 (population aged 18–64)

More women than men participated in adult education in all three types of municipality (Figure 2.1.11), the largest difference, 16 percentage points, being observed in the rural districts. The type of municipality did not in fact affect participation by the women at all, the proportion being about six out of every ten in all types, whereas the men living in urban municipalities participated more commonly than those in semi-urban or rural ones.

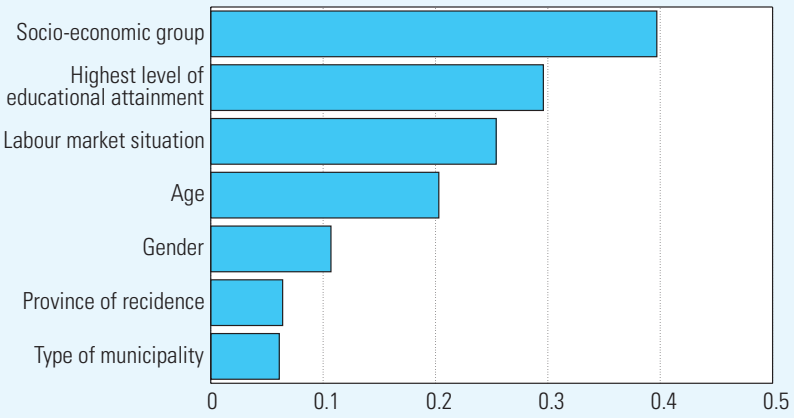
Socio-economic and educational structure of the municipality is reflected in participation rates of adult education.

The urban municipalities had a higher proportion of well educated people among their inhabitants than did the semi-urban ones, and the rural districts had a still lower proportion. These differences inevitably affected the pattern of adult education in the three types, to the extent that the differences disappeared once the figures were standardised for the length of initial education (Figure 2.1.12). This implies that the probability of a person with a certain level of initial education attending adult education was the same regardless of the type of municipality in which he or she lived.

The same was also true of standardisation for socio-economic group, as the proportions no longer differed statistically between the types of municipality when considered in terms of separate socio-economic categories. Thus, the upper white-collar employees participated in adult education equally frequently in the urban, semi-urban and rural types of municipality.

Participation explained best by socio-economic group and the level of initial education.

Analysis of the dependence of participation in adult education and training on the various background variables in terms of the Cramer V coefficient showed it to be dependent above all on socio-economic group (Figure 2.1.13), secondly on the level of education and thirdly on the individual's employment situation. The variables describing place of residence, i.e. province and type of municipality, did not have such a powerful effect.



Cramer V=1 or -1, completely dependent; Cramer V=0, variables completely independent. Coefficient values with high absolute values indicate that the variables are mutually dependent.

Figure 2.1.13
Dependence of participation in adult education and training on various background variables (Cramer V coefficients).

Participation in adult education and training by provider and content

Training at the workplace the most common form.

Training arranged by the respondent's employer, at the place of work or elsewhere, or by an commercial training organisation was the most common form of adult education reported. More than a third of the Finns aged 18–64 years can be assumed to have studied in this way at their place of work or at a separate training enterprise, including attendance at seminars and conferences (Table 2.1.1). This implies that providers of events and courses of this kind will have catered for more than a million people during the year. The next most frequently attended forms of adult education were those provided by vocational schools and colleges and by adult education centres, each attracting about one respondent in every ten, i.e. some 400,000 people on a national scale. About 8% of the population aged 18–64 years may be assumed to have taken part in some form of education or training arranged by an organisation, association or society during the year.

Adult education centres attracted women more than men.

Where the courses and events arranged at places of work or by commercial training organisations or vocational schools and colleges were attended by approximately equal proportions of men and women, those arranged by adult education centres, comparable organisation, association and societies, universities or summer universities attracted more women than men (Table 2.1.2). This was particularly true of the adult education centres, in which the participation rate of women was more than three times as high as the rate of men.

Most of the training concerned information technology.

A substantial proportion of the adult education courses and other events reported were connected with the use of information technology (Table 2.1.3). One fourth of all the participants in adult education received instruction in this field. The next most popular topics were the health care and management skills, while foreign languages attracted about one in ten of the participants in adult education during the year.

2.1.1 Participation in adult education and training by provider in 2000 (population aged 18–64)

Provider	No. in total population	%
Place of work or training enterprise (incl. conferences)	1,139,000	35
Vocational school or college	413,000	13
Adult education centre	353,000	11
Organisation, union or association	270,000	8
University adult education department or summer university	153,000	5
Other adult education	196,000	6

NB. The sum of these figures does not yield the total number of people participating in adult education, as the same person may have been involved in more than one form.

2.1.2 Participation in adult education and training by provider and gender in 2000 (population aged 18–64)

Provider	Males %	Females %
Place of work or training enterprise (incl. conferences)	34	35
Vocational school or college	12	13
Adult education centre	5	17
Organisation, union or association	6	10
University adult education department or summer university	3	7
Other adult education	5	7

NB. The sum of these figures does not yield the total proportion of people participating in adult education, as the same person may have been involved in more than one form.

2.1.3 Content of adult education attended in 2000 (population aged 18–64)

Content	% of participants
Use of information technology	26
Health care	14
Management skills	14
Fine and applied arts studies	13
Business, marketing and administration	12
Services, work safety, security	12
Physical education, sports coaching	11
Technology, production, construction, product development	11
Foreign languages	11
Law, social and behavioural sciences	9
Other subjects, total	16

NB. The sum of these figures does not add up to 100%, as the same person was calculated as many times as he/she had different subject contents.

Study abroad

A couple of per cent studied abroad during the year.

Almost 60,000 Finns studied abroad at some time during the year 2000, equivalent to about 2% of the population aged 18–64 years. About 60% of these were women and about 40% men. Nearly half a million people, or 15% of the total population, can be assumed to have studied abroad at some time in their lives.

The most common form of study abroad was the learning and practising of foreign languages (Table 2.1.4), involving almost one fourth of the total, followed by business studies, marketing and administration, the last-mentioned accounting for less than a fifth of the cases. Only 8% had been studying information technology.

2.1.4 Content of adult education attended abroad in 2000 (population aged 18–64)

Content	% of participants
Foreign languages	23
Business, marketing and administration	19
Technology, production, construction, product development	11
Health care	10
Use of information technology	8
Humanities and aesthetics	6
Fine and applied arts studies	5
Other subjects, total	21

NB. The sum of these figures does not add up to 100%, as the same person was calculated as many times as he/she had different subject contents.

2.2 Volume of participation

Days of adult education and indicators of volume

The rate of participation in adult education and training serves only partially to describe the phenomenon, as it is also necessary to measure its intensity. This may be done in terms of the number of days spent on such activities. There were many respondents who attended adult education events only for one or two days in the year, whereas others devoted more than 200 days to this. The scatter in the number of days spent was large and the distribution highly skewed, so that the median value was regarded as a better indicator of the average situation than was the arithmetical mean. Other measures used in connection with this discussion of the volume of participation will be the lowest and highest quartiles, i.e. the values which define the bottom and top 25% of the data items, the quartile interval, i.e. the difference between these two values, and the mode, i.e. the value which occurs most frequently in the distribution.

Number of days per participant

Wide variation in the number of days of adult education and training.

The median number of days of adult education received by those who participated in this in 2000 was eight, i.e. 50% of the respondents who had had attended some form of adult education during the year had done so for at least eight days. A fairly large proportion of these people had received only a small amount of such education, however, as the mode was one day (as many as 10% of the respondents had had only one day of attendance), and the lowest fourth had received no more than three days. At the other extreme, the fourth who had attended for the longest time during the year had received at least 21 days of instruction.

Women spent a longer time on adult education than men.

Not only did more of the women attend adult education than of the men, but they also received more education of this kind, their median number of days being 9.5 as compared with 8 for the men. The boundary value for the upper quartile was 23 days for the women and three days less for the men.

Young people attended for long periods.

The younger age groups received more adult education than the older ones (Figure 2.2.1), the difference being particularly large in the upper quartile, which began at 60 days in the age group 18–24 years but at only 16 days among the 55–64-year-olds. The numbers of people attending adult education and training many days in any case decreased towards the upper age groups. On the other hand, no differences were detectable at the lower end of the scale, i.e. the various age groups all had about the same proportion of their members attending for just a few days.

Those with a high level of educational attainment also had more adult education.

The respondents who had received less than upper secondary degree similarly received less days of adult education than those who had an upper secondary or tertiary qualification (Figure 2.2.2), with a median of 6 as compared with 8 and 10 respectively. There was no essential difference in the end between the latter two groups, however, for although those with tertiary education had a slightly higher median value, a greater proportion of those with an upper secondary qualification had figures higher than 20 days.

Full-time students also received many days of adult education.

The full-time students also spent a very much greater number of days engaged in adult education and training than did the people in the other socio-economic categories, a fourth of them putting in 120 days or more. Other groups to have a higher than average intensity of adult education and training were the pensioners, the group labelled "others" and the upper white-collar employees, although the value for the upper quartile of the last-mentioned group was no higher than for the total population. The smallest variation in the number of days of adult education and training was found among the agricultural entrepreneurs, a half of those who had participated at all did so for between 4 and 13 days.

Unemployed had long spells of adult education and training.

The unemployed and those outside the labour force spent cleary more time on adult education and training than the employed population (Figure 2.2.3), the upper fourth of

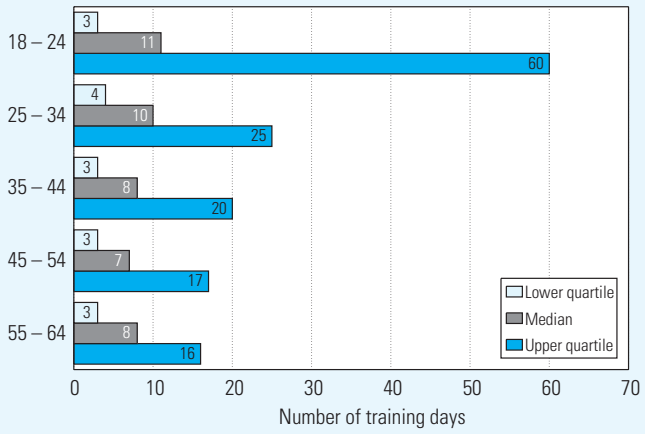


Figure 2.2.1
Number of training days per participant by age in 2000 (population aged 18–64 attending adult education)

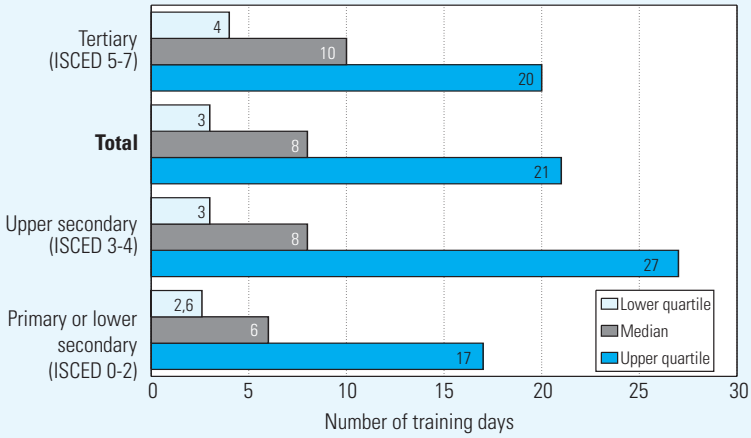


Figure 2.2.2
Number of training days per participant by highest level of educational attainment in 2000 (population aged 18–64 attending adult education)

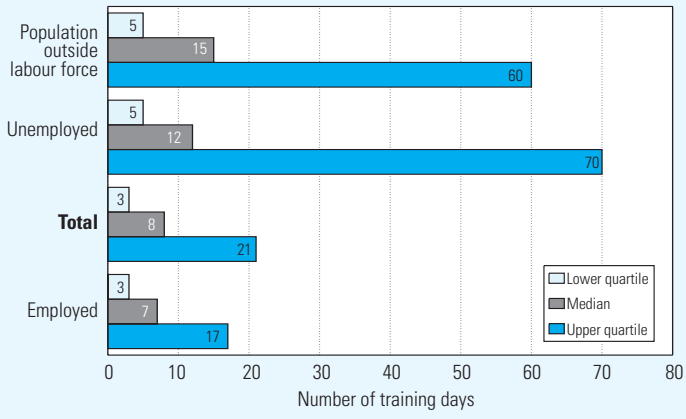


Figure 2.2.3
Number of training days per participant by labour market situation in 2000 (population aged 18–64 attending adult education)

the unemployed group spending at least 70 days on this and that of the group outside the labour force 60 days, while the figure for those in employment was only 17 days. The median value for the employed group was also lower than for the others.

Inhabitants of urban municipalities spent the longest time on adult education and training.

The respondents living in urban municipalities studied for more days in the year than the other respondents on average (Figure 2.2.4), their median value being nine days, while that for the rural districts was eight days and that for the semi-urban districts seven days. There were also differences in the upper quartile, where adult education and training had taken up 24 days in the urban municipalities but very much less time, only 17 days, in the semi-urban municipalities.

Adult education and training days per person

It is also possible to approach the question of the number of training days by calculating the expected value for the number of days either for the whole sample or for the categories of a particular background variable. The expected value for any given group i maybe obtained from the following equation:

*Expected number of days in adult education for category i = (number of participants in category i / total population in category i) * mean number of training days of adult education for participants in category i*

Mean duration of adult education and training in the year 13 days per person.

As the arithmetical mean of the number of days in adult education and training per participant was just under 25 days and the proportion participating 54%, we obtain a figure of 13 days for the duration of adult education and training per person in the age range 18–64 years.

Separate calculations for the genders also show that women had a higher expected value in this sense than men, 15 days vs. 10 days.

The younger the age group in question, the higher the number of days of instruction per person (Figure 2.2.5), the differences between the age groups being greater than for the rate of participation alone. Thus a member of the lowest age group, 18–24 years could be expected to have received 20 days of adult education in 2000, as much as five times the figure for the age group 55–64 years. Consequently, although the proportion of the youngest age group taking part in adult education and training was lower than that of many other age groups, the long duration of the courses involved ensured that they received more education of this kind than any of the others.

Adult education and training days concentrated in the well-educated.

As those who had received the highest level of education both participated in adult education and training more commonly than those with less basic education and did so for more days in the year, their expected value for the volume of participation stood out still more clearly from those of the latter groups (Figure 2.2.6). Thus, where the average volume per person aged 18–64 years with less than upper secondary education only was 7 days, that for the group with tertiary education was more than twice this figure, 16 days.

It is apparent from the present calculations that students over 17 years of age in Finland undertook an average of 33 days of adult education and training in the course of the year 2000, making them overwhelmingly the most active of the socio-economic groups in this respect. The figure for the upper white-collar employees was less than half of this, and the other groups were much further behind. The lowest figure, for the pensioners, was only a tenth of that for the students, and the figure for entrepreneurs was also well below the average for the total population.

Unemployed had twice as much adult education and training as the employees.

The average number of adult education and training days per unemployed person in Finland in 2000 was 19 (Figure 2.2.7), implying that these people received almost twice as much education of this kind as those who were at work. The figure for persons outside the labour market was approximately 15 days.

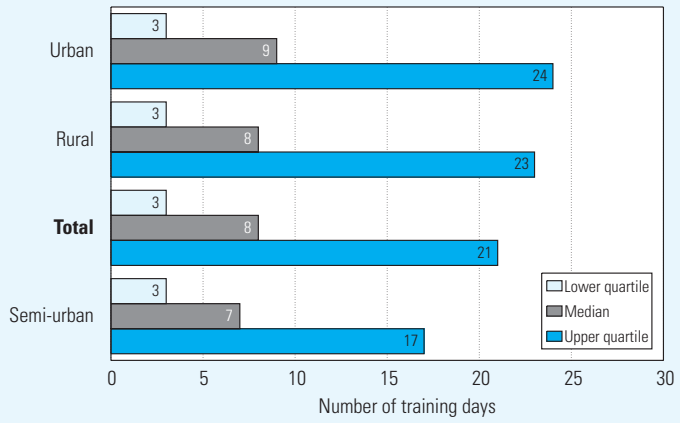


Figure 2.2.4
Number of training days per participant by type of municipality in 2000 (population aged 18–64 attending adult education)

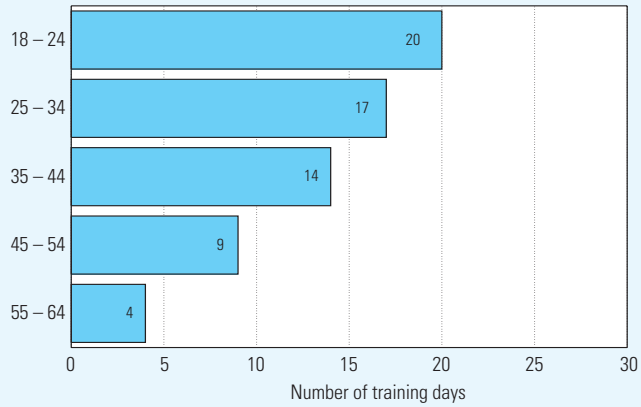


Figure 2.2.5
Number of training days per adult by age in 2000 (population aged 18–64)

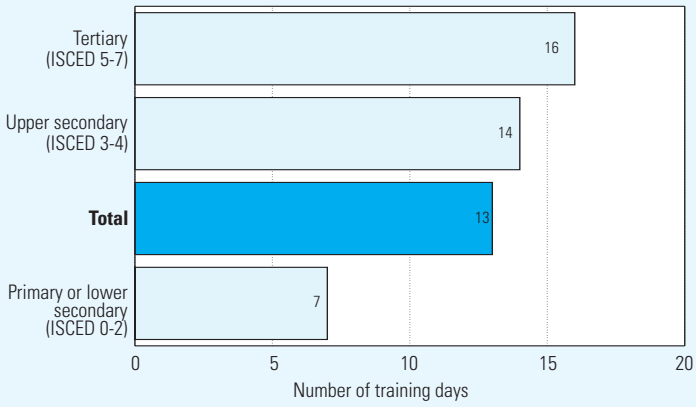


Figure 2.2.6
Number of training days per adult by highest level of educational attainment in 2000 (population aged 18–64)

Urban and rural inhabitants were found to take part in more adult education and training days per person than those living in semi-urban districts (Figure 2.2.8), with 14 and 12 days, respectively, as opposed to 8 days.

More days of adult education and training for those in urban municipalities…

On the other hand, the province in which a respondent lived appeared not to affect the number of training days received when calculated per person of population, in that the inhabitants of all the provinces had almost exactly the same expected values in 2000, between 12 and 13 days.

… but province of residence made no difference.

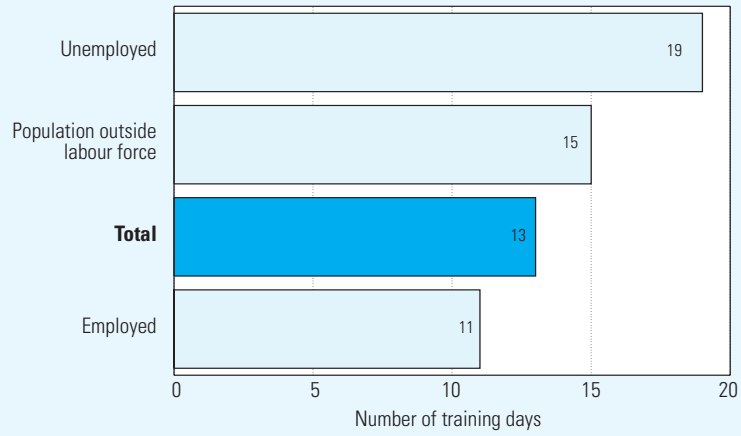


Figure 2.2.7
Number of training days per adult by labour market situation in 2000 (population aged 18–64)

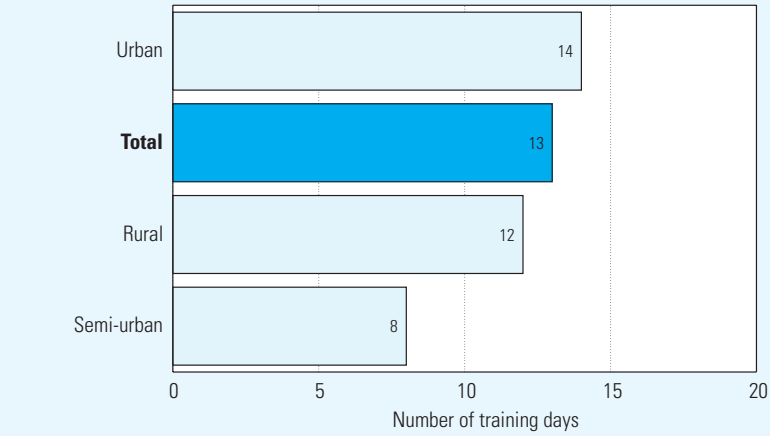


Figure 2.2.8
Number of training days per adult by type of municipality in 2000 (population aged 18–64)

2.3 Participation in adult training connected with work or occupation

A half of the workforce studied in connection with their work …

About 1.3 million people, or 41% of the population aged 18-64 years, participated in adult training in 2000 for reasons connected with their work or profession, of whom 1.2 million belonged to the labour force (employed or unemployed), equivalent to roughly half of the total labour force in this age bracket.

… but the proportion of the employed was two times as hight as high as the proportion of the unemployed.

Many more of those who were employed attended adult training for such reasons than of either the unemployed or those outside the labour force (Figure 2.3.1), over a half of the former, as compared with one fourth and one tenth, respectively, of the two latter groups.

Employed women participated in adult training for work purposes more than men …

A higher proportion of the employed women participated in adult training connected with their work or profession than of the employed men (Figure 2.3.2), 60% as opposed to about 50%. On the other hand, there were no differences in this respect between the unemployed men and women or those who were outside the workforce.

… and middle-aged people more than the others.

The pattern in terms of age groups was very much the same as for participation in adult education as a whole (Figure 2.3.3), on account of the fact that training in connection with the respondent's work or profession accounted for the great majority of the adult education and training referred to. Over a half of the workforce in the age groups over 24 years had taken part in work-related adult training during the year, about 40% of those aged 18–24 years and about one in three of those aged 55–64 years.

Age affected participation by men more than by women.

The patterns of participation relative to age and gender were also very similar to those obtained for adult education and training as a whole. The most active age group among the men was 25–34 years (Figure 2.3.4), with 56% of the male labour force of this age taking part in some form of education connected with their work or profession in the course of the year. A steady decline in the proportion then took place in the higher age groups, until only one in four was involved in such activities in the oldest group, 55–64 years. By comparison, participation among the women remained high up until the 45–54 year age group, declining at 55–64 years, although even then only to the level found in the youngest group. The proportion of women engaged in this type of adult training was higher than that of men from age 34 years onwards. Thus age may be said to have affected the activity of the men in this respect more than that of the women, as was also the case for participation in adult education and training in general.

The level of initial education a significant factor for participation in work-related courses as well.

The respondent's level of education affected participation in work-related adult education and training in the same way as for adult education and training as a whole (see above). Almost three fourths of the labour force aged 18–64 years who had completed tertiary education took part in such courses during the year 2000, compared with less than half of those with an upper secondary qualification and about a third of those with only primary or lower secondary education.

The only statistically significant difference between the men and women was found at the upper secondary level of education (Figure 2.3.5), where about a half of the women had taken courses related to their work or profession but the proportion of men was ten percentage points lower.

Four out of every five courses financed by an employer.

By far the most common source of finance for courses related to the respondent's work or profession was the person's employer (Table 2.3.1), i.e. they constituted employer-sponsored training. This applied to four fifths of such courses, whereas 16% were paid for by the respondents themselves and 5% received government support.

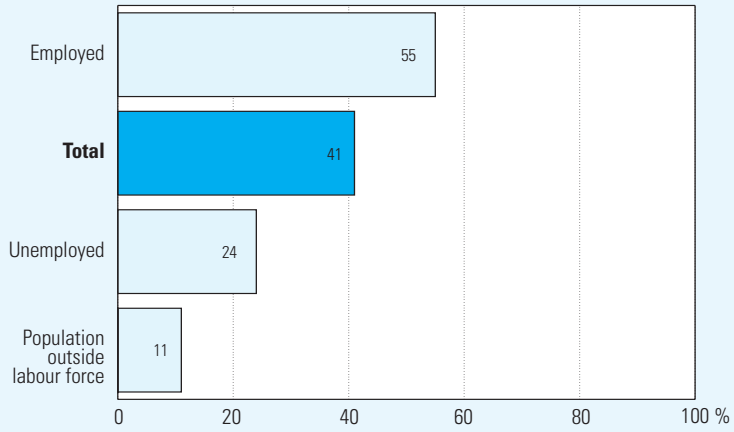


Figure 2.3.1
Participation in job or occupation-related training by labour market situation in 2000 (population aged 18–64)

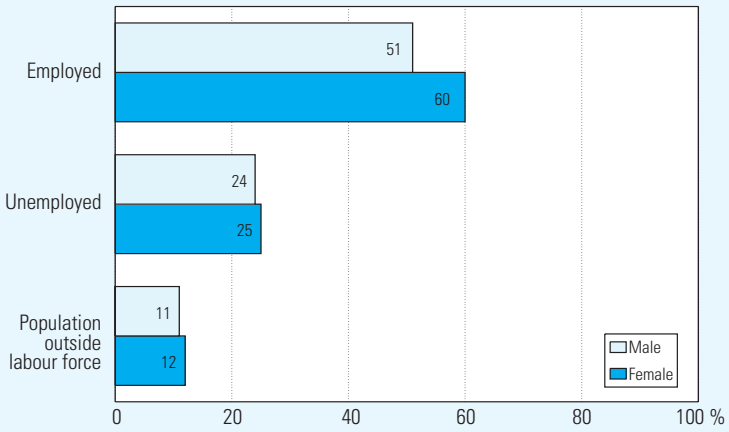


Figure 2.3.2
Participation in job or occupation-related training by labour market situation and gender in 2000 (population aged 18–64)

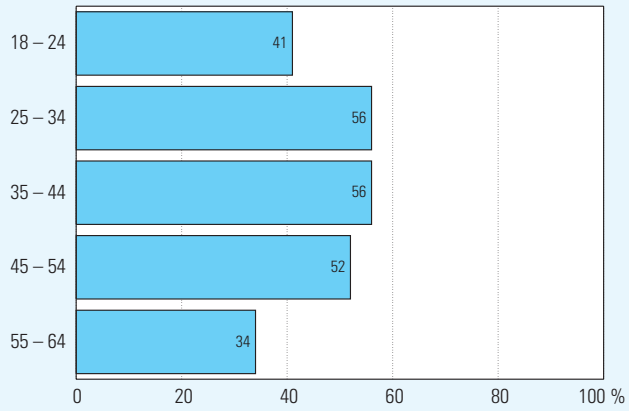


Figure 2.3.3
Participation in job or occupation-related training by age in 2000 (labour force aged 18–64)

2.3.1 Financing of adult education and training connected with the respondent's work or profession in 2000 (% of courses).

Source of finance	% of courses
Employer	83
Respondent	16
Government	5
Trade union	3
Student grant	1
Others	6

NB. The sum of these figures does not add up to 100%, as the same course may have been financed from more than one source.

Since employer-sponsored training accounted for the vast majority of all adult education and training related to the participant's work or profession, the main results for these two categories are virtually identical. In order to avoid repetition, the main analyses will therefore be concentrated on employer-sponsored training rather than work-related adult education and training as a whole (see below).

Courses undertaken equally often on the initiative of the respondent and of the employer.

The initiative for participating in adult education and training connected with one's work or profession had come from the person concerned in about a half of the cases (Table 2.3.2), and almost equally often from the employer. About 1% of courses had been undertaken on the initiative of the labour authorities.

2.3.2 Initiative for undertaking adult education and training connected with the respondent's work or profession in 2000 (% of courses).

Initiator	% of courses
Respondent	48
Employer	46
Labour authorities	1
Others/Don't know	5
Total	**100**

The most frequent reason for participation was personal or professional development, about a half of all courses being entered upon with this in mind (Table 2.3.3), while about a fourth were taken on the insistence of the employer. The third most common reason was that it was essential on account of changes in the work that the respondent was expected to do.

2.3.3 Reason for undertaking adult education and training connected with the respondent's work or profession in 2000 (% of courses).

Reason	% of courses
Personal / professional development	51
Employer's obligation	25
Changes in working methods	13
Wish to get a new occupation	2
(Danger of) unemployment	2
Advancement of career	2
Some other reason	2
Don't know	3
Total	**100**

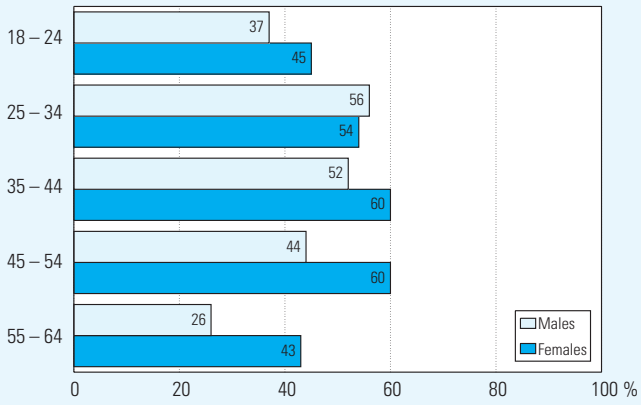


Figure 2.3.4
Participation in job or occupation-related training by age and gender in 2000 (labour force aged 18–64)

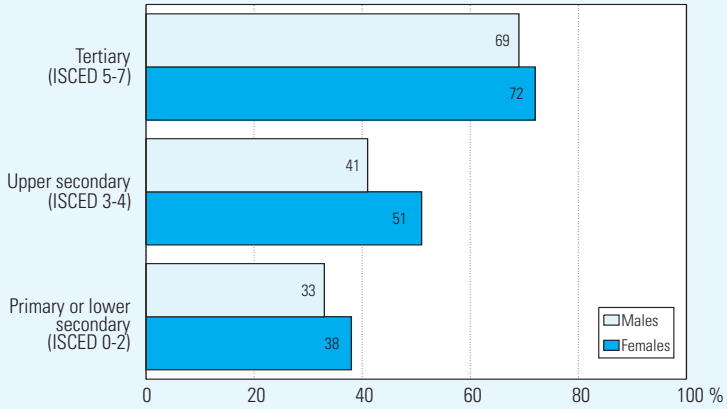


Figure 2.3.5
Participation in job or occupation-related training by highest level of educational attainment and gender in 2000 (labour force aged 18–64)

2.4 Participation in employer-sponsored training

Extent of participation and distribution among employee categories

A million employees in employer-sponsored training …

About a million Finnish employees aged 18–64 years took part in employer-sponsored training, i.e. education or training paid for by their employer, in the year 2000, corresponding to 56% of total employed persons in this age bracket. These included approximately 520,000 women, or about 58% of the total of female employees, and approximately 480,000 men, or 54% of the male total. The difference between the genders in this respect was not statistically significant.

… with men and women equally active.

Participation was most active in the 25–54 year age range (Figure 2.4.1), where the proportion reached 57–61%, whereas it was less than 50% in the youngest and oldest age groups, 18–24 and 55–64 years.

The women attended employer-sponsored training most often in the age range 35–54 years and the men in the range 25–44 years (Figure 2.4.2). It was only in the youngest age group than the proportion of women fell below 50%, whereas the lowest figure for men, at age 55–64 years, was below 40%.

A higher proportion of women than of men participated in employer-sponsored training in the age groups 45–54 and 55–64 years. Elsewhere the difference between the genders was not statistically significant.

Participation declined with age among the oldest male employees but not among the oldest female employees.

Advancing age had a very much greater effect in reducing participation in employer-sponsored training among the men than among the women, the proportion for male employees dropping by as much as 14 percentage points between the 44–54 and 55–64 year age groups, whereas the pattern for the female employees was very even, with no statistical differences between the age groups.

The level of educational attainment a powerful explanatory factor.

Examined in relation to initial education, participation in employer-sponsored training showed a similar pattern to participation in adult education as a whole, in that the respondent's initial education exercised a powerful influence on participation (Figure 2.4.3). Almost three fourths of the employees with tertiary education had some employer-sponsored training during the year, but less than half of those with an upper secondary qualification and about 40% of those with less than upper secondary education.

Men and women with the same level of initial education had the same rate of participation.

Men and women with the same level of education showed the same rate of participation in employer-sponsored training, so that the more active attitude to be found among women was not reflected here in the same way as in the other forms of adult education and training.

White-collar employees participated more often than blue-collar workers.

The upper white-collar employees attended employer-sponsored training more often than did the lower white-collar employees or blue-collar workers, about three out of every four doing so, as opposed to 60% and 38%, respectively.

Socio-economic group affected participation by women more than by men.

More of the men among the blue-collar workers had had employer-sponsored training during the year than of the women (Figure 2.4.4), over 40% as compared with a third of the women. The differences between the genders among the upper and lower grades of white-collar employees were not statistically significant.

Employer-sponsored training also deviated from the pattern for all other forms of adult education and training in that socio-economic group affected participation by the women more than by the men, the female upper white-collar employees receiving this training two and a half times as often as the female blue-collar workers, where the corresponding ratio for the men was only 1.7.

More women in small and medium sized enterprises receive employer-sponsored training than men.

There was a clear linear relationship between the size of enterprise and participation in employer-sponsored training (Figure 2.4.5), with companies having less than 100 employees providing a less than average amount of employer-sponsored training and those with at least 100 employees a greater than average amount. Thus, where about 40% of those employed in the smallest companies, with less than 50 employ-

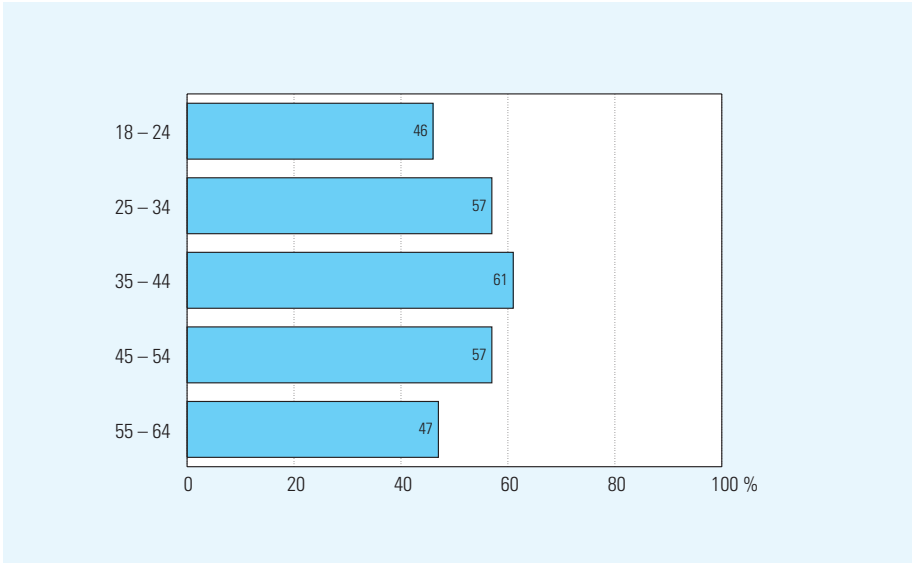


Figure 2.4.1
Participation in employer-sponsored training by age in 2000 (employees aged 18–64)

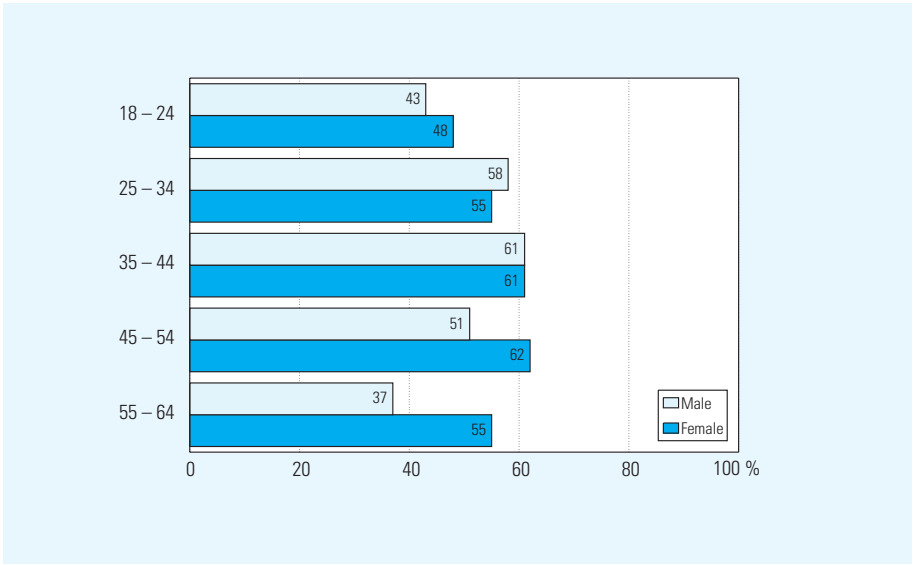


Figure 2.4.2
Participation in employer-sponsored training by age and gender in 2000 (employees aged 18–64)

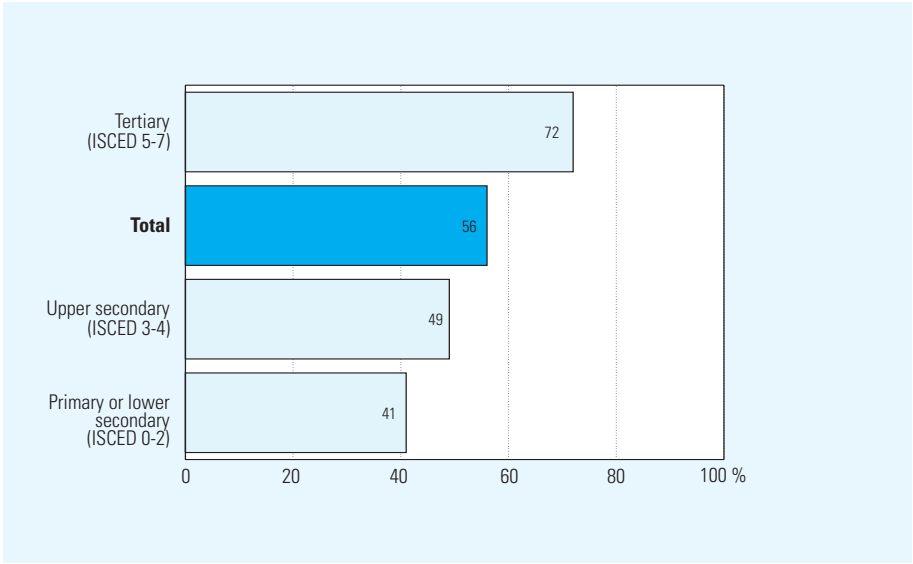


Figure 2.4.3
Participation in employer-sponsored training by highest level of educational attainment in 2000 (employees aged 18–64)

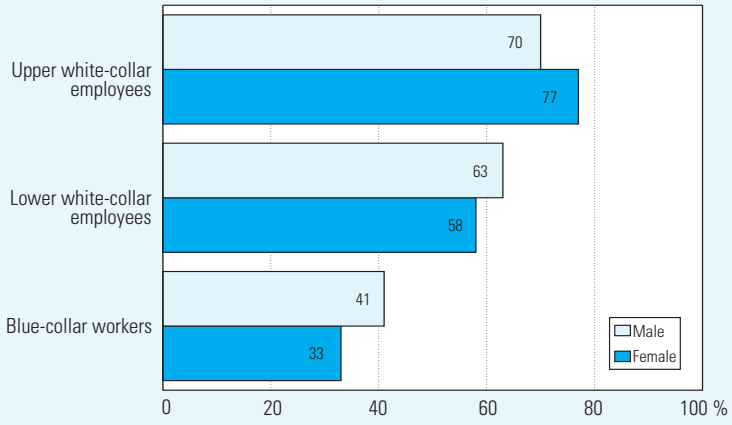


Figure 2.4.4
Participation in employer-sponsored training by socio-economic group and gender in 2000 (employees aged 18–64)

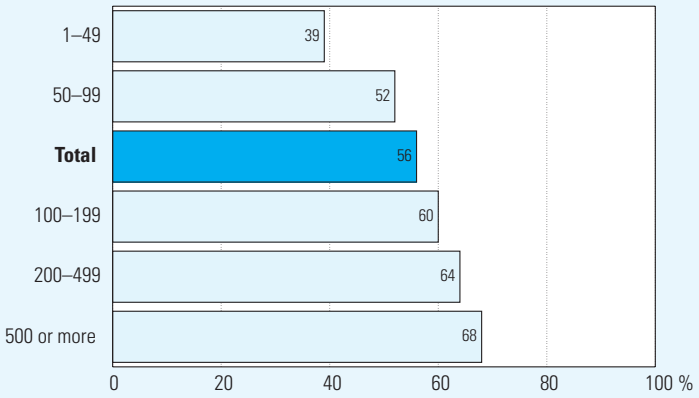


Figure 2.4.5
Participation in employer-sponsored training by size of enterprise in 2000 (employees aged 18–64)

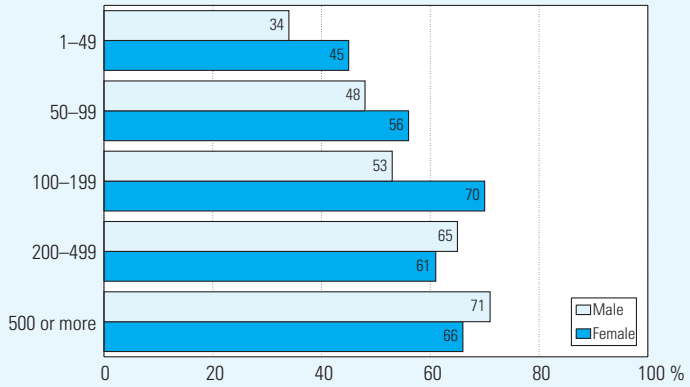


Figure 2.4.6
Participation in employer-sponsored training by size of enterprise and gender in 2000 (employees aged 18–64)

ees, had had employer-sponsored training during the year 2000, the proportion for companies with 500 employees or over was in excess of two thirds.

More of the women among the employees of small and medium-sized companies (less than 200 employees) than of the men had attended employer-sponsored training (Figure 2.4.6), whereas the difference between the genders was not statistically significant in the case of companies with over 200 employees.

The linear relation between size of company and participation in employer-sponsored training was particularly clear in the case of the men, as the proportion of women participating was no larger in the class of companies with over 200 employees.

Central government employees received more employer-sponsored training than local government or the private sector employees.

About three out of every four persons employed in the central government sector had attended courses at their employer's expense during the year (Figure 2.4.7), as against about one in three in local government and about a half in the private sector. The proportions of men and women were more or less the same in all three sectors.

In terms of branches of the economy, a higher proportion of those employed in the service sector had received such training than in manufacturing or primary production, about 60% of all those aged 18–64 years as opposed to about a half in both of the latter sectors.

More employees in urban and semi-urban municipalities in employer-sponsored training than in rural districts …

A higher proportion of the employees living in urban or semi-urban municipalities had taken part in employer-sponsored training than of those living in rural districts (Figure 2.4.8), almost 60% as compared with less than a half. Men and women participated in this training equally often in all three types of municipality.

… largely on account of differences in socio-economic structure.

Once the results had been standardised for socio-economic structure the differences between the types of municipality in this respect disappeared (Figure 2.4.9), as also noted for adult education and training in general (see above). Only blue-collar workers in rural areas were found to receive employer-sponsored training slightly less often than those living in urban or semi-urban municipalities.

Socio-economic group, level of education and size of enterprise affect participation most.

Analysis of the impact of the background variables on participation in employer-sponsored training by means of the Cramer V coefficient showed that socio-economic group, level of education and size of enterprise were the main explanatory variables (Figure 2.4.10). The poorest correlations with participation were obtained for the type of municipality in which the employee lived, the branch of the economy and the age of the employee.

Information technology the main content of employer-sponsored training.

One fourth of the employer-sponsored training courses were devoted to information technology (Table 2.4.1) and 14% to training in the field of health care. The third most common theme was management skills.

2.4.1 Content of employer-sponsored training in 2000 (% of courses).

Content	% of courses
Use of information technology	23
Health care	14
Management skills	12
Technology, production, construction, product development	10
Business, marketing and administration	10
Teacher and instructor training	6
Services, work safety, security	5
Law, social and behavioural sciences	4
Other subjects, total	16
Total	**100**

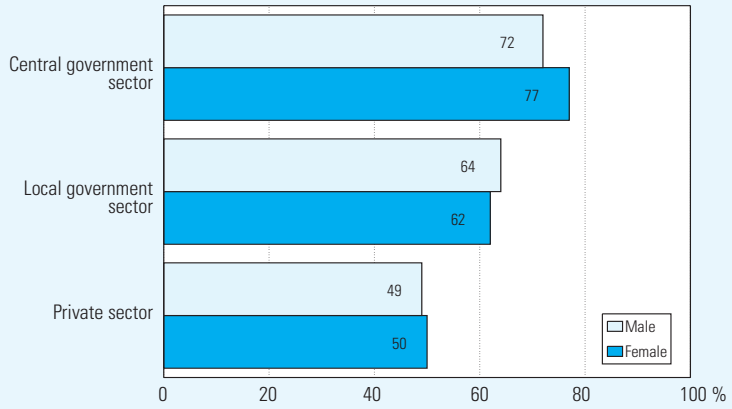


Figure 2.4.7
Participation in employer-sponsored training by employer sector and gender in 2000 (employees aged 18–64)

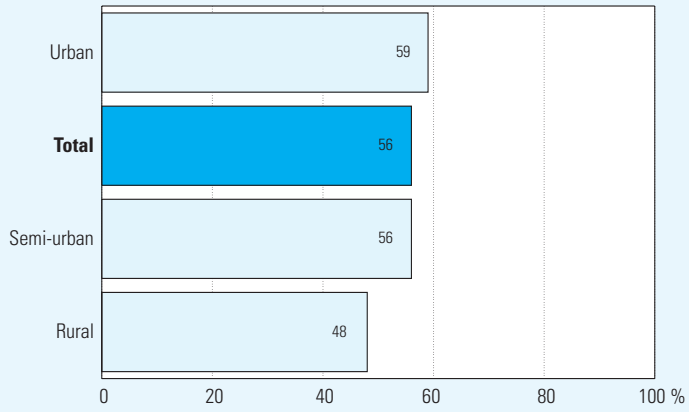


Figure 2.4.8
Participation in employer-sponsored training by type of municipality in 2000 (employees aged 18–64)

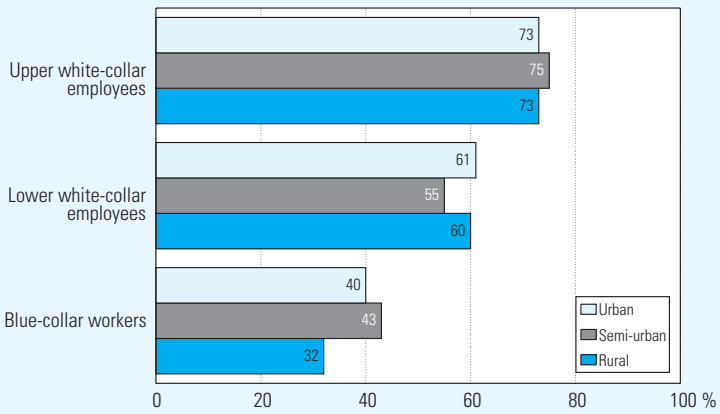
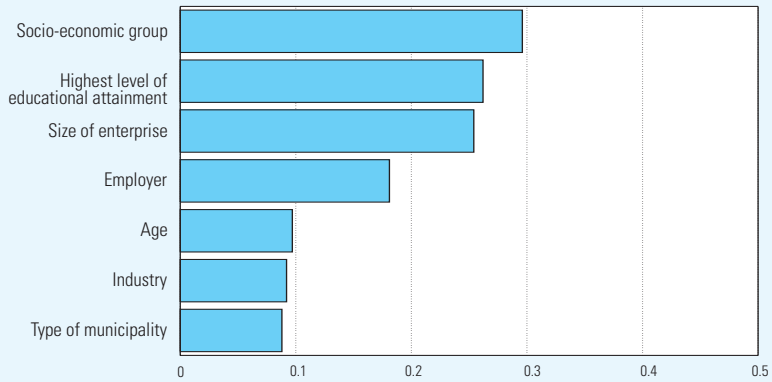


Figure 2.4.9
Participation in employer-sponsored training by socio-economic group and type of municipality in 2000 (employees aged 18–64)



Cramer V=1 or -1, completely dependent; Cramer V=0, variables completely independent. Coefficient values with high absolute values indicate that the variables are mutually dependent.

Figure 2.4.10
Dependence of participation in employer-sponsored training on background variables (Cramer V coefficients)

Number of days of employer-sponsored training per employee

The distribution of employer-sponsored training can be examined not only in terms of the proportions of employees participating, but also in terms of the volume per participant (mean or median) or the volume per member of a particular category of employee, the latter approach being one that takes into account both the proportion of participants and the average number of days on which they participated. The equation for calculating this is presented in Section 2.2.

Seven days of employer-sponsored training per employee …

The mean volume of employer-sponsored training per participant in the total material of employees aged 18–64 years in 2000 was approximately 12 days and the median 5 days (Table 2.4.2), while the mean per employee regardless of participation, obtained by multiplying the above mean by the participation rate, 56%, was 7 days.

… with no difference between men and women.

Assessed in terms of volume, employer-sponsored training was quite evenly distributed between men and women, the men having received a mean of 12 days and the women 11 days. In both cases the figure calculated per employee was 7 days.

Employer-sponsored training days targeted most at employees under 25 years of age.

The younger employees were provided with more employer-sponsored training days than the older ones, those aged 18–24 years receiving a mean of 18 days and those aged 55–64 years only a half of this, 9 days. This implies that the mean volume per employee was highest in the 18–24 year age group, over 8 days, in spite of the fact that the participation rate was the lowest of all. The lowest number of days of employer-sponsored training per employee was recorded for the 55–64 year age group, which had both a relatively low participation rate and a small number of days of training.

Differences attributable to socio-economic group and level of education accentuated by volume figures.

The differences between the groups formed in terms of socio-economic group and basic education were enhanced when the numbers of days of employer-sponsored training were taken into account (Table 2.4.2). This was due to the fact that the people with tertiary education and the upper white-collar employees had not only a better rate of participation in employer-sponsored training but also a greater than average number of days of such training. The average volume for a person with tertiary education, for example, was 10 days per employee, whereas that for a person with less than upper secondary education was less than three days, and practically the same discrepancy was found between upper white-collar employees and blue-collar workers.

The above examination of rates and volumes of participation confirmed the results of the Cramer V coefficient analysis as far as the decisive impact of the level of basic education and socio-economic group on employer-sponsored training was concerned.

The differences in employer-sponsored training between the groups formed on the basis of type and size of employer were reduced somewhat when the number of days of training was taken into account (Table 2.4.2).

2.4.2 Rates of participation in employer-sponsored training and number of training days per participant and per employee in 2000 (employees aged 18–64).

	Participation rate %	Mean of training days per participant	Mean of training days per employee
Gender			
Male	54	12.3	6.6
Female	58	11.3	6.6
Age			
18–24	46	18.3	8.3
25–34	57	13.6	7.7
35–44	61	10.9	6.6
45–54	57	10.6	6.0
55–64	47	9.1	4.2
Level of education			
Primary or lower secondary (ISCED 0-2)	41	6.5	2.7
Upper secondary (ISCED 3-4)	49	11.7	5.7
Tertiary education (ISCED 5-7)	72	13.5	9.8
Socio-economic group			
Upper white-collar employees	73	14.1	10.4
Lower white-collar employees	60	9.7	5.8
Blue-collar workers	38	10.7	4.1
Type of municipality			
Urban	59	12.6	7.4
Semi-urban	56	8.5	4.7
Rural	48	11.8	5.6
Number of employees			
1– 49 employees	38	9.9	3.8
50– 99	52	15.5	8.0
100–199	60	8.0	4.9
200–499	64	16.1	10.1
At least 500	68	11.7	8.0
Type of employer			
Central government	74	11.4	8.5
Local government	63	9.9	6.2
Private sector	49	12.7	6.3
Branch of economy			
Primary production	48	8.1	3.9
Manufacturing	49	12.1	6.0
Services	59	11.8	7.0
Total	**56**	**11.8**	**6.6**

2.5 Participation in other than job or occupation-related adult education and training

Rate of participation and distribution between population groups

Over half a million Finns studied for hobbies or out of general interest.

Over half a million Finns aged 18-64 years attended forms of adult education and training connected with their hobbies and pastimes or out of general interest in the year 2000, a figure that corresponds to 18% of the population in that age range. The gender differential in favour of women was greater here than for any other form of adult education and training, two thirds of the students being women and one third men. By direct calculation this would imply that 24% of the female population in the age range took part in such courses as compared with 12% of the male population.

Women studied much more frequently than men …

… but age did not affect participation …

The various age groups participated in adult education and training related to hobbies and pastimes or to matters of general interest to more or less equal extents (Figure 2.5.1), with no group achieving a rate in excess of 20%.

The proportion of women was higher than that of men in all the age groups (Figure 2.5.2), the difference being at least ten percentage points throughout and greatest in the youngest group, under 25 years, where women participated three times more often than men.

… nor did level of education to the same extent as in other forms of adult education and training.

The respondents' level of education affected participation in courses connected with their hobbies and pastimes or with matters of general interest (Figure 2.5.3), but not to the same extent as for the other forms of adult education and training. A clear difference between the genders persisted at all the levels of education considered.

Thus in general, adult education and training undertaken for the purpose of hobbies and pastimes or out of general interest differed from the other forms in that the effect of gender on participation was greater and the effects of other background factors less marked.

Content of the courses

Fine and applied arts studies the most popular, followed by physical education and sports.

Every third participant in adult education and training in connection with hobbies and pastimes or out of general interest had been studying fine and applied arts studies (Table 2.5.1), the second most popular subjects being physical education and coaching for sports (25%), while foreign languages were of interest to about 16% of participants.

Adult education centres the main providers.

The adult education centres emerged as by far the main providers of course of this type (Table 2.5.2), more than half of the participants having attended these. It can also be deduced from the survey that almost 80% of students attending adult educa-

2.5.1 Content of other than job-related training attended in 2000 (population aged 18–64, excl. students and conscripts).

Content	% of participants
Fine and applied arts studies	33
Physical education, sports coaching	25
Foreign languages	16
Management skills	8
Use of information technology	8
Law, social and behavioural sciences	5
Health care	4
Humanities and aesthetic subjects	3
Other subjects, total	12

NB. The sum of these participation rates does not add up to 100%, as the same person was calculated as many times as he/she had different subject contents.

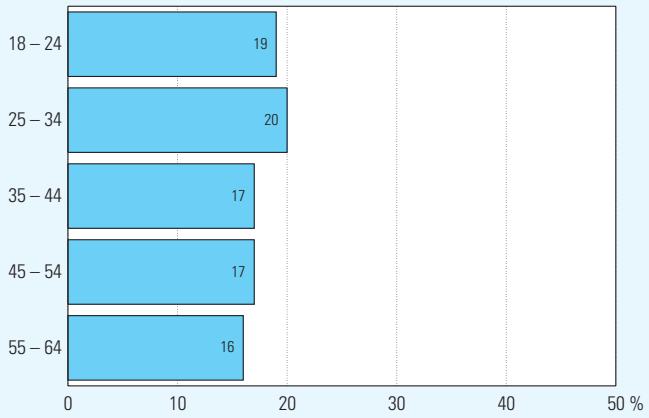


Figure 2.5.1
Participation in other than job-related training by age in 2000 (population aged 18–64, excl. students and conscripts)

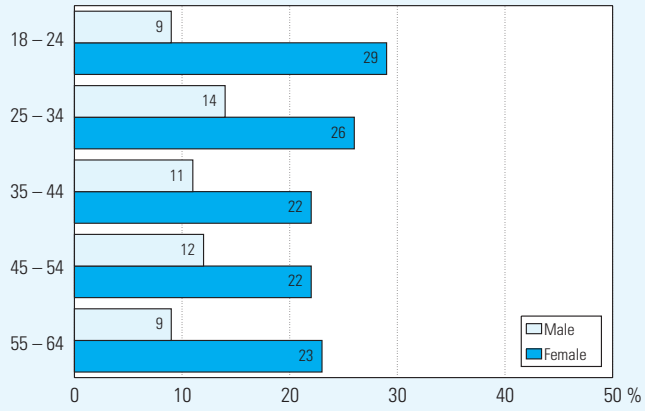


Figure 2.5.2
Participation in other than job-related training by age and gender in 2000 (population aged 18–64, excl. students and conscripts)

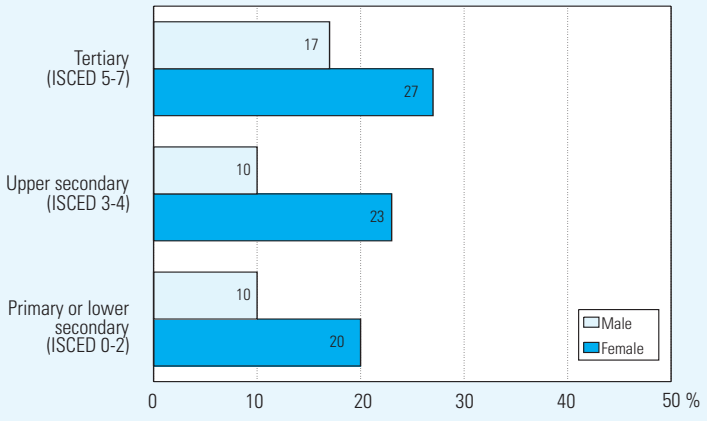


Figure 2.5.3
Participation in other than job-related training by highest level of educational attainment and gender in 2000 (population aged 18–64, excl. students and conscripts)

tion centres are women. The next most popular category of course providers was that including various organisations, associations and societies, which had attracted about a fifth of the participants during this year.

2.5.2 Provider of other than job-related training attended in 2000 (population aged 18–64, excl. students and conscripts).

Provider	% of participants
Adult education centre	55
Organisation, union or association	20
Employer or training enterprise (incl. conferences)	7
Vocational school or college	7
University adult education department or summer university	6
Others	13

3 Changes in participation in adult education and training, 1980–2000

Changes in participation in adult education and training

Participation increased in the interval 1995 – 2000 ...

After a levelling out in the first half of the decade, the rate of participation in adult education and training increased from 48% in 1995 to 54% in 2000 (Figure 3.1), i.e. for the first time more than a half of the Finnish population aged 18–64 years were attending such courses and study events, virtually a doubling of the proportion relative to the situation in 1980.

The difference in participation rate between men and women has persisted at more or less the same level since 1980, i.e. about 10 percentage points in favour of the women. This implies that the increase in participation over the years has affected both genders equally.

…the increase being concentrated in the younger age groups.

Examination of participation in adult education and training by age groups over the survey years shows a clear change from the early 1990s to 2000 (Figure 3.2), in that where only participation by the oldest age groups, 45–64 years, increased between 1990 and 1995, that growth seemed to have come to a halt by 2000 and the increase was concentrated in the younger groups, aged 18–44 years, the rate for which had risen by almost ten percentage points since 1995. Even so, the overall increase in participation between 1980 and 2000 was still greatest in the oldest age group, 55–64 years, being the only one in which participation had doubled over that time.

Participation by those with low level of education has increased since 1990.

The interest of those with primary or lower secondary education in participating in adult education and training has increased since 1990 (Figure 3.3), and by 2000 a good third of them were taking courses during the 12 months period. Participation by those with tertiary education returned in 2000 to the level at which it had been in 1990, while those with an upper secondary education maintained roughly the same rate throughout the 1990s.

The rise in participation by those with less than upper secondary education was also reflected in an increase in the rate for blue-collar workers in the analysis according to socio-economic group (Figure 3.4), from 37% in 1995 to 45% in 2000, imply a doubling in the proportion since 1980. Similar doublings of the 1980 figures were recorded in 2000 for the other socio-economic groups that had had a lower than average participation in the earlier year, i.e. agricultural entrepreneurs, other entrepreneurs and pensioners. Taken overall, participation in adult education and training in Finland has gained greatly in equality since 1980, but this trend appears to have slowed down at least, if not come to a halt, between 1995 and 2000.

Differences in participation between the types of municipality had decreased very slightly.

The differences in participation in adult education and training between the types of municipality decreased slightly during the 1990s (Figure 3.5), the effect having mostly taken place since 1995.

The increase in participation in adult education and training was also reflected in the numbers of days devoted to such education as well as the proportions of the population involved. Where just under nine days of adult education had taken place per Finnish inhabitant aged 18–64 years in 1990, the figure in the year 2000 was almost 13 days (Figure 3.6), the rise since 1995 having been 2 days.

Changes in participation in job or occupation-related adult education and training

Participation doubled since 1980 …

The extent of participation in adult education and training in connection with the person's work or profession had more than doubled by the year 2000 relative to what it had been twenty years earlier (Figure 3.7), in that where one person in four within the

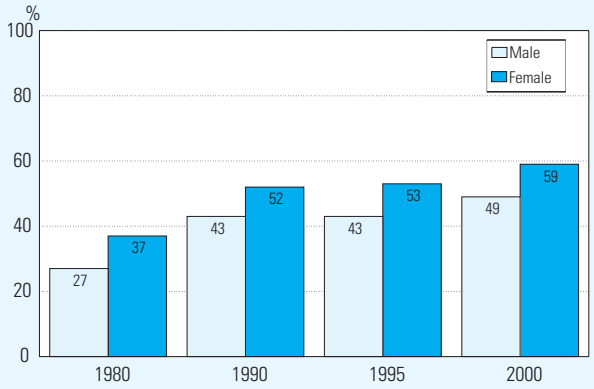


Figure 3.1
Participation in adult education and training by gender in 1980–2000 (population aged 18–64)

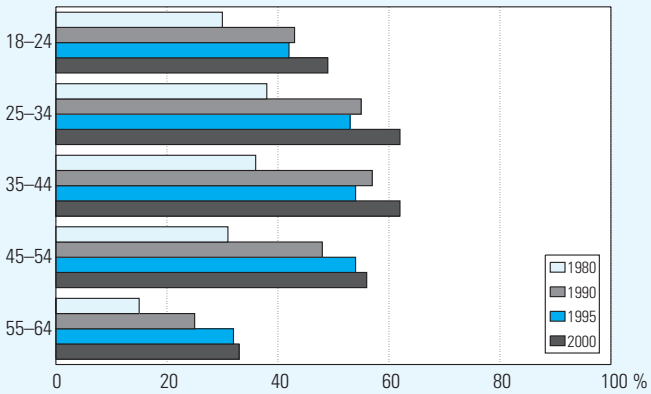


Figure 3.2
Participation in adult education and training by age in 1980–2000 (population aged 18–64)

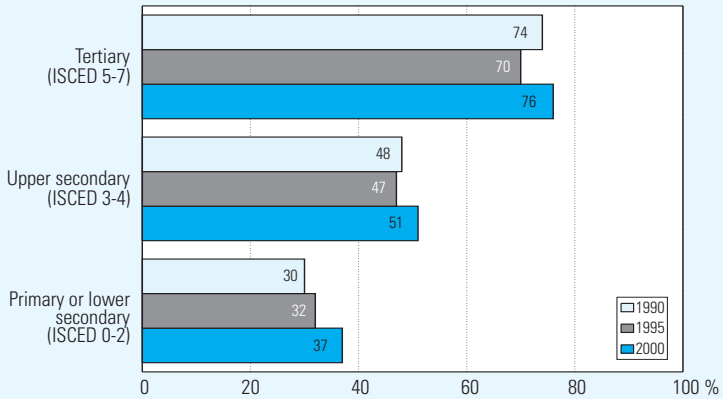


Figure 3.3
Participation in adult education and training by highest level of educational attainment in 1980–2000 (population aged 18–64)

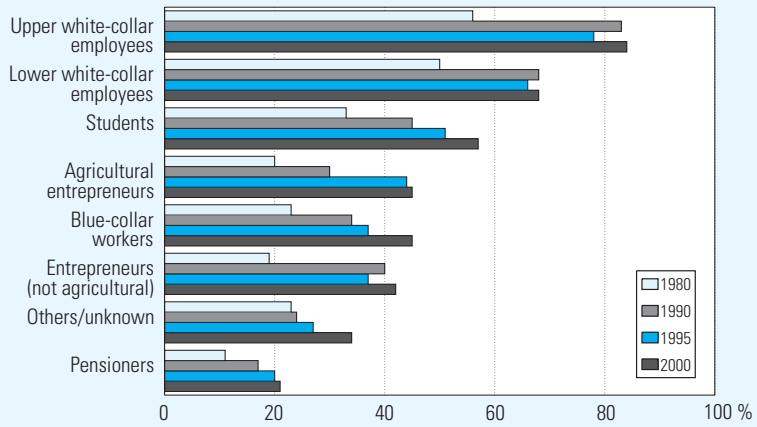


Figure 3.4
Participation in adult education and training by socio-economic group in 1980–2000 (population aged 18–64)

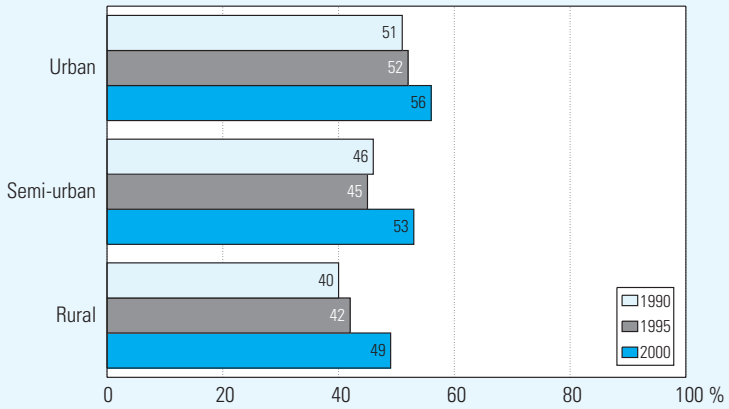


Figure 3.5
Participation in adult education and training by type of municipality in 1980–2000 (population aged 18–64)

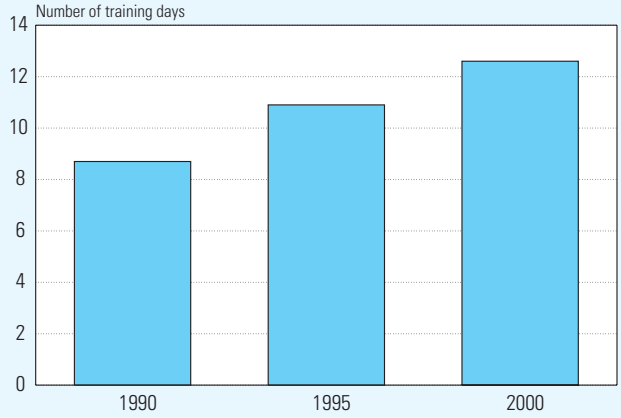


Figure 3.6
Number of training days per adult in 1990–2000 (population aged 18–64)

population aged 18–64 years had been engaged in such activities in 1980, a half of the population had been studying in this way in 2000.

… and had increased markedly since 1995.

The increase in participation between 1995 and 2000 had also been very pronounced, amounting to about eight percentage points. The time series also illustrates the importance of the number of unemployed in this sense, because these people tend to take part in adult education less eagerly than the employed population, so that the levelling out in the figures in the first half of the 1990s and the sharp rise in the five years leading up to 2000 can be attributed at least in part to the high proportion of unemployed in 1995.

The difference in participation rate between men and women can also be seen to have doubled over the interval of twenty years, being nine percentage points in favour of the women in 2000 where it had been four in 1980.

Participation by young people in work-related adult training is on the rise …

It was the youngest age group, 18–24 years, that increased its rate of participation in adult education and training in connection with work or profession most between 1995 and 2000 (Figure 3.8), and the rates for the next age groups, 25–44 years, also rose by more than ten percentage points. All three age groups lifted their rate of participation above the level that it had been at before the recession and mass unemployment of the first half of the decade. By contrast, participation by the oldest age group, 55–64 years, remained the same as it had been five years earlier.

… although the oldest age groups have increased their participation most since 1980.

It was nevertheless the oldest age groups that had improved their participation rate most over the whole twenty-year period.

The numbers of days spent on work-related adult training are seen to have increased steadily since 1980, continuing to do so even in the early 1990s, when no increase took place in participation rates. Thus the number of days spent on this form of education and training per member of the labour force during the year 2000 was more than twice the figure recorded in 1980 (Figure 3.9).

Changes in employer-sponsored training

A steady increase in employer-sponsored training in Finland.

A larger proportion of the nation's employees took part in adult education arranged with employer support, i.e. employer-sponsored training, in the year 2000 than five years previously (Figure 3.10), the difference being four percentage points. Since the drop in unemployment meant that there were more employees in the population in 2000 than in 1995, this growth implied that in absolute figures there were almost 200,000 more employees receiving adult training supported by their employer than in the previous survey. The proportional increases in the participation rates for men and women remained more or less the same throughout the 1990s.

A sharp rise in participation by young people in employer-sponsored training.

The rate of participation of young people in adult training subsidised by their employers rose markedly between 1995 and 2000 (Figure 3.11). This effect was most pronounced among employees aged 18–24 years, where the rise was as much as 13 percentage points, while it was 7 percentage points in the 25–34 year age group and 8 percentage points at 35–44 years of age. The changes from 1995 to 2000 were quite different from those recorded between 1990 and 1995, when rises in employer-sponsored training were observed particularly in the older age groups and rates among persons aged below 45 years remained constant.

Participation by blue-collar workers in employer-sponsored training has increased since 1990.

The blue-collar workers were the only socio-economic group whose participation in employer-sponsored training increased markedly between 1990 and 2000 (Figure 3.12), for where about 26% of them received such training in 1990, the figure was 38% ten years later. At the same time rates of participation among white-collar employees scarcely altered at all.

Some levelling out of differences related to the level of education has also taken place.

A corresponding equalisation could be observed among employees with different levels of initial education as was seen between those of differing socio-economic groups, in that the employees with primary or lower secondary education and those with an upper secondary education increased their rates of participation from 1990

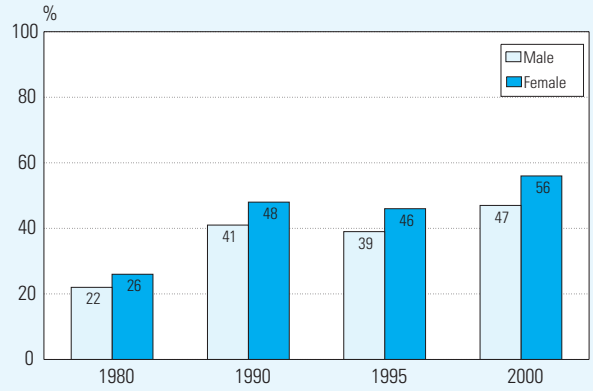


Figure 3.7
Participation in job or occupation-related training by gender in 1980–2000 (labour force aged 18–64)

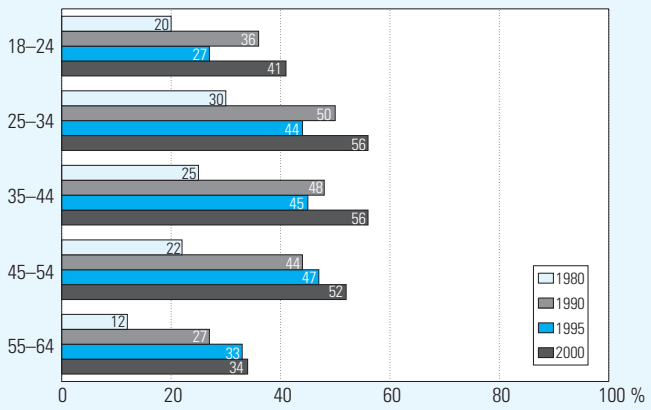


Figure 3.8
Participation in job or occupation-related training by age in 1980–2000 (labour force aged 18–64)

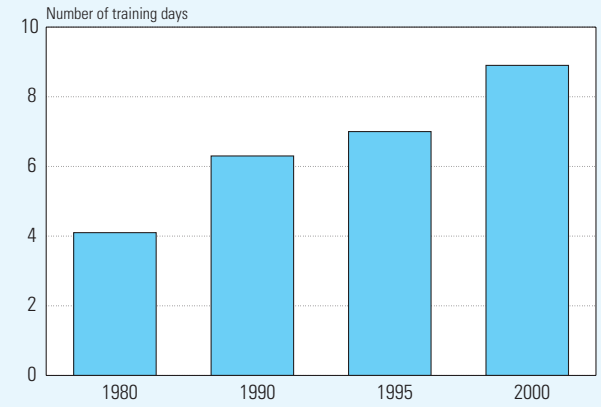


Figure 3.9
Number of job or occupation-related training days per adult in 1980–2000 (labour force aged 18–64)

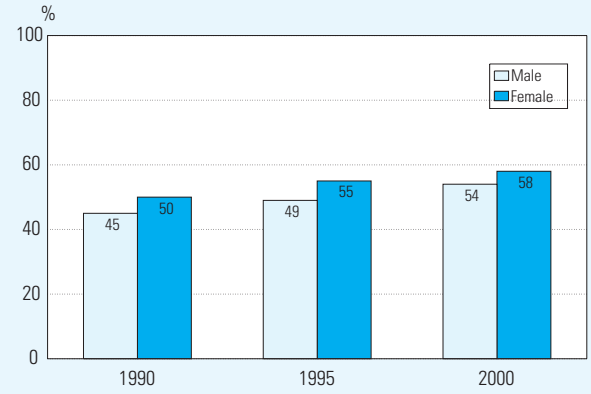


Figure 3.10
Participation in employer-sponsored training by gender in 1990–2000 (employees aged 18–64)

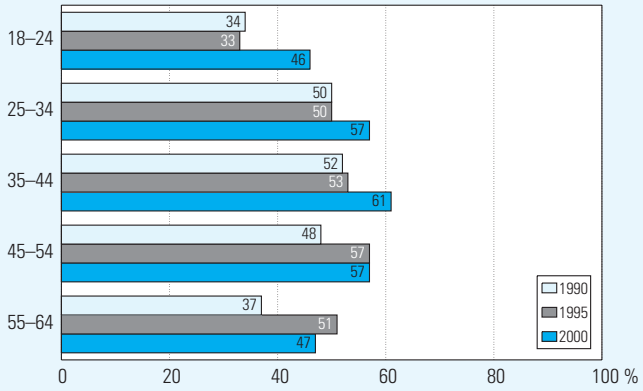


Figure 3.11
Participation in employer-sponsored training by age in 1990–2000 (employees aged 18–64)

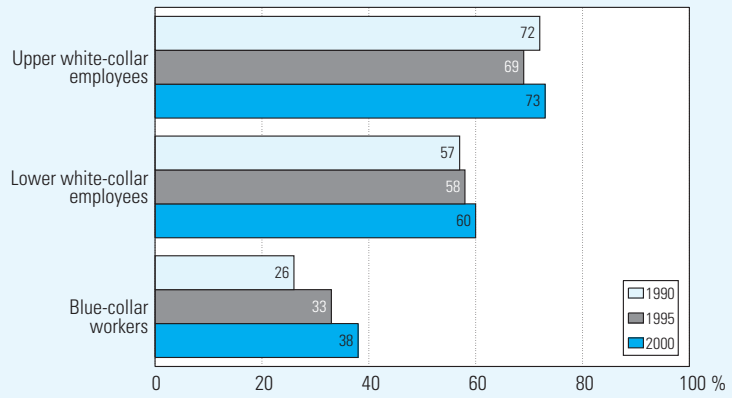


Figure 3.12
Participation in employer-sponsored training by socio-economic group in 1990–2000 (employees aged 18–64)

onwards (Figure 3.13) whereas the rate for those with tertiary education dipped in 1995 and only regained its 1990 level by 2000. This comparison again suggests that the real equalisation of positions between the levels of education with regard to participation in employer-sponsored training took place in the early 1990s, while the situation remained unchanged in this respect towards the end of the decade.

The numbers of days of employer-sponsored training received per employee increased fairly steeply, from 5 to 7, between 1995 and 2000 (Figure 3.14).

Changes in participation in other than work-related adult education

Participation in adult education and training for hobbies and pastimes remained unchanged over the 20 years.

No increase in participation in adult education and training for reasons connected with hobbies, pastimes or matters of general interest was observable to match that in work-related education (Figure 3.15), the rate of participation in this form of education remaining unchanged throughout that time, at 18%. Similarly the difference between men and women in this respect scarcely altered at all.

Likewise, no change took place between 1995 and 2000 in the number of days devoted to such education within the year, the figure remaining at just under 3 days per inhabitant aged 18–64 years.

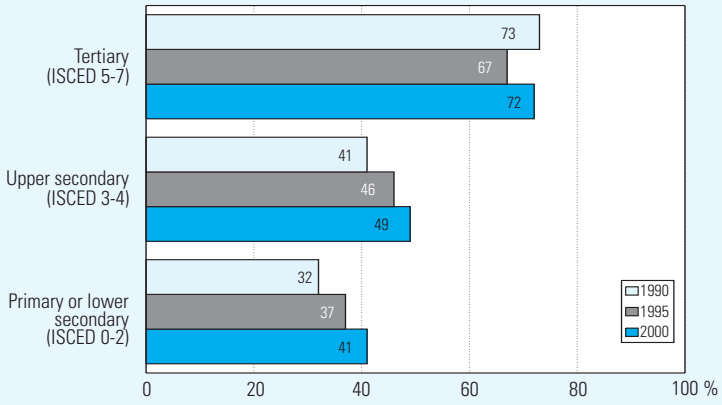


Figure 3.13
Participation in employer-sponsored training by highest level of educational attainment in 1990–2000 (employees aged 18–64)

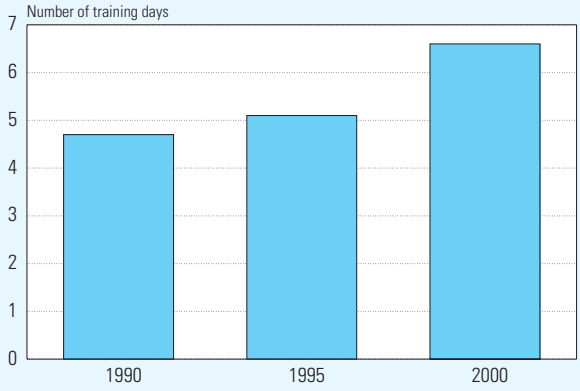


Figure 3.14
Number of employer-sponsored training days per employee in 1990–2000 (employees aged 18–64)

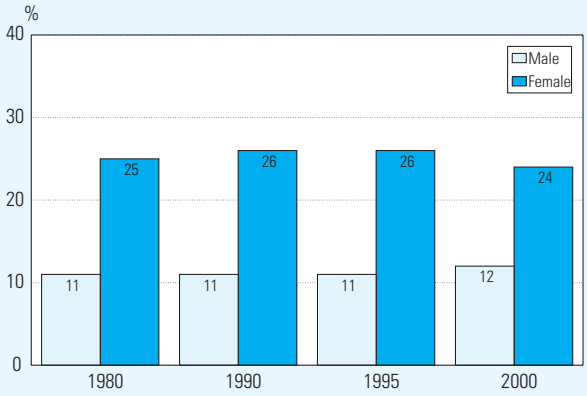


Figure 3.15
Participation in other than job-related training by gender in 1980–2000 (population aged 18–64, excluding students and conscripts)

4 Self-directed studies by adults

Informal learning and the ascertainment of self-directed study

Informal learning, or learning in some way other than through formal or non-formal educational services, has emerged as a central topic in OECD and EU discussions of adult education. Informal learning of a more or less intentional kind is regarded as taking place in the course of daily work, within the family, through civic movements and activities or through leisure-time pursuits.

When speaking of measuring informal learning, reference is often made to the survey performed by *David Livingstone* in Canada in 1998. This came to the conclusion that over 95% of Canadians had practised some form of informal learning in the course of the year. Account was taken of the following skills: information technology skills required for work purposes, communication skills required in voluntary work and skills required for home making and health care. The survey indicated not only that these skills were learned to a great extent in a self-directed manner outside formal teaching situations, but also that informal learning was regarded as an essential means of acquiring many of the crucial skills needed in one's work. A further fact to emerge was that a considerable number of employed persons felt that they possessed various forms of knowledge and skills that they were unable to capitalise fully upon in connection with their work (see Canadian Survey of Informal Learning, 1998).

The topic of informal learning was approached in the Adult Education Survey 2000 by means of an experimental series of questions on learning in everyday life developed in cooperation with *Tapio Aittola* and his research group at the University of Jyväskylä. The results obtained from these questions will be reported separately.

Some attempt has nevertheless been made to address the question of self-directed studies in connection with the Adult Education Survey from 1990 onwards. The use of the word "study" rather than "learning" was motivated by the desire to emphasise its systematic and purposeful nature and to exclude "unintentional or random learning". The pattern for the questionnaire was adopted from the interview format used by the Swedish statistical authorities in their survey of living conditions. Data generated on this topic in Sweden have been analysed by Lena Borgström in her doctoral thesis *Vuxnas kunskapssökande – en studie av självstyrt lärande* (Borgström, 1998). The results of the 1990 Adult Education Survey were consistent with Borgström's analysis.

The item in the questionnaire of the Adult Education Survey concerned with self-directed studies took the form:
"New knowledge and skills can be obtained at work or on leisure time by other means than courses and training too. Have you studied some new subject independently or together with friends or acquaintances or co-workers for a total of at least 20 hours in the past 12 months?"

The minimum duration of self-directed studies was thus set at 20 hours, which is a fairly strict definition relative to that used by Livingstone or the measures of informal learning employed in other surveys of participation in adult education and training in some countries, e.g. in Germany and Switzerland (see also Pilos 2001).

Volume of self-directed studies and incidence in different sectors of the population

A fifth of all adults studied by themselves.

The survey indicates that a fifth of the population of Finland aged 18–64 years, i.e. just under 600,000 people, studied some things in 2000 by themselves or with colleagues or friends, without any organised teaching.

Self-directed studies were almost equally common among both men and women, involving 21% of the men and 19% of the women, and those who participated in formal adult education and training studied independently more often than those who did not, the respective proportions being 25% and about 14%.

Interest in self-directed studies diminished with age …

The younger people studied by themselves more commonly than the older age groups (Figure 4.1), so that where about 25% of the respondents in the two youngest age groups replied in the affirmative, the proportion of those aged 55–64 years was ten percentage points less. The trend was in fact a relatively linear one.

… largely on account of a decline in interest among men.

On the other hand, the age patterns differed between the men and women (Figure 4.2). As for adult education in general, the most active age group of men was 25–34 years, where almost a third had engaged in self-directed studies, but the proportion declined very sharply after that, and was no more than 12% by the age of 55–64 years. By contrast, the proportion of women studying independently did not vary to a statistically significant degree between the age groups. Thus in the end, self-directed studies were more common among men than women in the 25–34 and 35–44 year age groups.

Self-directed studies most common among those with tertiary qualification …

One in three of the men aged 18–64 years with tertiary education and one in four of the women had engaged in self-directed studies during the year (Figure 4.3), while the figures for those with less education were substantially lower, 18% in the upper secondary group and only 13% among those with less than upper secondary education.

… and among upper white-collar employees.

The pattern of self-directed studies in relation to socio-economic group departed markedly from that observed for formal adult education (Figure 4.4), in that although the upper white-collar employees were still the most active (about one in three), almost the same degree of interest was shown by the entrepreneurs other than agricultural entrepreneurs. The lower white-collar employees, who were a highly active group where participation in formal adult education was concerned, now recorded a proportion close to the mean for the whole population aged 18–64 years.

The male white-collar employees were more active in terms of studying on their own than were their female counterparts (Figure 4.5), with over a third of the men in the upper bracket doing so as opposed to a good fourth of the women, and 24% of the men in the lower bracket as opposed to 17% of the women.

Two thirds of those who studied independently did so only in their leisure time, the women more often than the men.

About two thirds of all those who had studied independently during the year had done so only in their leisure time, while 23% had spent both working time and leisure time on this and 9% had confined it to their working time. As many as three fourths of the women had pursued self-directed studies only in their leisure time, but only 62% of the men, who correspondingly more often spent both leisure time and working time on this, 28% by comparison with 17% for the women. The timing of self-directed studies also varied with age, the older age groups being inclined to spend mostly leisure time on this, while the younger ones spent both working hours and freetime.

Those with less than upper secondary education most often spent only leisure time on studying.

The use of working time or leisure time for self-directed studies was connected with the educational background of the respondent, in the sense that 75% of those with primary or lower secondary education who studied in this way did so only in their leisure time while only 61% of those with tertiary qualification did so (Figure 4.6). The use of working time for this purpose was most common in this latter group.

Content of self-directed studies

Information technology and foreign languages the most popular subjects studied independently.

The respondents most commonly studied independently information technology and languages in their leisure time (Table 4.1), the proportions being 26% for the former subject and about 16% for the latter. Fine and applied arts studies and different forms of technology were also favoured by more than one in ten of those who studied by themselves in their free time.

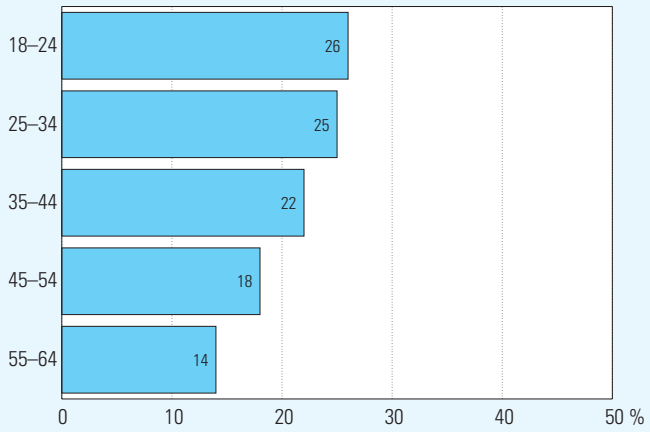


Figure 4.1
Self-directed studies by age in 2000 (population aged 18–64, excl. students)

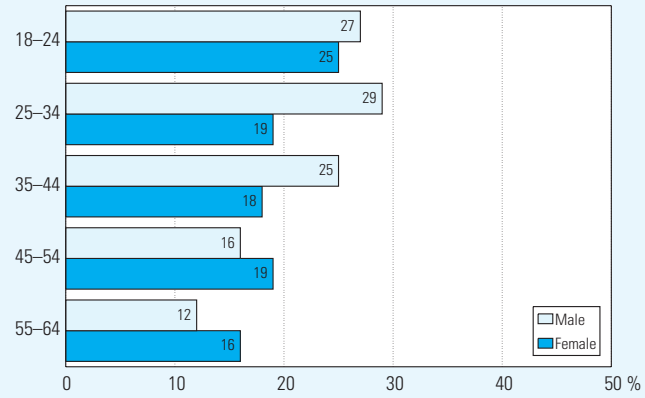


Figure 4.2
Self-directed studies by age and gender in 2000 (population aged 18–64, excl. students)

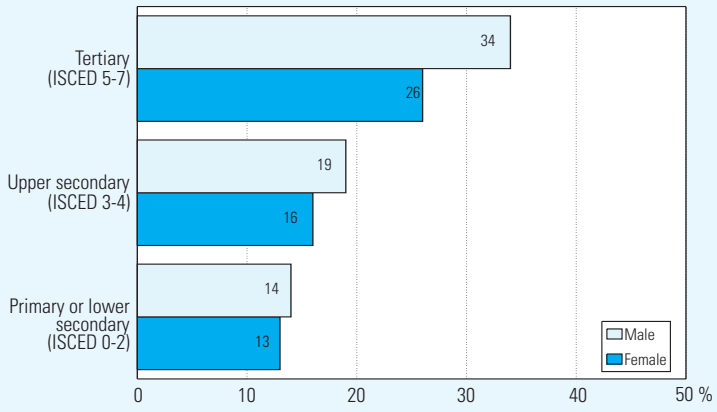


Figure 4.3
Self-directed studies by highest level of educational attainment and gender in 2000 (population aged 18–64 excl. students)

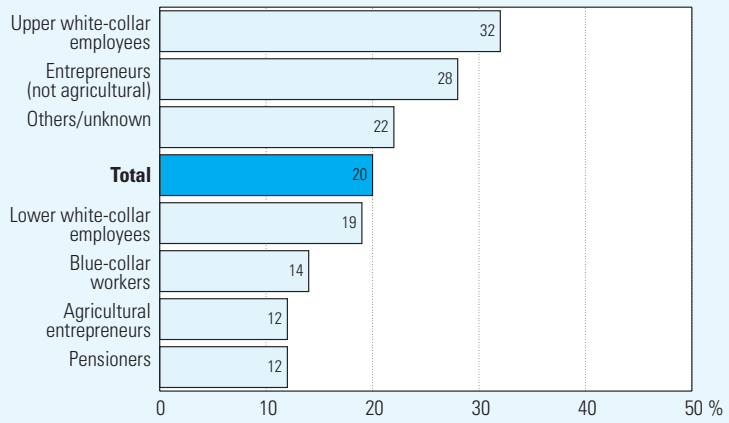


Figure 4.4
Self-directed studies by socio-economic group in 2000 (population aged 18–64, excl. students)

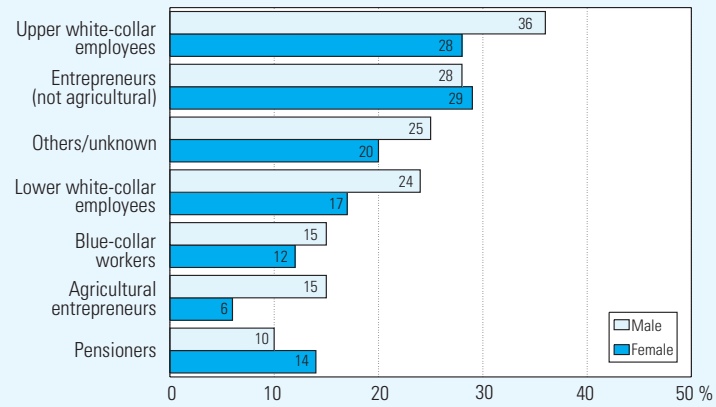


Figure 4.5
Self-directed studies by socio-economic group and gender in 2000 (population aged 18–64, excl. students)

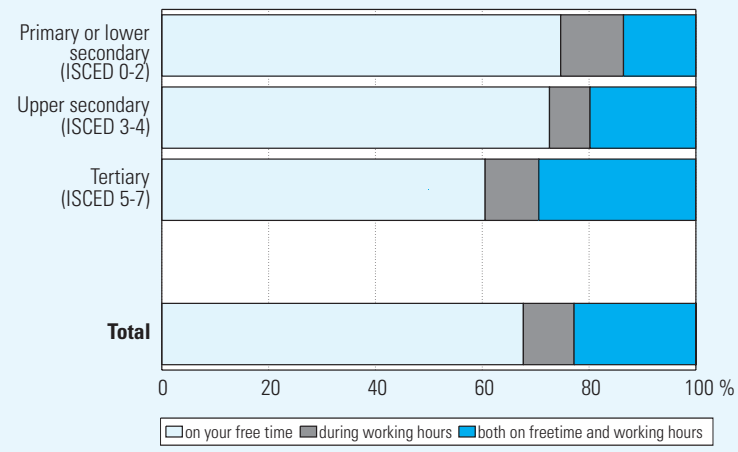


Figure 4.6
Self-directed studies during working hours/freetime by highest level of educational attainment in 2000 (population aged 18–64 studying independently excl. students)

Considering self-directed studies in working time, the accent fell still more strongly on information technology (Table 4.2), which attracted as many as 39% of those who studied in this way. The second most common subject was business economics, marketing and administration, 15%, and the third different forms of technology, still with over 10%.

Practically no changes in behaviour with regard to self-directed studies can be perceived between the 1995 and 2000 surveys, the proportions of those involved, their demographic structure and the content of the studies remaining more or less the same throughout.

4.1 Content of self-directed studies pursued in leisure time in 2000 (population aged 18–64, excluding students)

Content of studies	% of those studying independently
Use of information technology	26
Foreign languages	16
Fine and applied arts studies	13
Technology, production, construction, product development	11
Physical education, sports coaching	9
Business, marketing and administration	6
Humanities and aesthetic subjects	6
Other subjects, total	25

NB. The sum of these figures does not add up to 100%, as the same person may have studied in more than one content area.

4.2 Content of self-directed studies pursued in working time in 2000 (population aged 18–64, excluding students)

Content of studies	% of those studying independently
Use of information technology	39
Business, marketing and administration	15
Technology, production, construction, product development	11
Health care	7
Law, social and behavioural sciences	4
Other subjects, total	31

NB. The sum of these figures does not add up to 100%, as the same person may have studied in more than one content area.

5 Work, education and learning

Changing patterns of work and everyday life call for new skills

The developmental emphases placed on different areas of adult education and the knowhow to be possessed by adults are based largely on the notion that the rapid changes taking place in modern society have caused our jobs to become ever more demanding and have reduced the proportion of routine working procedures. People regularly encounter situations both at work and outside that call for the learning of new things, and new abilities to operate in the information society are becoming essential for coping both at work and in everyday life. Employers are increasingly demanding that their employees should be capable of learning and acquiring new skills and adapting to new situations and challenges. Professional skills are looked on as broad-based in nature, and they are considered to include automatically at least a basic knowledge of information technology and foreign languages (see, for example, the European Commission's document "Life-long learning").

We will concern ourselves in this chapter with the extent to which the respondents to the Adult Education Survey 2000 regarded their work as demanding, how they felt the education and training that they had received corresponded to their work demands and what opportunities for developing their learning skills and professional skills their work afforded them. Efforts were also made in the interviews to ascertain how common it was for use to be made of the knowledge and skills of experts, either from within the same working community or from outside, for people to attempt to solve problems together or for use to be made of the professional literature.

Respondents' impressions of the demanding nature of their work

One employee in three believed that it would take at least a year to learn to do his or her job and one in three that it would take no more than a few weeks.

The respondents were asked to describe how demanding their own work was by estimating how long they believed it would take a newcomer to learn it, assuming the necessary level of initial education. A third of the employees, 35%, reckoned that it would take at least a year, just under a third that it would take a few months and just over a third that it could be learned in a matter of a few weeks or even days (Figure 5.1).

Those who were in high positions gave the largest estimates of the time required, with 52% of the upper white-collar employees claiming that the job would take a newcomer at least a year to learn, compared with one fourth of the lower white-collar employees and blue-collar workers. Almost a half of the last-mentioned group reckoned that it would take no more than a few weeks, and a fifth that it would be a matter of days. The evaluations were much the same as in the 1995 Adult Education Survey, except for the lower white-collar employees, 31% of whom believed in 1995 that a newcomer would take more than a year to learn their job, whereas the corresponding proportion in 2000 was only a fourth.

Men believed a longer time was needed to learn their job than did the women.

The respondents' estimates of the time required to learn their job differed markedly between the men and women (Figure 5.2), the men in all the socio-economic categories quoting much longer times than the women. The greatest discrepancy was seen among the blue-collar workers, where 37% of the men believed that it would take at least a year to learn their job but only 7% of the women. The same evaluation was given by 60% of the men and 43% of the women among the upper white-collar employees.

A half of the working population considered that the demands of their work matched their initial education …

A half of those in work considered that the demands of this work matched their level of initial education, 37% that their work demanded more that their education would warrant and one in ten that it demanded less (Figure 5.3). This basic education was taken to include both general and vocational education.

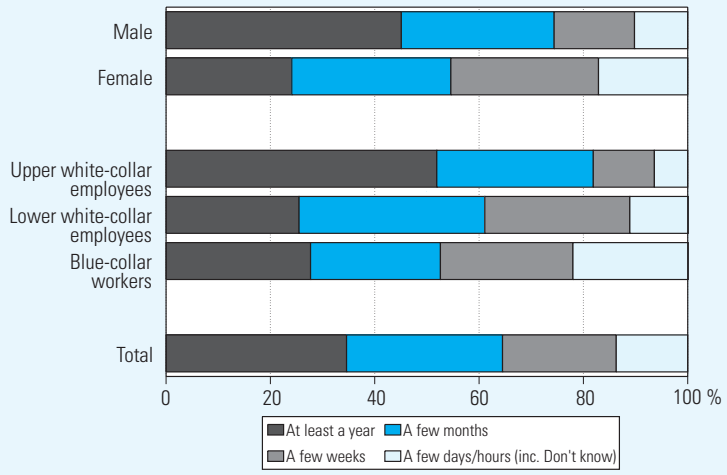


Figure 5.1
Estimates of the time taken for an outsider to learn the job by gender and socio-economic group (employees aged 18–64)

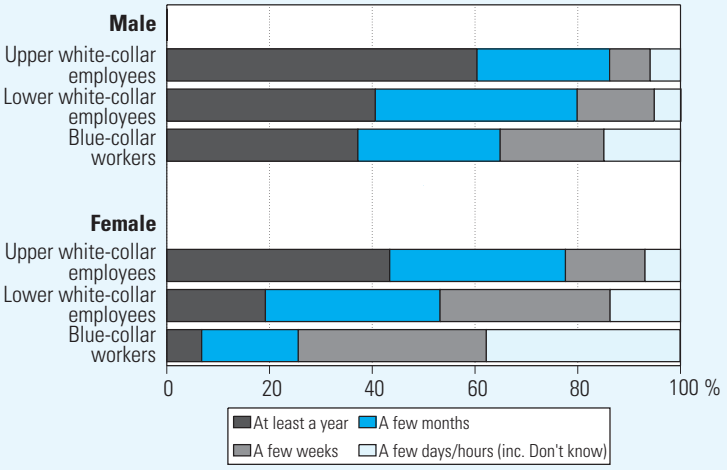


Figure 5.2
Estimates (male and female) of the time taken for an outsider to learn the job by socio-economic group (employees aged 18–64)

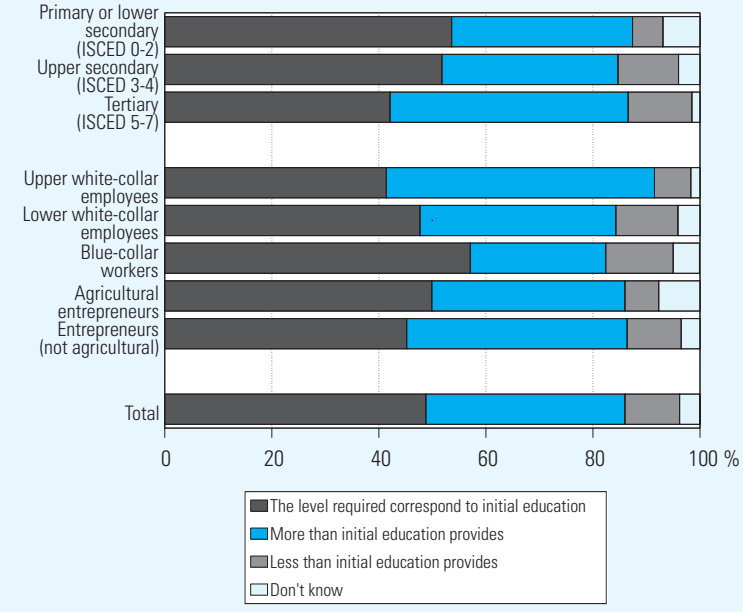


Figure 5.3
Estimates of the correspondence between basic education and the demands of the job by highest level of educational attainment and socio-economic group (employed population aged 18–64)

The best correspondence between their work and initial education was reported by the blue-collar workers, 57% of whom said that the correspondence was good. The highest proportion of those whose work made less demands on them than their initial education would have allowed was also found among them and among the lower white-collar employees. On the other hand, a half of the upper white-collar employees claimed that their work demanded more than their education provided for.

… but a half of the upper white-collar employees felt that more was demanded from them than their initial education would presuppose.

Working experience was the most important factor in the learning of the knowledge and skills required for work purposes (Figure 5.4), with 94% of the working respondents of the opinion that the necessary knowledge and skills were based very much or fairly much on experience acquired through their work. The entrepreneurs and upper white-collar employees placed particular value on working experience, and it was also appreciated more by the older respondents.

Working experience was most important for learning work skills …

Just under a half of the working respondents regarded the knowledge and skills they needed in their work as being grounded very much or fairly much in their basic education or the additional vocational or work-related education that they had received, while a fifth regarded such knowledge and skills as being totally unrelated to their basic or additional education. On the other hand, the respondents attached slightly more significance to self-directed studies connected with their work.

… but almost a half of the working population felt that their working skills came largely from their initial or additional education.

It was the white-collar employees who attached most importance to their basic and additional vocational education where working skills were concerned, while self-directed studies were important in this respect for both the upper white-collar employees and the entrepreneurs, with 70% of the latter group (excluding agricultural entrepreneurs) claiming that their skills were derived to a great extent from this source. The corresponding proportions for the agricultural entrepreneurs and upper white-collar employees were 58% and 66%, respectively.

Over a fourth of the employees had received preparatory training for their current job, comprising 31% of the lower white-collar employees, 30% of the upper white-collar employees and 23% of the blue-collar workers. At the same time 82% indicated that they had been helped by their colleagues and 58% by their immediate superior. The white-collar employees reported slightly more often than the blue-collar workers that they had had to learn their new job by themselves.

One fourth of the employed population had received preparatory training for their work.

Learning and development opportunities provided by work

A very high proportion of the employees were of the opinion that their work provided them with opportunities to make use of the knowledge and skills that they had learned earlier, four out of every five reporting that there were very many or fairly many such opportunities (Figure 5.5), and just under a fifth that there were a few. Only 3% indicated that no opportunities existed at all for this.

80% of employed persons had wide opportunities to use previously learned knowledge and skills in their work.

The men and women did not differ in the degree to which they felt able in their work to make use of previously learned knowledge and skills, but the younger respondents were less satisfied in this respect that the older ones. Scarcely any changes in this situation had occurred since 1995.

Those in high positions had more opportunities to use pre-existing knowledge and skills, 93% of the upper white-collar employees reporting that they had plenty of these opportunities as compared with 78% of the lower white-collar employees and 70% of the blue-collar workers. The figures for the white-collar employees were similar to those obtained in 1995, but that for the blue-collar workers had been 7 percentage points less.

Some 59% of the employed respondents were of the opinion that their work gave them very many or fairly many opportunities to develop their own abilities and professional skills (Figure 5.6), this being most commonly the case among the upper white-collar employees, almost four out of every five, while the proportions for the lower white-collar employees and the blue-collar workers were 56% and 47%, respectively.

Plenty of opportunities to develop one's own abilities and professional skills at work.

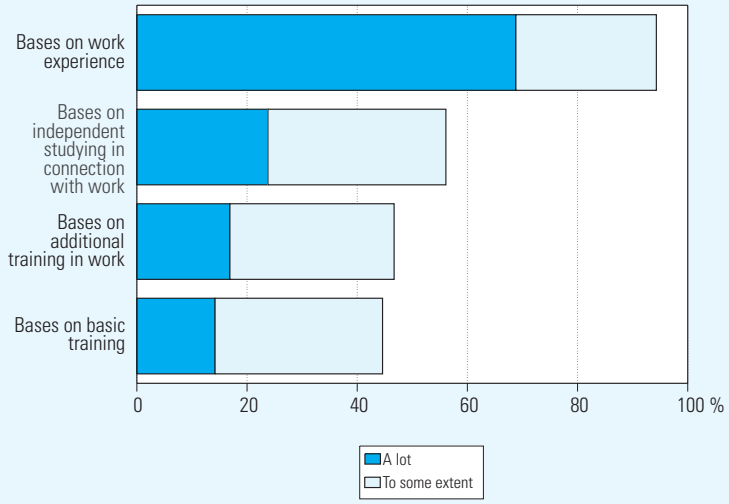


Figure 5.4
Opinions on the sources of the skills required for the job (employed population aged 18–64)

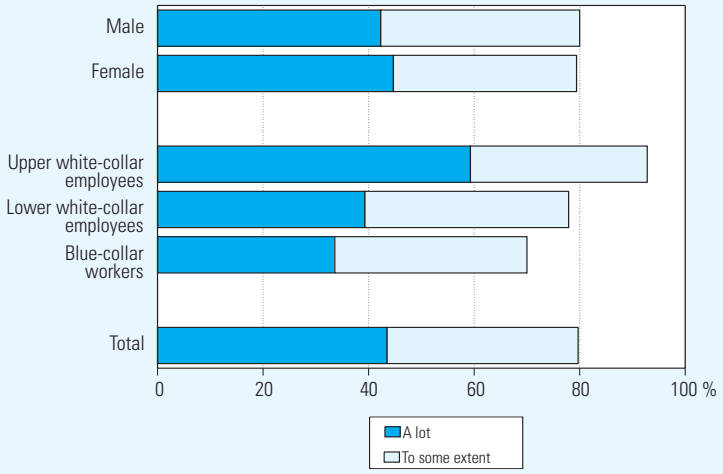


Figure 5.5
Estimates of the opportunities for using previously acquired knowledge and skills in the job by gender and socio-economic group (employees aged 18–64)

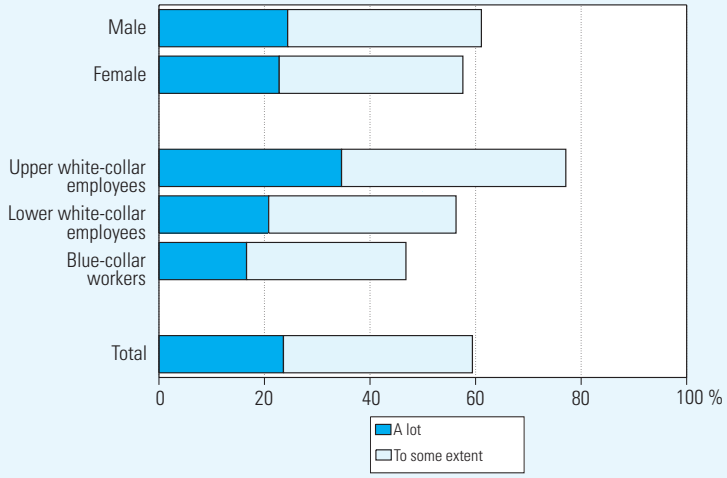


Figure 5.6
Estimates of the opportunities for using their abilities and professional skills in the job by gender and socio-economic group (employees aged 18–64)

Over a half of the employed persons, 55%, indicated that their work afforded them opportunities for learning new things (Figure 5.7), with scarcely any difference between the men and women.

Over half of employees felt that they learn new things at work.

Differences were perceived, however, when the results were analysed in terms of socio-economic categories, the opportunities improving with higher socio-economic group. Thus 77% of the upper white-collar employees reported that they had plenty of opportunities to learn new things as compared with just over half of the lower white-collar employees and 37% of the blue-collar workers. The figure for the last-mentioned group was nevertheless higher than it had been in 1995. Conversely, where 15% of the blue-collar workers had felt in 1995 that they had no opportunities whatsoever for learning new things at work, this was true of only 10% in 2000.

Correspondence between work and capabilities

The majority of the employees and entrepreneurs who were working at the time of the survey believed that they were doing jobs that were within their capabilities (Figure 5.8), and only 15% stated that their jobs were too simple for them.

The majority of the working population felt that their work was within their capabilities…

In all, 14% of the respondents estimated that they would need more training in order to do their job well, while in 1995 this proportion was 18%. The greatest need of this kind was felt among the upper white-collar employees with the highest level of educational attainment and agricultural entrepreneurs, where there were also the smallest proportions of respondents who regarded their work as too simple with respect to their capabilities. The necessity for additional training had decreased markedly since 1995 among the entrepreneurs (not agricultural), from 22% to 14%.

…although 14% would have liked more training in order to do their job well.

Need for additional training in order to do their job well decreased since 1995.

Examination in terms of age showed that the need for additional training had decreased particularly noticeably in the youngest age group (Figure 5.9), so that where 16% of those under 25 years of age had reported that they needed additional training in order to manage well in their job in 1995, the proportion in 2000 was only 6%. Likewise, the decrease in the proportion of those over 54 years of age requiring additional training amounted to 5 percentage points.

Problems at work and their solution

Three fourths of the respondents in the labour force reported that they had found themselves at some time in their working lives in a situation in which the requirements of their job had changed so much that their knowledge and skills were inadequate. This had occurred frequently for 6%, fairly frequently for 11%, and occasionally for over a half of those belonging to the labour force, 56%. One in four had scarcely ever been in this situation.

Three fourths felt their skills to be inadequate.

The higher the respondents' socio-economic position, the more often they had felt their knowledge or skills to be inadequate. Thus this situation had arisen frequently or fairly frequently for one fourth of the upper white-collar employees, 19% of the lower white-collar employees and 8% of the blue-collar workers, while conversely, 63% of the lower white-collar employees had experienced this only occasionally, as compared with a good half of the upper white-collar employees, entrepreneurs and blue-collar workers. About a fourth of the agricultural entrepreneurs had felt their knowledge and skills to be inadequate in 1995, but only a fifth in 2000.

In terms of age, this situation had arisen most commonly in the 35–44-year age group, where a fifth had had problems frequently or fairly frequently. Only 8% had been affected in this way in the age group under 25 years, and as many as 36% of those aged over 54 years reported that they had scarcely ever felt that their knowledge and skills were inadequate for their job.

In order to determine the means by which people had coped with such problems, those who answered in the affirmative were asked to describe what they had done in

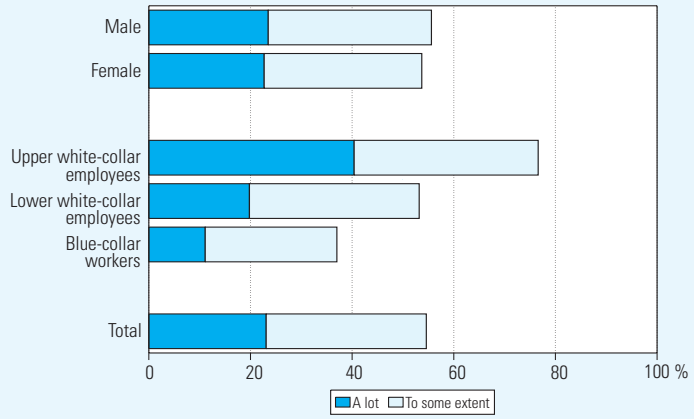


Figure 5.7
Estimates of the opportunities for learning new things in the job by gender and socio-economic group (employees aged 18–64)

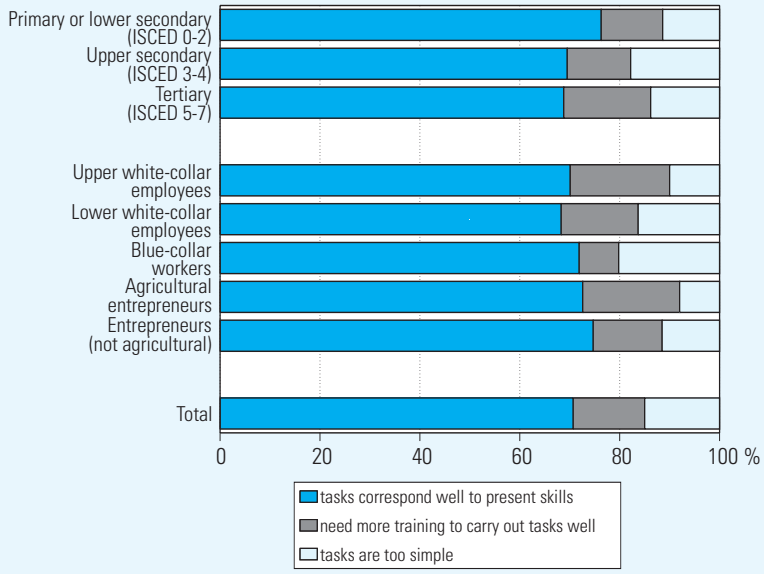


Figure 5.8
Estimates of the correspondence between the capabilities and the work job by level of education and socio-economic group (employed population aged 18–64)

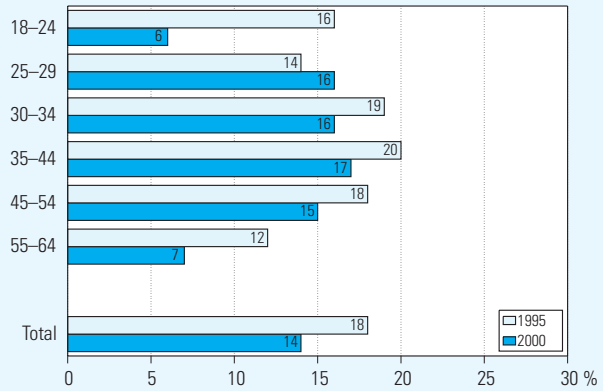


Figure 5.9
Proportions of those requiring additional training in order to manage in the job by age in 1995 and 2000 (employed population aged 18–64)

that situation and how they had acquired the necessary knowledge and skills. They were asked whether they had received help from colleagues, experts in their working community, experts from outside their place of work, from training, from the literature or professional magazines.

Most help received from colleagues and in-house experts, especially for women.

The most help in problem situations of the working life was received from working colleagues and experts attached to the same place of work. This form of solution was reported by 85% of the respondents, and more frequently by the women than by the men. The age group under 25 years contained the highest proportion who replied in this way.

A half of those with problems had received help from outside experts, …

A half of the respondents who had experienced problem situations stated that they had received help from outside experts, this being more common among those aged over 29 years and among the men. The socio-economic group that had benefited most from this form of help was that of the entrepreneurs, affirmative answers being received from 84% of the agricultural entrepreneurs and 75% of the other entrepreneurs.

… a half from training …

Training had provided a solution in the case of 53% of the respondents who had been in problem situations. Those under 25 years of age had benefited from this less often, in 38% of cases as opposed to over half of those in the older age groups.

… and 59% from the literature.

A total of 59% of the respondents who had had problems had received help from the professional literature and magazines, a drop of 5 percentage points relative to the 1995 findings. Solutions of this kind were most common among the agricultural entrepreneurs, 83%, while the proportions for the other entrepreneurs and upper white-collar employees were about three fourths, that for the lower white-collar employees 55% and that for the blue-collar workers 39%.

Reading of professional publications

Four fifths of the employees regularly read professional publications.

Four out of every five employees, 83%, reported that they read professional publications on a regular basis, 61% trade union magazines, 58% other professional magazines and 48% specialised professional literature (Figure 5.10). The proportions were lowest in the youngest age group, where 67% read professional publications regularly by comparison with 84% in the older age groups.

Women more frequently read trade union magazines than men, 66% vs. 56%, but other professional magazines were read equally frequently by respondents of both genders. Specialised professional literature again attracted the women more than the men.

The upper white-collar employees read professional magazines other than trade union ones more often than did the lower white-collar employees or the blue-collar workers, and the same was true of specialised professional literature.

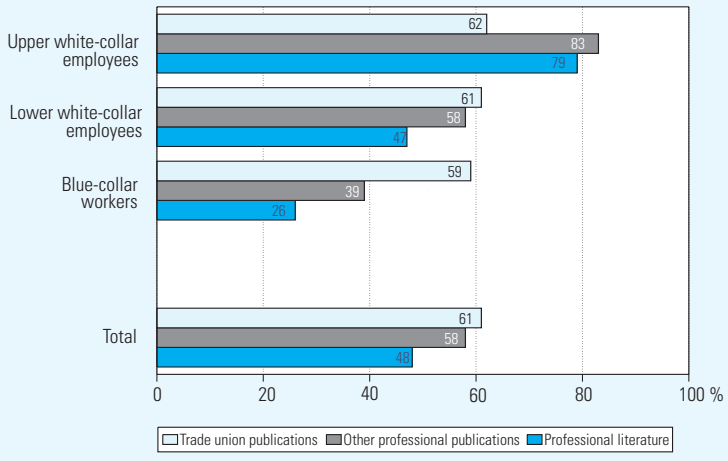


Figure 5.10
Regular reading of professional publications by socio-economic group (employees aged 18–64)

6 Use of computers by adults

Information technology has become a part of everyday life and work for an increasing number of adults, to the extent that the Statistics Finland Consumer Survey indicates that over half of the country's households possess a computer and 41% an Internet connection.

The national information society strategy with regard to education and research places particular emphasis on adult education and the arranging of study opportunities, and the plan for implementing this strategy proposes that all citizens should be given the chance to acquire sufficient capabilities and should be encouraged and motivated to respond to this challenge in the manner best suited to their situation in life (Ministry of Education 1999).

One potential undesirable outcome of the age of information technology is seen as being a new form of inequality, arising from the fact that not everyone has the necessary skills to use this technology and master the techniques of data processing, or does not wish to use it.

We will look below, in the light of the Adult Education Survey 2000, at the extent to which the population makes use of computers, how frequently adults in different sectors of the population use one and for what purposes, how people have learned to use a computer, whether they have received any training in information technology and to what extent they feel that they need such training.

Computer users by gender, age, level of education and place of residence

Three out of every four adults have used a computer …

According to the Adult Education Survey 2000, three fourths of the Finnish population aged 18–64 years, or some 2.4 million people, had used a computer in their work, for studying, at home or otherwise in their spare time (Table 6.1), 69% having done so within the year preceding the inquiry, 68% of the men and 70% of the women. A half of the adult population, representing some 1.6 million people, indicated that they had used one in the last two days, the majority of these active users being men, and 62% had used one during the last week.

… and a half are active users.

Young people most often use a computer.

The proportion of respondents who used a computer decreased with advancing age, so that distinctly less of those aged over 44 years did so than of those in the younger age groups, 61% of those aged 45–54 years having used one in the last year and a third of those aged 55–64 years, as opposed to at least 80% among those under 45 years of age. Scarcely any differences were found between the men and women in the various age groups, more women than men being found among the users only at age 45–54 years.

6.1 Frequency of computer use by gender (population aged 18–64)

	Males	Females	Total	
	%	%	%	N
Have used the computer during the last	72	75	74	2,405,000
– two days	52	47	50	1,621,000
– week	62	61	62	2,011,000
– six months	67	68	68	2,207,000
– 12 months	68	70	69	2,254,000
Have not used the computer	28	25	26	856,000
Total	**100**	**100**	**100**	**3,261,000**

Similarly those with a high level of education …

Use of a computer was more common the higher the level of education the respondents had (Figure 6.1). The level of educational attainment admittedly had scarcely any effect on computer use among those aged under 25 years, but the differences were fairly clear in the older age groups, so that those of age 45–54 years who had tertiary education had used a computer more than twice as often as those of the same age with upper secondary education or less, and the corresponding difference among those over 54 years of age was a three-fold one.

… and those living in urban municipalities.

The respondents who had used a computer in the last year were distributed fairly evenly over the whole country. Three out of every four respondents living in urban municipalities[1] had used a computer within the year, as compared with 64% of those living in semi-urban municipalities and 58% of those in rural areas. More of those with tertiary education had done so than of those with less initial education in all the types of municipality, the mean for all those with tertiary education being about nine out of ten. The proportions for the respondents with an upper secondary education or less varied with type of municipality, however, being highest in the urban municipalities, somewhat lower in the semi-urban ones and lower still in the rural ones (Figure 6.2).

Use of a computer by socio-economic group, current employment situation and place of work

The frequent computer users were mostly working people in a good position and students.

Of the socio-economic categories, it was the upper white-collar employees and students that had most often used a computer in the last year, 96-97%, while 85% of the lower white-collar employees and 54% of the blue-collar workers had done so. Just under a half of the agricultural entrepreneurs had used a computer, but seven out of ten of the other entrepreneurs. Less than a fifth of the persons under 65 years of age who were receiving a pension used a computer in 2000.

Differences between men and women in computer use were evident among the upper and lower white-collar employees and among other than agricultural entrepreneurs (Figure 6.3). Where about six out of ten of the female entrepreneurs (not agricultural) had used a computer in the last year, the figure for the men was as high as 75%. Similarly the men among the white-collar employees were more often computer users than the women, i.e. virtually all of them (99%) vs. 94% in the upper category and nine out of ten as opposed to just over eight out of ten in the lower category.

Those at work were far more frequently computer users than the unemployed.

The working population were more often users of a computer than those who were unemployed, by a margin of 78% to 52%, and the unemployed women were more active in this respect than the men, six out of every ten being computer users by comparison with less than half of the men (Figure 6.4). The men and women in the working population were equally frequent computer users.

Unemployed discouraged from computer use by their lower level of educational attainment.

The activity with regard to use of a computer shown by those with high level of educational attainment was not dependent on their employment situation to the same extent as with those having less education. Thus where 96% of those with tertiary qualification who had work used a computer, the figure was almost 90% for those who were unemployed, whereas the corresponding proportions for the respondents with less than upper secondary education were 60% and 39% (Figure 6.5).

Advancing age affects computer use among the unemployed far more than among those who are working.

Use of a computer was more dependent on age among the unemployed than among those who had work (Figure 6.6). Thus more than 80% of the unemployed respondents aged under 25 years had used a computer in the last year, but only a half of those aged 35–44 years and a third of those aged over 44 years had done so, whereas use of a computer remained frequent up to retiring age among those who were in work, even though the younger respondents were more active in this respect. Almost nine out of every ten respondents in the working population aged 18–24 years used a

1 The municipalities are divided for statistical purposes into three types on the basis of population and the proportion of inhabitants living in built-up areas: urban, semi-urban and rural. For more details, see Concepts and Classifications.

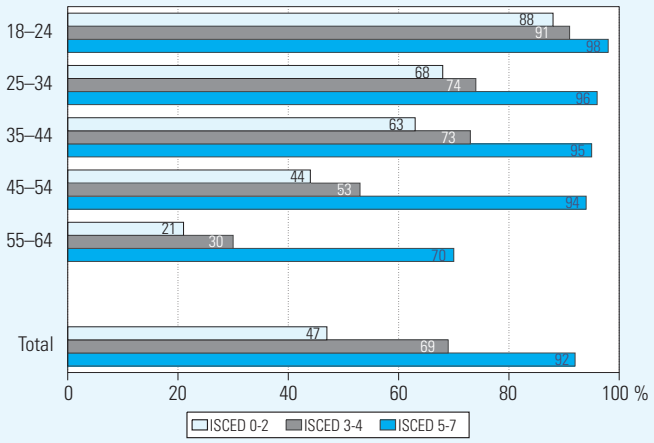


Figure 6.1
Use of a computer within the last year by age and highest level of educational attainment (population aged 18–64)

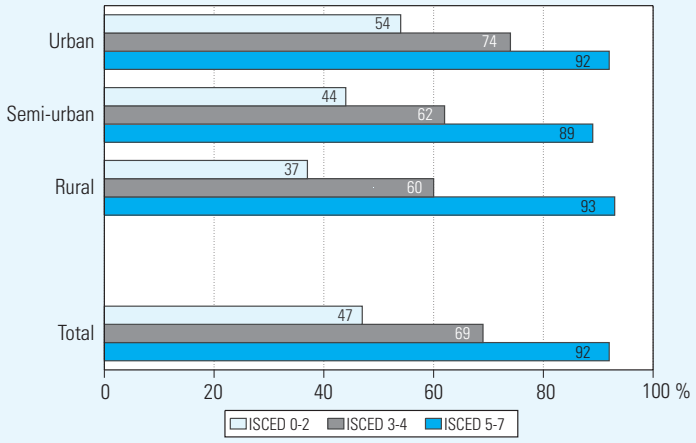


Figure 6.2
Use of a computer within the last year by type of municipality and highest level of educational attainment (population aged 18–64)

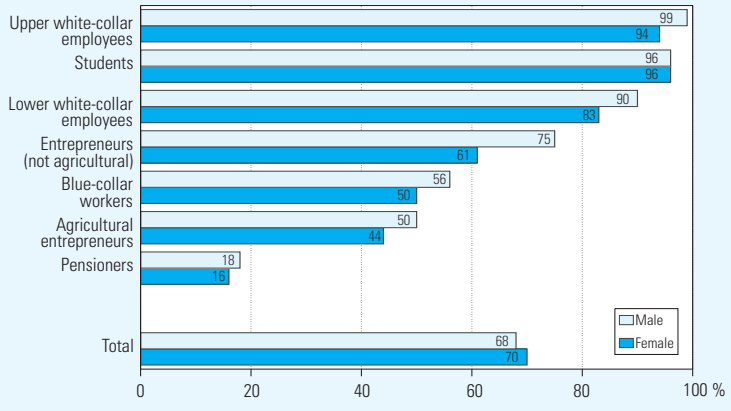


Figure 6.3
Use of a computer within the last year by gender and socio-economic group (population aged 18–64)

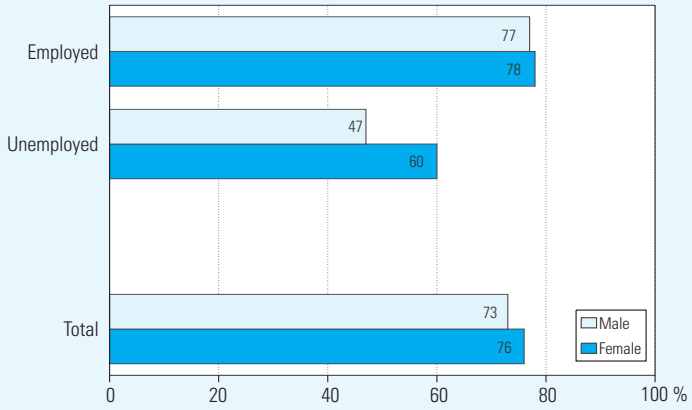


Figure 6.4
Use of a computer within the last year by current employment situation and gender (population aged 18–64)

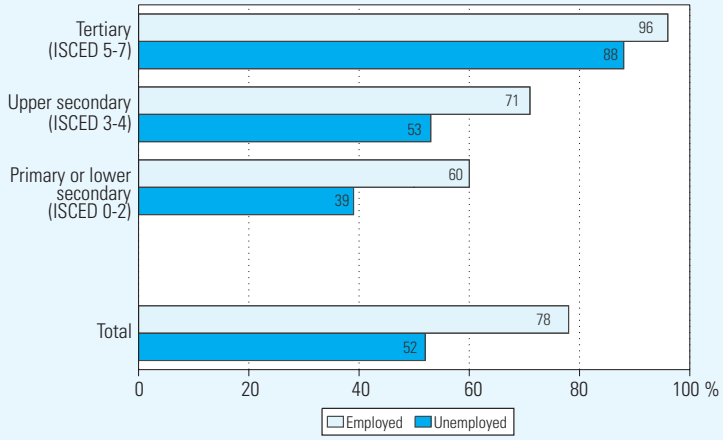


Figure 6.5
Use of a computer within the last year by highest level of educational attainment and current employment situation (population aged 18–64)

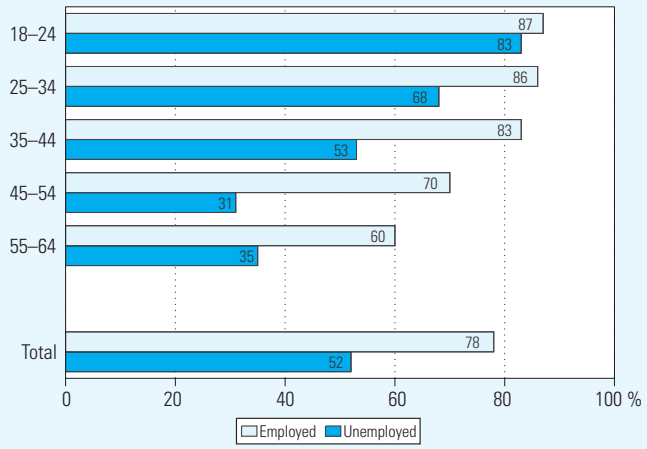


Figure 6.6
Use of a computer within the last year by age and current employment situation (population aged 18–64).

computer, and eight out of ten aged 35–44 years, after which the frequency decreased markedly, but not at the same rate as among the unemployed. Thus six out of ten people used a computer even in the oldest age group, 55–64 years.

The difference in the proportions of the working population and the unemployed in the use of a computer widened with age up to the 45–54-year-olds, so that although there was scarcely any difference at all below the age of 25 years, the proportion was more than twice as great in the working population than among the unemployed at age 45–54 years. The gap closed somewhat among those over 54 years of age, however.

Computer use most common among employees of large companies …

Those who were employed at large establishments were more frequently computer users than those at small establishments, with over 80% of those employed at places with a payroll of more than 500 persons using a computer, as compared with less than 70% of those at workplaces with under 50 employees. More of the women working at establishments of the latter kind used a computer than of the men.

… and central government employees.

Those working in the central government sector more often used a computer than those employed in the local government or private sector, 87% vs. 75%. The women working in central government or the private sector were more active computer users than the men, but men and women employed in the local government sector did so to the same extent.

Purposes for which a computer is used

Computers were used most for text editing, searching information from the information networks and electronic mail.

The most common purpose for which computers were used was text editing, although searching information from the information networks and communicating by e-mail were almost as frequent. E-commerce was considerably less widespread, however, as also were programming and chatting on the web.

The overall results indicated that 23% of the population used a computer for text editing daily and more than half at least a few times a month (Figure 6.7). Correspondingly, 18% used it daily for searching the web for information or services, although if account was taken of those who did so just a few times a month the proportion rose to 46%. A fourth of the population used e-mail daily, and 44% a few times a month, while 28% paid bills by computer at least a few times a month and 5% had bought or sold services by that means.

At the same time, 42% of the population indicated that they had played computer games within the last six months, although the majority of them claimed to play less than a few times a month. There were 24% of the population who played computer games a few times a month and only 3% who played every day.

Little difference in purposes of computer use between the genders …

Scarcely any differences were seen between the genders in the purposes for which they most often used a computer, although the men were more frequent users than the women for all purposes except text editing. The most common reasons for the men using a computer were searching information from the information networks and text editing, followed by the sending and receiving of e-mails, and these same three functions were the main ones for the women, although in this case text editing was far more common than searching for information or communicating by e-mail.

… or in relation to age.

The respondents who were under 45 years of age more often used a computer at least once a month for the various purposes listed here, but the frequencies of the purposes as such did not differ greatly with age. Text editing was the most common in all the age groups.

The respondents who had at least upper secondary education used computers more often for all the purposes mentioned than those with only primary or lower secondary education, and those with tertiary qualifications stood out from the others in the versatility of their daily computer use. Only very minor differences were observed in web conversations, programming and buying or selling services in relation to the level of initial education of the respondent.

The unemployed made considerably less use of computers than did the working population, the only daily activity that was more common for them being the playing of computer games. The differences were marked in the case of both daily use and more occasional use, at least a few times a month, and they were particularly striking in the case of daily communication by e-mail, text editing and searching information from the information networks. Not a single unemployed person reported using daily a computer to pay bills, to buy or sell services or to chat on the web.

Unemployed used computers for various purposes very much less than the working population.

Learning to use a computer

The most effective means of learning to use a computer was regarded as being by independent effort, through trial and error, and the second most effective learning with support from one's colleagues, friends or family members. Slightly less emphasis was placed on various computing courses and on self-directed studies by means of handbooks, teaching packages or other instructional material.

Self-directed studies and learning together more important than formal instruction in computer use.

About 59% of the total population aged 18–64 years regarded learning by trial and error as the main means of acquiring computer skills (Figure 6.8), although almost as many, 55%, were also in favour of learning with help from one's colleagues, friends or family members. Similarly the support received from experts had been of significance for learning, as 44% of the adult population regarded it as very important or fairly important. Almost four out of every ten looked on learning at a school, by studying or through educational events as important, and slightly less, but still nearly a third of the population, attached importance to independent learning with the help of a handbook, teaching package or other instructional material or to various computer courses.

The experiences of learning to use a computer recounted by the men and women did not differ greatly from each other. The women placed most store on support received from colleagues, friends or family members and on independent learning by trial and error, whereas the men came out more strongly in favour of the latter. The women attached more importance than the men to learning at a school, by studying or through educational events and through computer courses.

Little difference between population groups in their experiences of learning to use a computer …
… but the women placed more value on formal training…

All the age groups under 45 years reported having learned to use a computer most frequently by trial and error, and secondly with support from colleagues, friends or family members, and these were also the main means of learning for those over this age, but now of equal frequency. The respondents under 35 years of age attached much more importance than the older ones to learning at a school, by studying or through educational events, and in general terms these younger respondents regarded combinations of learning methods as more important than did their elders.

… and those under 35 years of age did so more than their elders.

The unemployed and the working population scarcely differed at all in the ways in which they had learned to use a computer, but those who had work tended to assign greater importance to the various methods. Similarly, no differences in learning could be detected in relation to level of educational attainment, although those with an upper secondary or tertiary qualification tended to place more weight on the use of a number of approaches than did those with primary or lower secondary education.

The size of the respondent's place of work again did not affect attitudes towards learning to use a computer, but it was noticeable that people employed at establishments with a payroll of over 500 attached importance to more means of learning computer techniques than did those who worked in small establishments.

Adult education in information technology and the perceived need for it

Almost 450,000 people aged 18–64 years took part in adult education related to information technology in 2000, i.e. 14% of the adult population (Figure 6.9). The highest proportions participating in this were to be found among white-collar em-

Training in information technology received by 14% of adults in 2000.

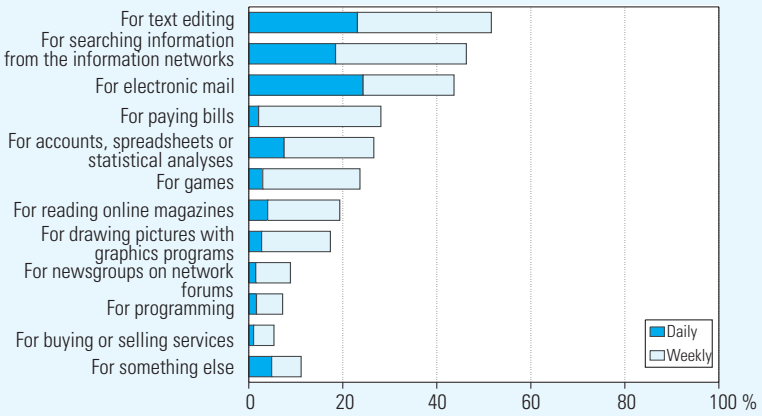


Figure 6.7
Use of a computer for different purposes (population aged 18–64)

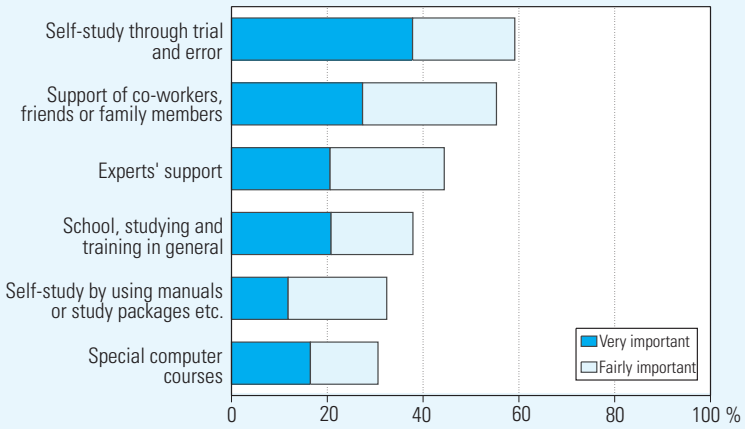


Figure 6.8
Main means of learning to use a computer (population aged 18–64)

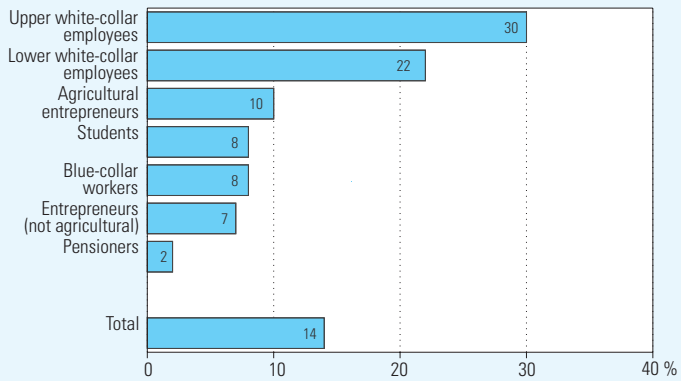


Figure 6.9
Participation in adult education and training in information technology by socio-economic group in 2000 (population aged 18–64)

ployees and those with tertiary education, with just under a third of the upper white-collar employees involved and a good fifth of the lower white-collar employees. The corresponding proportion for the blue-collar workers was 8%. Instruction in information technology was received as a form of employer-sponsored training most of all by employees of large companies. Less than 1% of the employees had undertaken training in this field in their own time and at their own expense.

One in ten of the agricultural entrepreneurs and 7% of the other entrepreneurs had received training in the information technology.

6% of adults had studied information technology for at least 20 hours by themselves.

Self-directed studies in information technology unrelated to any formal education had been undertaken by 6% of the population aged 18–64 years (excluding full-time students). This was again most common among those with tertiary qualifications, upper white-collar employees and entrepreneurs (not agricultural), and was twice as common among men as among women.

A fourth of the labour force believed that they need training in information technology.

When those respondents who belonged to the labour force were asked what training they needed more in order to develop their professional skills and advance their careers, a fourth of them answered that they needed training in information technology. The corresponding figure for those who believed that they needed training in languages, for instance, was 14%.

The need for training in information technology declined to 14% at age 55–64 years.

The degree to which training in information technology was felt necessary remained fairly constant in all age groups except those aged 55–64 years, where the proportion requiring it was far lower than average, only 14%. A third of the respondents with tertiary education believed that they needed such training, a fourth of those with upper secondary education and a fifth of those with only primary or lower secondary education.

All in all there were more people in the labour force who indicated that they needed training in information technology than had taken part in such training during the previous year. A need existed in the case of over a third of the upper white-collar employees, 30% of the lower white-collar employees, more than a fourth of both the agricultural entrepreneurs and the other entrepreneurs and 16% of the blue-collar workers (Figure 6.10).

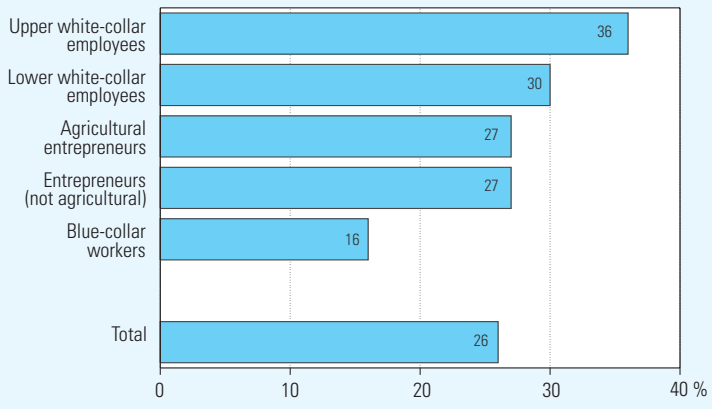


Figure 6.10
Need for training in information technology by socio-economic group in 2000 (population aged 18–64)

7 Adults' foreign language skills

Language skills for Finland's expanding international contacts

The international contacts maintained by Finnish society have expanded vastly since 1990, the greatest single factor influencing the trend being almost certainly membership of the European Union. This means that more emphasis than ever is being placed on the need for language skills, in order to establish cooperation and networking between individual citizens, companies and organisations. Although language skills have gained in prominence as an element of professional competence, it should be remembered that they are also becoming more and more necessary in leisure-time activities and in various forms of civic action (Takala 1998).

53% of EU citizens can speak at least one foreign language and 26% at least two.

The White Paper of the European Commission (1995) set as its target that the citizens of member countries should be able to speak two of the other official languages of the EU in addition to their native language, and a Eurobarometer investigation in 2000 indicated that over half of all European citizens, 53%, could speak at least one foreign language and 26% claimed to speak more than one. The languages most commonly spoken in addition to the native language were English (41%), French (19%) and German (10%). Foreign languages were regarded as useful by 72% of EU citizens, and the most useful among them was said to be English (Eurobarometer 2001).

The same investigation also inquired into the barriers to adults' acquisition of language skills. The principal reason (34%) proved to be the lack of time for studying, and almost the same proportion indicated a lack of motivation. There were 22% who felt that they were not good in languages.

Finns with no foreign language skills believed they were capable of learning one more frequently than European nationals on average.

The majority of the European citizens who could not speak a foreign language believed that learning a new language would be too difficult for them (65%) or that it would take too much time (64%). Only 38% believed that they could learn a new language if they had the chance. The corresponding proportion among the Finns was 48% (Eurobarometer 2001).

Language skills built up on general education and the motivation created by it.

Adults' language skills are very closely related to the language teaching they have received as part of their general education, and it is this that creates the foundation both for adult language skills and for the motivation to study new languages (see Sartoneva 1998).

From the time of the introduction of the comprehensive school system, all pupils in Finnish schools have been taught two foreign languages, which has given the younger age groups a good grounding for further language studies. The older age groups, on the other hand, still include some people who will not have learned any foreign language at school.

Four out of five Finns can speak a foreign language

78% of Finns claim to speak a foreign language.

The results of the Adult Education Survey 2000 indicate that 78% of Finns reckon that they can speak at least one foreign language to a certain extent. The corresponding proportion five years earlier, in 1995, was 72%.

The respondents were asked to assess their own language skills in terms of a ready-made classification system that was put before them, in which the lowest level implied managing simple everyday expressions and the highest level speaking the language without difficulty, almost in the manner of a native speaker. The classification was based on the six-point scale used by the Council of Europe, in which the levels can be combined into three groups, labelled as basic users, independent users and proficient users. The levels as employed in the Adult Education Survey are described in more detail in the chapter on Concepts and Classifications.

The young people had a very much better knowledge of languages than the older age groups, with 97% of those aged under 35 years saying that they could speak at least one foreign language, as compared with 58% of those aged over 44 years (Figure 7.1). Practically everyone in the youngest age group, 18–24 years, could speak at least one foreign language, this being a consequence partly of the selection of languages available in the comprehensive school and partly of the pronounced expansion in schooling beyond that level.

More language skills among younger respondents …

The women gave higher assessments of their own language skills than did the men, so that 83% claimed to have some kind of knowledge of at least one foreign language, as opposed to 73% of the men (Figure 7.2). Their skills in all languages were better than those of the men (Figure 7.3).

… and among women …

The higher the level of education that respondents had, the more likely it was that they would be able to speak foreign languages. Practically all those with tertiary education, 98%, indicated that they could speak at least one language (Figure 7.2), compared with 79% of those with an upper secondary education and 57% of those with primary or lower secondary education.

… and those with higher level of education.

What languages can the Finns speak?

The most common language of which the respondents had some command was English, which 73% claimed to speak to some extent, while 59% had a command of Swedish as a foreign language, 29% of German, 9% of French and 5% of Russian (Figure 7.4).

Most common languages are English (73%), Swedish (59%) and German (29%).

Great variations emerged in the levels of knowledge of foreign languages. By far the best known was English, of which 17% of the adults claimed to be proficient users and 32% independent users, i.e. these two categories together covered half of the population.

English spoken best.

The next best language for the Finns was Swedish, of which 5% of the respondents claimed to be proficient users (as a foreign language) and a total of 31% at least independent users.

Apart from German, of which 9% of the respondents were independent users, the other languages remained largely at the basic user level.

Speakers of English

Almost a third of the respondents under the age of 35 years, 30%, indicated that they were proficient users of English (Figure 7.5), and as many of 75% that they were at least independent users. Only 5% of the population at that age admitted that they could not speak English at all.

Young people speak English best …

By comparison, a half of those aged over 44 years said that they could not speak English at all. At the other end of the scale, 7% claimed to be proficient users and a total of 26% at least independent users.

Where 79% of the women had some knowledge of English, the proportion for men was 67% (Figure 7.3). The corresponding figures in 1995 had been 73% of the women and 61% of the men.

… women better than men …

Those with high level of education managed well in English. Almost a third, 29%, placed themselves among the proficient users, and altogether three out of four, 78%, were at least independent users. Only 4% reckoned that they could not speak English at all.

… and those with high level of education better than the others.

Speakers of Swedish

Far more of the Finns had a command of Swedish (as a foreign language) than of any other language apart from English. This applied to 59% of the adults, 52% of the men and 66% of the women (Figure 7.6).

Two out of every three women and a half of the men could speak Swedish.

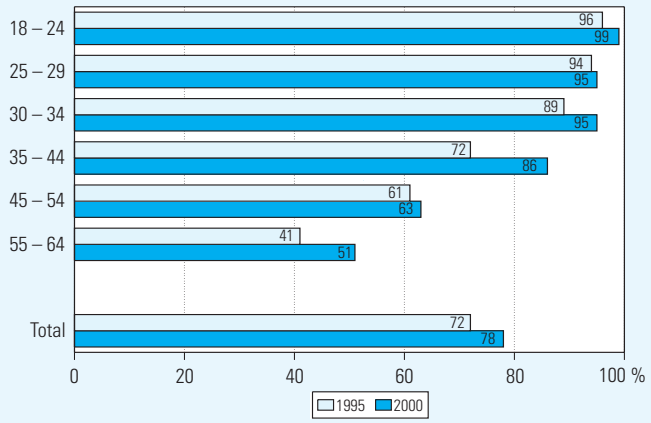


Figure 7.1
Proportions of the population who had a command of at least one foreign language by age in 1995 and 2000 (population aged 18–64)

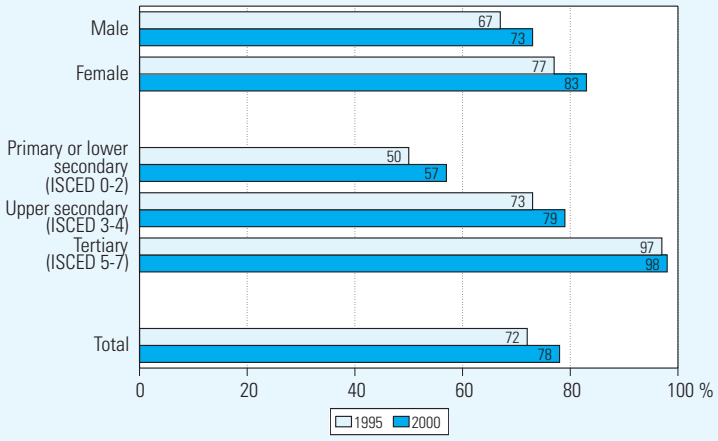


Figure 7.2
Proportions of the population who had a command of at least one foreign language by gender and highest level of educational attainment in 1995 and 2000 (population aged 18–64)

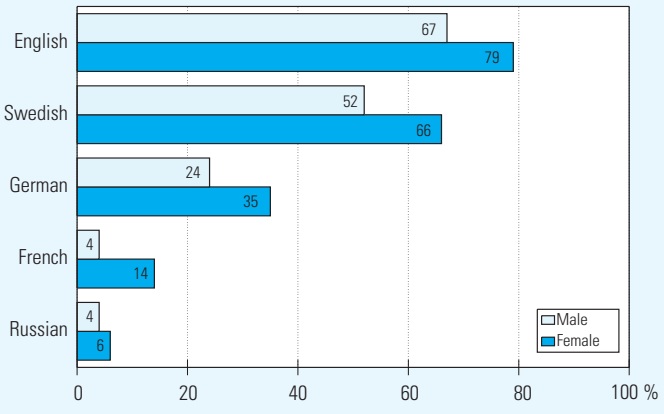


Figure 7.3
Knowledge of foreign languages by gender in 2000 (population aged 18–64)

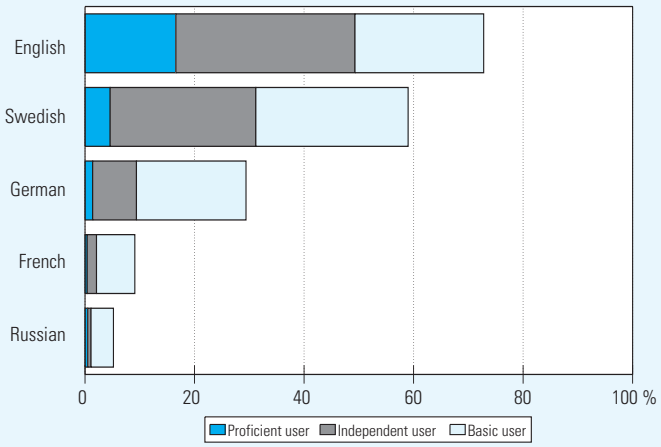


Figure 7.4
Knowledge of foreign languages by level of command in 2000 (population aged 18–64)

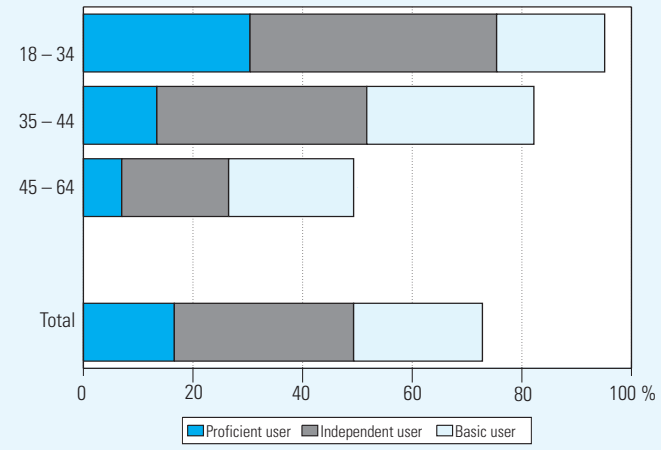


Figure 7.5
Knowledge of English by age and level of command in 2000 (population aged 18–64)

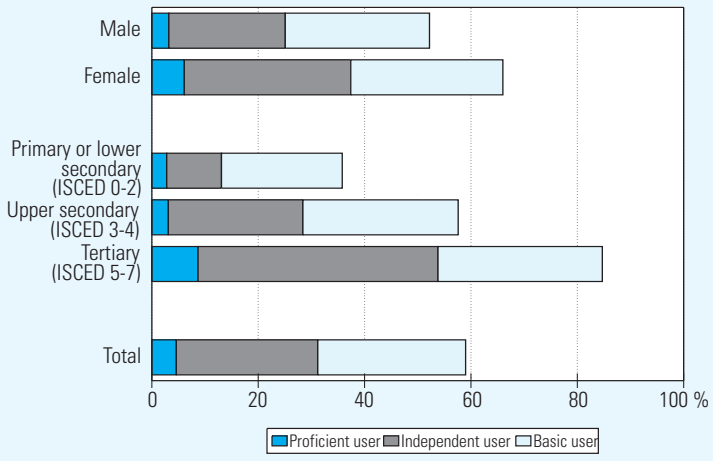


Figure 7.6
Knowledge of Swedish by gender, highest level of educational attainment and level of command in 2000 (population aged 18–64)

The level of skills in Swedish was poorer than that in English, although again the women placed their level higher than did the men. Thus 37% claimed to be at least independent users, compared with 25% of the men.

Level of knowledge poorer than for English.

The level of the respondents' educational attainment was again reflected in their knowledge of Swedish, in that two thirds of those with only primary or lower secondary education, 64%, were of the opinion that they could not speak Swedish at all, as opposed to only 15% of those with tertiary education.

Swedish also stronger amongst women and those with high level of education.

The majority of those with primary or lower secondary or upper secondary education who had some knowledge of Swedish were only basic or at most independent users, whereas 9% of those with tertiary education claimed to be proficient users of Swedish, a level achieved by only 5% of the population as a whole.

The young age groups contained higher proportions of independent users of Swedish than did the older groups.

Speakers of German and French

There were far fewer respondents with a knowledge of German or French than of English and Swedish, 29% for German and 9% for French.

The women more frequently had some knowledge of these languages than the men, with 35% of the women and 24% of the men having some command of German and 14% of the women and 4% of the men some command of French.

The highest proportion of people with a knowledge of German was to be found among those with tertiary education, 57% (Figure 7.7), by contrast with 24% of those with an upper secondary education and 11% of those with primary or lower secondary education only. The proportion of respondents with tertiary education who were at least independent users of German was 22%.

Most German speakers had high level of education …

The respondents with a knowledge of French were also mainly in the tertiary education group, where they made up 16%, although most of them were at the basic user level.

…as also for French, which was usually at the basic user level.

Speakers of more than one foreign language

Altogether 63% of the adults claimed to have some sort of command of more than one foreign language, the largest group being those with two such languages, 28% (Figure 7.8). There were then less people with three languages and still less with four. There were even a few interviewees who claimed a knowledge of as many as nine foreign languages. There were more speakers of at least two languages among the women than among the men, and the largest groups among those with tertiary education consisted of speakers of three languages.

63% of adults had a knowledge of more than one foreign language.

The most common combination of two foreign languages was English and Swedish, which was reported by more than half of the population (Table 7.1), while less than a third had English and German and one fourth Swedish and German.

The most common combinations of two foreign languages were English and Swedish (55%), English and German (29%) and Swedish and German (26%).

Introduction of the level of language skill into the analysis yielded a wide variety of combinations of languages and levels. We will confine ourselves below to the three most common languages and knowledge of them at the independent user level at least.

A total of 28% of the population claimed to be at least independent users of both English and Swedish, while 14% were at least independent users of English and basic users of Swedish and only 8% at least independent users of English without speaking Swedish at all (Table 7.2).

7.1 Command of English, Swedish and German combined (population aged 18–64)

	Swedish		German	
	%	persons	%	persons
English	55	1,808,000	29	930,000
Swedish			26	850,000

7.2 Command of Swedish among those whose command of English is at least on independent user level (population aged 18–64)

Level in English	Level in Swedish	Population aged 18–64	
		%	Persons
Proficient/independent	Proficient/independent	28	913,000
Proficient/independent	Basic level	14	448,000
Proficient/independent	No skills	8	245,000
Total		**49**	**1,606,000**

The combination of English and German with at least the independent user level of command in both was found in 8% of the population (Table 7.3). If we include the 16% who were basic users of German, the total then reaches 24%, with a further 24% having at least independent user skills in English but no knowledge of German.

7.3 Command of German among those whose command of English is at least on independent user level (population aged 18–64)

Level in English	Level in German	Population aged 18–64	
		%	Persons
Proficient/independent	Proficient/independent	8	276,000
Proficient/independent	Basic level	16	536,000
Proficient/independent	No skills	24	794,000
Total		**49**	**1,606,000**

Almost a third of the adults, 31%, claimed to be proficient or at least independent users of Swedish (Table 7.4), and 7% to have a comparable command of both Swedish and German. Those who were at least independent users of Swedish and basic users of German amounted to 12%.

7.4 Command of German among those whose command of Swedish is at least on independent user level (population aged 18–64)

Level in Swedish	Level in German	Population aged 18–64	
		%	Persons
Proficient/independent	Proficient/independent	7	233,000
Proficient/independent	Basic level	12	392,000
Proficient/independent	No skills	12	390,000
Total		**31**	**1,016,000**

A command of the combination of all three major languages, English, Swedish and German, at the independent user level at least was claimed by 7% of the population, i.e. representing 200,000 adult Finns (Table 7.5). It was usually English that was spoken best among them.

7% of adults were at least independent users of the combination of English, Swedish and German.

7.5 Persons whose command of Swedish, English and German is at least on independent user level (population aged 18-64)

Proficient in three languages	Population aged 18–64	
	%	Persons
Swedish		
independent user	5	156,000
proficient user	2	62,000
English		
independent user	3	86,000
proficient user	4	132,000
German		
independent user	6	185,000
proficient user	1	33,000
Total	**7**	**218,000**

Participation in adult education and training in foreign languages

200,000 people received adult education in foreign languages in 2000, i.e. 6% of the population.

Altogether 6% of the population aged 18–64 years took part in organised language teaching in 2000. By far the most popular language was English, lessons in which were attended by 3% of the population, the next most popular being Swedish, French and Spanish, each with about 1%.

A higher proportion of women took part in language courses than of men, 8% vs. 3%, and the most active participants were aged 30–34 years, highly educated and in white-collar occupations.

Self-directed language learning was rare.

There were also cases where respondents had studied languages on their own, without organised lessons, although only instances in which this had comprised more than 20 hours of study were documented here. On this basis, 3% of the population had studied languages independently during the year, it being most common among those with high level of education and the upper white-collar employees.

Need for training in languages

18% of the population had a need for language training.

When the respondents to the Adult Education Survey 2000 were asked to say whether they would need additional education, in which subjects and whether it would be for their work or for leisure-time use, 18% replied that they would need training in foreign languages either for work purposes or for their leisure-time interests (Figure 7.9).[1] The women felt this need more often than the men, and it was most frequent among those with a high level of education. Where one in ten of those with primary or lower secondary education alone indicated a need for instruction in languages, the figure for those with tertiary qualification was three out of ten.

Instruction was needed most often in English …

Language training aimed at improving professional skills and advancing the respondent's career was reported as necessary by 14% of the population (excluding pensioners and students without working experience). The greatest demand for work purposes was for English, applying to 10% of the respondents, while 5% needed training in Swedish and 3% in German. Both Russian and French were perceived as necessary for work purposes by 2% of the respondents.

… for both work and …

For 9% of the population language training was felt to be necessary for leisure-time purposes, again with English the most popular, 2%, but now followed by Spanish (1%). Other languages attracted little attention, the proportions for Swedish, French and Russian, for instance, being of the order of half a percent.

… leisure-time activities.

The greatest need for this leisure-time language instruction was expressed by those with high level of basic education and the white-collar employees, and also by the age group 55–64 years. An interest in improved language skills for leisure-time use was shown by 11% of the women and 6% of the men.

General language certificates

General language certificate tests are open to all adults.

General language certificates are functional and communicative tests of language skills in different situations that are open to all adults. Anyone at all can enter, and no predetermined requirements are set. Certificates of this kind are available in nine languages (National Board of Education, 2002).

The aim of these general language certificates is to assess overall language skills and skills in five particular areas: comprehension of the written language, comprehension of speech, speaking, writing and structures and vocabulary. The tests are available at three levels and can be taken twice a year. Recently a 6-point scale has been introduced, involving a basic level (levels 1-2), an intermediate level (levels

1 The data on this point are not comparable with those of the 1995 Adult Education Survey, as the 2000 questionnaire contained two questions, one about additional education needs for work purposes and the other for leisure-time purposes, asking the respondents to name the subject, whereas in 1995 there were separate questions asking specifically whether there was a need for training in foreign languages.

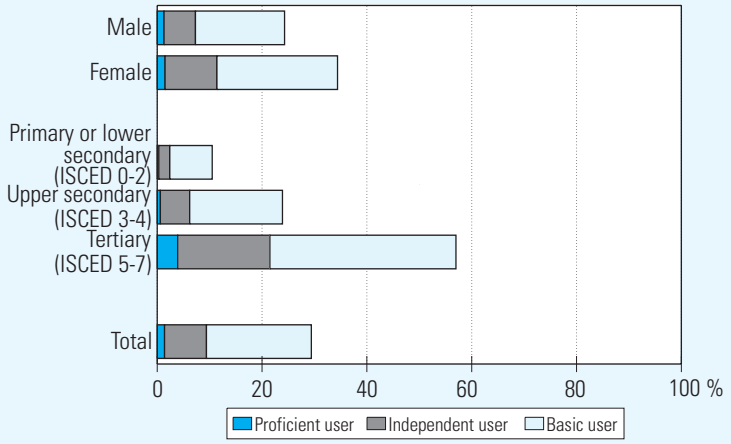


Figure 7.7
Knowledge of German by gender, highest level of educational attainment and level of command in 2000 (population aged 18–64)

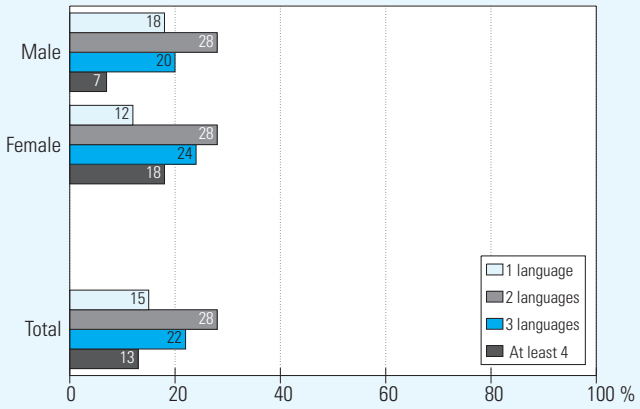


Figure 7.8
Knowledge of foreign languages by number of languages and gender in 2000 (population aged 18–64)

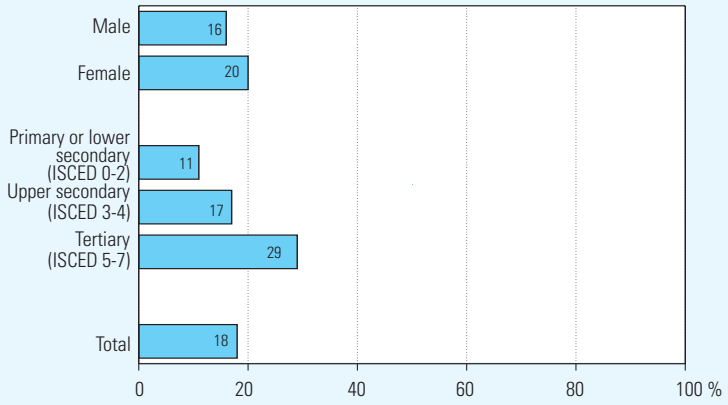


Figure 7.9
Need for training in foreign languages by gender and highest level of educational attainment in 2000 (population aged 18–64).

3-4) and an upper level (levels 5-6). This scale is congruent with the general European frame of reference developed by the Council of Europe, and it was this that was employed in connection with the Adult Education Survey 2000 interviews.

More than 2000 general language certificates awarded each year.

General language certificates have been awarded at a rate of over 2,000 a year such their inception in 1994, so that more than 17,000 will have been gained by the end of 2001 (Jukkala 2002).

The database on performance in the general language certificate, maintained by the Centre for Applied Language Studies at the University of Jyväskylä, indicates that the most popular language is again English, accounting for 58% of all the candidates presenting themselves in 1998 – 2001, the next most popular being Swedish and Finnish, each with 13%, while the proportions for the other languages are much lower.

More or less equal numbers of men and women in these tests, and two thirds of the candidates aged 21–40 years.

The proportion of men taking the general language certificate has increased steadily from 1998 onwards, so that they accounted for 52% of the total in 2001. A third of the candidates were in the age range 21–30 years, almost a third in the range 31–40 and a fifth aged 41–50 years, whereas less than 10% were aged over 50 years and a similar proportion under 21 years.

8 Perceived benefits, needs and intentions connected with adult education and training

Immediate effects of adult education and training

Those people interviewed for the Adult Education Survey 2000 who had taken part in adult training connected with their work or profession in the course of the year were asked to evaluate the effects of this education. If the respondent had taken part in several courses during the year, one of them was chosen at random for evaluation.

Many positive experiences of work-related courses.

The courses in general were felt to have had many positive effects (Figure 8.1). Almost all of them (over 90%) were regarded as having provided at least some new, useful information, and almost a half of them a great deal. Also, more than four out of five had helped the respondent to manage at work and three out of four had improved the respondent's motivation. Skills for coping with new tasks at work had been learned, at least to some extent, in 60% of cases.

Courses entered on the respondent's own initiative were perceived as the most useful.

When asked what had been the most useful courses, the respondents most often replied that they were those which they had entered on their own initiative (Figure 8.2). Almost every such course (97%) had provided useful new information, almost 90% had helped the respondents to manage better in their work, and two thirds had provided the skills needed for performing new tasks. The results would suggest that the perceived outcome of the courses and the learning that took place on them was closely connected with the motivation of the person taking the course and the degree of commitment to its goals.

Courses taken on the initiative of an employer were also felt to have been beneficial. In fact, the impact of the training on everyday work ("Offered useful information" and "Helped in coping at work or in occupation") seemed to be just as positive regardless of whether the initiative had come from the respondent or the employer.

It is significant, however, that the course was by no means so beneficial when the initiative came from someone else rather than the participant or employer, a result that again supports the importance attached to motivation for the success of education. Admittedly, every second course of this kind, too, was said to have provided useful new information and 44% were thought to have improved the participant's self-confidence, but it was precisely on this latter score that the courses taken on someone else's initiative differed least from those taken on the participant's own initiative or that of his or her employer.

Adult training received in the course of the respondent's life and its effects

Over four out of five adults with working experience had had some work-related adult education.

More than four out of five 18–64-year-old adults with working experience, 83%, indicated in 2000 that they had taken part in adult education connected with their work or profession at some time in their lives, while the corresponding proportion in 1995 had been 77% (Figure 8.3). Of these, 39% in 2000 had been involved in such training on more than 10 occasions, 22% on 4–10 occasions and 14% on 2–3 occasions. This implied an increase of five percentage points in the most active group since 1995. Altogether 16% of adults aged 18–64 years in 2000 who had had work at some time had no experience of work-related adult education, i.e. they had never taken part in any training connected with their work or profession.

Frequency of work-related adult education highest among those with high level of educational attainment and good position at work.

The higher the respondents' level of education and position at work, the more often they had taken part in courses connected with their work. The level of activity in this respect had risen most abruptly among the agricultural entrepreneurs, one in four of whom had had more than 10 such courses in their lives in 1995 but one in three by 2000.

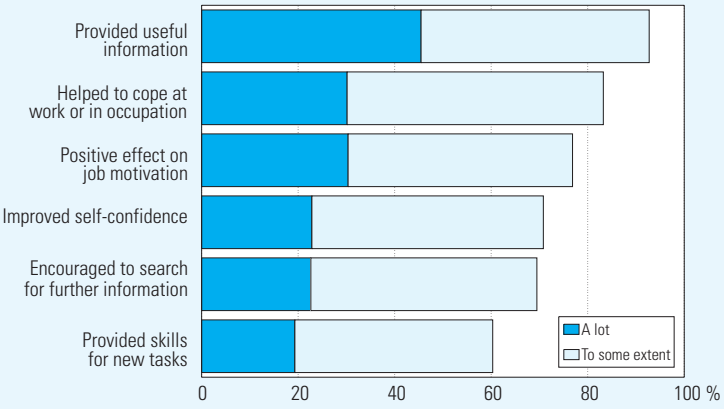


Figure 8.1
Effects of job or occupation-related education and training (proportions of courses)

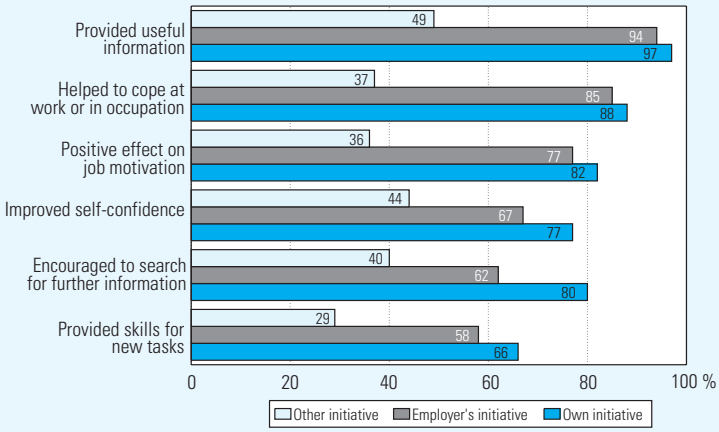


Figure 8.2
Effects of job or occupation-related education and training by source of initiative for taking the course (proportions of courses)

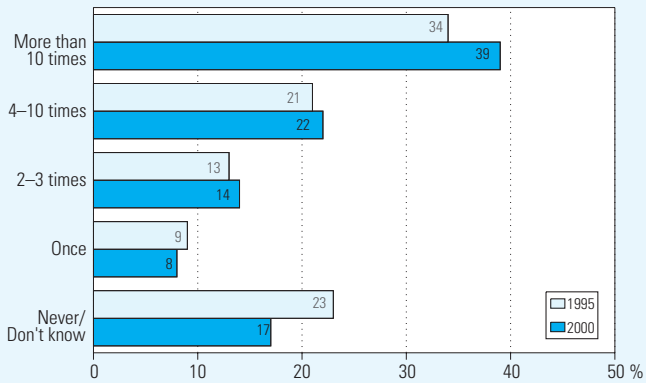


Figure 8.3
Numbers of occasions on which 18–64-year-old adults with working experience had participated in adult education connected with their job or occupation at some time in their lives, as reported in 1995 and 2000.

All those who had taken part in work-related adult education at some time were asked to evaluate the effects of this in general. A half of these people maintained that it had helped them to qualify for new tasks, so that about 41% had moved to a new demanding position on the strength of this and about one in three had been able to keep their job as a result. One in four believed that they received higher wages or salary as a result of this adult education experience.

Men had more positive experiences of the effects of education on their career than women.

The men had a considerably more favourable picture of the effects of all forms of adult education connected with their work or profession than did the women (Figure 8.4), the difference being statistically significant with respect to practically every form of influence taken separately, with the sole exception of changes of workplace made possible by further education. About one in three of the men felt that they were receiving more pay as a result of their education courses, as compared with one in five of the women, and the men very much more often claimed to have qualified for new or more demanding tasks.

The older age groups had a more favourable impression of many of the effects of adult education than did the younger age groups, a finding that may have been influenced by the fact that they will have had time for more such education in the course of their working lives, and that the positive effects may have emerged over longer time-spans. Higher proportions of them felt that they had qualified for more pay by dint of such education, that they had been able to change profession, that they had been able to retain their job and that they had been able to gain a permanent job. On the other hand, roughly the same proportions of all the age groups felt that they had qualified for new or more demanding tasks in their work.

One in three of those with only less than upper secondary education had gained more pay through adult education.

The effects of work-related adult education varied markedly as a function of the level of the respondent's educational attainment. One in three of those with only primary or lower secondary education said that they had received more pay as a result of such courses (Figure 8.5), whereas the figure for those with tertiary education was 10 percentage points lower, and 40% of the same group with less than upper secondary education also seemed to have been able to retain their jobs as a result. The most common general effect of work-related adult education which was reported by all the groups representing different levels of basic education was the obtaining of new tasks. This was true of as many as 54% of those with tertiary qualification, 48% of those with an upper secondary qualification and 45% of those with only less than upper secondary education. Those with tertiary education also slightly more often felt that they had qualified for more demanding work. The effects of these additional courses on obtaining a job or changing profession entirely did not differ between the groups defined according to basic education.

Need for education and intentions to participate

More than half of the respondents needed further education to improve their professional skills or advance their career.

About 54% of the population aged 18–64 years, 56% of the women and 52% of the men, believed that they needed more adult education in order to develop their professional skills or advance their career. This was felt more often by the highly-educated respondents and more often by the younger age groups.

The greatest need was felt for training in the use of information technology, which was mentioned by one in four of the total population aged 18–64 years (Table 8.1), while 14% needed instruction in languages and about 12% in business economics.

A third announced a need for courses connected with leisure-time activities.

About 35% of the total Finnish population aged 18–64 years were in need of adult education courses of one kind or another in connection with their leisure-time activities or hobbies, the women (40%) expressing this need more often than the men (30%). As with work-related education, the respondents with a higher level of basic education indicated that they needed additional courses connected with their hobbies or pastimes more often than did those with a lower level. With respect to age, however, there were no marked differences in leisure-time adult education needs.

8.1. Need for adult education in order to develop professional skills or advance one's career by content of education (population aged 18–64 years, excl. pensioners and students with no working experience).

Content of studies	%
Use of information technology	27
Foreign languages	14
Business, marketing and administration	12
Management skills	9
Technology, production, construction, product development	9
Health care	8
Services, work safety, security	6
Law, social sciences and behavioural sciences	5
Other subjects, total	18

N.B. The same person may have indicated a need in more than one content area.

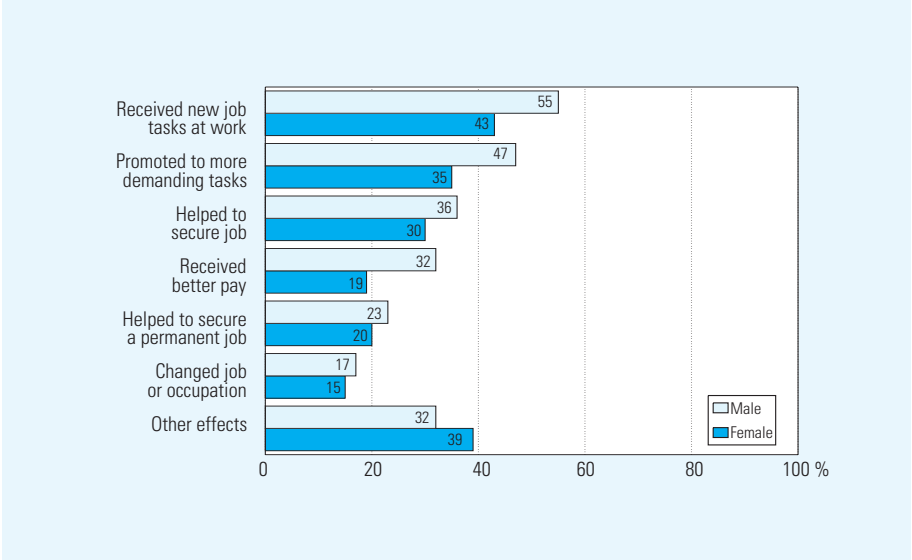


Figure 8.4
Long-term effects of job or occupation-related training by gender (population aged 18–64 participated in such training in their lifetime).

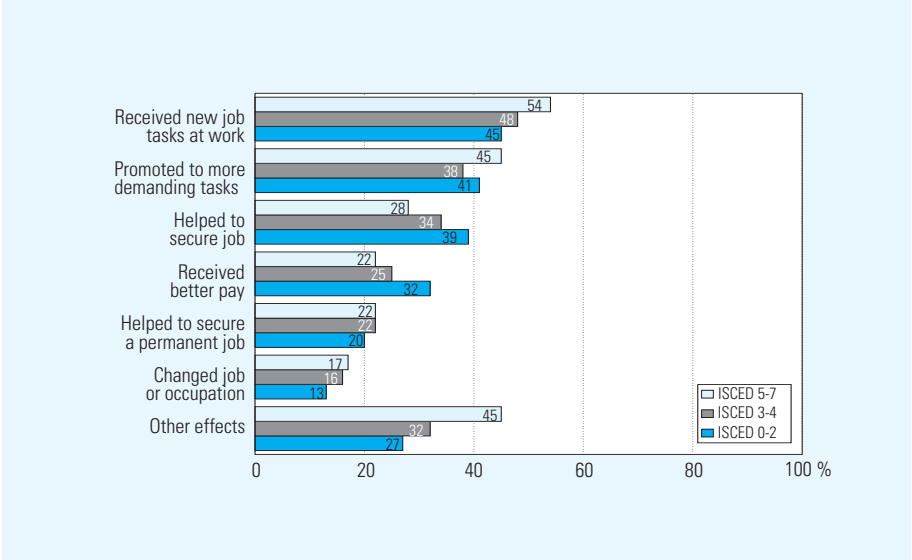


Figure 8.5
Long-term effects of job or occupation-related training by highest level of educational attainment (population aged 18–64 participated in such training in their lifetime).

Every second respondent intended to take an adult education course the following year.

Slightly over half of the respondents aged 18–64 years, i.e. 51%, were intending to take part in adult education within the next 12 months, including 58% of the women and 45% of the men. This would imply that, if these intentions had been fulfilled, the participation rate would have been the same as for 2000 in the case of the women but would have dropped slightly among the men. All the intended rates for the individual age groups were similar to the actual rates for 2000, and the same was broadly true of the rates determined in relation to the level of educational attainment.

On the other hand, not all those who reported a need for adult education expressed an intention to take part during the next year; in fact only two thirds did so. A greater influence on the respondents' intentions regarding adult education may be said to have been their experiences of this education over the last year, since about four out of every five of those who had participated in the last year intended at the time of the interview to take part the following year as well. This finding does suggest that participation in adult education and training paves the way for further participation, but it also suggests that to a great extent it is the same people who take part from one year to the next.

9 Obstacles to participation in adult education and training

Obstacles to participation at one's own expense in leisure time

Tiredness, financial considerations, awkward working times and lack of interest were the main barriers to adult education.

The obstacles to respondents' participation in adult education and training at their own expense in their leisure time were more obviously connected with their own living conditions, situation in life or attitudes than with the educational services themselves. The main things mentioned in the Adult Education Survey 2000 as preventing or hampering participation were tiredness, financial considerations, awkward or irregular working times and lack of interest. Almost 40% of the respondents aged 18–64 years reported that factors of this kind interfered with their adult education plans greatly or to some extent (Figure 9.1).

Financial considerations, tiredness, looking after children and other family matters were barriers for women more often than for men.

The women felt that the barriers to participation in adult education and training at their own expense in their leisure time were financial ones more often than did the men, this problem being mentioned by as many as 45% as against about one in three of the men. The women also more often regarded tiredness, arranging for the children to be looked after and other reasons connected with the home and family and location of training as barriers, while the latter more frequently quoted reasons related to the teaching itself or its content.

The main barrier for men was lack of interest.

The most common obstacle for the men aged 18–64 years was a lack of interest, reported by as many as 43%, whereas this reason was quoted by one in three of the women. The factors connected with the education itself, which the men regarded as obstacles more often than the women, were the poor quality of the teaching and the fact that it was of no benefit to them. Obstacles connected with external conditions that were mentioned more frequently by the men included other hobbies and interests and irregular working hours.

Tiredness more of a problem for the younger respondents.

Somewhat surprisingly, tiredness emerged as an obstacle to participation in adult education and training for the young people more often than for the older age groups. Where almost a half of those aged 18–24 years mentioned this as interfering with participation greatly or to some extent, it affected only just over a third of those aged 55–64 years. The greatest barrier for the young people was nevertheless cost, which was mentioned by over half of those aged under 35 years. Other factors of especial importance to the younger age groups were poor quality of the teaching, lack of suitable opportunities for studying, lack of information on opportunities for studying, irregular working hours and other hobbies and interests.

The main obstacles for young people were nevertheless financial ones.

Older respondents affected most by age and health.

The main factors interfering with participation in adult education and training in the case of the older respondents were ones connected with their age and health, which were mentioned by about a half of those aged 55–64 years. These age groups also had the greatest attitudinal problems, arising out of their limited level of educational attainment or connected with a lack of interest or a belief that such education would be of no benefit to them.

Child care and other questions related to the home and family posed difficulties for attendance most frequently among those aged 25–34 years.

Poor quality of the teaching was most discouraging for those with high level of educational attainment, but they pointed to a lack of benefit less often than the others.

One in five of the respondents with tertiary education felt that poor quality of the teaching was at least to some extent a barrier to their participation in adult education and training at their own expense in their leisure time, whereas only one in ten of those with less than upper secondary education was of this opinion. On the other hand, those with a high level of basic education were less often of the opinion that adult education was of no benefit to them, whereas a third of those with only primary or lower secondary education complained of a lack of benefit.

The highly educated felt that tiredness and their situation in life interfered with participation …

Although those with tertiary education felt more often than average that their other hobbies and interests, child care and other factors connected with family life prevented them from attending adult education at their own expense in their leisure time, the greatest obstacle of all for them was tiredness, which was mentioned by 42%. For those with only the primary or lower secondary education the main obstacle was a lack of interest, quoted by almost a half of these respondents, while they also listed a limited level of educational attainment, age and health reasons, fear of failure and lack of benefit from the training more often than did those in the other education groups.

… whereas the problems for the less educated were attitudinal ones.

For those with an upper secondary education, the main barriers to participation in adult education and training at their own expense in their leisure time were financial ones, mentioned as affecting their participation to a great extent or to some extent by 43% of the respondents. This group also made more frequent mention of a lack of information on the courses available and the possibilities for studying, and both these respondents and those with tertiary education reported awkward or irregular working hours as a difficulty more often than those with less than upper secondary education.

Participants during the last year had attitudinal reservations less often than those who had not participated.

Where almost a half of the respondents aged 18–64 years who had not taken part in adult education the previous year indicated that one barrier was a lack of interest, this problem affected less than a third of those who had taken part, and the same relation was true in the case of other attitudinal obstacles. Thus where 30% of those who had not participated mentioned their poor basic education as a problem, this was reported by only 16% of the participants, and likewise, a third felt that they would gain little benefit from such education as compared with 16% of the participants. On the other hand, the participants looked on other hobbies and interests and difficult working hours as interfering with their attendance more often than those who did not participate.

The most serious obstacle all told was awkward or irregular working hours.

When asked which of the factors listed constituted the greatest obstacle to attendance at adult education at their own expense in their leisure time, about 17% of the respondents chose awkward or irregular working hours (Figure 9.2) and about one in ten lack of interest or financial considerations. Although tiredness had affected participation for very many people, it did not appear at the head of the list of factors when they were asked what was the greatest obstacle of all, being quoted as such by only 4%. Poor quality of the teaching, lack of information on study opportunities and fear of failure were felt to be the main obstacles by only 1% each.

Awkward or irregular working hours were felt to be the main barrier to adult education and training by both the men and the women (Table 9.1), although more frequently by the men. The next most commonly mentioned factor for the men was then a lack of interest, and the third reasons connected with health and age, while the second most frequently mentioned factor for the women was financial considerations and the third child care.

The factor most frequently found to be the most serious barrier to participation for those with an upper secondary or tertiary education was awkward or irregular working hours (Table 9.2), while for those with only primary or lower secondary education it was lack of interest, followed by health reasons and then irregular working hours. More than one in ten of those with an upper secondary education quoted financial reasons as the principal barrier, and the same proportion a lack of interest, while the next most frequent factors chosen as the most important by those with tertiary education were the arranging of child care and financial reasons. One significant feature of these results is that financial considerations were regarded as more serious obstacles to adult education less often by the respondents with only less than upper secondary education than by those with tertiary education.

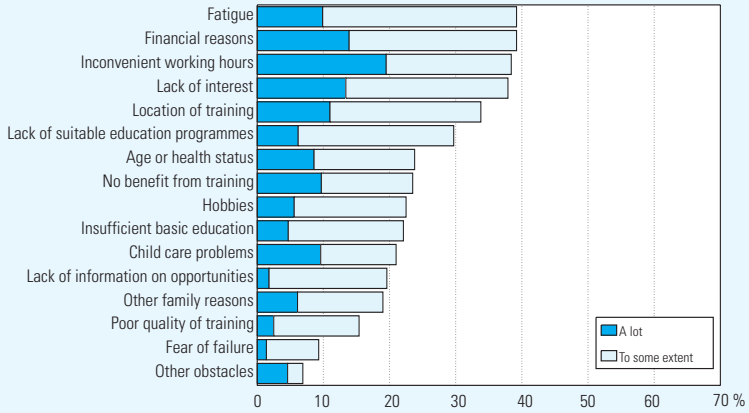


Figure 9.1
Factors that interfere greatly or to some extent with participation in adult education at their own expense in their leisure time (population aged 18–64, excl. students and conscripts).

Figure 9.2
The main obstacle to participation in adult education at their own expense in their leisure time (population aged 18–64, excl. students and conscripts).

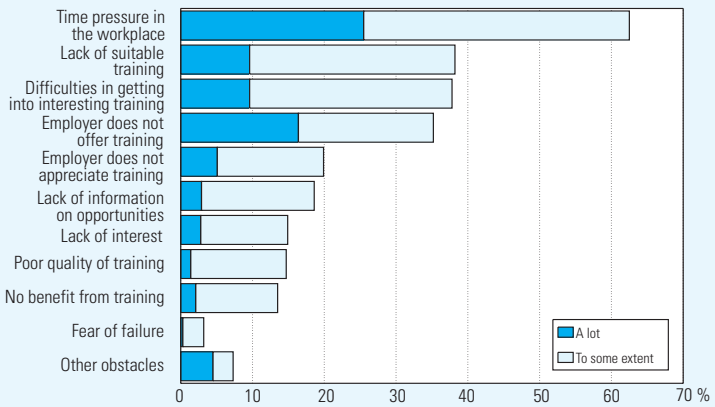


Figure 9.3
Obstacles to participation in employer-sponsored training (employees aged 18–64)

9.1. The main obstacle to participation in adult education and training in leisure time and at own expense by gender (population aged 18–64, excl. students and conscripts)

Obstacle	Males %	Females %
Inconvenient working hours	19	15
Lack of interest	15	9
Financial reasons	8	13
Age or health status	9	8
Child care problems	4	12
Location of training	5	9
Fatigue	4	5
Lack of suitable education programmes	5	3
Hobbies	5	2
Other family reasons	2	4
No benefit from training	4	2
Insufficient basic education	2	3
Lack of information on opportunities	1	1
Poor quality of training	2	1
Fear of failure	0	1
Other obstacles	4	4
Cannot say	9	6
Total	**100**	**100**

9.2. The main obstacle to participation in adult education and training in leisure time and at own expense by highest level of educational attainment (population aged 18–64, excl. students and conscripts)

Obstacle	Primary or lower secondary (ISCED 0-2) %	Upper secondary (ISCED 3-4) %	Tertiary (ISCED 5-7) %
Inconvenient working hours	15	19	17
Lack of interest	18	11	8
Financial reasons	8	13	10
Age or health status	16	7	5
Child care problems	3	8	12
Location of training	7	6	8
Fatigue	3	4	6
Lack of suitable education programmes	2	5	6
Hobbies	2	4	4
Other family reasons	1	3	6
No benefit from training	5	3	2
Insufficient basic education	5	3	0
Lack of information on opportunities	1	2	1
Poor quality of training	0	1	2
Fear of failure	2	1	0
Other obstacles	4	3	5
Cannot say	8	7	8
Total	**100**	**100**	**100**

Obstacles to employer-sponsored training

Employer-sponsored training restricted by pressure of work.

By far the most common obstacle to participation in education and training paid for by one's employer in working time was pressure of work (Figure 9.3), reported by almost two out of every three employees aged 18–64 years as interfering greatly or to some extent with this activity. The second most frequent problem was that suitable training was not available, and the third that is was difficult to enrol for training that was of interest.

Pressure of work was more frequently an obstacle for women than for men…

The women felt pressure of work to be a barrier to participation in employer-sponsored training more frequently than did the men, as many as two thirds mentioning that this affected their participation greatly or to some extent as compared with just under 60% of the men, and they also more often mentioned the difficulty of enrolling for training that would be of interest. By contrast, the men admitted to a lack of interest in employer-sponsored training, complained of its poor quality and maintained that it was of no benefit to them more often than did the women.

…and for those with a high level of initial education more than for those with less education.

Those who had had a long basic education felt that participation in employer-sponsored training was restricted by pressure of work more often than those with less education, this affecting three out of every four of the former but only a half of those with no more than less than upper secondary education. The corresponding proportion of those with an upper secondary education was 59%. The more highly educated respondents were also the most critical of the quality of the training provided, as their participation was restricted most by both this factor and the fact that no suitable training was on offer. By comparison, those with an upper secondary education complained most often that they lacked information on the courses available or that their employer did not arrange such training. The difficulty of enrolling for courses that were of interest was a problem for those with an upper secondary or tertiary qualification more often than for those with only primary or lower secondary education, whereas the latter more often felt the fear of failure to be an obstacle, although only 5% of them even in this case.

It is significant when considering these figures that a lack of interest was not felt to be a restraining factor by those with only less than upper secondary education any more than it was by the more educated groups.

Lack of interest was an obstacle to employer-sponsored training mainly for employees over 54 years of age.

Pressure of work was the most common barrier to employer-sponsored training in all the age groups, being most pronounced among the employees aged 25–44 years, of whom about two thirds complained of this, as opposed to just over a half in the other age groups. The higher age groups confessed a lack of interest in such training more often than the younger ones, one in four of those aged 55–64 years mentioning this as restricting participation greatly or to some extent, where only one in ten of those aged 18–24 years was in this position. Apart from pressure of work, the 25–44 year age groups were more concerned than the others about poor-quality teaching.

The youngest age group of employees was more affected by a lack of information on training.

The youngest age group, 18–24 years, was more aware than the others of a lack of information on training opportunities and often of the opinion that no suitable courses were available. They also reported more often than the others that their employer would not arrange training. These experiences of obstacles to training may well be connected with the fact that the 18–24 year age group also had the lowest rate of participation in employer-sponsored training.

Two fifths of the employees regarded pressure of work as the main obstacle to employer-sponsored training.

When the employees among the respondents aged 18–64 years were asked to state what they thought was the most important of the possible reasons quoted for not taking part in employer-sponsored training, two fifths of them replied that it was pressure of work (Figure 9.4), about one fifth that the employer did not arrange such training, and over 10% that there was no suitable training on offer.

The views of the men and women scarcely differed at all in this respect (Table 9.3), except that twice as many men as women indicated that the most serious barrier was a lack of interest and twice as many women as men that it was difficult to enrol for training that was of interest.

Pressure of work was a powerful barrier particularly for those with a high level of educational attainment.

Over a half of those with tertiary qualification regarded pressure of work as the most serious barrier to employer-sponsored training (Table 9.4), while just over a third of those at the other educational levels were of this opinion. The greatest difference between the groups, however, lay in claims that their employer did not arrange such training, as one in four of the respondents with less than tertiary education regarded this as the most important obstacle as against only one in ten of those with tertiary education. The former groups also quoted a lack of interest as the foremost reason more often than did the latter.

9.3 The main obstacle to participation in employer-sponsored training by gender (employees aged 18–64)

Obstacle	Men %	Women %
Time pressure in the workplace	42	44
Employer does not offer training	19	17
Lack of suitable training	13	12
Difficulties in getting into training	4	8
Lack of interest	6	3
Employer does not appreciate training	3	2
Lack of information on opportunities	2	2
No benefit from training	3	2
Poor quality of training	2	0
Fear of failure	0	0
Other obstacles	4	7
Cannot say	2	2
Total	**100**	**100**

9.4. The main obstacle to participation in employer-sponsored training by highest level of educational attainment (employees aged 18–64)

Obstacle	Primary or lower secondary (ISCED 0-2)	Upper secondary (ISCED 3-4)	Tertiary (ISCED 5,6,7)
Time pressure in the workplace	37	37	53
Employer does not offer training	26	24	9
Lack of suitable training	10	13	13
Difficulties in getting into training	4	7	6
Lack of interest	6	5	3
Employer does not appreciate training	2	2	2
Lack of information on opportunities	2	3	1
No benefit from training	4	2	2
Poor quality of training	0	1	2
Fear of failure	1	0	0
Other obstacles	5	4	8
Cannot say	4	2	1
Total	**100**	**100**	**100**

Availability of information on adult education and training

Almost three out of four respondents had received enough information on adult education opportunities …

Almost three out of every four respondents aged 18–64 years, i.e. 72%, were satisfied that they had received enough information on the educational services intended for adults, including as many as 80% of those with tertiary education and about 70% of the others. The proportion was also slightly higher among those who had actually participated in such education in the past year, 75%, than among those who had not, 69%.

… but the older ones were more satisfied with the amount of information.

The younger age groups contained higher proportions of respondents who had encountered problems in obtaining information on adult education opportunities (Figure 9.5), in that where over a half of the 18–24 year age group were satisfied with the information they had received, this applied to as many as four out of every five in the 55–64 year group. Conversely, just under a half of those aged 18–24 years and 20% of those aged 55–64 years felt that they had received far too little or rather little information.

Opportunities to take part in training at the workplace and to influence it

A third of the employees had good training opportunities at work and 28% poor opportunities.

Almost a third of the employees considered their opportunities for training at their place of work good, 39% moderately good and 28% poor (Figure 9.6), the men indicating slightly more often that they had good opportunities to take part in training that would develop their professional skills or advance their career.

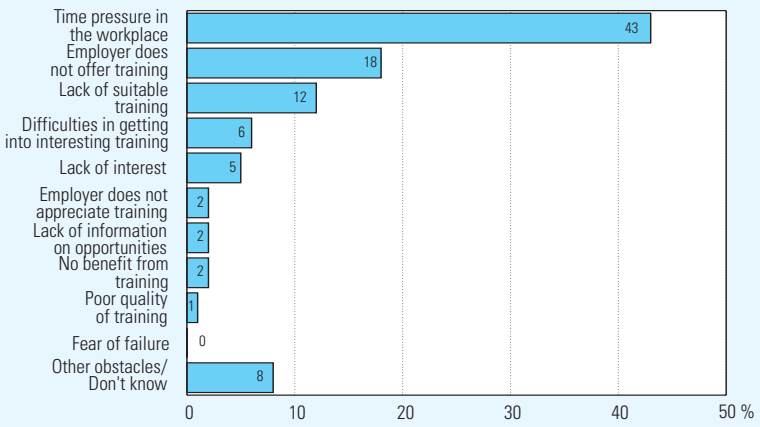


Figure 9.4
The main obstacle to participation in employer-sponsored training (employees aged 18–64).

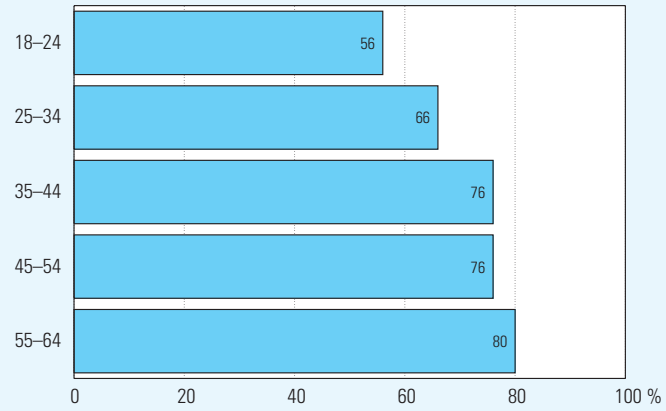


Figure 9.5
Availability of information on adult education and training opportunities, proportions receiving sufficient information by age (population aged 18–64).

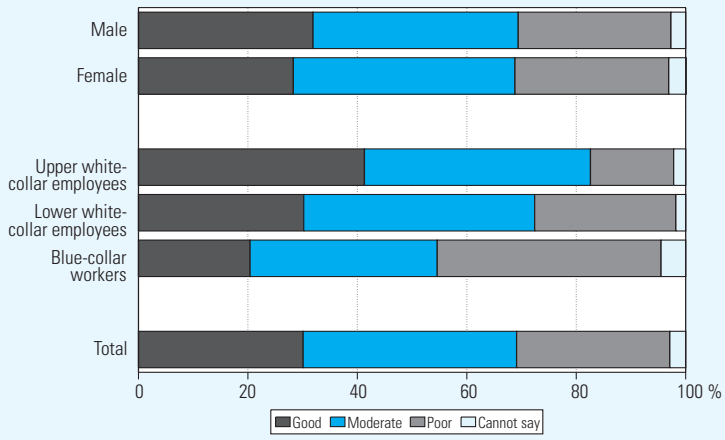


Figure 9.6
Opportunities to obtain training that will develop professional skills or advance career, by gender and socio-economic group (employees aged 18–64).

A fifth of those aged under 25 years regarded the opportunities for training at their place of work as being good, two fifths moderately good and a similar proportion, 39%, poor, whereas about a third of those in the other age groups, 25–64 years, reported good opportunities.

A high position at work improved the chances of obtaining training at the workplace.

Among the groups of employees, the upper white-collar employees and those working in the central government sector indicated more frequently than the others that they had good opportunities for obtaining training at their place of work that would advance their professional skills or their career, the proportions being 41% for the upper and 30% for the lower white-collar employees. Poor opportunities were reported most frequently by the blue-collar workers, 41%, while only a fifth in this category viewed their opportunities as good.

Best training opportunities in the central government sector.

Among those working in central government, 39% regarded their opportunities for obtaining training that would develop their professional skills and advance their career as being good, the corresponding proportions for the private sector and local government sector being 30% and one fourth, respectively. Those who looked on their opportunities in this respect as poor comprised 30% of the respondents in the private sector, 28% in local government and 18% in central government.

Just under a half of the white-collar employees can influence employer-sponsored training at their place of work, but only 12% of the blue-collar workers.

Those who were in good positions at work were also able to influence what kind of training was provided there to a great extent (Figure 9.7). Thus 45% of the upper white-collar employees claimed that they had very good or fairly good chances of doing this, but only 12% of the blue-collar workers, whereas over a half of the latter claimed that they had no say whatsoever in the training at their place of work.

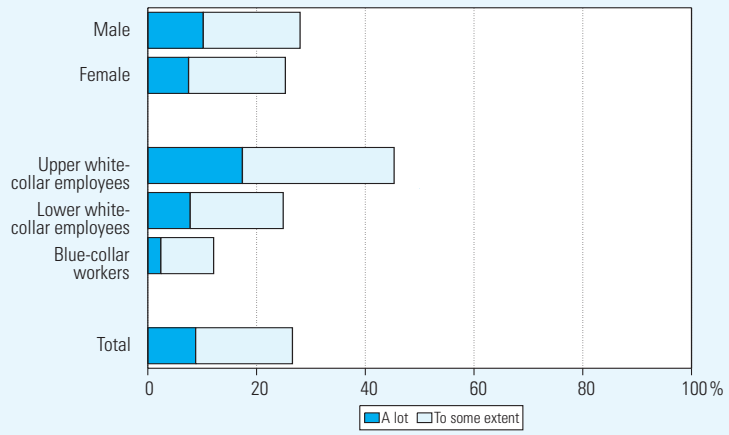


Figure 9.7
Opportunities to influence the training provided at place of work, by gender and socio-economic group (employees aged 18–64).

10 Participation in adult education and training by the elderly, aged 65–79 years, and their experiences of this education

Participation in adult education and training

The elderly population, aged 65–79 years, has a distinctly lower level of educational attainment than the younger age groups in 2000, just under 30% of the persons having some qualification in addition to the basic level of primary or lower secondary education, whereas the proportion among those aged 18–64 years was over 70%. Since the level of basic education is one of the factors that exercises most influence on participation in adult education and training, this may be held to be one of the reasons, alongside advanced age and retirement from working life, for the far lower rate of participation in adult education and training among the elderly.

About 12% of those aged 65–79 years took part in adult education during the year.

About 12% of Finns aged 65–79 years may be assumed to have taken part in adult education activities in 2000, i.e. just under 70,000 persons. In this case participation was almost equally common among women and men, 12% and 11% respectively.

The pattern with respect to the volume of participation was quite different from that observed under the age of 65 years, in that the most typical duration (mode of the distribution) was six days of instruction, whereas for the population of working age it was one day. On the other hand, the median of participation was 10 training days and the arithmetical mean approx. 14 days, as compared with 8 days and 25 days, respectively, for those under 65 years of age. Taking into account the low rate of participation in this advanced age group, we obtain a figure of 1.5 days of adult education per head of population over the year, where the corresponding figure at working age was about 13 days.

The most common subjects were arts and crafts and physical education, both at an adult education centre.

The elderly respondents normally studied at an adult education centre, with about 50,000 of them attending such courses in, or 8% of the population aged 65–79 years. About four fifths of the courses were reported to be connected with their hobbies or interests, the most common subjects being arts and crafts or physical education.

7% of the elderly respondents studied independently.

There where also some elderly respondents who were interested in studying by themselves, about 7% claiming to have done so for at least 20 hours during the year, i.e. about 40,000 persons in the total population. This again was equally common among the men and women.

Experiences and intentions regarding adult education

A good half of the respondents aged 65–79 years, 54%, had taken part in adult education connected with their work or profession at some time in their lives, and one in four of them had done so more than ten times.

The most common effects of work-related adult education were regarded as being retention of one's job or getting more demanding tasks.

The elderly people regarded the most common effects of adult education connected with one's work or profession as being to enable the participant to retain an existing job or qualify to carry out more demanding work (Figure 10.1). These aspects were mentioned by four out of every ten respondents aged 65–79 years who had taken part in such courses at some time in their lives. Three out of every ten reckoned that they had qualified for a pay rise on the strength of such courses.

The elderly men indicated that they had received new tasks at work in their work as a result of such training more frequently than did the women, a half claiming this as opposed to one fourth of the women, and the men were also very much more often convinced that it had helped them to obtain a permanent job, 29% vs. 11%.

Reasons associated with age and health were naturally foremost among the obstacles to participation in adult education and training at this age (Figure 10.2), with two thirds of the respondents claiming that these interfered with their participation greatly or to some extent, but a lack of interest was also mentioned frequently, by about six out of every ten respondents. About a half also blamed tiredness, and the same proportion the lack of any benefit from such education. The obstacles perceived by the 65–79 year age group deviated from those mentioned by those aged 18–64 years in other ways, too (see Chapter 9), e.g. in that only 13% drew attention to financial impediments.

The greatest barriers to adult education were connected with age and health and with a lack of interest.

The elderly women regarded tiredness and the fear of failure as obstacles to participation more often than did the men, the former being quoted by over half of the women but only just over a third of the men, and the latter by 18% of the women and by only 6% of the men.

Age and health also came to the fore when the respondents were asked what they thought was the greatest single obstacle to adult education (Figure 10.3), as many as 43% of the elderly respondents choosing this alternative. The next most frequently mentioned factor was a lack of interest, chosen by one fifth.

Over a half of the 65–79-year-olds, or about 55%, believed that they had received enough information on adult education opportunities, a figure which exceeds 70% if we include those who considered the information just about sufficient. One in five said that he/she had not needed any information on opportunities.

Seven out of ten 65–79-year-olds had received sufficient information on education opportunities.

The proportion of the elderly age group who felt that they needed adult education courses related to their hobbies or leisure-time interests was 20%, i.e. lower than among those aged under 65 years, where it was one in three.

One in five was in need of adult education related to hobbies or leisure-time interests …

By far the most popular area in which the 65–79-year-olds felt that they needed instruction was arts and crafts, 10% (Table 10.1), while about 4% each favoured foreign languages and information technology.

One respondent aged 65–79 years in eight, i.e. 13%, announced an intention to participate in adult education during the next year, about the same proportion as had participated in the year preceding the interview. The most ambitious intentions in this respect were similarly noted in those who had participated previously, as many as four out of five of whom intended to continue, whereas only 5% of those who had not participated intended to take it up during the next year.

… but only one in eight intended to participate in adult education the following year.

10.1 Need for adult education in connection with hobbies and leisure-time activities by content (population aged 65–79 years).

Content of education	%
Fine and applied arts studies	10
Foreign languages	4
Use of information technology	4
Physical education and sports coaching	3
Humanities and aesthetic	3
Other subjects, total	4

Use of a computer and language skills among the elderly

About one in five of the respondents aged 65–79 years, i.e. 18%, had used a computer at some time in their lives (Table 10.2), and about 8% had used one in the two days preceding the interview. In 5% of cases more than a year had elapsed since the last time they had used a computer.

One in five had used a computer at some time …

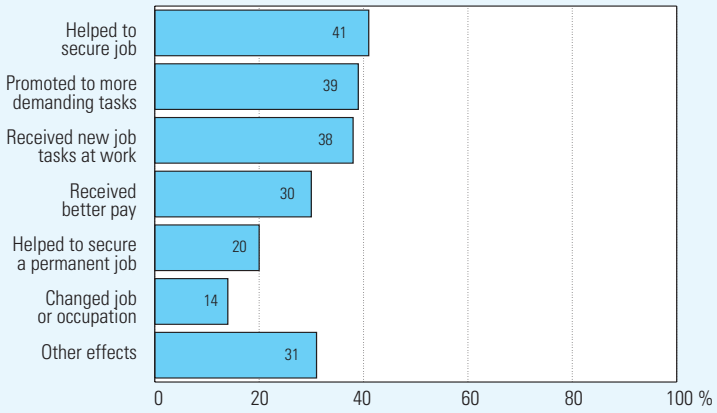


Figure 10.1
Long-term effects of job or occupation-related training (population aged 65–79 who had participated in such education at some time in their lives).

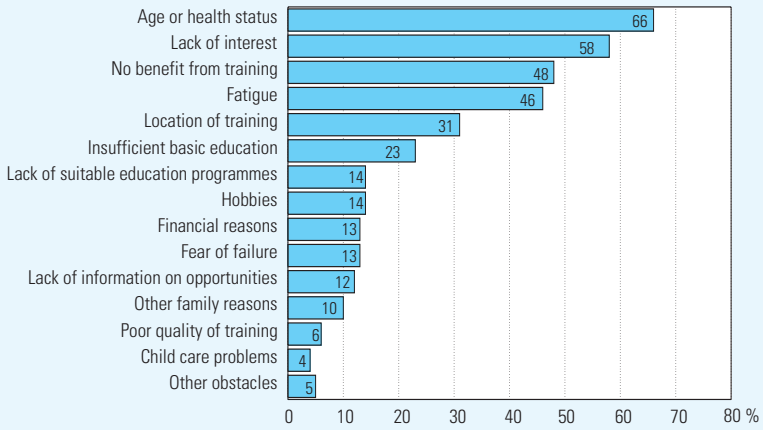


Figure 10.2
Obstacles interfering seriously or to some extent with participation in adult education at own expense in leisure time (population aged 65–79).

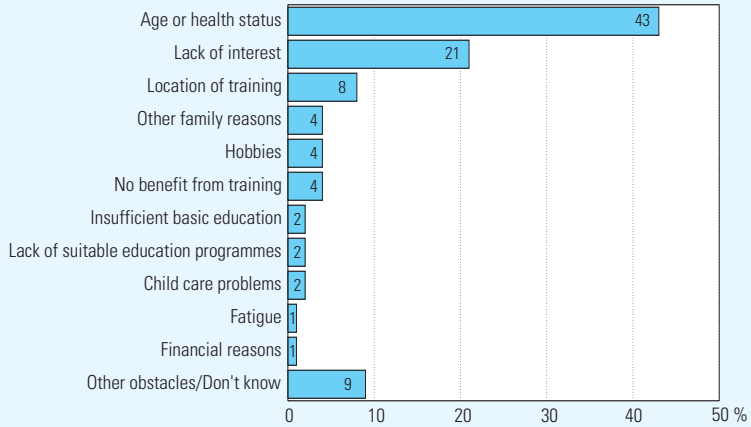


Figure 10.3
The main obstacle perceived as interfering seriously or to some extent with participation in adult education at their own expense in leisure time (population aged 65–79).

10.2 Frequency of computer use (population aged 65–79).

	%
Used a computer	18
– within the last two days	*8*
– within the last week	*10*
– with the last six months	*12*
– within the last year	*12*
Never used a computer	82
Total	**100**

The elderly respondents most frequently used a computer for text editing and for searching for information and services on the web. About 8% used it for text editing at least a few times a month and 4% with the same frequency for searching for information and services.

The main means adopted for learning to use a computer had been learning with help from colleagues, friends or family members.

… and one in three claimed knowledge of a foreign language.

One in three of the 65–79 year age group, or 32%, indicated knowledge of at least one foreign language, the most common at this age being Swedish, spoken by one in every four (Figure 10.4). English was spoken by 18% and German by 13%.

The majority of those who had a command of a foreign language were "basic users" in terms of competence. About the same proportions were at least independent users of Swedish and English, but there were considerably more basic users of Swedish than English.

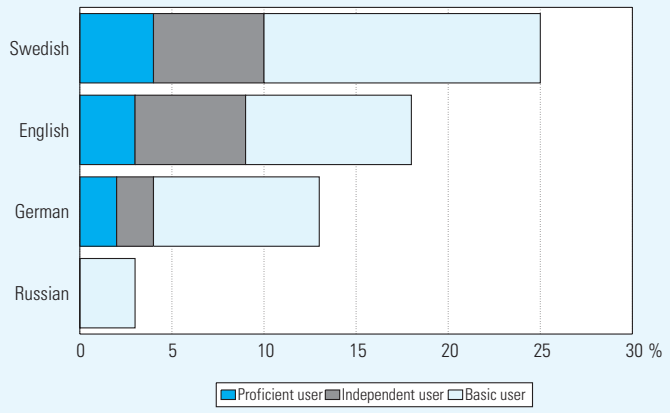


Figure 10.4.
Knowledge of foreign languages by language and level of command (population aged 65–79).

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Concepts and classifications

Central concepts used in the Adult Education Survey

Participation in education and training

The purpose of the Adult Education Survey was to study participation in all organised education and training and not only that specifically arranged for adults. Similarly, with the notion of life-long learning in mind, respondents were asked about what basic educational qualifications they had obtained during their whole life and to what extent they had taken part in training arranged in connection with their work or occupation and in education and training courses abroad. Efforts were then made to determine more precisely the nature of the adult education and training that the respondent had received. The reference period for this was the twelve months preceding the interview.

Education was taken for the present purposes to comprise all activities specifically arranged and organised for the purpose of bringing about learning, provided they had lasted for at least six hours overall, including study periods or courses that had not been completed, if the respondent had taken part for at least that length of time. It was also required that these activities should have had a pre-arranged curriculum or syllabus and that there should have been a specific provider or organiser responsible for the arrangements. Information sessions, advertising campaigns, sales drives and meetings were not regarded as forms of education.

Adult education

Adult education and training was defined by reference to the organizsation providing it as comprising:

- education at evening schools (upper secondary schools for adults, evening upper secondary schools, evening departments of upper secondary schools, evening secondary schools, evening departments of secondary schools)
- apprenticeship training
- unemployment retraining provided by the labour authorities
- education arranged especially for adults by vocational schools or institutes, polytechnics and adult vocational training centres (incl. open polytechnic teaching and private pupils)
- courses at folk colleges (or folk high schools) other than ones providing a vocational qualification
- teaching at the adult departments of schools of music other than ones providing a vocational qualification
- courses at sports colleges other than ones providing a vocational qualification
- professional supplementary or continuing education courses at universities, university colleges or their continuing education centres
- separate qualifications or open university courses at universities, university colleges or their continuing education centres
- educational activities at summer universities
- teaching provided at adult education centres or institutes
- courses at language schools or colleges in Finland
- correspondence courses
- education and training arranged by organisations, associations and societies
- study groups and courses arranged by study centres

- courses arranged by separate text editing (typing) schools
- courses arranged by schools or colleges of dancing
- education and training arranged by employers at places of work or on their own or other educational premises
- education and training arranged by private educational companies, consultants or centres (operated on commercial principles)
- conferences, seminars and other educational meetings
- other educational courses or events that can be regarded as constituting adult education (incl. study abroad).

Study at driving schools and study by means of radio or television programmes or courses were considered separately.

The above definition was chosen in order to achieve comparability with the previous Adult Education Surveys, of 1980, 1990 and 1995. It is also possible to define adult education in other ways in the context of this material, by basing the criteria on other educational organisations or starting out from the age of the respondent, for instance.

The regular education system

The basic education system was regarded primarily as consisting of teaching provided for young people at upper secondary schools, vocational schools, polytechnics, universities and university colleges, including teaching at folk colleges, colleges of music and sports colleges leading to a professional qualification. Postgraduate education at universities and university colleges was similarly classified under this heading.

Self-directed study

Self-directed study was taken as comprising personal study occurring beyond the sphere of formal, organised education. Thus it may be fairly informal in character and may be pursued by the respondent either alone or in the company of colleagues or friends. Efforts were made to exclude "incidental learning" from consideration here. One additional requirement was that instances of self-directed study were to be included in the survey only if they had a duration of at least 20 hours. The term "independent study" is often used in place of "self-directed study" in this publication (see also Chapter 4, Self-directed studies by adults).

Data on adult education events/courses

The aim was to collect the largest possible body of detailed data on all the adult education and training courses or events that each respondent had attended in the 12 months prior to the interview. Information was elicited on the content of each module or course, who had arranged it, whether it was connected with the person's work or occupation, with some honorary or elected position, with hobbies or pastimes or simply a matter of general interest, whether working time or other time had been used on training, who had paid for it, and how many days (or hours) it had taken up in the last 12 months. On account of the repetitious structure of the questionnaire and the resulting strain on the respondent, questions about whether the module or course was intended to lead to a formal qualification, what effects it would have for the respondent, the reasons for taking it and on whose initiative the respondent had applied to take it were restricted to one randomly chosen module or course in cases where several had been mentioned. The method for selecting this one course at random and its reliability were tested in advance, as described in the memo by *Timo Ruuskanen: Random selection of attained adult education courses.*

Adult education connected with the participant's work or occupation (vocational adult education)

A distinction was made, from the interviewee's viewpoint, between adult education connected with the participant's work or occupation and education pursued out of a general interest or with a hobby or pastime in mind, on the basis of the person's own statement of the purpose of participation.

Employer-sponsored training

All adult education partly or wholly paid for by the respondent's employer was considered to be employer-sponsored training regardless of content. This may have been entirely sponsored by the employer, in the sense that all the respondent's expenses were paid and the event took place entirely within working hours, or else partly sponsored by the employer, if the respondent had had to spend some leisure time or holiday time on it, obtain leave of absence for study purposes or had to contribute towards the costs.

For technical reasons it was possible to count as employer-sponsored training only training connected with the respondent's work or occupation that had been provided by adult education organisations (or equivalent forms of adult training), and it was only to training of this kind that the questions on costs and use of time applied.

Entirely voluntary vocational adult education and training

This term is used to denote adult education and training connected with the respondent's work or occupation which takes place entirely outside working time and involves no financial contribution from either the person's employer or his/her trade union.

Days of participation

The days on which the respondent had been participating in adult education and training (i.e. receiving instruction, etc.) during the preceding 12 months are counted as his/her days of participation. This need not necessarily be the total duration of the course or teaching. The figure does not include travel to and from the place where the course was held, nor any time spent at home on preparation or exercises. One day of participation or education is taken as lasting six hours.

Content of education

The content of the education or training received was assessed according to a modification of the Statistics Finland classification of adult education, since the original classification, based on the ISCED equivalent, was found unsuitable for use in an interview situation to categorise course-based education not leading to a formal qualification. The classification used for the present purpose is given at the end of this chapter.

Language skills

The interviewees were asked to evaluate their own command of languages in accordance with a classification scheme presented to them, the lowest level in which implied coping with the most common expressions used in everyday life and the highest virtually the abilities of a native speaker. The scheme is based on the international classification used by the Council of Europe, which recognises six levels. These were combined to form three main categories for the purposes of the present analysis, representing basic users of the language, independent users and proficient users. The scale employed in the interviews is also presented at the end of this chapter.

Other concepts used in this publication

The **labour force,** or work force, refers to the total number of people in the population who are either working or unemployed.

The population **outside the labour force** consists of persons who are neither employed nor unemployed, i.e. students, conscripts, home makers, pensioners (on the grounds of age or years of service), the disabled and certain others not belonging to these categories.

Employees are divided into blue-collar workers and white-collar employees on the basis of their occupation.

Socio-economic group is determined according to the respondent's occupation, position and branch of economic activity, employing the following categories:

- agricultural entrepreneurs
- other entrepreneurs
- upper white-collar employees
- lower white-collar employees
- blue-collar workers
- students
- pensioners
- others or unknown.

(Statistics Finland: Classification of socio-economic group, Handbook, No.17)

Distribution of the socio-economic category "others or unknown" in the Adult Education Surveys in various years.

	2000 %	1995 %	1990 %	1980 %
Home makers	51	54	81	47
Unemployed who have never been employed	32	35	3	7
Conscripts	7	8	14	9
Family members assisting in enterprises	–	–	–	31
Persons with some "other" primary activity	11	3	2	6
Total respondents in category	**217**	**289**	**125**	**363**

The working population is divided into those employed in the central government sector (including state-owned companies), the local government sector, the private sector (private companies, incl. those in which the state has a controlling share) and the other sector (organisations, associations, foundations, etc.).

Age is recorded as of 31.12.1999

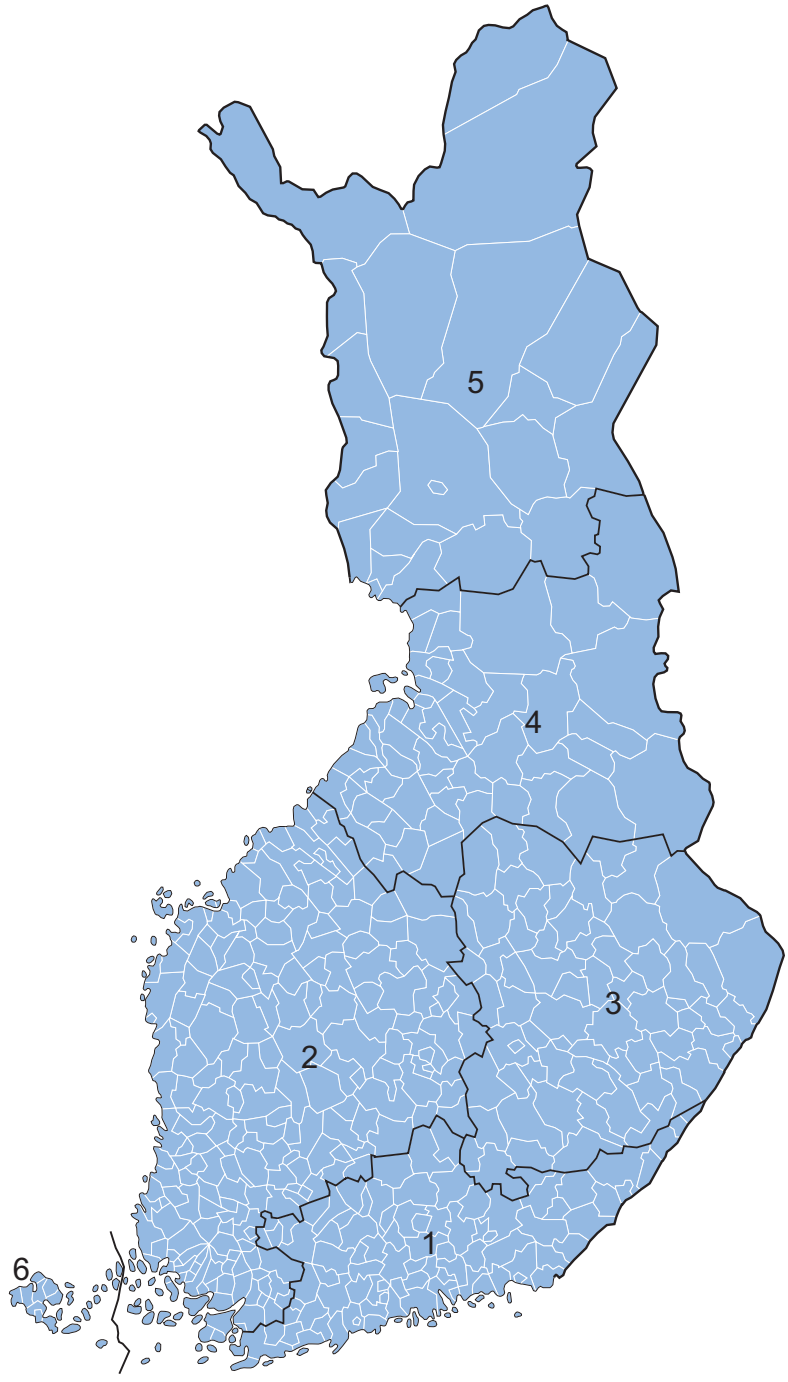
Level of education

Level of education was determined on the basis of the Unesco International Standard Classification (ISCED), which has been adapted to the Finnish education system. The original scale was combined into three categories as follows: the primary/lower secondary category (ISCED 0-2) consists of people who have completed no more than primary or comprehensive school; the upper secondary level (ISCED 3-4) comprises those who have completed upper secondary general or vocational education as well as those with specialist vocational qualifications related to working life skills; the tertiary category (ISCED 5-7) consists of study lines at a vocational institution requiring 2-3 years after upper secondary education, lower and higher academic degrees, polytechnic (AMK) qualifications, as well as licentiate's and doctor's degrees.

Province

Finland is divided administratively into the mainland and Åland, the mainland then being divided into five provinces:

1 Southern Finland
2 Western Finland
3 Eastern Finland
4 Oulu
5 Lapland

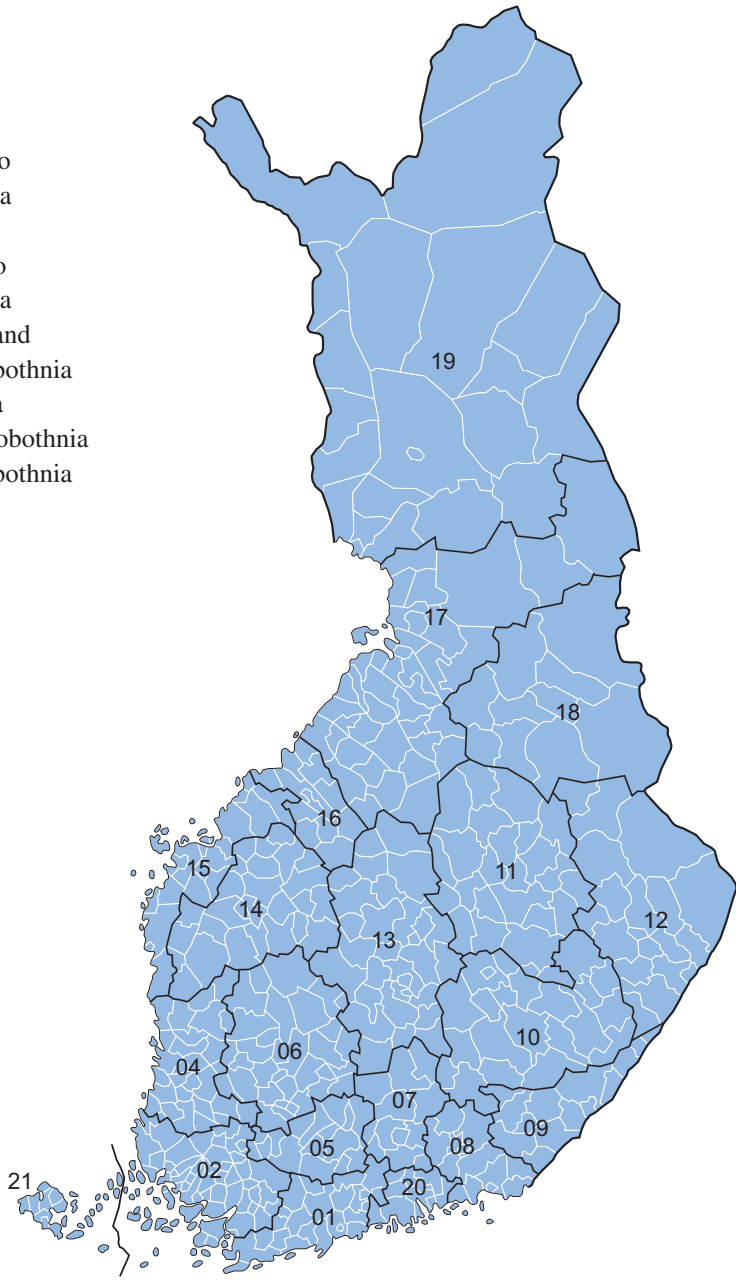


6 The data for Åland are combined here with those for Western Finland.

Region

The mainland of Finland is divided into 19 regions (corresponding to the European Union's NUTS3 (Nomenclature des Unités Territoriales Statistiques) level of classification:

01 Uusimaa
20 Itä-Uusimaa
02 Varsinais-Suomi
04 Satakunta
05 Kanta-Häme
06 Pirkanmaa
07 Päijät-Häme
08 Kymenlaakso
09 South Karelia
10 Etelä-Savo
11 Pohjois-Savo
12 North Karelia
13 Central Finland
14 South Ostrobothnia
15 Ostrobothnia
16 Central Ostrobothnia
17 North Ostrobothnia
18 Kainuu
19 Lapland

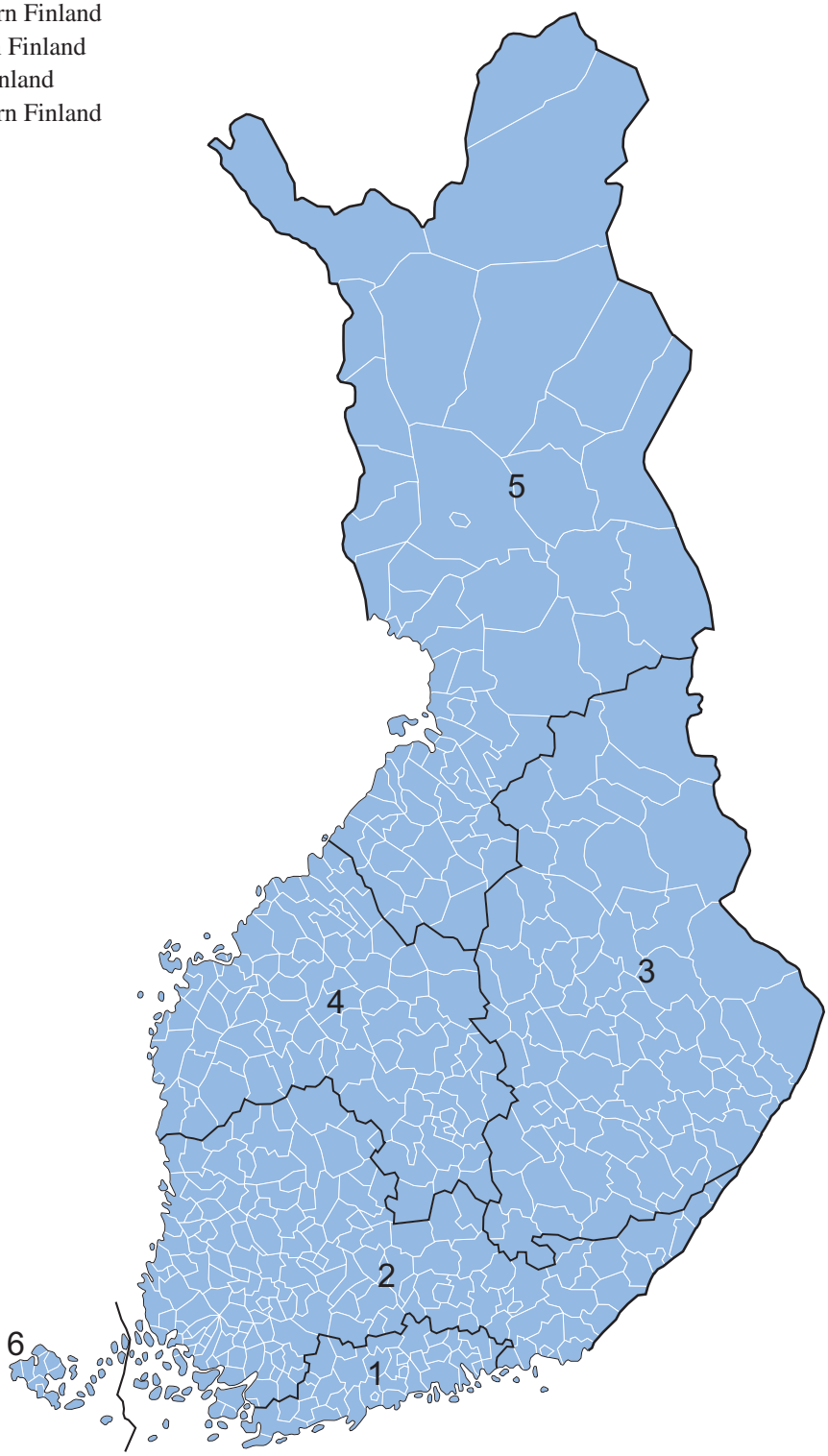


21 The data for Åland are combined here with those for the Varsinais-Suomi region.

Major regions

The mainland of Finland is divided into 5 major regions (corresponding to the European Union's NUTS2 level of classification):

1 Uusimaa
2 Southern Finland
3 Eastern Finland
4 Mid-Finland
5 Northern Finland



6 The data for Åland are combined here with those for the Southern Finland region.

Type of municipality

The municipalities can be divided into three groups on the basis of the proportion of people living in densely populated areas and the population of the largest urban settlement: urban, semi-urban and rural.

Urban municipalities are ones in which at least 90% of the population live in urban settlements or in which the population of the largest urban settlement is at least 15,000.

Semi-urban municipalities are ones in which between 60% and 90% of the population live in urban settlements and in which the population of the largest urban settlement is between 4,000 and 15,000.

Rural municipalities are one in which less than 60% of the population live in urban settlements and in which the population of the largest urban settlement is less than 15,000, and ones in which between 60% and 90% of the population live in urban settlements and in which the population of the largest urban settlement is less than 4,000.

Classification of the content of education as used in the Adult Education Survey 2000

10 Comprehensive school or upper secondary school subjects

11 Fine and applied arts studies
- music, fine arts
- design, handicrafts, home economics etc.
- dramatic art, theatre
- literary art, performing dance
- other fine and applied arts

12 Finnish

13 Swedish

14 English

15 German

16 French

17 Russian

18 Spanish

19 Italian

20 Other languages

21 Humanities and aesthetic subjects
- history, archaeology, genealogy
- culture, literature
- theology, religion, philosophy
- other humanities and aesthetic subjects

22 Training of teachers and instructors
- training in didactic skills (not including education as an academic discipline)

23 Business economics, marketing and business administration
- economics and commerce
- accountancy, finance
- commercial work, clerical work, secretarial work
- marketing, advertising

24 Law, social sciences and behavioural sciences
- law, political science
- social and administrative sciences
- sociology, education and psychology (incl. human relations)
- linguistic and graphic communication, public relations, librarianship, informatics

25 Management and corporate skills
- e.g. personnel management, organisation skills
- other management training
- trade union and organisational training (if not classified according to content)

26 Information technology
- information processing science
- using of information technology, programming, design
- information networks, telecommunications
- other information technology

27 Mathematics and natural sciences
- mathematics, physics, chemistry, astronomy, meteorology, geology
- geography, biology, zoology, botany
- microbiology, ecology etc.

28 Technology, research and development, production, construction

- production, mechanical and electrical engineering
- process engineering (wood processing , chemicals, metallurgy, mining)
- construction and civil engineering, surveying, architecture

29 Transport, communications and forwarding

- road, water and air traffic, aviation and forwarding

30 Social and health care

- medicine and dentistry
- health care, occupational health (e.g. first aid courses)
- pharmacy
- paramedical work, massaging, etc.
- social work, child care, child day care

31 Agriculture, forestry and horticulture

- fisheries, animal husbandry, organic cultivation, hunting, fishing
- veterinary medicine

32 Services

- accommodation and catering
- home economics, food science
- sanitary maintenance and cleaning
- beauty care, cosmetology
- other services (not in the home)

33 Security, fire, rescue and military services

- fire and police services, rescue and security
- military services
- other forms of protection and safety that cannot be classified by subject, e.g. occupational safety

34 Physical education and sport, mental and physical wellbeing

- physical education, sport, sports coaching
- health, condition and welfare

35 Other education (e.g. multi-disciplinary)

Classification of language skills used in the Adult Education Survey 2000

1. I can understand and use the most common everyday expressions

Can understand and use familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. Can introduce him/herself and others and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has. Can interact in a simple way provided the other person talks slowly and clearly and is prepared to help.

2. I can understand and use the language in relation to familiar things and situations

Can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment). Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters. Can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need.

3. I can understand the essential of clear language and produce simple text and describe experiences and events

Can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc. Can deal with most situations likely to arise whilst travelling in an area where the language is spoken. Can produce simple connected text on topics which are familiar or of personal interest. Can describe experiences and events, dreams, hopes and ambitions and briefly give reasons and explanations for opinions and plans.

4. I can understand the main ideas of complex language and communicate fairly fluently

Can understand the main ideas of complex texts on both concrete and abstract topics, including technical discussions in his/her field of specialisation. Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.

5. I can understand a wide range of demanding texts and use the language flexibly

Can understand a wide range of demanding, longer texts, and recognise implicit meaning. Can express him/herself fluently and spontaneously without much obvious searching for expressions. Can use language flexibly and effectively for social, academic and professional purposes. Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organisational patterns, connectors and cohesive devices.

6. I can understand virtually everything and master the language almost completely

Can understand with ease virtually everything heard or read. Can summarise information from different spoken and written sources, reconstructing arguments and accounts in a coherent presentation. Can express him/herself spontaneously, very fluently and precisely, differentiating finer shades of meaning even in more complex situations.

Adult Education Survey 2000, Technical Report

Data collection

Population

In view of the intention to monitor life-long learning, the Adult Education Survey 2000 was directed at the whole adult population and not just the population of active working age. Thus the age range was extended beyond 64 years, the upper limit being set at 79 years for practical reasons connected with management of the interviews.

The population for the survey thus consisted of all persons aged 18–79 years permanently resident in Finland, the sampling frame being a set of the relevant data from the central population register coded for place of residence. A total of 5,000 names comprising 4,700 in the age range 18–64 years and 300 aged 65–79 years were extracted from this by systematic sampling at regular intervals.

Development of the questionnaire form

The outline of the Adult Education Survey 2000 questionnaire form was based on that used in 1995, with revisions made to the content in accordance with the conclusions of a seminar for researchers and experts held in spring 1999 and other needs which had arisen in the meantime.

The first stage of the development work consisted of an evaluation of the existing questions by the Statistics Finland survey laboratory, employing a classification developed for the systematic analysis of problems in questionnaire and interview forms. The feedback obtained from this led to certain small corrections to the formulations of the questions.

The fields on which information was required included the following:

- background data
- data on participation in adult education and training
- self-directed studies
- learning at work, opportunities for learning and development provided in connection with work, solving of problems at work, acquisition of information and use of professional literature
- views on the benefits of adult education, perceived needs for it and interest in it
- factors arousing interest
- obstacles to adult education, availability of information on educational opportunities
- use of information technology
- knowledge of foreign languages
- learning in everyday surroundings.

New topics included since the 1995 survey were the use of information technology and the experimental questions concerned with learning in everyday surroundings, in addition to which the scale for assessing foreign language skills was revised to conform to the 6-point scale proposed by the European Council. The questionnaire form has been published separately (also in English translation).

Preparations for data acquisition and fieldwork

The interview material used in the Adult Education Survey 2000 comprised: the questionnaire in BLAISE software form, a hard copy of the questionnaire, a set of response cards, the interviewing instructions, a brochure describing the survey, a letter

to participants and a letter to those refusing to participate, and a set of orientation exercises for interviewers. A one-day training session was arranged for the seven teams of interviewers, with the principal aims of introducing them to the purpose of the survey, its targets and uses and of explaining the meanings and purposes of the main questions on the form. A further intention was to reach agreement with the interviewers on which actions were possible, permitted and subject to the interviewer's discretion in the course of an interview and in what situations the quality requirements called for the strict observance of precisely worded instructions. The most of the training time was taken up with discussions on fieldwork practises and means of motivating the respondents.

The data were collected by CAPI (computer-assisted personal interviewing) visits carried out by a total of 150 interviewers in February-June 2000. The sample contained both Finnish and Swedish-speaking Finns in the proportions in which they exist in the population, and the interviews were conducted in Finnish and Swedish accordingly.

It was regarded as essential that the questionnaire should be administered by face-to-face interview, as it was long and complicated, a large number of response cards were required and the interviewers had to be trained to assist the respondents in understanding the implications of the factual questions and in recalling those things that were more difficult to remember. The average duration of an interview was one hour.

The interviewers were asked to provide feedback on the performance of the fieldwork at the end of that stage in the survey, the aim being to obtain background information for the analyses and for quality assessment and suggestions for possible future development of the Adult Education Survey and its instruments. This feedback has been published separately (in Finnish): *Blomqvist, I. & Nyyssönen, E. (2000). Aikuiskoulutustutkimus 2000, Haastattelijapalaute.*

Non-response

Non-response may be of one of two types: unit non-response and item non-response. Unit non-response occurs when a subject belonging to the sample cannot be interviewed at all, e.g. because of refusal to participate or because of failure to contact the person. This can be compensated for by means of weighting coefficients. Item non-response implies that the interview did take place but certain items on the questionnaire went unanswered, e.g. because of interruption of the interview or refusal by the respondent at certain points.

Since the Adult Education Survey 2000 employed two separate samples, one of persons aged 18–64 years and the other of persons aged 65–79 years, non-response should also be examined separately for the two groups, although the emphasis will naturally be on the group aged 18–64 years, as this is capable of being compared with the samples for earlier adult education surveys. The distribution of non-response will be examined in relation to certain background variables, namely gender, age, level of educational attainment, type of municipality and province of residence, and compared with the situation in earlier surveys. The reasons for it will be considered separately in terms of refusals and failures to contact the respondents.

The representativeness of the eventual data will be assessed by studying the structure of the non-response in terms of groups formed on the basis of the background variables, and by comparing the distribution of the respondents with that in the population.

Unit non-response in the sample aged 18–64 years

Sample

The size of the gross sample of persons aged 18–64 years was 4,700. After removal of the excess coverage, i.e. persons who had died since the last updating of the population register (7 cases), persons who had been abroad for the whole of the period referred to (13 cases), persons in an institution (10 cases), persons who were seriously ill (36 cases), persons who could not be interviewed for language reasons (26 cases) and three persons whose answers could not be recovered because of computer errors, the final sample comprised 4,605 subjects.

Possible sources of undercoverage in the sampling concern persons who had moved to Finland after the last updating of the population register, for example, a factor that can be checked by examining the immigration data contained in the population register. As a relatively short time elapsed between sampling and data acquisition, it can be assumed that the representativeness of the survey has not been greatly affected by any such undercoverage.

Non-response higher than in earlier adult education surveys

Since the number of interviews conducted with respondents aged 18–64 years was 3,422, the response rate may be said to be 74%, eight percentage points lower than in the Surveys of 1990 and 1995. Every effort was made to minimize non-response by giving the interviewers precise instructions concerning motivation of the subjects, providing a brochure explaining the survey for use by interviewers when contacting respondents and by placing emphasis on the control of practical situations when training the interviewers. The need to reduce non-response was also prominent in the activities of the managers of the fieldwork when advising their groups of interviewers. On the other hand, it has to be admitted that increasing rates of non-response are a general trend in postal and interview surveys at the present time.

Highest response from young people and the well-educated

Acceptable interviews were obtained proportionally more often from young respondents than from older ones (Table 1), the response rate being highest in the 18–24 year age group, 79%, and second highest in that aged 25–34 years, 76%. The three oldest age groups achieved virtually the same response rate, around 73%.

The respondents who had completed tertiary-level education agreed to participate more often than those with less education, the highest non-response being among those with only less than upper secondary education, almost a third of whom refused to participate, proved impossible to contact or remained without an interview for some other reason.

No differences in response rate were observed between the men and women, the figure for women being 75% and that for men one percentage point higher.

Analysed in terms of the degree of urbanisation of the municipality in which the respondents lived, non-response was greatest among the urban inhabitants, 30%, i.e. a response rate of 70%, while the response rate in the rural areas was more than ten percentage points higher, 83%.

Geographically speaking, non-response was a more serious problem in the provinces of Southern and Western Finland than elsewhere. The highest proportion of acceptable interviews was obtained in Eastern Finland, and the second highest in the province of Oulu. The response rate in Lapland was also above average.

Response rates declined evenly in all population groups

Comparison with the earlier Surveys indicates that response rates had fallen on this occasion in all the groups formed on the basis of background variables (Table 2), the

1. Response rates, unit non-response and sample sizes in the Adult Education Survey 2000 according to certain background variables (population aged 18–64).

	Response %	Non-response %	Sample n
Gender			
Male	74	26	2,339
Female	75	25	2,267
Age			
18–24	79	21	611
25–34	76	24	915
35–44	73	27	1,118
45–54	73	27	1,171
55–64	73	27	791
Level of education			
Primary or lower secondary (ISCED 0-2)	68	32	1,451
Upper secondary (ISCED 3-4)	76	24	1,896
Tertiary (ISCED 5-7)	78	22	1,259
Type of municipality[1]			
Urban	70	30	2,883
Semi-urban	79	21	740
Rural	83	17	981
Province of residence[1]			
Southern Finland	69	31	1,877
Western Finland[2]	76	24	1,640
Eastern Finland	82	18	523
Oulu	80	20	389
Lapland	79	21	175
Total	**74**	**26**	**4,605**

[1)] *n=4,603 for these variables, as two respondents were living abroad at the time of the interview*
[2)] *including Åland*

2. Response rates according to certain background variables in the Adult Education Surveys of 2000, 1995 and 1990 (population aged 18–64).

	Response rates in surveys		
	2000 %	1995 %	1990 %
Gender			
Male	74	82	82
Female	75	83	82
Age			
18–24	79	87	85
25–34	76	84	81
35–44	73	80	81
45–54	73	80	80
55–64	73	80	83
Level of education			
Primary or lower secondary (ISCED 0-2)	68	76	79
Upper secondary (ISCED 3-4)	76	84	84
Tertiary (ISCED 5-7)	78	88	84
Type of municipality			
Urban	70	80	78
Semi-urban	79	85	82
Rural	83	87	89
Total	**74**	**82**	**82**

problem of non-response continuing to be most serious in the same groups as in past years, but to an increasing extent. Thus the structure of non-response has remained very much the same, with scarcely any shifts in terms of individual background variables.

The response rates for men and women had dropped by exactly the same amount, eight percentage points, and the decline was also extremely evenly distributed among the age groups. It was noticeable, however, that the response rate for the best age group in 2000, the 18–24-year-olds, was equal to that for the poorest group in 1995, that aged 55–64 years.

Clear drops in the response rate were also noted in all the categories of level of educational attainment, again with a fairly even pattern.

The only alteration in the structure of non-response relative to previous Surveys was discovered in the analyses in terms of the degree of urbanisation of the subjects' places of residence, in that the fall in response rates was greatest in the urban municipalities, where the rate was 10 percentage points lower than in 1995, whereas the difference in the rural areas was about 4 percentage points. In other words, non-response has become even more common among urban than rural inhabitants.

We will examine below the structure of non-response in the two most seriously affected groups, respondents with less than upper secondary education and respondents living in urban municipalities.

Distribution of non-response in the most seriously affected groups similar to that in the total sample

The structure of non-response in the most seriously affected groups did not deviate from that in the total sample (Table 3). The response rate for the youngest age group in the urban municipalities, for example, was just as high as that for the same group in the sample as a whole, and the only exception was in the case of those with less

3. Distribution of unit non-response in the whole sample aged 18–64, those with primary or lower secondary education and those living in urban municipalities, deviations from the mean response rate.

	Whole sample	Primary or lower secondary (ISCED 0-2)	Urban
	Deviation in % points	Deviation in % points	Deviation in % points
Gender			
Male	0	1	–1
Female	1	0	1
Age			
18–24	5	6	9
25–34	2	1	1
35–44	–1	–10	–2
45–54	–1	0	–3
55–64	–1	0	–1
Level of education			
Primary or lower secondary (ISCED 0,1,2)	–6		–7
Upper secondary (ISCED 3-4)	2		2
Tertiary (ISCED 5-7)	4		5
Type of municipality			
Urban	–4	–5	
Semi-urban	5	2	
Rural	9	12	
Mean response rate of the group	**74**	**68**	**70**

than upper secondary education where the proportion of non-response was higher in the 35–44 year age group than in the total sample, (-10 vs. -1).

In summary, it may be said that all the deviations fit within the 95% confidence interval, so that they do not pose any problems as far as the analysis of the material is concerned.

Refusal the most common reason for non-response

Refusal to participate was a much more common reason for non-response than failure to trace the respondent, accounting for 82% of cases, while the remaining 18% were attributable to the latter cause (Table 4). The probability of failure to trace the respondent decreased with age, so that where more than a third of the non-response in the 18–24 year age group was for this reason, only a fifth of the cases at age 35–44 years and only 7% at age 55–64 years could be explained in this way.

There were also geographical differences in the distribution of non-response between refusal and failure to contact the respondent, the latter problem being most common in Lapland, where it accounted for a third of total non-response. By comparison, refusal was most common in the province of Oulu, where only 13% of the lost cases were untraceable ones.

Failure to trace the respondent was a slightly more common reason for non-response in the urban municipalities than elsewhere, but no statistically significant trends could be detected in terms of gender or level of educational attainment.

4. Distribution of unit non-response between refusals and failures to contact the respondents according to certain background variables (population aged 18–64).

	Reason for unit non-response		
	Refusal %	Failure to contact %	Total %
Gender			
Male	80	20	100
Female	84	16	100
Age			
18–24	66	34	100
25–34	75	25	100
35–44	81	19	100
45–54	87	13	100
55–64	93	7	100
Level of education			
Primary or lower secondary (ISCED 0-2)	82	18	100
Upper secondary (ISCED 3-4)	81	19	100
Tertiary (ISCED 5-7)	84	17	100
Type of municipality			
Urban	80	20	100
Semi-urban	88	12	100
Rural	89	11	100
Province of residence			
Southern Finland	81	19	100
Western Finland[1]	85	15	100
Eastern Finland	84	16	100
Oulu	87	13	100
Lapland	67	33	100
Total	82	18	100

[1] *including Åland*

On the other hand, it is evident that the higher non-response observed here relative to earlier Surveys is attributable to an increase in refusals (Table 5), by 7 percentage points, to reach 21%. This rise was evenly distributed over all the groups representing background variables, while the proportions of respondents who could not be traced remained virtually unchanged.

5. Proportions of refusals and respondents who could not be contacted in the Adult Education Surveys of 2000, 1995 and 1990 (population aged 18–64).

	Adult Education Survey 2000		Adult Education Survey 1995		Adult Education Survey 1990	
	Refusal	Failure to contact	Refusal	Failure to contact	Refusal	Failure to contact
	%	%	%	%	%	%
Gender						
Male	21	5	14	5	13	5
Female	21	4	15	3	15	3
Age						
18–24	14	7	8	4	10	5
25–34	18	6	11	4	13	5
35–44	22	5	16	4	15	5
45–54	23	4	16	4	17	3
55–64	25	2	19	2	15	2
Level of education						
Primary or lower secondary (ISCED 0-2)	26	6	20	4	17	5
Upper secondary (ISCED 3-4)	19	4	12	4	12	4
Tertiary (ISCED 5-7)	18	4	9	3	13	3
Type of municipality						
Urban	24	6	16	5	17	5
Semi-urban	18	2	12	3	15	3
Rural	15	2	11	1	9	2
Total	**21**	**5**	**14**	**4**	**14**	**4**

Comparison of interviewees with the population

The next aspect of the quality of the data to be examined will be the correspondence between the interviewees, the sample and the population to be studied. This will be approached by means of two cross-tabulations (Tables 6 and 7), the first analysing both groups in terms of gender and place of residence (region), and the second in terms of age group and level of educational attainment.

The analysis by gender and region of residence shows good correspondences between the sample, the set of respondents and the population (Table 6). The largest single deviation between the interviewees and the population was to be found in the Uusimaa region, a difference of three percentage points. This may be attributable to the higher rate of non-response in Southern Finland, as mentioned above. The higher response rates observed in the north and east of the country do not pose problems as far as the quality of the data is concerned, as the deviations between the interviewees and the population were small.

6. Distributions of the respondents, sample and population by region of residence and gender (population aged 18–64).

Region	Male			Female			Total		
	Resp. %	Sample %	Pop. %	Resp. %	Sample %	Pop. %	Resp. %	Sample %	Pop. %
Uusimaa	11.5	13.0	12.9	12.2	13.1	13.5	23.6	26.1	26.4
Varsinais-Suomi	4.0	4.1	4.3	4.6	4.4	4.3	8.7	8.5	8.6
Satakunta	2.2	2.2	2.3	2.7	2.5	2.2	4.9	4.6	4.5
Kanta-Häme	1.2	1.4	1.6	1.5	1.6	1.5	2.7	3.0	3.1
Pirkanmaa	4.9	4.8	4.4	3.7	3.9	4.3	8.6	8.8	8.7
Päijät-Häme	2.0	2.1	1.9	1.8	1.7	1.9	3.7	3.8	3.8
Kymenlaakso	1.8	1.8	1.9	1.9	1.8	1.7	3.7	3.6	3.6
South Karelia	0.9	1.2	1.4	1.5	1.5	1.3	2.4	2.6	2.6
Etelä-Savo	1.7	1.6	1.6	1.7	1.5	1.5	3.4	3.1	3.2
Pohjois-Savo	2.8	2.5	2.5	2.7	2.5	2.3	5.4	5.0	4.8
North Karelia	1.7	1.5	1.7	2.0	1.7	1.6	3.7	3.2	3.2
Central Finland	2.6	2.5	2.5	2.8	2.7	2.5	5.3	5.2	5.0
South Ostrobothnia	2.1	1.9	1.8	1.7	1.6	1.8	3.8	3.5	3.6
Ostrobothnia	1.9	1.7	1.6	1.5	1.5	1.6	3.4	3.2	3.2
Central Ostrobothnia	0.9	0.7	0.7	0.6	0.6	0.6	1.4	1.4	1.3
North Ostrobothnia	4.1	3.7	3.5	3.0	3.0	3.3	7.2	6.7	6.8
Kainuu	1.2	1.0	0.9	0.8	0.8	0.8	2.0	1.8	1.7
Lapland	2.1	2.1	1.9	2.0	1.7	1.8	4.1	3.8	3.7
Itä-Uusimaa	0.8	0.8	0.9	0.7	0.9	0.8	1.6	1.7	1.7
Åland	0.2	0.2	0.3	0.2	0.2	0.2	0.4	0.4	0.5
Total	**50.5**	**50.8**	**50.5**	**49.5**	**49.2**	**49.5**	**100.0**	**100.0**	**100.0**

The sample as such is highly representative of the population, as no difference with respect to any background variable exceeds one percentage point.

Analysis in terms of the level of educational attainment shows those with tertiary education to be slightly overrepresented and those with less than upper secondary education correspondingly underrepresented (Table 7), the deviation in each case being just under two percentage points.

The interviewees conformed well with the population as far as their age distribution was concerned, although the younger age groups were very slightly underrepresented in the sample and the older groups overrepresented. The latter situation was compensated for by the higher response rate of the younger respondents, to yield a very precise correspondence, with no age group deviating from the population by even one percentage point.

Thus the distribution of the respondents by age and level of education scarcely deviates at all from that of the population, with no group showing a deviation even of two percentage points.

7. Distributions of the respondents, sample and population by age and level of educational attainment (population aged 18–64).

Age	Primary or lower secondary (ISCED 0-2)			Upper secondary (ISCED 3-4)			Tertiary (ISCED 5-7)			Total		
	Resp. %	Sample %	Pop. %	Resp. %	Sample %	Pop. %	Resp. %	Sample %	Pop. %	Resp. %	Sample %	Pop. %
18–24	5.6	5.5	5.1	7.7	7.0	8.9	0.9	0.8	1.0	14.2	13.3	14.9
25–34	3.4	3.7	3.4	9.3	9.1	9.3	7.7	7.1	7.4	20.3	19.9	20.1
35–44	3.4	4.4	4.5	11.2	11.3	10.6	9.0	8.6	8.2	23.7	24.3	23.3
45–54	7.8	8.6	8.7	9.8	9.7	9.5	7.4	7.1	7.0	25.0	25.3	25.2
55–64	8.7	9.3	8.8	4.4	4.1	4.3	3.8	3.6	3.5	16.8	17.2	16.5
Total	**28.9**	**31.5**	**30.5**	**42.3**	**41.2**	**42.5**	**28.8**	**27.3**	**27.0**	**100.0**	**100.0**	**100.0**

All in all, it may be stated that the interviewees were relatively representative of the population, and that the small distortions in terms of level of education and place of residence could be corrected easily by means of weighting coefficients.

These coefficients were calculated by the calibration method, which makes use of data on marginal distributions in the population, to which the distributions in the sample are adjusted. The following groupings of variables were used for this purpose:

- age group (5 classes) and ISCED level (3 classes), total 15 classes
- gender (2 classes) and region (16 classes), total 32 classes (on account of the small number of data items, the region variable was adjusted by combining Itä-Uusimaa with Uusimaa, Åland with Varsinais-Suomi, Kainuu with North Ostrobothnia and Central Ostrobothnia with Ostrobothnia).

Unit non-response in the sample aged 65–79 years

The gross sample of respondents aged 65–79 years was 300, which was reduced to 283 on removal of 17 excess coverage records. This small size of sample means that it is not possible to evaluate it by means of a multiple classification of background variables. At the same time the small sample size will have an influence of its own on the analysis of the results.

Interviews were eventually obtained with 180 of the respondents, implying a response rate of 64% and a non-response of 36%. Again the respondents living in rural areas agreed to be interviewed more readily than those in semi-urban or urban municipalities (Table 8), i.e. four fifths of them responded as opposed to just over a half in the other areas.

On the other hand, no statistical differences in response rate were obtained between the genders or in relation to level of educational attainment, partly on account of the small sample. In the end 68% of the men and 61% of the women aged 65–79 years were interviewed. The response rate was 70% for those in the sample with tertiary education, 64% for those with less than upper secondary education and 58% for those with upper secondary education.

Refusal was a still more common reason for non-response in this age group than among those aged 18–64 years, accounting for 90%. This reflects the fact that since people of this age are not so mobile, they are easier to contact. In fact the interviewers failed to contact only 10 people.

8. Response rates, unit non-response and sample sizes for the population aged 65–79 in the Adult Education Survey 2000, by certain background variables.

	Response %	Non-response %	Sample
Gender			
Male	68	32	112
Female	61	39	171
Level of education			
Primary or lower secondary (ISCED 0-2)	63	37	200
Upper secondary (ISCED 3-4)	58	42	40
Tertiary (ISCED 5-7)	70	30	43
Type of municipality			
Urban	56	44	145
Semi-urban	54	46	41
Rural	79	21	97
Total	**64**	**36**	**283**

Comparison of interviewees with the population

The correspondence between the 65–79-year-old interviewees and the population will be evaluated below with reference to two background variables, level of educational attainment and province of residence (Table 9). On account of the small size of the sample, it is impossible to use variables containing several classes or to use more than one variable at a time.

Subjects with tertiary education are slightly overrepresented in both the sample and the set of respondents, and those with less than upper secondary education are slightly underrepresented. Likewise, those living in the province of Southern Finland are slightly underrepresented and those in Western Finland slightly overrepresented. The greatest discrepancy between the respondents and the population is in the group with tertiary education, over 5 percentage points.

The deviations of the group of respondents from the population may be explained to a great extent by the small sample size, which means that it would be difficult of achieve a perfect correspondence. The bias can be corrected by means of weighting coefficients, although it is important to realise that here, too, it is not possible to use variables with numerous categories.

Weighting coefficients were calculated by a normal process of post-stratification, employing six strata defined in terms of the following variables:

- age group (2 classes): 65–69 years and 70–79 years
- area (3 classes), produced by combining the regions in the following manner:

area 1: Uusimaa, Kanta-Häme, Päijät-Häme, Kymenlaakso, South Karelia, Itä-Uusimaa

area 2: Varsinais-Suomi, Satakunta, Pirkanmaa, Central Finland, South Ostrobothnia, Ostrobothnia, Central Ostrobothnia, Åland

area 3: Etelä-Savo,Pohjois-Savo, North Karelia, North Ostrobothnia, Kainuu, Lapland

The weighting coefficients were obtained in the post-stratification from the equation:

$$\textit{Weighting coefficient} = N_i / n_i$$

where N_i = *population in stratum i*

n_i = *respondents in stratum i*

9. Distributions of the respondents, sample and population aged 65–79 by highest level of educational attainment and province of residence.

	Resp. %	Sample %	Pop. %
Level of education			
Primary or lower secondary (ISCED 0-2)	71	71	74
Upper secondary (ISCED 3-4)	13	14	15
Tertiary (ISCED 5-7)	17	15	11
Province of residence			
Southern Finland	32	34	36
Western Finland[1)]	42	40	39
Eastern Finland	13	14	13
Oulu	9	9	8
Lapland	4	3	4
Total	100	100	100

[1)] *including Åland*

Item non-response

Item non-response relatively small

Item non-response may be regarded as a measure of the quality and relevance of the questionnaire form as such, as a large proportion of "Cannot say" replies to a particular question will suggest that either the question is difficult to understand or else it concerns something that people do not wish to talk about.

Item non-response in the Adult Education Survey was fairly low, the proportions of "Cannot say" replies to individual questions tending to remain below 2%. In fact it was only on a few specific questions that it exceeded 5%. All in all, it may be said that item non-response does not cause problems as far as the reliability of the results is concerned.

Evaluation of non-response to particular items

The most difficult items on the questionnaire form proved to be those dealing with the number of establishments that an employee's company maintained and the size of its staff. Thus Item 20, "Does/Did your employer have other establishments than the one you work/worked in?", had a non-response rate of almost 5%, and Item 21 "How many employees work/worked for this employer in all establishments together?", about 8.5%, the highest individual figure on the whole form. On the other hand, the respondents were well aware of the number employed at their own place of work, so that the item non-response was only just over 1%.

The respondents were able to answer the questions concerning forms of education very well, and item non-response remained below 0.5% throughout, but Item 52e, on the effects of work-related adult education and training, "Have you as a result of the courses you have attended been able to keep your job?", caused some problems and had a non-response rate of over 5%. Likewise, the item asking whether the training activity had any other effects than those mentioned in the specific questions elicited a high rate of "Cannot say" answers, 5–6%.

The questions on obstacles to adult education and training proved difficult for many respondents, with the highest non-response in the section concerned with education undertaken in the respondent's free time and at his/her own expense, 7.5%, applying to Item 53d (poor quality of training), while Item 53n (lack of suitable training opportunities) scored 3.5% and Item 53p (other obstacles or difficulties) similarly 3.5%. Certain difficulties were also experienced in the section on the obstacles to education and training taking place in working time at the employer's expense, largely concerning Item 55c (poor quality of training), with a non-response of 4%, and 55f (employer does not value training), with 3.5%.

The items concerned with the interviewees' earned incomes, which usually produce difficulties in questionnaires, were managed better on this occasion than in the previous adult education surveys. Less than 3% of the respondents could not say what their income was, and only 0.5% were unwilling to say, where these proportions were 3% and 2% respectively in 1995 and 6% and 3% in 1990.

Some of the questions concerning future prospects were also felt to be difficult to answer. Item 93 (chances of advancing in working life in general) occasioned a non-response of 5% and Item 94 (chances of getting a new job corresponding to the respondent's training and skills) well over 4%.

The section on the possible benefits of additional education or training proved to be far more difficult than average, so that a number of its items entailed a non-response of over 3%. Item 96a, "How much do you think that further training would help you in getting a new job?" and Item 96b "And would further training be of help in advancing in your career?" both achieved non-response rates of 4.5%, and Item 96c "Would further training be of help in your being able to keep your job?" well over 3%.

Other individual questions that seemed to cause a certain degree of difficulty were Item 77c (other uncertainty factors at work), non-response 4%, Item 79 (feelings in the face of a possible change in working tasks), non-response over 3%, Item 91 (requirements of work relative to level of educational attainment), non-response just under 4%, and Item 95 (respondent's need for more training to develop working skills or advance his/her career), non-response 3.5%.

Statistical methods

Confidence interval

Every variable in a sampling survey has its own random variation, which can be estimated by means of the standard error. This expresses the tightness with which the values are grouped around the mean for the sample, and is thus affected by both the sample size and the variation in the values. It is also possible to calculate from the standard error a series of confidence intervals, i.e. the interval within which the values will fall with a certain percentage probability.

The $(1-\alpha)*100\%$ confidence interval is a closed interval within which the actual value for the parameter has a $(1-\alpha)*100\%$ probability of being located, i.e.

$$Pr\{p \in (p-t_\alpha d(p), p+t_\alpha d(p))\}=1-\alpha$$

The value t_a corresponding to a 95% confidence interval is 1.96, that for a 99% confidence interval is 2.58 and that for a 90% confidence interval is 1.65.

The standard error was calculated here using the formula for a simple random sample and assuming that non-response was negligible:

$$d(p)=\sqrt{(100-p)\,p\,/\,n}$$

Estimated p values were assigned in accordance with the following (see Table 10):

Example of the calculation of confidence interval by means of a table of standard errors

Given that the Adult Education Survey 2000 maintains that 53.8% of the adult Finnish population aged 18–64 years attended adult education and training courses in 2000, let us calculate the 95% confidence interval for the actual number attending such courses.

$p = 53.8$
$t_\alpha = 1.96$
$n = 3422$

The nearest value to the estimated frequency (p) in the table is 55, and the number of data items (n) is about 3500. Thus the standard error can be found at the intersection between n and p in the table, i.e. it is 0.8. Since the value ta corresponding to a 95% confidence interval is 1.96, the value for each confidence interval will be 1.96*0.8 = 1.6. Thus the true value for the participation of the adult population in adult education and training in 2000 has a 95% probability of lying within the interval 52.2 – 55.4%, i.e. 53.8% ± 1.6%.

10. Standard errors of percentages by number of data units.

Number of observations	Estimated relative proportion									
	5 95	10 90	15 85	20 80	25 75	30 70	35 65	40 60	45 55	50 50
30	4.0	5.5	6.5	7.3	7.9	8.4	8.7	8.9	9.1	9.1
50	3.1	4.2	5.0	5.7	6.1	6.5	6.7	6.9	7.0	7.1
75	2.5	3.5	4.1	4.6	5.0	5.3	5.5	5.7	5.7	5.8
100	2.2	3.0	3.6	4.0	4.3	4.6	4.8	4.9	5.0	5.0
150	1.8	2.4	2.9	3.3	3.5	3.7	3.9	4.0	4.1	4.1
200	1.5	2.1	2.5	2.8	3.1	3.2	3.4	3.5	3.5	3.5
250	1.4	1.9	2.3	2.5	2.7	2.9	3.0	3.1	3.1	3.2
300	1.3	1.7	2.1	2.3	2.5	2.6	2.8	2.8	2.9	2.9
350	1.2	1.6	1.9	2.1	2.3	2.4	2.5	2.6	2.7	2.7
400	1.1	1.5	1.8	2.0	2.2	2.3	2.4	2.4	2.5	2.5
450	1.0	1.4	1.7	1.9	2.0	2.2	2.2	2.3	2.3	2.4
500	1.0	1.3	1.6	1.8	1.9	2.0	2.1	2.2	2.2	2.2
600	0.9	1.2	1.5	1.6	1.8	1.9	1.9	2.0	2.0	2.0
700	0.8	1.1	1.3	1.5	1.6	1.7	1.8	1.9	1.9	1.9
800	0.8	1.1	1.3	1.4	1.5	1.6	1.7	1.7	1.8	1.8
900	0.7	1.0	1.2	1.3	1.4	1.5	1.6	1.6	1.7	1.7
1 000	0.7	0.9	1.1	1.3	1.4	1.4	1.5	1.5	1.6	1.6
1 250	0.6	0.8	1.0	1.1	1.2	1.3	1.3	1.4	1.4	1.4
1 500	0.6	0.8	0.9	1.0	1.1	1.2	1.2	1.3	1.3	1.3
1 750	0.5	0.7	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2
2 000	0.5	0.7	0.8	0.9	1.0	1.0	1.1	1.1	1.1	1.1
2 500	0.4	0.6	0.7	0.8	0.9	0.9	1.0	1.0	1.0	1.0
3 000	0.4	0.5	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.9
3 500	0.4	0.5	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.8
4 000	0.3	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8

Analysis of dependence between variables by means of the χ^2 test of independence

Adult education surveys are often interested in how responses are distributed between the alternatives available, and in particular between groups defined by a certain background variable (e.g. gender or age). The method used for this kind of analysis of dependence between two variables is Pearson's χ^2 test. The test is applied to observations presented in the form of a two-way frequency table, known as a contingency table. In other words, the value for χ^2 is calculated on the basis of observations and not of percentages, for instance.

Data organised in the form of a contingency table can be used with the χ^2 test to test the null hypothesis, i.e. that there is no dependence between the variables, and an expected frequency is obtained for each cell in the contingency table on this basis. If there is no dependence between them, the distribution of observations between the classes will follow the marginal distributions, i.e. the distributions of the row and column totals. These can be used to obtain an expected frequency for each contingency table, simply by multiplying them together and dividing the product by the total number of observations. The χ^2 value, which is based on the difference between these expected frequencies and those actually observed, can be calculated from the equation

$$X^2 = \sum_{i=1}^{r} \sum_{j=1}^{s} \frac{(o_y - e_y)^2}{e_t},$$

where o_{ij}= observed frequency in cell (i,j)
e_{ij}= expected frequency in cell (i,j)
r = number of rows
s = number of columns

The more the observed frequencies deviate from those expected from the null hypothesis, the higher the value for χ^2, i.e. high values will be statistically significant. The value will observe the χ^2 distribution with (r-1)*(s-1) degrees of freedom, so that the p value can be obtained from the χ^2 distribution table. The χ^2 test involves the assumption that no more than 20% of the expected frequencies may be less than five. If this assumption is not met, it is recommended that categories should be combined.

Example of the χ^2 test: Are there differences between men and women in their participation in adult education and training?

It is shown in this Survey that 59% of Finnish women and 49% of the men participated in adult education and training in 2000. Can this difference be explained by random variation or is it statistically significant?

First let us present the observed frequencies, after adjustment by means of weighting coefficients, in the form of a contingency table:

	Participated	Did not participate	Total
Males	838	889	1,727
Females	1,003	692	1,695
Total	**1,841**	**1,581**	**3,422**

H_0: gender has no influence on participation

Expected frequencies (calculated from the boundary distributions):

	Participated	Did not participate	Total
Males	929	798	1,727
Females	912	783	1,695
Total	**1,841**	**1,581**	**3,422**

$$X^2 = \frac{(838-929)^2}{929} + \frac{(889-798)^2}{798} + \frac{(1003-912)^2}{912} + \frac{(692-783)^2}{783} \approx 39{,}0$$

degrees of freedom (df) = (2-1)*(2-1) = 1, p = 0.001

In other words, there is strong evidence for a dependence between participation in adult education and training and gender, i.e. the null hypothesis is rejected.

The test does not tell us anything about the direction of this dependence, which has to be inferred from the percentages in the rows and columns. In this case the inference is that women do indeed participate in adult education and training more often than men.

Describing the quantity and quality of dependence by means of Cramer's V

The χ^2 test of independence indicates the significance of the dependence between two variables. Once a dependence is observed, however, the χ^2 test does not suffice to describe its nature or strength. If two tables differ in their numbers of columns and rows or in their sample sizes, they cannot be compared using the χ^2 value. Instead, some measure of association is needed to describe the quality of the dependence. One suitable method is Cramer's V, which can be used for comparisons involving different sample sizes, as its value increases in proportion to the strength of the dependence.

Cramer's V is calculated from the equation

$$V = \sqrt{\frac{X^2}{n * \min(r-1, s-1)}} \ ,$$

where n = sample size.

Example of the use of Cramer's V: Does participation in employer-sponsored training depend more on the level of educational attainment than on age?
Participation in employer-sponsored training is statistically significantly dependent on both basic education and age, but on which is it more dependent?

Contingency table for basic education and participation (weighted frequencies):

	Participated	Did not participate	Total
Primary or lower secondary (ISCED 0-2)	162	233	395
Upper secondary (ISCED 3-4)	376	392	768
Tertiary (ISCED 5-7)	516	197	713
Total	**1,054**	**822**	**1,876**

Contingency table for age and participation:

	Participated	Did not participate	Total
18–24	65	78	143
25–34	254	194	448
35–44	338	217	555
45–54	323	248	571
55–64	74	85	159
Total	**1,054**	**822**	**1,876**

The χ^2 values can be calculated from the contingency tables:

$\chi^2_{\text{educ. level}} = 129.2$
$\chi^2_{\text{age}} = 17.7$

And from these Cramer's V can be obtained for each:

$V_{\text{educ. level}} = 0.262$
$V_{\text{age}} = 0.097$

Thus the dependence of participation in employer-sponsored training on the level of educational attainment is stronger than that on age.

Tables and figures

Explanations of symbols

Magnitude nil . . . . . –
Category not applicable . . . . . .
Data not available or too uncertain for presentation . . . . **
Number weighted to the total population . . . . . N
Number of respondents . . . . . n
Magnitude less than half of unit employed 0

Tables

8. Perceived benefits, needs and intentions connected with adult education and training

9. Obstacles to participation in adult education and training

10. Participation in adult education and training by the elderly, aged 65–79 years, and their experiences of this education

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2.2 Volume of participation

6 Use of computers by adults

7. Adults' foreign language skills

8. Perceived benefits, needs and intentions connected with adult education and training

9. Obstacles to participation in adult education and training

10. Participation in adult education and training by the elderly, aged 65–79 years, and their experiences of this education

Appendix tables

Explanations of symbols

Magnitude nil . . . . . –
Category not applicable . . . . . .
Data not available or too uncertain for presentation . . . . **
Number weighted to the total population . . . . . N
Number of respondents . . . . . n
Magnitude less than half of unit employed 0

Appendix tables

1. Participation in adult education and training in 2000 (population aged 18–64)

	Have participated in the past 12 months	Have participated earlier	Have never participated	Total	
	%	%	%	n	%
Age					
18–24	49	35	17	485	100
25–29	63	30	6	322	100
30–34	61	35	4	374	100
35–44	62	36	2	811	100
45–54	56	40	4	856	100
55–64	33	61	6	574	100
Gender					
Male	49	44	8	1,727	100
Female	59	37	4	1,695	100
Socio-economic group					
Agricultural entrepreneurs	45	39	15	101	100
Other entrepreneurs	42	52	6	240	100
Upper white-collar employees	84	15	1	622	100
Lower white-collar employees	68	30	2	656	100
Blue-collar workers	45	49	6	836	100
Students	57	30	13	345	100
Pensioners	21	69	9	405	100
Others or unknown	34	55	11	217	100
Highest level of educational attainment					
Primary or lower secondary (ISCED 0-2)	37	52	11	918	100
Upper secondary (ISCED 3-4)	51	43	6	1,496	100
Tertiary (ISCED 5-7)	76	23	1	1,008	100
Current employment situation					
Labour force	60	36	4	2,524	100
Employed	63	33	4	2,206	100
Unemployed	37	58	5	318	100
Population outside labour force	36	52	11	898	100
Type of municipality					
Urban	56	38	6	2,023	100
Semi-urban	53	41	6	588	100
Rural	49	44	7	811	100
Total	**54**	**40**	**6**	**3,422**	**100**

Adult education and training refer to education and training organised specifically for adults. Only education and training lasting at least six hours is included. The tables describing participation in adult education and training do not comprise studying in driving schools or following of educational programmes on the radio and TV. However, studying abroad is included in the figures, although it does not appear as a specific type of training in 1980 and 1990.

2. Participation in adult education and training in 1995 (population aged 18–64)

	Have participated in the past 12 months	Have participated earlier	Have never participated	Total	
	%	%	%	n	%
Age					
18–24	42	30	28	597	100
25–29	51	39	11	479	100
30–34	54	41	5	509	100
35–44	54	41	5	989	100
45–54	54	42	4	911	100
55–64	31	57	12	622	100
Gender					
Male	43	44	13	2,052	100
Female	53	40	7	2,055	100
Socio-economic group					
Agricultural entrepreneurs	44	45	11	159	100
Other entrpreneurs	37	57	7	309	100
Upper white-collar employees	78	21	1	528	100
Lower white-collar employees	66	31	2	947	100
Blue-collar workers	37	48	14	1,027	100
Students	51	32	18	427	100
Pensioners	20	67	13	421	100
Others or unknown	27	51	22	289	100
Highest level of educational attainment					
Primary or lower secondary (ISCED 0-2)	32	51	17	1,290	100
Upper secondary(ISCED 3-4)	47	44	9	1,713	100
Tertiary (ISCED 5-7)	70	28	2	1,104	100
Current employment situation					
Labour force	53	39	8	3,074	100
Employed	60	35	6	2,465	100
Unemployed	27	56	16	609	100
Population outside labour force	33	51	16	1,033	100
Type of municipality					
Urban	52	40	8	2,426	100
Semi-urban	45	44	11	706	100
Rural	42	45	13	975	100
Total	**48**	**42**	**10**	**4,107**	**100**

Adult education and training refer to education and training organised specifically for adults. Only education and training lasting at least six hours is included. The tables describing participation in adult education and training do not comprise studying in driving schools or following of educational programmes on the radio and TV. However, studying abroad is included in the figures, although it does not appear as a specific type of training in 1980 and 1990.

3. Participation in adult education and training in 1990 (population aged 18–64)

	Have participated in the past 12 months	Have participated earlier	Have never participated	Total	
	%	%	%	n	%
Age					
18–24	43	32	25	534	100
25–29	55	37	8	416	100
30–34	55	41	4	419	100
35–44	57	35	8	937	100
45–54	48	40	12	688	100
55–64	25	55	21	610	100
Gender					
Male	43	41	16	1,811	100
Female	52	39	10	1,793	100
Socio-economic group					
Agricultural entrepreneurs	30	48	22	196	100
Other entrpreneurs	40	49	11	209	100
Upper white-collar employees	83	17	0	425	100
Lower white-collar employees	68	29	3	927	100
Blue-collar workers	34	48	18	977	100
Students	45	38	18	278	100
Pensioners	17	57	25	467	100
Others or unknown	23	54	23	125	100
Highest level of educational attainment					
Primary or lower secondary (ISCED 0-2)	30	48	21	1,367	100
Upper secondary (ISCED 3-4)	48	40	11	1,443	100
Tertiary (ISCED 5-7)	74	24	2	794	100
Current employment situation					
Labour force	54	36	10	2,739	100
Employed	55	36	10	2,650	100
Unemployed	21	57	22	89	100
Population outside labour force	27	51	22	865	100
Type of municipality					
Urban	51	39	10	2,017	100
Semi-urban	46	40	14	561	100
Rural	40	42	19	1,026	100
Total	**47**	**40**	**13**	**3,604**	**100**

Adult education and training refer to education and training organised specifically for adults. Only education and training lasting at least six hours is included. The tables describing participation in adult education and training do not comprise studying in driving schools or following of educational programmes on the radio and TV.

4. Participation in adult education and training in 1980 (population aged 18–64)

	Have participated in adult education in 1979/1980	Have participated in adult education in autumn 1980 or before 1979/1980	Have never participated	Total	
	%	%	%	n	%
Age					
18–24	30	38	33	518	100
25–29	40	44	16	416	100
30–34	37	48	14	471	100
35–44	36	48	16	582	100
45–54	31	47	21	556	100
55–64	15	46	39	458	100
Gender					
Male	27	45	28	1,512	100
Female	37	46	18	1,489	100
Socio-economic group					
Agricultural entrepreneurs	20	42	38	127	100
Other entrpreneurs	19	59	23	86	100
Upper white-collar employees	56	41	3	239	100
Lower white-collar employees	50	43	7	728	100
Blue-collar workers	23	48	29	1,005	100
Students	33	42	25	176	100
Pensioners	11	45	44	277	100
Others or unknown	23	47	30	363	100
Total	**32**	**45**	**23**	**3,001**	**100**

Adult education and training refer to education and training organised specifically for adults. Only education and training lasting at least six hours is included. The tables describing participation in adult education and training do not comprise studying in driving schools or following of educational programmes on the radio and TV.

In the 1980 survey the questions concerned participation in the autumn term 1980 or in the year 1979/1980. Participation in the year 1979/1980 was considered more comparable with respect to the 1990 and 1995 surveys, because it describes best participation during one year (12 months).

5. Participation in job or occupation-related adult education and training in 2000 (labour force aged 18–64)

	Have participated in the last 12 months preceding the survey			
	Yes	No	Total	
	%	%	n	%
Age				
18-24	41	59	194	100
25-29	61	39	235	100
30-34	52	48	331	100
35-44	56	44	736	100
45-54	52	48	762	100
55-64	34	66	266	100
Gender				
Male	47	53	1,343	100
Female	56	44	1,181	100
Socio-economic group				
Agricultural entrepreneurs	26	74	101	100
Other entrpreneurs	31	69	240	100
Upper white-collar employees	75	25	622	100
Lower white-collar employees	59	41	656	100
Blue-collar workers	39	61	836	100
Others or unknown	23	77	69	100
Highest level of educational attainment				
Primary or lower secondary (ISCED 0-2)	35	65	560	100
Upper secondary (ISCED 3-4)	46	54	1,094	100
Tertiary (ISCED 5-7)	70	30	870	100
Current employment situation				
Employed	55	45	2,206	100
Unemployed	24	76	318	100
Type of municipality				
Urban	55	45	1,474	100
Semi-urban	49	51	432	100
Rural	44	56	618	100
Total	**51**	**49**	**2,524**	**100**

This includes such education and training arranged by adult education organisations which the respondent self considered job or occupation-related. Excluded from the adult training organisations are driving schools, educational programme series on the radio and TV, conferences, seminars, etc. (partly for measurement reasons).

6. Participation in job or occupation-related adult education and training in 1995 (labour force aged 18–64)

	Have participated in the last 12 months preceding the survey			
	Yes	No	Total	
	%	%	n	%
Age				
18–24	27	73	252	100
25–29	40	60	377	100
30–34	47	53	430	100
35–44	45	55	908	100
45–54	47	53	819	100
55–64	33	67	288	100
Gender				
Male	39	61	1,604	100
Female	46	54	1,470	100
Socio-economic group				
Agricultural entrepreneurs	31	69	159	100
Other entrpreneurs	23	77	308	100
Upper white-collar employees	68	32	528	100
Lower white-collar employees	55	45	947	100
Blue-collar workers	29	71	1,025	100
Others or unknown	14	86	107	100
Highest level of educational attainment				
Primary or lower secondary (ISCED 0-2)	28	72	869	100
Upper secondary (ISCED 3-4)	39	61	1,248	100
Tertiary (ISCED 5-7)	62	38	957	100
Current employment situation				
Employed	50	50	2,465	100
Unemployed	13	87	609	100
Type of municipality				
Urban	46	54	1,813	100
Semi-urban	40	60	531	100
Rural	35	65	730	100
Total	**43**	**57**	**3,074**	**100**

This includes such education and training arranged by adult education organisations which the respondent self considered job or occupation-related. Excluded from the adult training organisations are driving schools, educational programme series on the radio and TV, conferences, seminars, etc. (partly for measurement reasons).

7. Participation in job or occupation-related adult education and training in 1990 (labour force aged 18–64)

	Have participated in the last 12 months preceding the survey			
	Yes	No	Total	
	%	%	n	%
Age				
18–24	36	64	297	100
25–29	50	50	354	100
30–34	49	51	385	100
35–44	48	52	864	100
45–54	44	56	604	100
55–64	27	73	235	100
Gender				
Male	41	59	1,444	100
Female	48	52	1,295	100
Socio-economic group				
Agricultural entrepreneurs	12	88	196	100
Other entrpreneurs	27	73	209	100
Upper white-collar employees	73	27	425	100
Lower white-collar employees	59	41	927	100
Blue-collar workers	26	74	977	100
Others or unknown	**	**	5	100
Highest level of educational attainment				
Primary or lower secondary (ISCED 0-2)	27	73	935	100
Upper secondary (ISCED 3-4)	41	59	1,108	100
Tertiary (SCED 5-7)	71	29	696	100
Current employment situation				
Employed	45	55	2,650	100
Unemployed	12	88	89	100
Type of municipality				
Urban	50	50	1,537	100
Semi-urban	42	58	442	100
Rural	33	67	760	100
Total	**44**	**56**	**2,739**	**100**

This includes such education and training arranged by adult education organisations which the respondent self considered job or occupation-related. Excluded from the adult training organisations are driving schools, educational programme series on the radio and TV, conferences, seminars, etc. (partly for measurement reasons).

8. Participation in employer-sponsored training (in-service training) in 2000 (employees aged 18–64)

	Have participated in the last 12 months preceding the survey			
	Yes	No	Total	
	%	%	n	%
Age				
18–24	46	54	138	100
25–29	60	40	193	100
30–34	55	45	254	100
35–44	61	39	562	100
45–54	57	43	563	100
55–64	47	53	159	100
Gender				
Male	54	46	933	100
Female	58	42	936	100
Socio-economic group				
Upper white-collar employees	73	27	606	100
Lower white-collar employees	60	40	588	100
Blue-collar workers	38	62	675	100
Highest level of educational attainment				
Primary or lower secondary (ISCED 0-2)	41	59	354	100
Upper secondary (ISCED 3-4)	49	51	769	100
Tertiary (ISCED 5-7)	72	28	746	100
Employer				
Central government	74	26	221	100
Local government	63	37	536	100
Private	49	51	1,075	100
Other/Don't know	66	34	37	100
Number of employees				
1– 49	38	62	520	100
50– 99	52	48	132	100
100–199	60	40	140	100
200–499	64	36	195	100
500 or more	68	32	729	100
Don't know	50	50	153	100
Type of municipality				
Urban	59	41	1,147	100
Semi-urban	56	44	327	100
Rural	48	52	395	100
Total	**56**	**44**	**1,869**	**100**

In-service training was considered to be job or occupation-related adult education and training partly or fully sponsored by the employer. Sponsoring may have concerned the costs of training or the time used for it.

9. Participation in employer-sponsored training (in-service training) in 1995 (employees aged 18–64)

	Have participated in the last 12 months preceding the survey			
	Yes	No	Total	
	%	%	n	%
Age				
18–24	33	67	154	100
25–29	46	54	259	100
30–34	53	47	293	100
35–44	53	47	621	100
45–54	57	43	556	100
55–64	51	49	151	100
Gender				
Male	49	51	1,005	100
Female	54	46	1,029	100
Socio-economic group				
Upper white-collar employees	69	31	495	100
Lower white-collar employees	58	42	795	100
Blue-collar workers	33	67	744	100
Highest level of educational attainment				
Primary or lower secondary (ISCED 0-2)	37	63	478	100
Upper secondary (ISCED 3-4)	46	54	796	100
Tertiary (ISCED 5-7)	67	33	760	100
Employer				
Central government	60	40	324	100
Local government	63	37	552	100
Private	43	57	1,048	100
Other/Don't know	57	43	110	100
Number of employees				
1– 49	33	67	574	100
50– 99	51	49	129	100
100–199	59	41	142	100
200–499	60	40	222	100
500 or more	63	37	853	100
Don't know	37	63	114	100
Type of municipality				
Urban	54	46	1,312	100
Semi-urban	48	52	339	100
Rural	45	55	383	100
Total	**52**	**48**	**2,034**	**100**

In-service training was considered to be job or occupation-related adult education and training partly or fully sponsored by the employer. Sponsoring may have concerned the costs of training or the time used for it.

10. Participation in employer-sponsored training (in-service training) in 1990 (employees aged 18–64)

	Have participated in the last 12 months preceding the survey			
	Yes	No	Total	
	%	%	n	%
Age				
18–24	34	66	267	100
25–29	50	50	305	100
30–34	50	50	320	100
35–44	52	48	714	100
45–54	48	52	487	100
55–64	37	63	154	100
Gender				
Male	45	55	1,127	100
Female	50	50	1,120	100
Socio-economic group				
Upper white-collar employees	72	28	420	100
Lower white-collar employees	57	43	907	100
Blue-collar workers	26	74	919	100
Others or unknown	**	**	1	100
Highest level of educational attainment				
Primary or lower secondary (ISCED 0-2)	32	68	689	100
Upper secondary (ISCED 3-4)	41	59	923	100
Tertiary (ISCED 5-7)	73	27	635	100
Employer				
Central government	63	37	218	100
Local government	54	46	554	100
Private	43	57	1,473	100
Unknown/Data missing	**	**	2	100
Type of municipality				
Urban	51	49	1,368	100
Semi-urban	44	56	368	100
Rural	41	59	511	100
Total	**47**	**53**	**2,247**	**100**

In-service training was considered to be job or occupation-related adult education and training partly or fully sponsored by the employer. Sponsoring may have concerned the costs of training or the time used for it.

11. Participation in fully self-paid adult education and training in 2000 (employees aged 18–64)

	Have participated in the last 12 months preceding the survey			
	Yes	No	Total	
	%	%	n	%
Age				
18–24	5	95	138	100
25–29	5	95	193	100
30–34	9	91	254	100
35–44	6	94	562	100
45–54	6	94	563	100
55–64	4	96	159	100
Gender				
Male	4	96	933	100
Female	9	91	936	100
Socio-economic group				
Upper white-collar employees	8	92	606	100
Lower white-collar employees	8	92	588	100
Blue-collar workers	3	97	675	100
Highest level of educational attainment				
Primary or lower secondary (ISCED 0-2)	3	97	354	100
Upper secondary (ISCED 3-4)	6	94	769	100
Tertiary (ISCED 5-7)	8	92	746	100
Employer				
Central government	3	97	221	100
Local government	12	88	536	100
Private	4	96	1,075	100
Other/Don't know	6	94	37	100
Number of employees				
1– 49	6	94	520	100
50– 99	8	92	132	100
100–199	9	91	140	100
200–499	8	92	195	100
500 or more	5	95	729	100
Don't know	4	96	153	100
Type of municipality				
Urban	6	94	1,147	100
Semi-urban	4	96	327	100
Rural	9	91	395	100
Total	**6**	**94**	**1,869**	**100**

Job or occupation-related adult education and training fully paid for by the participant was not sponsored in any way by the employer or the trade union that did not either contribute to the costs of training and working hours were not used for it.

12. Participation in fully self-paid adult education and training in 1995 (employees aged 18–64)

	Have participated in the last 12 months preceding the survey			
	Yes	No	Total	
	%	%	n	%
Age				
18–24	7	93	154	100
25–29	5	95	259	100
30–34	6	94	293	100
35–44	6	94	621	100
45–54	6	94	556	100
55–64	5	95	151	100
Gender				
Male	3	97	1 005	100
Female	8	92	1 029	100
Socio-economic group				
Upper white-collar employees	9	91	495	100
Lower white-collar employees	7	93	795	100
Blue-collar workers	2	98	744	100
Highest level of educational attainment				
Primary or lower secondary (ISCED 0-2)	2	98	478	100
Upper secondary (ISCED 3-4)	4	96	796	100
Tertiary (ISCED 5-7)	10	90	760	100
Employer				
Central government	5	95	324	100
Local government	9	91	552	100
Private	4	96	1,048	100
Other/Don't know	9	91	110	100
Number of employees				
1– 49	6	94	574	100
50– 99	8	92	129	100
100–199	8	92	142	100
200–499	5	95	222	100
500 or more	5	95	853	100
Don't know	3	97	114	100
Type of municipality				
Urban	5	95	1,312	100
Semi-urban	7	93	339	100
Rural	6	94	383	100
Total	**6**	**94**	**2,034**	**100**

Job or occupation-related adult education and training fully paid for by the participant was not sponsored in any way by the employer or the trade union that did not either contribute to the costs of training and working hours were not used for it.

13. Participation in fully self-paid adult education and training in 1990 (employees aged 18–64)

	Have participated in the last 12 months preceding the survey			
	Yes	No	Total	
	%	%	n	%
Age				
18–24	6	94	267	100
25–29	6	94	305	100
30–34	5	95	320	100
35–44	8	92	714	100
45–54	7	93	487	100
55–64	1	99	154	100
Gender				
Male	4	96	1,127	100
Female	9	91	1,120	100
Socio-economic group				
Upper white-collar employees	12	88	420	100
Lower white-collar employees	7	93	907	100
Blue-collar workers	2	98	919	100
Others or unknown	**	**	1	100
Highest level of educational attainment				
Primary or lower secondary (ISCED 0-2)	3	97	689	100
Upper secondary (ISCED 3-4)	6	94	923	100
Tertiary (ISCED 5-7)	10	90	635	100
Employer				
Central government	9	91	218	100
Local government	8	92	554	100
Private	5	95	1,473	100
Unknown/Data missing	**	**	2	100
Type of municipality				
Urban	6	94	1,368	100
Semi-urban	6	94	368	100
Rural	5	95	511	100
Total	**6**	**94**	**2,247**	**100**

Job or occupation-related adult education and training fully paid for by the participant was not sponsored in any way by the employer or the trade union that did not either contribute to the costs of training and working hours were not used for it.

14. Participation in other than job or occupation-related adult education and training in 2000 (population aged 18–64, excl. students and conscripts)

	Have participated in the last 12 months preceding the survey			
	Yes	No	Total	
	%	%	n	%
Age				
18–24	19	81	215	100
25–29	21	79	270	100
30–34	20	80	365	100
35–44	17	83	783	100
45–54	17	83	852	100
55–64	16	84	574	100
Gender				
Male	12	88	1,566	100
Female	24	76	1,493	100
Socio-economic group				
Agricultural entrepreneurs	16	84	101	100
Other entrpreneurs	9	91	240	100
Upper white-collar employees	22	78	622	100
Lower white-collar employees	22	78	656	100
Blue-collar workers	12	88	836	100
Pensioners	17	83	405	100
Others or unknown	24	76	199	100
Highest level of educational attainment				
Primary or lower secondary (ISCED 0-2)	14	86	823	100
Upper secondary (ISCED 3-4)	16	84	1,264	100
Tertiary (ISCED 5-7)	22	78	972	100
Type of municipality				
Urban	17	83	1,766	100
Semi-urban	20	80	544	100
Rural	17	83	749	100
Total	**18**	**82**	**3,059**	**100**

Other than job or occupation-related adult education and training includes studies regarding other studying, positions of trust, hobbies or other leisure activities and studying at comprehensive schools, upper secondary schools or other general studies. The definition of such adult education and training is based on the respondent's own information. Excluded from the adult training organisations are driving schools, educational programme series on the radio and TV, conferences, seminars, etc. (partly for measurement reasons).

15. Participation in other than job or occupation-related adult education and training in 1995 (population aged 18–64, excl. students and conscripts)

	Have participated in the last 12 months preceding the survey			
	Yes	No	Total	
	%	%	n	%
Age				
18–24	18	82	271	100
25–29	19	81	413	100
30–34	19	81	482	100
35–44	19	81	965	100
45–54	17	83	903	100
55–64	15	85	622	100
Gender				
Male	11	89	1,830	100
Female	26	74	1,826	100
Socio-economic group				
Agricultural entrepreneurs	18	82	159	100
Other entrpreneurs	12	88	309	100
Upper white-collar employees	20	80	528	100
Lower white-collar employees	24	76	947	100
Blue-collar workers	13	87	1,027	100
Pensioners	18	82	421	100
Others or unknown	20	80	265	100
Highest level of educational attainment				
Primary or lower secondary (ISCED 0-2)	11	89	1,166	100
Upper secondary (ISCED3-4)	19	81	1,431	100
Tertiary (ISCED 5-7)	25	75	1,059	100
Type of municipality				
Urban	18	82	2,124	100
Semi-urban	17	83	639	100
Rural	18	82	893	100
Total	**18**	**82**	**3,656**	**100**

Other than job or occupation-related adult education and training includes studies regarding other studying, positions of trust, hobbies or other leisure activities and studying at comprehensive schools, upper secondary schools or other general studies. The definition of such adult education and training is based on the respondent's own information. Excluded from the adult training organisations are driving schools, educational programme series on the radio and TV, conferences, seminars, etc. (partly for measurement reasons).

16. Participation in other than job or occupation-related adult education and training in 1990 (population aged 18–64, excl. students and conscripts)

	Have participated in the last 12 months preceding the survey			
	Yes	No	Total	
	%	%	n	%
Age				
18–24	17	83	310	100
25–29	19	81	376	100
30–34	17	83	403	100
35–44	21	79	921	100
45–54	18	82	686	100
55–64	16	84	610	100
Gender				
Male	11	89	1,671	100
Female	26	74	1,635	100
Socio-economic group				
Agricultural entrepreneurs	25	75	196	100
Other entrpreneurs	12	88	209	100
Upper white-collar employees	23	77	425	100
Lower white-collar employees	25	75	927	100
Blue-collar workers	12	88	977	100
Pensioners	15	85	467	100
Others or unknown	20	80	105	100
Highest level of educational attainment				
Primary or lower secondary (ISCED 0-2)	14	86	1,336	100
Upper secondary (ISCED 3-4)	20	80	1,224	100
Tertiary (ISCED 5-7)	24	76	746	100
Type of municipality				
Urban	17	83	1,830	100
Semi-urban	20	80	521	100
Rural	20	80	955	100
Total	**18**	**82**	**3,306**	**100**

Other than job or occupation-related adult education and training includes studies regarding other studying, positions of trust, hobbies or other leisure activities and studying at comprehensive schools, upper secondary schools or other general studies. The definition of such adult education and training is based on the respondent's own information. Excluded from the adult training organisations are driving schools, educational programme series on the radio and TV, conferences, seminars, etc. (partly for measurement reasons).

17. Participation in adult education and training in 2000 by provider (population aged 18–64)

	At place of work or continuing education organisations	Vocational schools or colleges	Adult education centres	Organi-satios, associatios or societies	University adult edu-cation depart-ment or summer university	Other adult education	Population aged 18–64, total
	%	%	%	%	%	%	N
Age							
18–24	23	12	7	7	7	10	460,948
25–29	42	17	9	8	4	7	307,540
30–34	41	19	11	9	6	7	354,473
35–44	44	16	10	9	6	5	767,425
45–54	41	13	12	10	4	4	828,011
55–64	16	2	14	6	1	4	542,448
Gender							
Male	34	12	5	6	3	5	1,646,142
Female	35	13	17	10	7	7	1,614,704
Socio-economic group							
Agricultural entrepreneurs	21	7	13	14	-	5	95,082
Other entrpreneurs	26	6	8	9	1	6	228,216
Upper white-collar employees	74	14	13	18	14	10	576,587
Lower white-collar employees	51	16	15	10	3	6	635,981
Blue-collar workers	29	16	5	4	1	3	810,527
Students	17	19	10	7	9	11	326,746
Pensioners	2	1	14	2	-	4	389,989
Others or unknown	7	10	12	3	4	5	197,718
Highest level of educational attainment							
Primary or lower secondary (ISCED 0-2)	20	8	9	4	0	4	920,327
Upper secondary (ISCED 3-4)	29	15	9	7	4	5	1,431,659
Tertiary (ISCED 5-7)	59	13	15	14	10	10	908,859
Total	**35**	**13**	**11**	**8**	**5**	**6**	**3,260,845**

The percentages are percentages of total population aged 18 to 64.NB.

The sum of these figures does not yield the total number of people participating in adult education, as the same person may have been involved in more than one form.

Organisers of training are here arranged in the following way:
- At place of work/continuing education organisations – also includes conferences, separate seminars, etc.
- Adult education centres
- Organisations, associations, societies
- Adult education and training in vocational schools or colleges also contains apprentice and labour market training
- University adult education departments or summer universities includes professional continuing education, separate degrees, open university studies and training in summer universities.
- Other adult education includes studying intended for adults at upper secondary schools for adults, adult education centres, music schools and colleges, sports institutes, language schools, correspondence schools, study circle centres, text processing schools, dance schools, studying abroad and other adult education and training.

18. Average number of days participated among participants in different forms of adult education and training in 2000

	Days participated on average (medians)			
	Adult education and training (all participants)	Job/occupation-related education and training (labour force having participated)	In-service training (employees having participated)	Other adult education and training (all participants, excl. students and conscripts)
Age				
18–24	11.0	5.0	2.0	11.0
25–29	8.3	6.0	5.0	6.0
30–34	11.0	8.0	6.0	8.0
35–44	8.0	6.0	5.0	7.0
45–54	7.0	5.0	4.0	7.0
55–64	8.0	4.0	3.0	10.5
Gender				
Male	8.0	6.0	5.0	6.0
Female	9.5	5.0	4.0	9.0
Socio-economic group				
Agricultural entrepreneurs	7.0	6.0	.	6.0
Other entrpreneurs	7.0	4.0	.	8.0
Upper white-collar employees	10.0	8.0	7.0	6.0
Lower white-collar employees	7.5	5.0	4.0	6.0
Blue-collar workers	5.0	4.0	3.0	8.0
Students	25.0	.	.	.
Pensioners	14.0	.	.	15.0
Others or unknown	11.0	40.0	.	9.0
Highest level of educational attainment				
Primary or lower secondary (ISCED 0-2)	6.0	4.0	3.0	9.0
Upper secondary (ISCED 3-4)	8.0	5.0	4.0	8.0
Tertiary (ISCED 5-7)	10.0	7.0	6.0	7.0
Current employment situation				
Labour force	7.0	5.5	.	7.0
Employed	7.0	5.0	.	6.0
Unemployed	12.0	13.0	.	12.0
Population outside labour force	15.0	.	.	12.0
Days participated per participant (median)	**8.0**	**5.5**	**5.0**	**8.3**

Days participated refer to the days when the person has been in training. This does not mean the total duration of the training or course. The duration of one training day is six hours.

The best picture of the average number of days participated per person is obtained by a median value, not an arithmetic average because there is great deviation in the numbers of days participated. The median divides the values of the data into two equal parts and fetches the middle value so that 50 per cent of the cases remain on both sides.

See the chapter on Concepts and Classifications.

19. Participation in job or occupation-related adult education and training in 2000 by content of training (labour force aged 18–64 having participated in such training)

	Use of information technology	Law, social and behavioural sciences/ Management skills[1)]	Health care	Technology, production, construction, product development	Business, marketing and administration	Services, work safety, security,	Teacher training	Foreign languages	Agriculture, forestry and horticulture studies	Other subjects, total	Participated respondents, total
	%	%	%	%	%	%	%	%	%	%	n
Age											
18–24	18	15	12	22	16	19	5	4	1	10	80
25–29	28	20	14	21	12	19	6	9	1	13	142
30–34	34	19	14	18	16	14	8	10	3	14	172
35–44	31	25	18	13	13	10	8	7	4	14	418
45–54	33	27	17	14	15	13	7	5	3	11	398
55–64	29	29	19	7	13	17	7	5	2	7	94
Gender											
Male	32	26	5	27	11	15	3	5	5	13	640
Female	30	22	27	4	18	12	11	8	1	11	664
Socio-economic group											
Agricultural entrepreneurs	**	**	**	**	**	**	**	**	**	**	26
Other entrpreneurs	21	14	13	11	18	14	1	5	-	18	76
Upper white-collar employees	39	36	21	10	14	5	18	9	1	11	469
Lower white-collar employees	35	19	20	10	24	14	2	9	2	10	392
Blue-collar workers	18	16	8	29	3	27	2	2	3	16	324
Others or unknown	**	**	**	**	**	**	**	**	**	**	17
Highest level of educational attainment											
Primary or lower secondary (ISCED 0-2)	28	21	9	17	12	21	1	3	4	14	195
Upper secondary (ISCED 3-4)	25	15	18	18	10	19	3	4	4	14	499
Tertiary (ISCED 5-7)	38	33	17	12	19	7	13	10	2	10	610
All	**31**	**24**	**16**	**15**	**14**	**14**	**7**	**7**	**3**	**12**	**1 304**
Total (N)	381,131	296,760	201,258	184,020	176,594	168,324	89,765	84,477	37,207	151,314	1,231,175

[1)] Includes trade union and trade organisation activities not classified by content.

20. Participation in employer-sponsored training (in-service training) in 2000 by content of training (employees aged 18–64 having participated in such training)

	Use of information technology	Law, social and behavioural sciences/ Management skills[1)]	Health care	Technology, production, construction, product development	Services, work safety, security	Business, marketing and administration	Teacher training	Foreign languages	Other subjects, total	Participated respon-dents, total
	%	%	%	%	%	%	%	%	%	n
Age										
18–24	20	8	14	24	24	12	5	3	11	62
25–29	29	17	14	22	21	14	7	11	14	115
30–34	37	14	14	18	15	14	10	10	15	139
35–44	34	26	19	13	10	13	9	6	14	349
45–54	36	27	18	15	14	15	8	4	12	321
55–64	31	31	19	8	18	12	9	3	6	77
Gender										
Male	35	26	6	28	17	10	4	6	15	512
Female	31	20	28	4	12	18	12	7	10	551
Socio-economic group										
Upper white-collar employees	39	35	21	10	5	13	17	8	10	447
Lower white-collar employees	37	17	19	11	14	23	2	7	11	355
Blue-collar workers	19	11	9	31	31	3	2	2	18	261
Highest level of educational attainment										
Primary or lower secondary (ISCED 0-2)	34	15	10	18	25	12	1	3	16	144
Upper secondary (ISCED 3-4)	27	11	20	19	20	10	5	4	15	378
Tertiary (ISCED 5-7)	38	34	17	12	7	18	13	9	10	541
Employer										
Central government	48	31	7	12	20	13	4	6	16	165
Local government	23	20	40	7	9	6	21	3	14	339
Private	35	23	7	22	16	20	2	8	10	535
Other/Don't know	**	**	**	**	**	**	**	**	**	24
All	**33**	**23**	**17**	**16**	**15**	**14**	**8**	**6**	**13**	**1,063**
Total (N)	335,056	231,534	172,816	155,874	146,510	141,246	84,017	61,948	125,832	1,004,515

[1)] Includes trade union and trade organisation activities not classified by content.

21. Participation in other than job or occupation-related adult education and training in 2000 by content of training (population aged 18–64 having participated in such training, excl. students and conscripts)

	Fine and applied arts studies	Physical education, sports coaching	Foreign languages	Law, social and behavioural sciences/ Management skills[1)]	Business, marketing and administration, use of information technology	Humanities/ General education	Health care	Other subjects, total	Participated respondents, total
	%	%	%	%	%	%	%	%	n
Age									
18–24	15	28	19	20	8	9	5	10	42
25–29	14	18	16	8	12	9	6	11	55
30–34	29	30	15	12	11	5	2	5	72
35–44	28	24	12	20	12	3	5	8	131
45–54	36	28	15	10	9	5	3	6	147
55–64	56	18	22	8	11	5	1	6	96
Gender									
Male	20	18	12	17	12	8	3	10	187
Female	39	28	18	11	10	4	4	6	356
Socio-economic group									
Agricultural entrepreneurs	**	**	**	**	**	**	**	**	16
Other entrpreneurs	**	**	**	**	**	**	**	**	21
Upper white-collar employees	27	25	20	19	8	6	6	7	138
Lower white-collar employees	31	29	12	14	11	6	4	9	147
Blue-collar workers	22	14	12	18	17	4	2	6	102
Pensioners	64	22	22	2	8	7	2	9	73
Others or unknown	28	23	15	4	11	4	2	6	46
Highest level of educational attainment									
Primary or lower secondary (ISCED0-2)	41	21	14	7	11	4	1	6	118
Upper secondary (ISCED 3-4)	30	24	12	16	9	6	5	8	206
Tertiary (ISCED 5-7)	30	27	21	14	11	6	4	7	219
All	**33**	**25**	**16**	**13**	**11**	**5**	**4**	**7**	**543**
Total (N)	167,398	126,194	81,804	66,516	53,836	27,726	18,330	37,454	511,857

[1)] Includes trade union and trade organisation activities not classified by content.

22. Main motives for participation in job or occupation-related adult education and training in 2000 (labour force aged 18–64 having participated in such education and training)

	Main motives for participation in education and training[1]					
	Self improvement/development of professional skills	Obliged by the employer	Required by tasks	Other reason/ don't know	Participated respondents, total	
	%	%	%	%	n	%
Age						
18–24	51	33	1	15	80	100
25–29	41	30	14	15	142	100
30–34	54	21	13	12	172	100
35–44	52	23	15	10	418	100
45–54	53	24	14	9	398	100
55–64	43	32	15	9	94	100
Gender						
Male	42	28	17	12	640	100
Female	59	22	10	9	664	100
Socio-economic group						
Agricultural entrepreneurs	**	**	**	**	26	100
Other entrpreneurs	69	6	15	10	76	100
Upper white-collar employees	60	21	12	6	469	100
Lower white-collar employees	50	28	14	7	392	100
Blue-collar workers	35	34	12	19	324	100
Others or unknown	**	**	**	**	17	100
Highest level of educational attainment						
Primary or lower secondary (ISCED 0-2)	36	29	18	17	195	100
Upper secondary (ISCED 3-4)	47	26	12	14	499	100
Tertiary (ISCED 5-7)	59	22	13	6	610	100
Employees' employer						
Central government	47	30	18	5	168	100
Local government	59	24	9	8	365	100
Private	46	30	15	9	566	100
Other/Don't know	**	**	**	**	25	100
All except employees	50	4	15	31	180	100
Number of employees						
1– 49	51	20	12	18	254	100
50– 99	49	28	13	10	74	100
100–199	54	26	10	11	101	100
200–499	51	26	15	8	136	100
500 or more	50	29	14	7	530	100
Don't know	44	39	9	8	86	100
All except employees	59	4	19	18	123	100
Type of municipality						
Urban	51	25	13	11	814	100
Semi-urban	55	28	10	7	215	100
Rural	47	22	17	14	275	100
Participated respondents, total	**51**	**25**	**13**	**11**	**1,304**	**100**

[1] One course/form of training was selected at random for each person belonging to the labour force who had participated in job or occupation-related education and training. The proportions were calculated from these courses/forms of training.

23. Main initiatives for participation in job or occupation-related adult education and training in 2000 (labour force aged 18-64 having participated in such education and training)

	Main initiative for participation in education and traing[1]				
	Own initiative	Employer's initiative	Other initiative/ don't know	Participated respondents, total	
	%	%	%	n	%
Age					
18–24	34	56	10	80	100
25–29	41	51	9	142	100
30–34	54	39	7	172	100
35–44	49	45	6	418	100
45–54	51	44	5	398	100
55–64	47	51	2	94	100
Gender					
Male	41	52	6	640	100
Female	55	39	6	664	100
Socio-economic group					
Agricultural entrepreneurs	**	**	**	26	100
Other entrpreneurs	78	10	12	76	100
Upper white-collar employees	56	42	2	469	100
Lower white-collar employees	45	51	4	392	100
Blue-collar workers	32	57	10	324	100
Others or unknown	**	**	**	17	100
Highest level of educational attainment					
Primary or lower secondary (ISCED 0-2)	35	54	12	195	100
Upper secondary (ISCED 3-4)	45	47	8	499	100
Tertiary (ISCED 5-7)	56	41	3	610	100
Employees' employer					
Central government	46	53	1	168	100
Local government	56	41	3	365	100
Private	40	58	2	566	100
Other/Don't know	**	**	**	25	100
All except employees	61	10	29	180	100
Number of employees					
1– 49	47	44	9	254	100
50– 99	43	56	2	74	100
100–199	40	55	5	101	100
200–499	56	41	2	136	100
500 or more	46	51	3	530	100
Don't know	31	61	8	86	100
All except employees	73	6	21	123	100
Type of municipality					
Urban	47	47	6	814	100
Semi-urban	50	47	3	215	100
Rural	51	41	8	275	100
Participated respondents, total	**48**	**46**	**6**	**1,304**	**100**

[1] One course/form of training was selected at random for each person belonging to the labour force who had participated in job or occupation-related education and training. The proportions were calculated from these courses/forms of training.

24. Effects of job or occupation-related adult education and training/course by age and gender in 2000 (The proportion of 'had much or fairly much influence' responses) (employees aged 18–64 taking part in training)

Effects[1)]	Age				Gender		
	18–24	25–29	30–44	45–64	Males	Females	Total
	%	%	%	%	%	%	%
Training							
provided useful information	90	91	94	93	92	94	93
helped to cope at work or in occupation	83	84	83	84	84	83	83
had a positive effect on job motivation	73	74	76	79	73	81	77
improved self-confidence	65	67	72	71	67	73	71
encouraged to search for further information	65	67	71	68	64	73	69
provided skills for new job tasks	69	58	63	54	61	58	59
had other effects	88	93	92	91	92	91	91
Total (n)	**80**	**142**	**590**	**492**	**640**	**664**	**1,304**

1) One course/form of training was selected at random for each person belonging to the labour force who had participated in job or occupation-related education and training. The proportions were calculated from these courses/forms of training.

25. Effects of job or occupation-related adult education and training/course by socio-economic group in 2000 (The proportion of 'had much or fairly much influence' responses) (employees aged 18–64 taking part in training)

Effects[1)]	Socio-economic group						
	Agri-cultural entrepre-neurs	Other entrepre-neurs	Upper white-collar employees	Lower white-collar employees	Blue-collar workers	Others/ unknown	Total
	%	%	%	%	%	%	%
Training							
provided useful information	**	96	96	97	86	**	93
helped to cope at work or in occupation	**	89	88	87	74	**	83
had a positive effect on job motivation	**	73	82	82	68	**	77
improved self-confidence	**	71	70	75	66	**	71
encouraged to search for further information	**	67	77	72	55	**	69
provided skills for new job tasks	**	65	61	64	52	**	59
had other effects	**	96	94	93	85	**	91
Total (n)	**26**	**76**	**469**	**392**	**324**	**17**	**1,304**

1) One course/form of training was selected at random for each person belonging to the labour force who had participated in job or occupation-related education and training. The proportions were calculated from these courses/forms of training.

26. Effects of job or occupation-related adult education and training/course by highest level of educational attainment in 2000 (The proportion of 'had much or fairly much influence' responses) (employees aged 18–64 taking part in training)

Effects[1)]	Highest level of educational attainment			
	Primary or lower secondary (ISCED 0-2)	Upper secondary (ISCED 3-4)	Tertiary (ISCED 5-7)	Total
	%	%	%	%
Training				
provided useful information	87	91	97	93
helped to cope at work or in occupation	76	81	88	83
had a positive effect on job motivation	72	75	80	77
improved self-confidence	68	72	70	71
encouraged to search for further information	56	67	76	69
provided skills for new job tasks	52	61	61	59
had other effects	87	89	94	91
Total (n)	**195**	**499**	**610**	**1, 304**

[1)] One course/form of training was selected at random for each person belonging to the labour force who had participated in job or occupation-related education and training. The proportions were calculated from these courses/forms of training.

27. Effects of job or occupation-related adult education and training/course by employer in 2000 (The proportion of 'had much or fairly much influence' responses) (employees aged 18–64 taking part in training)

Effects[1)]	Employer				
	Central government sector	Local government sector	Privat sector	Other/ Don't know	Total
	%	%	%	%	%
Training					
provided useful information	96	94	94	**	93
helped to cope at work or in occupation	91	84	86	**	83
had a positive effect on job motivation	79	80	79	**	77
improved self-confidence	71	74	69	**	71
encouraged to search for further information	72	75	66	**	69
provided skills for new job tasks	64	52	63	**	59
had other effects	94	90	93	**	91
Total (n)	**168**	**365**	**566**	**25**	**1,304**

[1)] One course/form of training was selected at random for each person belonging to the labour force who had participated in job or occupation-related education and training. The proportions were calculated from these courses/forms of training.

28. Participation in job or occupation-related adult education and training during lifetime (persons aged 18–64 with work experience)

	Participation in job or occupation-related training during lifetime							
	Never	Once	2–3 times	4–10 times	Over 10 times	Don't know	Total	
	%	%	%	%	%	%	n	%
Age								
18–24	45	20	19	9	3	5	232	100
25–29	23	12	25	22	17	1	290	100
30–34	15	9	17	27	32	1	366	100
35–44	9	6	14	25	44	2	804	100
45–54	12	6	10	22	50	1	848	100
55–64	13	6	9	22	48	1	570	100
Gender								
Male	16	9	13	23	38	2	1,581	100
Female	15	7	15	21	41	1	1,529	100
Socio-economic group								
Agricultural entrepreneurs	19	7	15	25	34	1	101	100
Other entrpreneurs	16	6	13	24	39	1	240	100
Upper white-collar employees	3	2	6	20	68	0	613	100
Lower white-collar employees	6	5	13	25	51	1	648	100
Blue-collar workers	20	12	21	24	22	2	819	100
Students	45	15	15	12	7	6	149	100
Pensioners	21	8	12	22	35	2	387	100
Others or unknown	34	15	18	15	16	1	153	100
Highest level of educational attainment								
Primary or lower secondary (ISCED 0-2)	23	10	13	24	28	2	806	100
Upper secondary (ISCED 3-4)	18	9	18	23	31	2	1,320	100
Tertiary (ISCED 5-7)	5	4	10	20	61	1	984	100
Employees' employer								
Central government	4	2	7	24	63	1	221	100
Local government	5	5	10	22	57	0	529	100
Private	12	8	15	24	39	1	1,053	100
Other/Don't know	3	–	10	25	59	3	37	100
All except employees	25	10	16	21	27	2	1,270	100
Number of employees								
1– 49	17	10	17	23	30	1	511	100
50– 99	6	7	16	28	42	1	131	100
100–199	10	5	7	21	57	–	138	100
200–499	5	3	9	20	63	1	194	100
500 or more	5	4	10	25	56	1	716	100
Don't know	10	10	18	22	41	1	150	100
All except employees	25	10	16	21	27	2	1,270	100
All	**16**	**8**	**14**	**22**	**39**	**1**	**3,110**	**100**