Rüdiger Preißer

Survey report about IT-trainers and women in IT-courses in Czech Republic, Finland, France, Germany, Slovakia and Spain

E-chance for women

Deutsches Institut für Erwachsenenbildung
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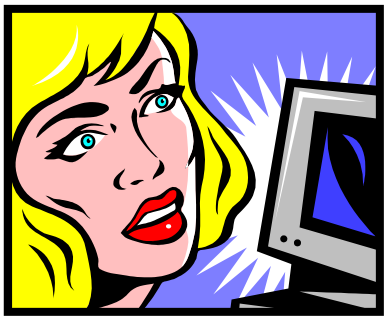
SURVEY REPORT ABOUT IT-TRAINERS AND WOMEN IN IT-COURSES IN CZECH REPUBLIC, FINLAND, FRANCE, GERMANY, SLOVAKIA AND SPAIN

E-CHANCE FOR WOMEN

Leonardo da Vinci Project

CZ/02/B/F/PP – 134.004



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1. INTRODUCTION

This report is part of the Workpackage 3 of the project e-CHANCE FOR WOMEN, promoted by the University of Ostrava and financed by the European Commission in the framework of Leonardo da Vinci 2000-2006 programme.

One of the main objectives of the project is the analysis of women's experience with training to receive information in order to improve their IT-skills. We assume, that these skills make it easier for them to maintain their job or to access the labour market. For this purpose, a survey was carried out among women and ICT trainers in all the participating countries with the objective to gather information about their motivation and their interests as well as their perspectives and their expectations, but also their eventuel fears. As a result, there will be comparable data and hints for the development of a methodology specially addressed to women.

2. THE TRAINING AND EMPLOYMENT STRUCTURES FOR WOMEN

Studying the impact of training in employment and career development we can find several elements closely connected. Labour market, educational system and personal aspects are three interrelated dimensions, which to a great extent show the level of social integration.

The access of women to labour market is a process lately slowed down after a period of economical growth, and the unemployment rates decrease. Some key aspects still remain marking differences: a traditional division of male and female roles in labour market makes the achievement of balanced positions difficult. The

professional discrimination of women in their professional field is evident in two scopes: horizontal and vertical.

The statement of a social difference among “women jobs” and “men jobs” expresses a horizontal discrimination. The traditional division of work, based on roles and gender stereotypes, affects the following career development. The concentration of women employment in areas such as education, personal services, restaurant services and the under-representation in others such as industry, construction or transport confirms the theory about female professions and sectors.
In addition, the economy shows a vertical discrimination, that prevents women from acceding managing positions, which are traditionally occupied by men. In this way, the discrimination of women in the labour market gives rise to concomitant discriminations in different scopes: the kind of contract, promotion possibilities, wage level, access to continuous training and so on.

Women require special support to access new or changing activities of the productive system. Training appears as one of the main tools to lead this process, in which continuous training for working women and occupational training for unemployed women the key words are. In this sense the goal of the LEONARDO-project is to increase women’s information technology utilization both in their work and personal life, because the field of IT-training gives women a chance to sustainably improve their labour market position and help them find employment in fields, traditionally thought of as male fields.

3. IMPLEMENTATION OF THE SURVEY IN THE PARTNER COUNTRIES

In the countries taking part in the LEONARDO project there are different conditions for adult education and different training structures, which have to be taken into consideration, when analysing the results of the survey about IT-training. Before providing the results of the survey an overview over the different ways of implementing the survey in the partner countries is given, which reflects these conditions.

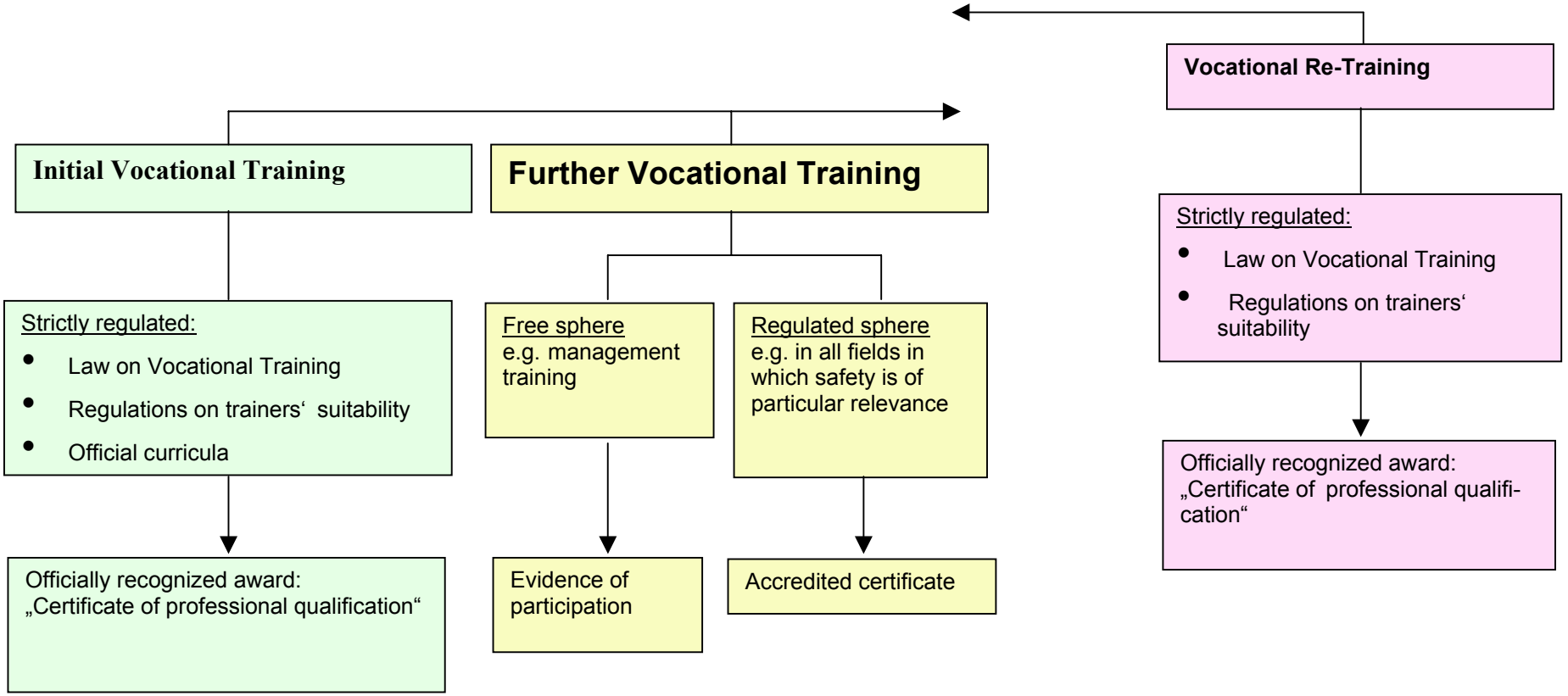
3.1 FRANCE

In France there are many and various training courses related to communication or IT- skills. Some of them are classical computing courses with communication and parts of IT- skills and others are only initiations to communication and IT-skills for people who are not necessarily introduced in computing.

In the first kind of training courses men are the majority especially if they are improvement classes. In the second kind of training courses, there are a lot of women working or not who wanted to be introduced to communication and IT-skills, but not necessarily in computing. Those training courses sometimes have the purpose of social integration formations based on communication and IT-skills as a professional argument or a teaching aid. Computing shops also develop training courses where both men and women study.

3.2 GERMANY

In Germany the adult education system is very heterogeneous, since it is organized as a market structure.



In Germany the survey did not deal with women in initial vocational training, but only women from the spheres of the second and third columns were interviewed. It was conducted in two ways. Firstly, the DIE as one of the partner institutions in the LEONARDO project contacted a network of women computer schools, which covers more than 35 institutions all over Germany. As the name says they only train women and the training is done only by women. These institutions were given the basic information about the LEONARDO project and they were asked to hand out the questionnaire in their classes and among their trainers.

The second part of the survey was conducted by the TÜV Akademie GmbH as the other partner institution in the LEONARDO project. The survey was mainly done within TÜV Akademie GmbH, which in various regions in Germany has a number of training centres. The overall purpose of the project as well as the questionnaires themselves were explained to the interview partners. The information brochure was handed over to the persons in question, in order to enable them to follow the development of the project by contacting the German project partners or by visiting the project website. The questionnaires were then answered by the interview partners (trainers or women).

3.3 SPAIN

In Spain ASIMAG carried out the fieldwork in the Basque Country by means of personal interviews with women trained in new technologies and with trainers having experience in IT-training. The starting point were contacts established with private and public organizations dealing with women's issues, training and equal opportunities. Most of the initiatives especially addressed to women were administrated by public organizations (overall at local level) and by NGOs such as foundations or women associations. Their main objective was to enable women working with new technologies or to lead back careers towards new jobs dealing with these technologies. Employability was the main goal for most of them.

1. only one choice
2. multiple choice
3. use the scale 0 – 5. 0 – low, 5 – high. Only one answer.
4. add another answer

During the organization and execution of the fieldwork ASIMAG had interesting conversations with different kind of social agents in charge of organizing and imparting training for women. Their explanations helped them understand the situation in this Spanish region.

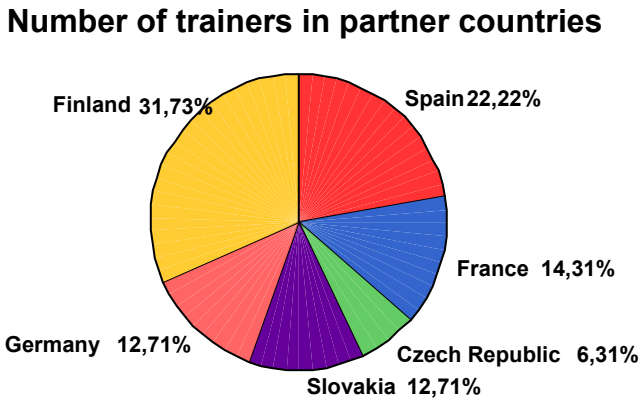
There were no detected examples of training only for women on IT-skills among these entities although some of the courses, over all those concerning MS Office contents and Administrative tools, had a great number of women as pupils.

4. SURVEY REPORT ABOUT ICT-TRAINING

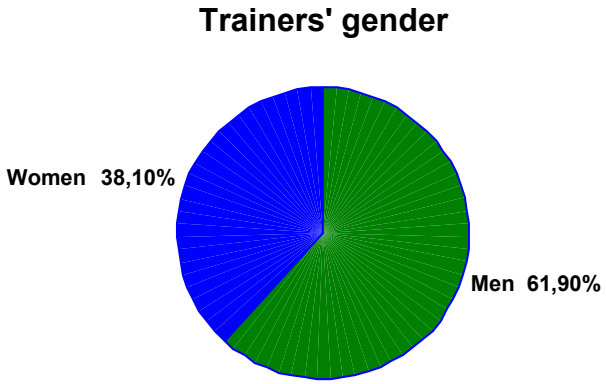
4.1. QUESTIONNAIRE FOR TRAINERS

PROFILE

All in all the partner institutions having taken part in the LEONARDO project interviewed 63 trainers, who are distributed over the participating countries as follows.

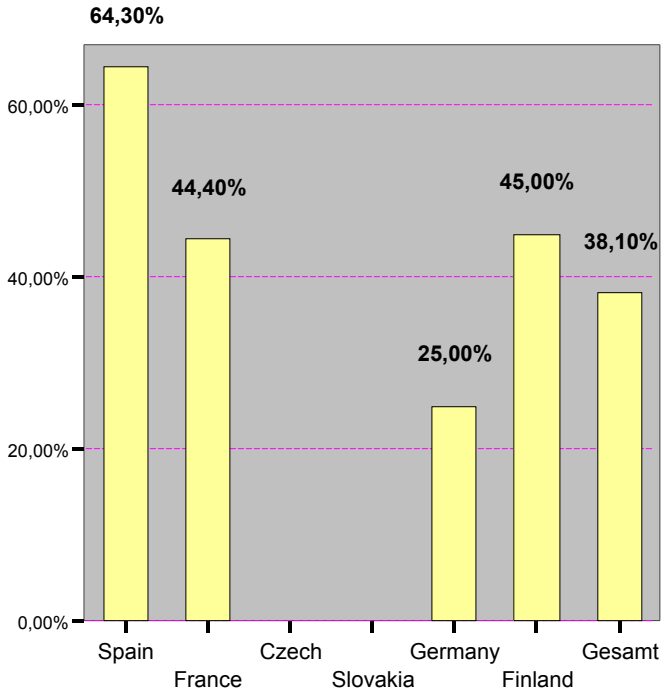


Surprisingly enough, most of the trainers – exactly 62% – of the IT-courses for women were not women, but men.



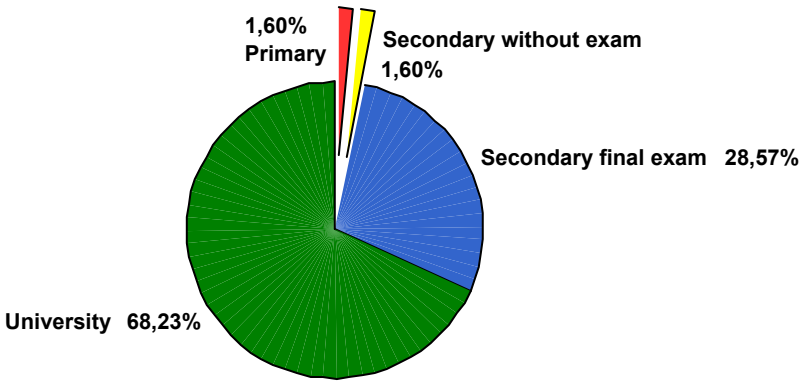
However this is not true for all countries. In Spain a majority of the teachers were women, but in the Czech Republic and in Slovakia there were only male trainers.

Female trainers in partner countries



The educational level of the trainers was very high. Most of the trainers (68%) had university studies, and 29% had a secondary education with a final exam.

Level of achieved education



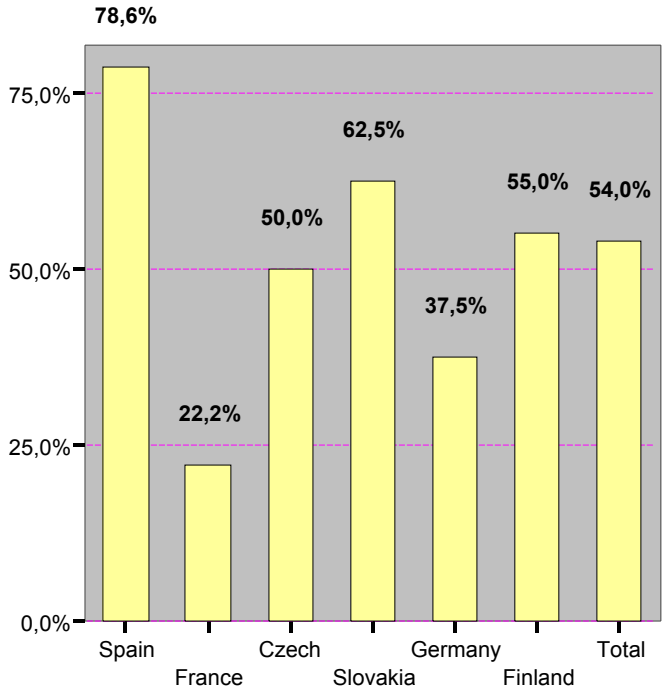
The average age (median) of the trainers was 34 years with a minimum of 21 years and the oldest trainer being 60 years.

Age

	N			
	Valid	Median	Minimum	Maximum
Age	63	34	21	60

The age also differs a lot in the partner countries. In Spain the trainers were especially young, also in Slovakia, whereas in France and in Germany the majority of them was rather old.

Trainers under 34 years of age in partner countries



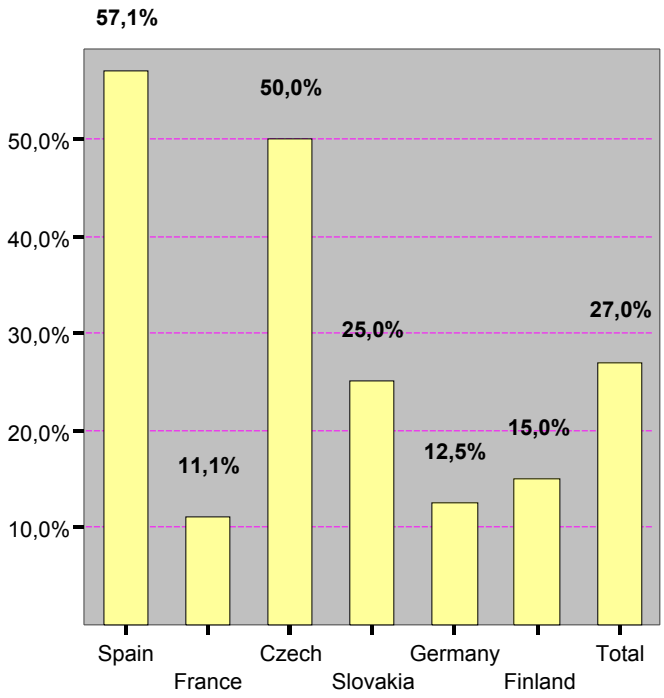
If this is taken into consideration, it seems plausible that most of the trainers have not a long experience in their profession as IT-trainers. The average years of experience (median) among the trainers was 4 years, but some have even no, and 25% had no more than 1 year of experience. However, on the other side there are also 25% of the trainers with more than 8 years of experience.

Years of experience as IT-trainer

N				Percentile		
Valid	Median	Minimum	Maximum	25	50	75
63	4	0	20	1	4	8

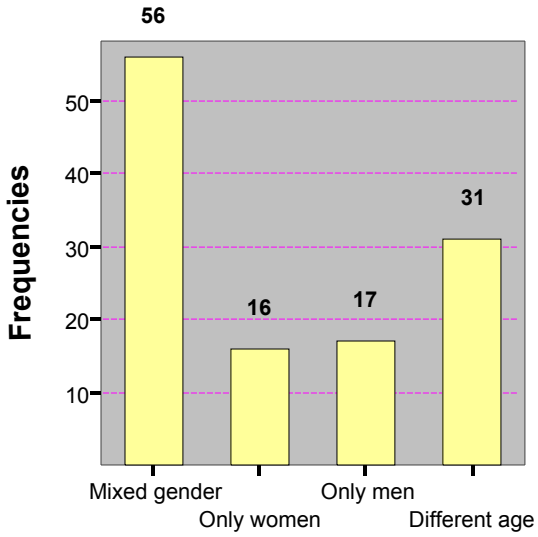
This fact of little experience holds especially true for Spain and the Czech Republic. However, in Spain it is in accordance with the low age of the trainers, whereas in the Czech Republic the trainers being much older have not a lot of experience as IT-trainers.

Less than two years of experience as IT-trainer in partner countries



Not only in quantitative respect does the experience of the trainers differ, who have been interviewed, but also as regards to the selection of learners they have already taught in IT-classes. Most of them - 56 that are 89% - have taught only mixed gender groups, and only very few of them have experience with mere women groups.

Experience with different learner groups



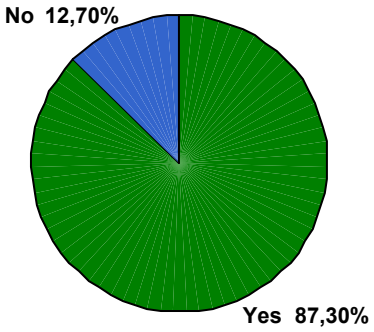
This result means, that regarding the main question of the survey it cannot be expected, that the trainers provide special approaches for teaching women, since they have no opportunity to do so in mixed classes.

WAYS OF TEACHING

The trainers' methods of teaching IT-courses and their experience with them are of high interest in the survey, because the development of a training methodology for women in such courses is the main objective of the LEONARDO project "E-chance for women". Therefore the trainers were asked questions about their methods of teaching.

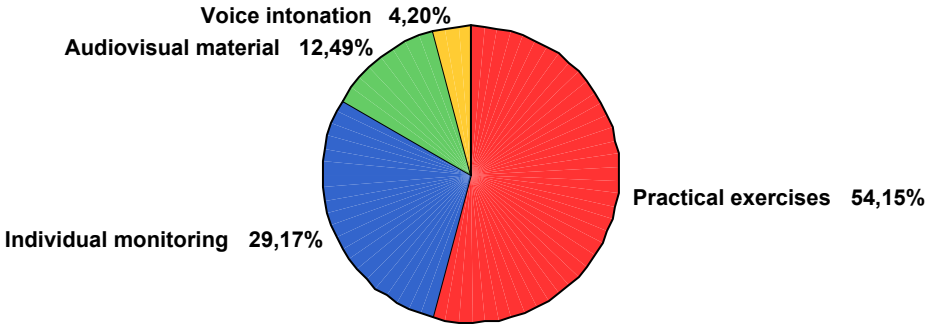
Most of them (87%) are not in favour of a standard methodology, but rather prefer an individual approach, which is probably based on their own experience.

Individual methodology for learners

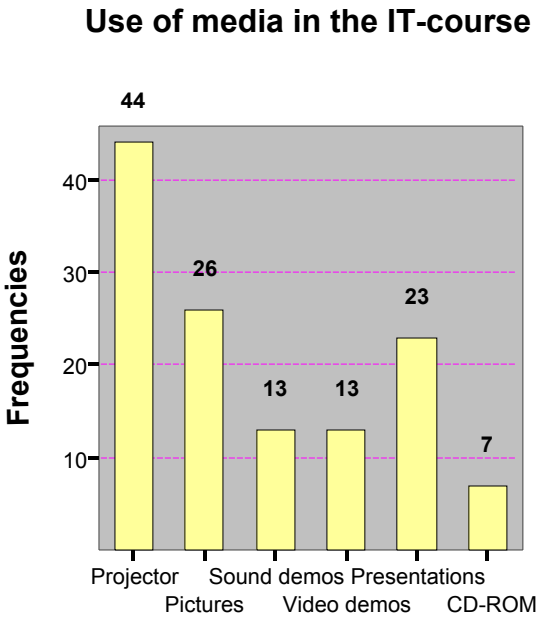


As regards to their individual way of keeping the attention of their learners, most of them (62%) did not answer this question. From the rest, a majority of 54% apply many practical exercises in the course, and 29% try to accompany the learners' individual learning process and closely react on their needs.

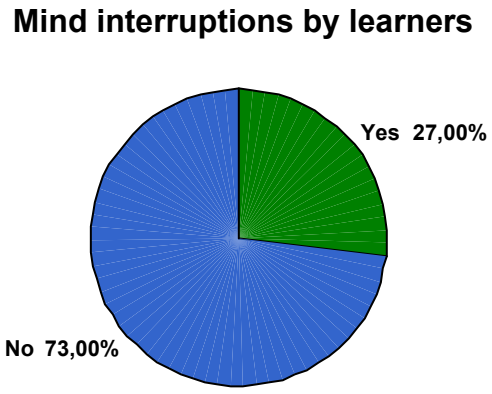
Methodology to keep the learners' attention



Apart from this particular objective, the trainers apply a variety of different media in their courses. Most of them (n = 44) use a projector in their classes, 26 trainers use pictures, and 23 presentations.

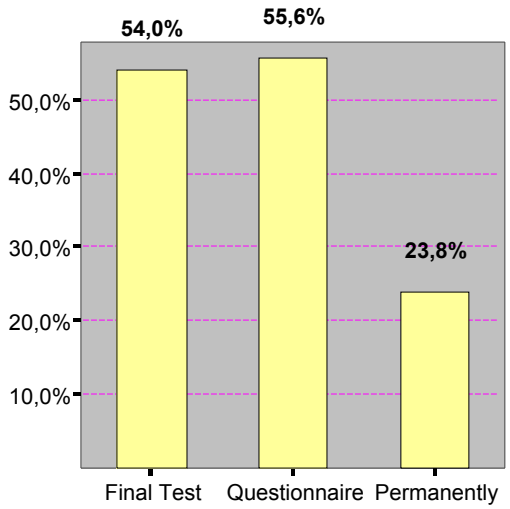


Most of the trainers (73%) having been asked do not mind interruptions of their teaching by the learners they teach.



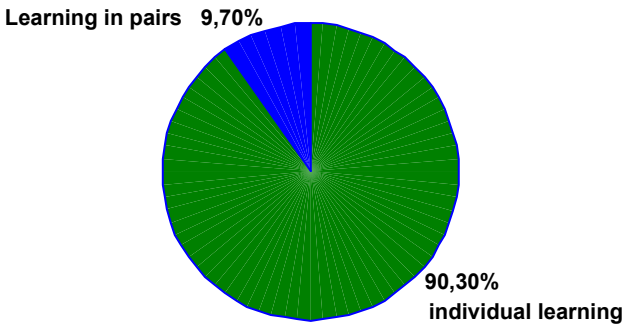
The most common way to verify the success of a course are a questionnaire (56%) and a final test (54%). A permanent way to get information about the success of the learning process of the learners is applied by 24% of the trainers. So they apply more ways of verification at the same time.

How do you verify the success of a course?



Asked about their preference, whether learning in pairs or individual learning would be the better way, the vast majority of 90% thinks that individual learning is the best organisation.

Preference of learning individually vs. in pairs

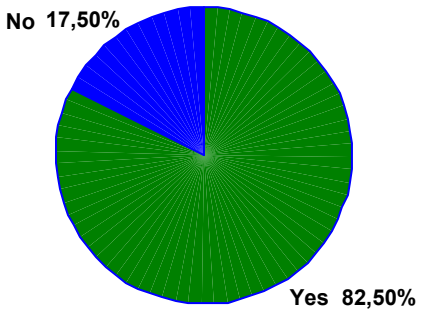


TRAINERS' PERCEPTIONS OF THE WOMEN WHO LEARN IT

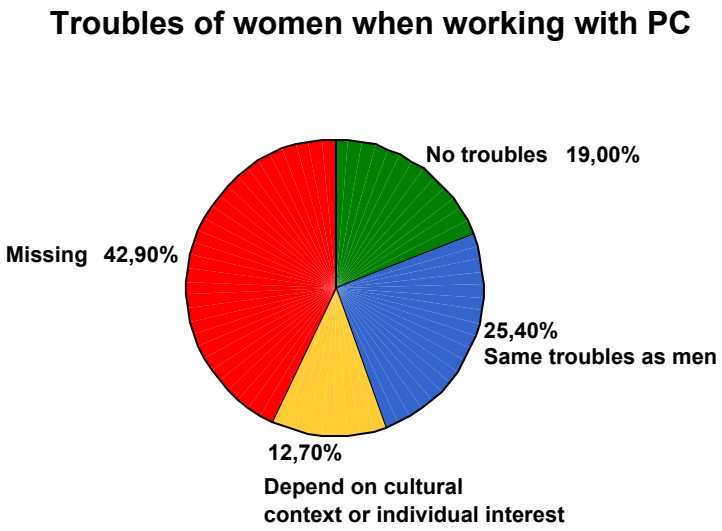
Before analysing and evaluating the methodological advices, which the trainers in our survey give in order to teach IT-courses for women, it is important to reflect their perception of the women and ask about their experience of teaching them.

Most of the trainers (83%) agree with the statement, that the women in their IT-courses are generally active.

Are women in IT-courses generally active?



When having been asked about their perceptions of the women's troubles working with a computer most of the trainers (43%) did not answer the question or answered, that they do not think, that women do have special troubles (19%), which adds to a total of 62% of the interviewed trainer, who deny at all the existence of troubles on the side of the women in their classes. 25% of the trainers think, that they have the same troubles as men, and a minority of 13% state that eventual troubles depend on the cultural context or on the special interest of the women themselves. This is an interesting result, since it is in contrast to possible hypotheses of gender specific problems of women with IT and of the development of a gender specific methodology, which would solve these troubles.

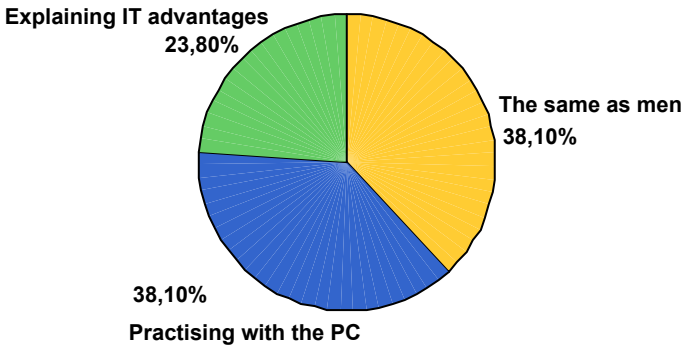


In addition to this outcome, many interviewed trainers stated that already this mere question – and others as well – implied a bias, which discriminated women, because it implicitly assumed, that women have problems with IT.

METHODOLOGY OF THE IT-TRAINING COURSES FOR WOMEN

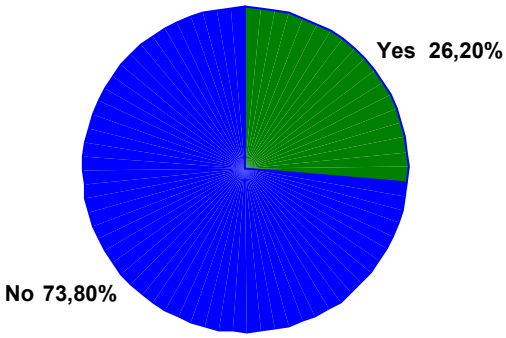
The trainers were asked, what kind of methodology they would suggest for teaching women without any knowledge in IT at all. Most of them (38%) answered, that they would apply the same methods as for men, and also 38% said, that they would just do practical exercises with the women in their classes. The rest of 24% said, that a good explanation of the advantages of IT would help. Nobody stressed a special methodology for women. However, it has to be noted that most of the trainers (68%) did not answer this question. This result can also be interpreted as some evidence for the trainers preferring no special methodology for women.

Methodology for women without experience in IT



Because of a lack of experience with mere women's groups in their classes, as noted above, most trainers (74%) did not – and could not – apply a different teaching approach for men and women in IT-classes.

Application of a different teaching approach for men and women



If this result is broken down by the countries, which took part in the survey, there is a more complex picture. Although in general a majority of trainers do not use different

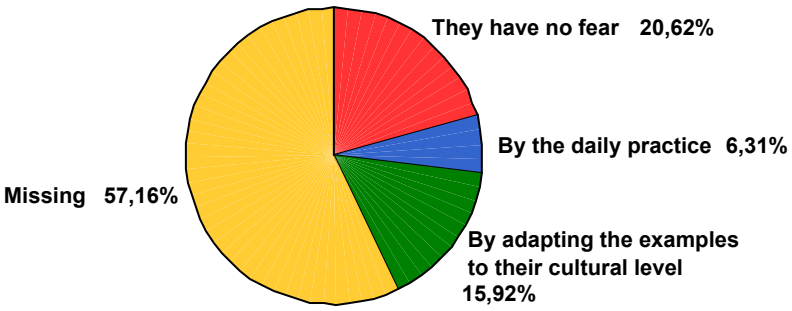
approaches in teaching men and women, in the inexperienced group this proportion is even higher (81%), whereas among the experienced trainers it is smaller (70%).

Experience as IT-trainer in years by use of different approach for teaching men and women

		Different approach for teaching men and women?		
		Yes	No	Total
Up to 2 years	in %	19,0	81,0	100,0
3 years and more	in %	30,0	70,0	100,0
Total	in %	26,2	73,8	100,0

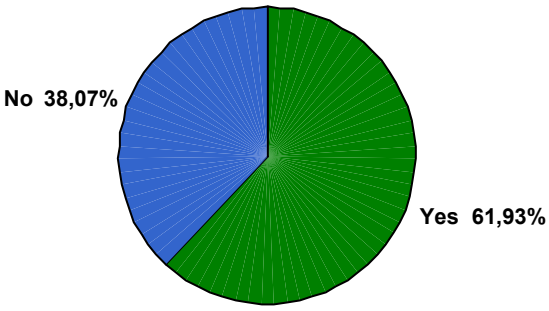
In a similar way like the question about troubles, which women have with computer work, the question was answered, how the trainers would help the women in their classes not to be afraid of IT. 21% of the trainers oppose the implicit assumption of this question, and additional 57% do not answer the question, which can be also interpreted in a way that they do not believe women to be afraid of computer work. This sums up to a vast majority of 78% of the trainers having been interviewed in our survey who neglect the hypothesis of women having special fear towards IT. The rest of 16% of the trainers meet eventual problems of the women in their classes by adapting their way of teaching to the cultural background of the women. An additional 6% evaluate the women's fears as minor and think that they diminish during the daily practice of working with the computer. Here again, nobody suggests a "women's methodology".

Methodology to overcome women's fears towards IT



The trainers were also asked, whether they would compare IT and work with PC to other objects or processes. Most of them (62%) use this comparison. However, it has to be emphasised that 25% of the trainers did not answer this question.

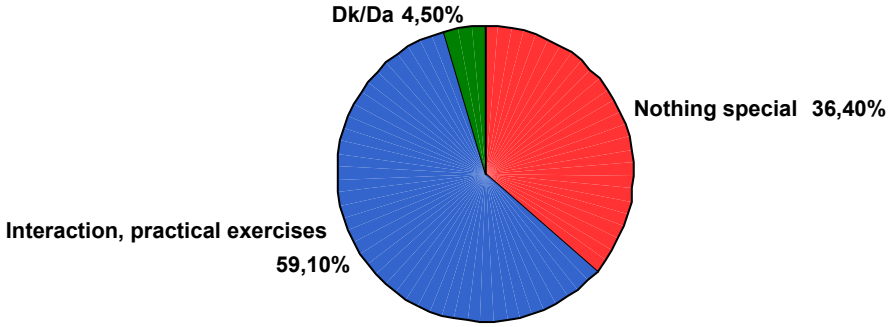
Compare IT and work with PC to any objects



Finally, the trainers were asked to summarize and stress what they think is the most important methodological tool in order to teach women in IT-courses. Most of them (59%) stated, that a lot of practical exercises are the most important for women, the examples and exercises being closely related to practical work. However, one must be

aware of the fact, that this result holds true for men, too, and should not be seen as gender specific. Maybe this is the reason, why a great minority of 36% of the trainers state that there is no special method when they think of women, and why only a minority of the trainers – only 35% – answered the question, whereas 65% refused to answer it.

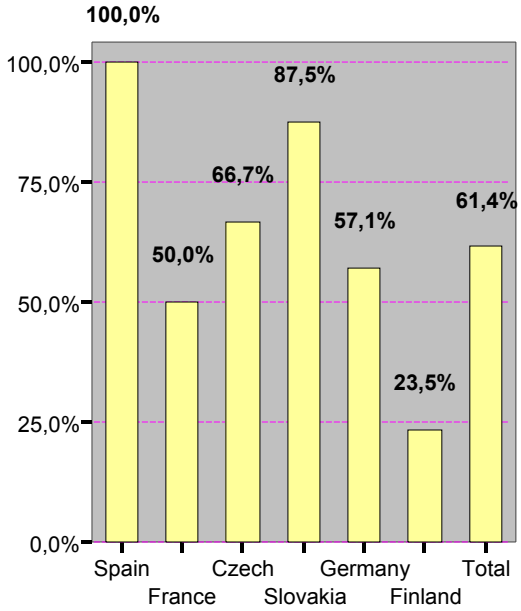
The most important method in IT courses for women



One of the most central hypotheses of the survey regards the right methodology, which is to be applied in IT-classes for women. Asking this question to the trainers it is striking that most of them (74%) hold a special methodology for women not for necessary. This result corresponds with the trainers' applied methodology (see above), which is the same for women and men.

Broken down by the partner countries in the survey, only in France (50%) and especially in Finland (76%) there are a great number of trainers who think differently.

No special methodology for teaching women by country



At first glance one could expect this to be due to the distribution of male teachers in our sample, who might be less sensitive towards the special needs of women in IT-courses. However, it is astonishing that there is no evidence for a difference as regards to this opinion between male and female teachers: The majority in both groups are not in favour for a gender specific methodology in training women in IT.

Special methodology for teaching women by gender of trainers

		Gender		
		Man	Woman	Total
Yes		38,2	39,1	38,6
No		61,8	60,9	61,4
Total		100,0	100,0	100,0

However, if this outcome is broken down by the experience of the trainers, there is a different result. Among the group of the experienced trainers there are 57%, who favour such a special methodology for female learners, whereas in the group of the not experienced trainers there are only 43%, who do think so.

Special methodology for teaching women by years of experience as IT-trainer

		Years of experience			Total
		1,00	3,00	4,00	
Yes		18,8	23,1	57,1	38,6
No		81,3	76,9	42,9	61,4
Total		100,0	100,0	100,0	100,0

Also the fact that most of the trainers having been interviewed have no experience with mere women groups, suggests, that most of the trainers' statements against a special methodology for women, might also be due to their lack of experience with mere women classes.

The subjective evaluation of the necessity of a special gender sensitive methodology differs significantly by the experience, which trainers have gained. Among the group with only a few years of experience only 19% agree in such an approach, whereas in the experienced group there are 30%.

CONCLUSIONS

It is striking, that in most countries and in most training courses having been part of the survey women were taught not by women, but by male trainers. This fact has to be taken into consideration when evaluating the statements of the trainers about the need for a gender specific methodology in IT-courses.

Apart from this, the most interesting outcome is that by far the most trainers consider a special methodology for teaching IT to women not as necessary, but this result seems to become weaker for trainers with a longer training experience, who in their majority favour such a gender specific methodology.

Given this recommendation it is astonishing, that most of the trainers from the countries having taken part in the survey teach IT-courses with gender mixed groups, and have consequently no experience in gender specific teaching approaches.

However, also a majority of them recommend as an appropriate teaching method especially the integration of many practical examples in the IT-course, this probably being the most important dimension of a gender specific approach.

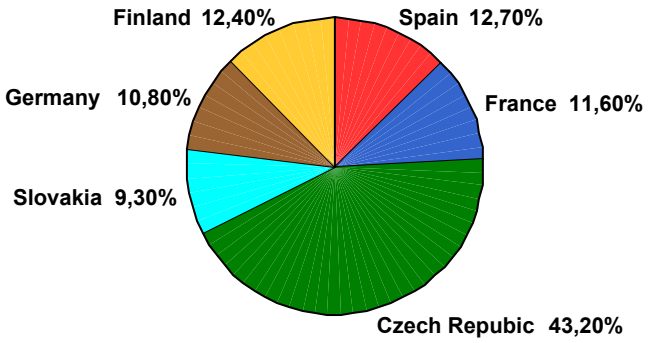
4.2. QUESTIONNAIRE FOR WOMEN

PROFILE

Another part of the fieldwork of work package 3 consists of interviews with women, who attended an IT-course. The objective was to get to know their experiences in IT-courses, since they could be the basis for constructing a methodology for IT-courses, which is sensitive for women.

The 259 women, who took part in the survey in the various partner countries, came from different courses and different training programmes.

Country



The average age (median) is 37 with the youngest woman having been 19 and the oldest 61 years of age. So in general the average age of the women in our survey has been rather young.

Age

				Percentiles		
Valid	Median	Minimum	Maximum	25	50	75
259	37	19	61	30	37	44

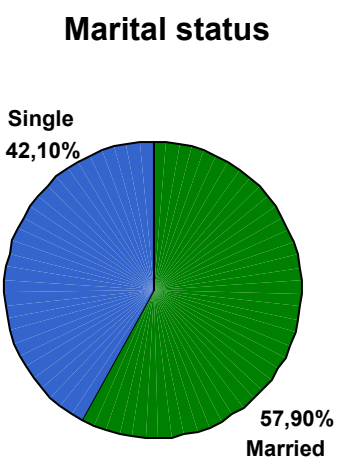
The average age differs a lot in the partner countries.[1] The youngest women having been interviewed were in Spain and in Slovakia, whereas the oldest ones were in France, Finland and especially in Germany. This result is significant, because – as we shall see later – according to the interviewed women a homogenous age group is one important prerequisite for a successful IT course.

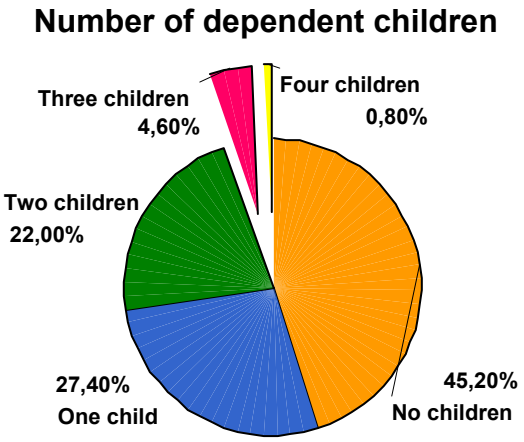
Age by partner country

		Spain	France	Czech	Slovakia	Germany	Finland	Total
19 to 33	number	23	12	43	13	2	4	23
	% of country	**69,7**	40,0	38,4	**54,2**	7,1	12,5	**69,7**
34 to 44	number	9	9	43	6	15	18	9
	% of country	27,3	30,0	38,4	25,0	53,6	56,3	27,3
45 to 61	number	1	9	26	5	11	10	1
	% of country	3,0	**30,0**	23,2	20,8	**39,3**	**31,3**	3,0
Total	number	33	30	112	24	28	32	33
	% of country	100,0	100,0	100,0	100,0	100,0	100,0	100,0

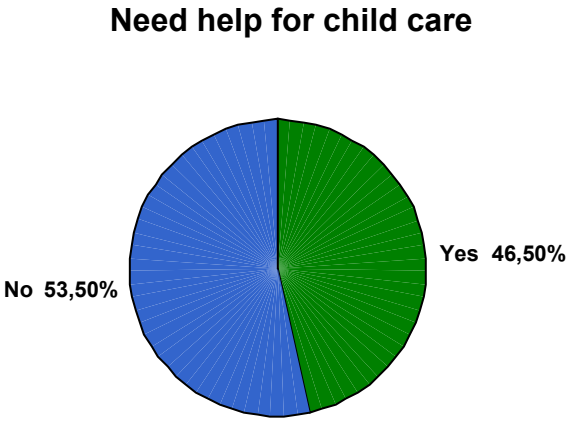
As regards of their marital status nearly half of the interviewed women (42%) were single. Also nearly half of them (45%) had no children. On the other side there were 22%, who had even two children to care for.

[1] Significant numbers in the following tables will be highlighted.

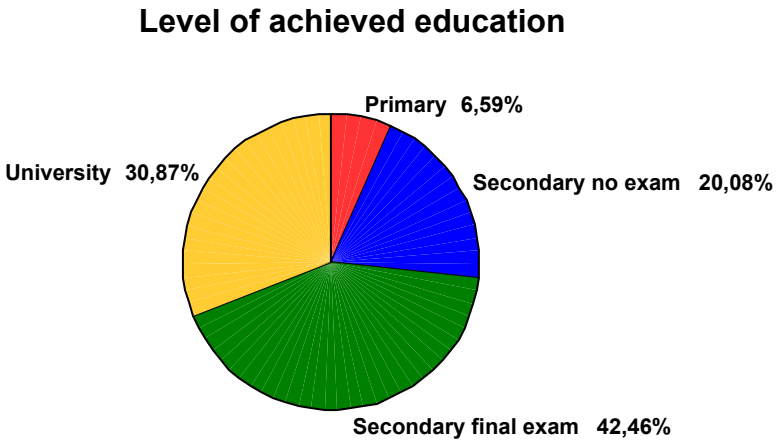




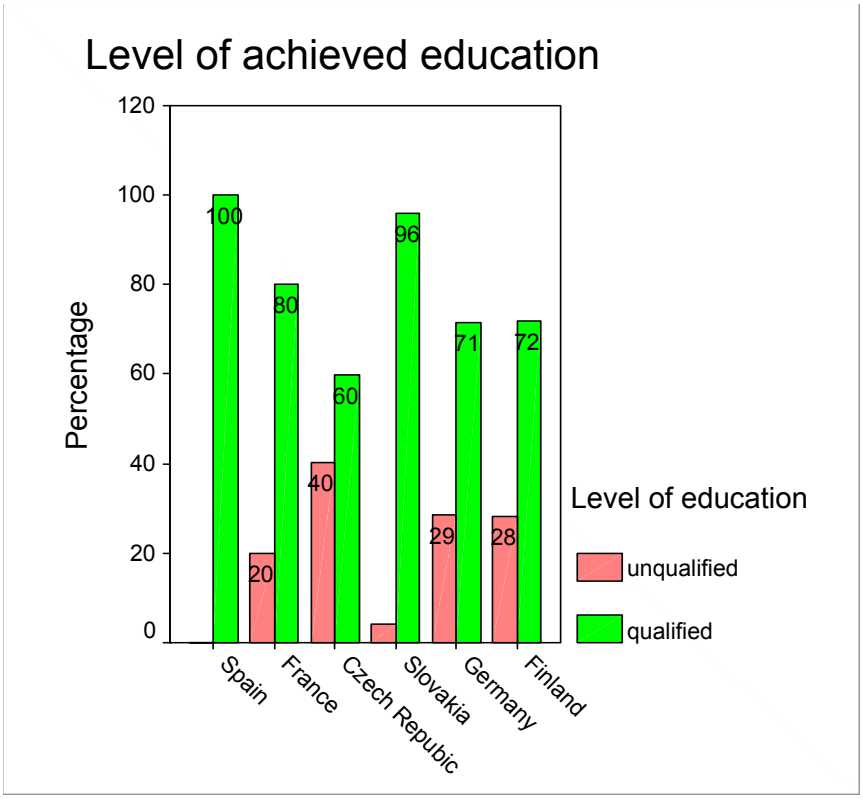
Another interesting data is that 54% of those women with children do not need help for the child care, so that for a slight majority of the women having been interviewed child care does not constitute any problem. However, in the Czech Republic there is an above-average amount of women, who need such help (39%).



The level of education of 7% of the women is only primary degree, 42% secondary degree without exam, 20% have secondary degree with exam and 31% have university degree. So the interviewed women are overall very well qualified.

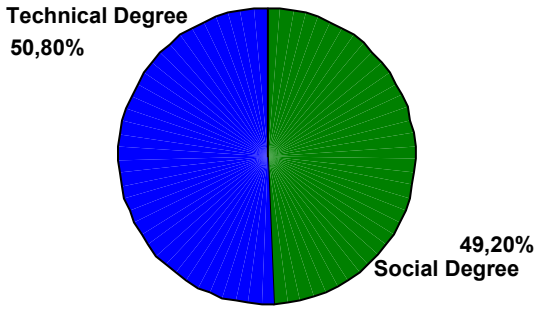


However, this differs quite a lot between the partner countries. Especially in Spain (100%), in Slovakia (96%) and in France (80%) the women being included in the survey have a very high educational level, whereas in the Czech Republic the amount of low qualified women is above-average (40%).



Half of those women having answered (77%) have a degree in social fields, the other half in technical fields.

Field of qualification



The average number of years working is 11, but nearly 8% of the women in our survey had not ever worked yet.

Years of occupation

N				Percentile		
Valid	Median	Minimum	Maximum	25	50	75
259	11	0	42	5	11	22

KNOWLEDGE AND PREREQUISITES

It is important to know the level of IT-knowledge the women in our survey had, because this affects the answers to the questions concerning their motivation, their expectations and their evaluation of IT-courses. This is the reason, why a number of different aspects of their IT-knowledge were asked for.

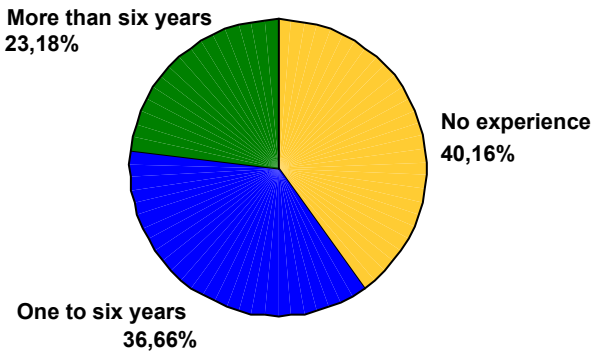
In the average the women have been working three years with computers.

Years of work with PC

N				Percentile		
Valid	Median	Minimum	Maximum	25	50	75
259	3	0	21	0	3	6

Though on the one side 40% of them had never worked with a computer yet, there are 23% of the women on the other side, who have already more than six years of experience in working with a computer.

Years of work with PC



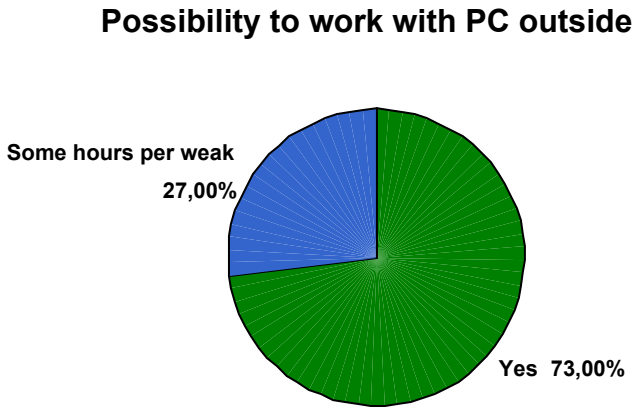
Again, there are significant differences between the countries, which had taken part in the survey. Especially in France and in the Czech Republic were a significantly higher proportion of women with almost no experience. On the other side there were many women with quite a lot of experience in Germany, Finland and especially in Slovakia.

Years of work with PC by partner country

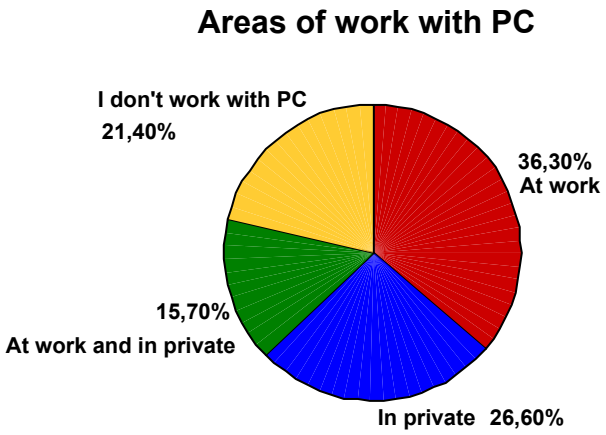
		Spain	France	Czech	Slovakia	Germany	Finland	Total
up to 1	number	5	20	72	4	9	10	120
	% of country	15,2	**66,7**	**64,3**	16,7	32,1	31,3	46,3
between 2 and 5	number	14	5	23	8	7	8	65
	% of country	42,4	16,7	20,5	33,3	25,0	25,0	25,1
more than 5	number	14	5	17	12	12	14	74
	% of country	**42,4**	16,7	15,2	**50,0**	**42,9**	**43,8**	28,6
Total	number	33	30	112	24	28	32	259
	% of country	100,0	100,0	100,0	100,0	100,0	100,0	100,0

These differences are very important, because they probably affect the way how the women having been interviewed answer the question about most of the dimensions of IT-training. So, we seem to have the situation, that in the Czech Republic the level of education and the level of knowledge as regards to IT is the lowest among the partner countries in the survey, whereas among the interviewed women in France the educational level was high and the IT-knowledge was low. The highest amount of women, who are qualified in IT as well as generally, are in Spain with 82% having university degree and 42% having more than five years of experience with computer work. To remember, in Spain we also find the by far youngest sample in our survey. So we have to expect, that the women there might answer in a slightly different way than the ones of the other countries.

In order to evaluate the chances of the women in the survey to get accustomed to computer work, it is interesting to know whether they have a possibility to work with a computer outside their job. Most of them (73%) do, but again, this is different for the women in the Czech Republic (only 51%), whereas in France, Germany and Finland always more than 90% agree with this statement.



Although most of the interviewed women frequently work with a computer at their job (52%) and in their private life (42%), there is also a minority of 21%, who never works with it.

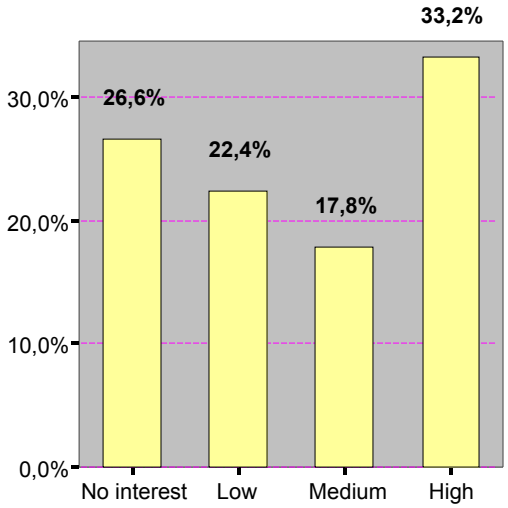


This result is different in the partner countries, too. In the Czech Republic there is the highest proportion of women (40%), who do not work with a computer, in Spain by far the most women, who only apply it at their workplace (79%), which is also true for Slovakia (61%). In France there is the highest amount, who apply the computer only in private life (41%). In Germany (41%) and in Finland (33%) a majority of the women having been interviewed work with a computer in their job as well as in private life. So, all in all we have a very differentiated picture of user habits as regards to computer

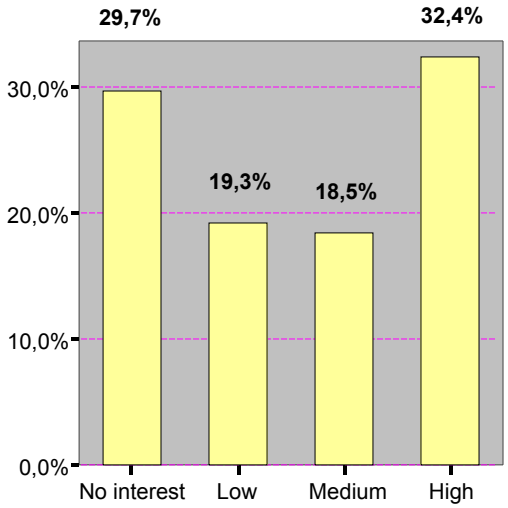
work, which probably affects the expectations and the interests of the women in the survey.

Having these result in mind, it is not surprising, that the level of knowledge of the interviewed women on some of the main IT-aspects is high, since they present medium or high knowledge on most of its dimensions. This holds not true for database and spreadsheet software only.

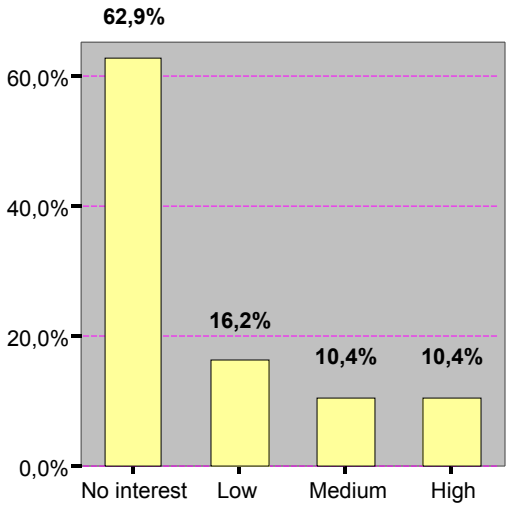
Knowledge about Internet



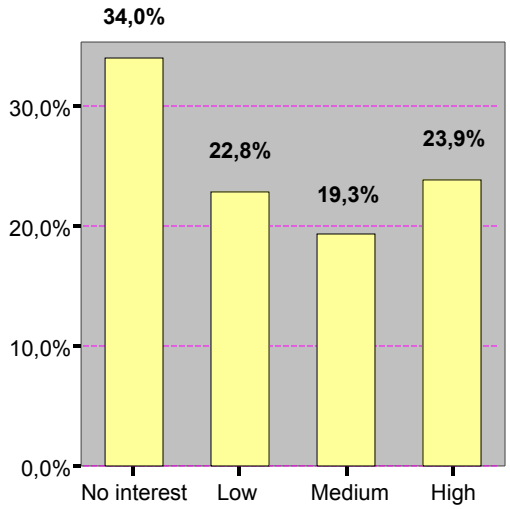
Knowledge about email



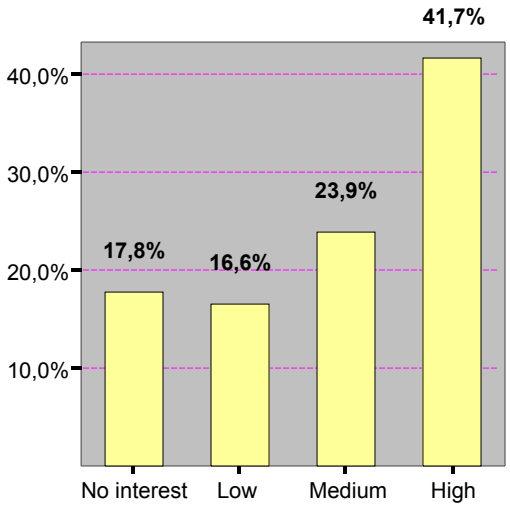
Knowledge about Access



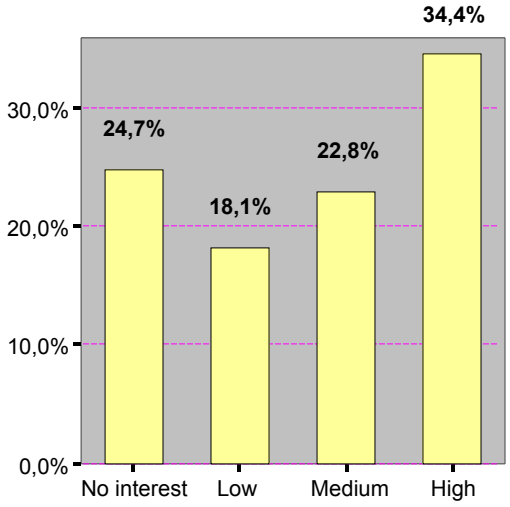
Knowledge about Excel



Knowledge about Word



Knowledge about Windows

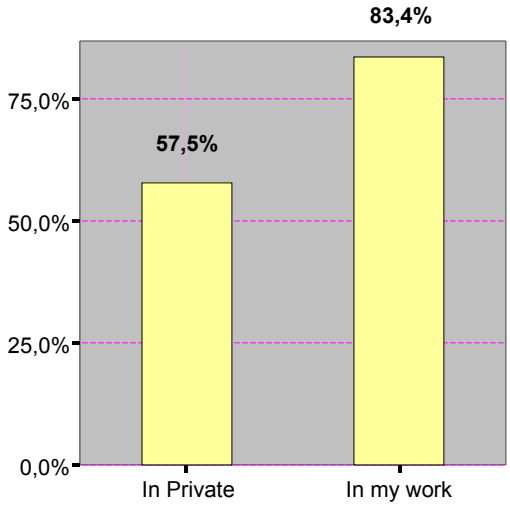


However, it is irritating, that there is quite a high amount of women, who have a lack of interest in some areas of IT, so especially concerning Windows (25%), internet (27%) and email (30%). This result might refer to the specific subjects of the various courses which were offered in the partner countries.

If these results are broken down by the special situation in the countries the picture becomes more complex. The most striking result is, that for every dimension of the above mentioned computer work aspects, in the French survey there are the most women with no interest at all (Windows: 47%, Word: 37%, Internet: 47%, email: 50%), a result, which needs further interpretation. Only concerning Excel and Access (67%) this proportion is lower than in other countries. On the other side there seems to be the women in Spain and Slovakia, who have the highest interest from all partner countries in most of the computer programs.

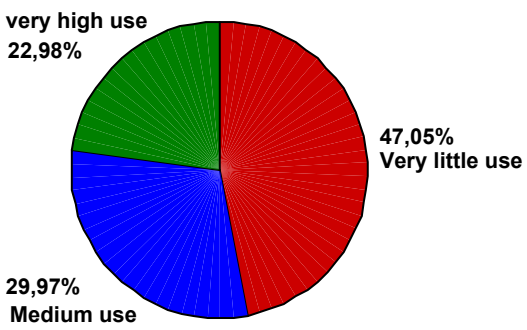
Most of the women having been interviewed need their IT-knowledge in their job (83%) as well as in their private life (58%) and are able to apply it in theses spheres. So, in general the women seem to use IT-knowledge to a large extent.

Chance of applying IT-knowledge



Being asked however, whether they are able to apply the knowledge, which they had gained in former courses, a high proportion of the women (47%) in the survey were quite sceptical, because they can use only very little or a little (30%). Only 23% can make high use of their IT-knowledge.

Application of IT knowledge



This astonishing result can be caused by many factors, but one has to take into consideration a possible lack of quality and effectiveness of the IT-courses, which the women had attended before. In any case, in Germany and Finland (28%), but especially in Spain (52%) are an above-average proportion of women, who can use much of their formerly gained IT-knowledge. whereas in especially in Slovakia there are also a high proportion of women with the opposite statement (67%). This is also true for Germany (61%), which makes this country a split case, where – following the above mentioned hypothesis – very good and very bad IT-courses exist.

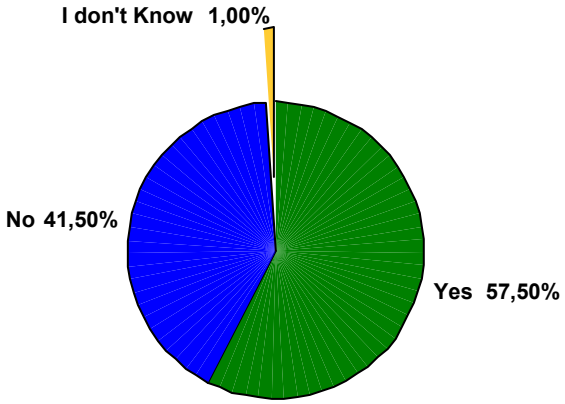
A competing hypothesis, however, has to reflect the fact, that at many workplaces the women's capabilities are not fully applied, so that their IT knowledge might be an expression of an over-qualification.

INTERESTS, MOTIVATION AND EXPECTATIONS

Not only the qualification and knowledge basis of the women having been interviewed is important in order to be able to understand their expectations, but also their interests and motivation, which form their basis.

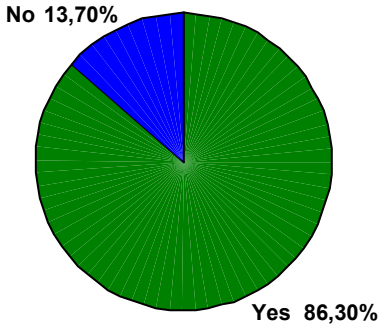
Only a narrow majority of the women (58%) in the survey regards the attended IT-course as necessary for their private life.

The course is necessary for my private life



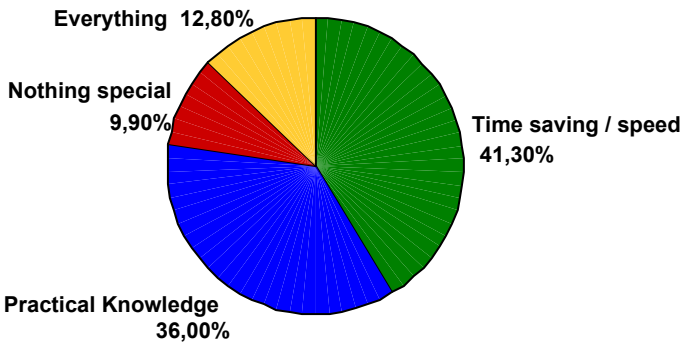
However, a vast majority of them (86%) thinks, that it is important for the work area.

The course is necessary for my work



The motivation to work with computers is also due to the advantages, which women recognize, when working with it. It is obvious and is seen by 41% of the women in the survey, that a computer is fast and thus saves time. However, 36% of the women are also fascinated by the practical knowledge, which they get when working with a computer, and 13% find just everything positive.

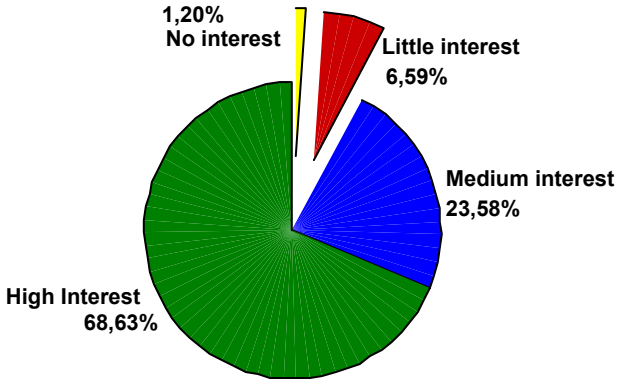
What do you like most working with PC?



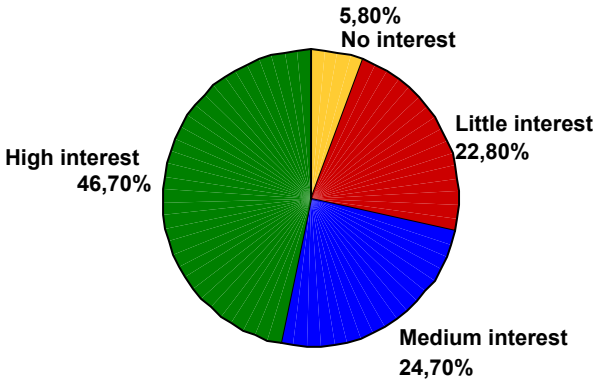
Having been asked about the special areas of interest using new technologies most of the women (69%) claimed a high interest in working with a computer, and still almost half of them (47%) have a high interest in using the internet. Shopping in the internet is only for a minority of 14% of the women of high interest, but for 39% of them of no interest at all.

So the women's motivation to attend IT courses seems to refer very much to a professional interest.

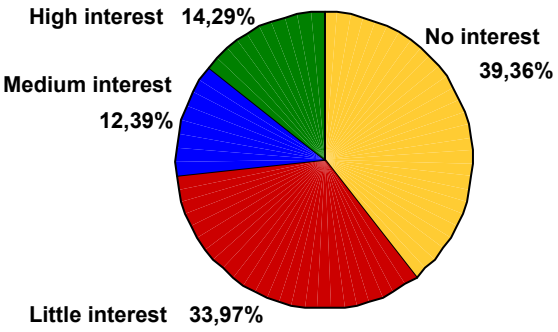
Interest in work with PC



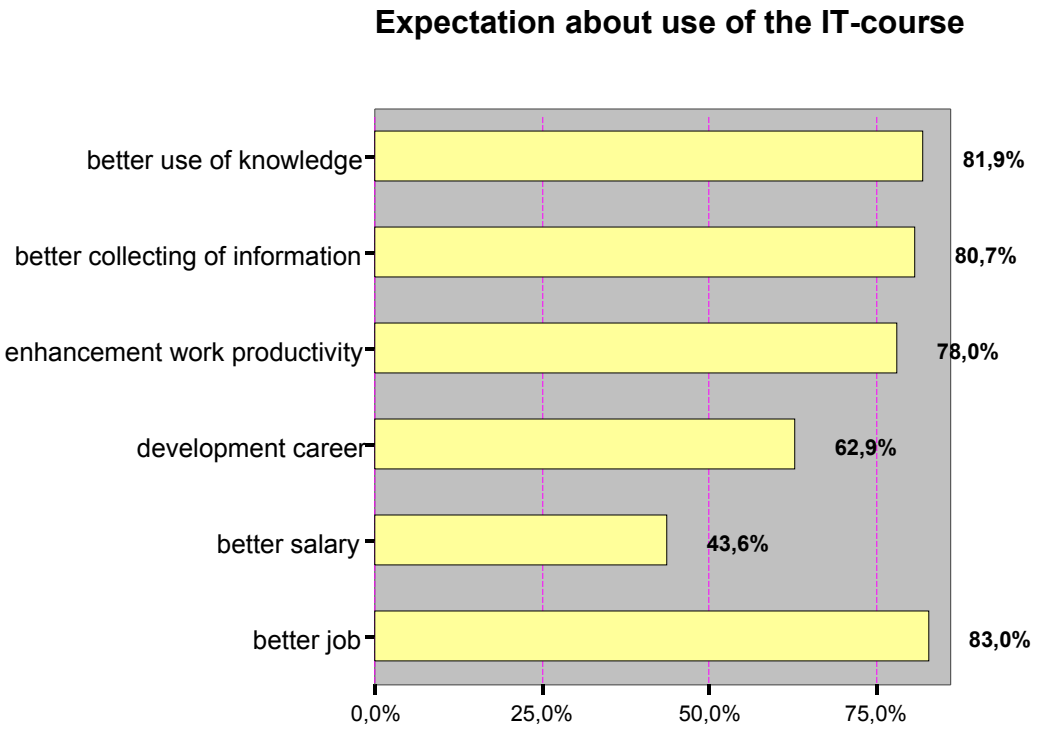
Interest in surfing in internet



Interest in shopping in internet



As regards to the women's expectations when attending an IT-course, which are directed more specifically to their professional interests, most of them think, that such a training will improve their chance to get a job (83%), and to help them to make a better use of their knowledge outside their job (82%). So, the importance of IT-training for the work sphere and the private sphere were evaluated nearly in the same way. However, a clear majority of the women in the survey also expected to get a better orientation in collecting and elaborating new information in general (81%) and to enhance their work productivity (78%). The eventual development of their professional career was still seen optimistically by a majority of the women (63%), however much less than the dimensions mentioned above. Probably in a realistic way evaluate 44% of the women the chance to improve their salary after having attended an IT course.



If these results are broken down by the various countries involved in the survey, the picture becomes more complex.

Expecting better chance to get a job by country

		Spain	France	Czech	Slovakia	Germany	Finland	Total
Yes	number	25	25	97	20	22	26	215
	% of country	75,8	83,3	86,6	83,3	78,6	81,3	83,0
No	number	8	5	15	4	6	6	44
	% of country	**24,2**	16,7	13,4	16,7	**21,4**	18,8	17,0
Total	number	33	30	112	24	28	32	259
	% of country	100,0	100,0	100,0	100,0	100,0	100,0	100,0

In Spain (24%) and in Germany (21%) there was the highest amount of women who do not expect to get a better job after having finished their IT course, although in these countries the clear majority remains still optimistic in this respect.

Expecting better salary by country

		Spain	France	Czech	Slovakia	Germany	Finland	Total
Yes	number	18	11	46	18	9	11	113
	% of country	54,5	36,7	41,1	**75,0**	32,1	34,4	43,6
No	number	15	18	28	5	13	16	95
	% of country	**45,5**	**60,0**	25,0	20,8	**46,4**	**50,0**	36,7
missing	number		1	38	1	6	5	51
	% of country		3,3	33,9	4,2	21,4	15,6	19,7
Total	number	33	30	112	24	28	32	259
	% of country	100,0	100,0	100,0	100,0	100,0	100,0	100,0

The improvement of the salary is the least important expectation, that the women in the survey connect with their IT training, but in Slovakia (78%) a majority thinks rather optimistic about this possibility. In the western countries, however, with the peak in France (60%), there are always even more women being pessimistic than the average. In the Czech Republic many women did not answer this question, probably because they were unemployed when attending the IT course.

Expecting development of career by country

		Spain	France	Czech	Slovakia	Germany	Finland	Total
Yes	number	30	20	42	23	22	26	163
	% of country	**90,9**	66,7	37,5	**95,8**	**78,6**	**81,3**	62,9
No	number	3	9	31		2	2	47
	% of country	9,1	**30,0**	**27,7**		7,1	6,3	18,1
missing	number		1	39	1	4	4	49
	% of country		3,3	34,8	4,2	14,3	12,5	18,9
Total	number	33	30	112	24	28	32	259
	% of country	100,0	100,0	100,0	100,0	100,0	100,0	100,0

Again in Slovakia (96%), but also in Spain (91%) a clear above-average proportion of the women in the survey expected some development of their career, which was, however, denied by the highest minority of women in France (30%) and in the Czech Republic (28%), where again many women (35%) did not answer the question.

Expecting enhancement of productivity of work by country

		Spain	France	Czech	Slovakia	Germany	Finland	Total
Yes	number	30	22	80	22	22	26	202
	% of country	**90,9**	73,3	71,4	**91,7**	78,6	81,3	78,0
No	number	3	7	5	1	3	4	23
	% of country	9,1	**23,3**	4,5	4,2	10,7	12,5	8,9
missing	number		1	27	1	3	2	34
	% of country		3,3	24,1	4,2	10,7	6,3	13,1
Total	number	33	30	112	24	28	32	259
	% of country	100,0	100,0	100,0	100,0	100,0	100,0	100,0

The expectation to enhance the work productivity have again the most women in Slovakia (92%) and in Spain (91%), whereas again in France there was the highest proportion of women, who remained sceptical (23%).

Expecting orientation in collecting / elaboration of information by country

		Spain	France	Czech	Slovakia	Germany	Finland	Total
Yes	number	25	23	90	21	22	28	209
	% of country	75,8	76,7	80,4	**87,5**	78,6	**87,5**	80,7
No	number	8	6	4	3	1	1	23
	% of country	**24,2**	**20,0**	3,6	12,5	3,6	3,1	8,9
missing	number		1	18		5	3	27
	% of country		3,3	16,1		17,9	9,4	10,4
Total	number	33	30	112	24	28	32	259
	% of country	100,0	100,0	100,0	100,0	100,0	100,0	100,0

This scepticism is also very high among French women (20%) in the survey – however, even higher among Spanish women (24%) – as regards to a possible improvement of the collection and elaboration of information through the internet as a result of the attended IT course individual orientation.

Expecting utilisation of new knowledge outside job by country

		Spain	France	Czech	Slovakia	Germany	Finland	Total
Yes	number	32	24	83	21	24	28	212
	% of country	**97,0**	80,0	74,1	87,5	85,7	87,5	81,9
No	number	1	5	9	2	1	1	19
	% of country	3,0	**16,7**	8,0	8,3	3,6	3,1	7,3
missing	number		1	20	1	3	3	28
	% of country		3,3	17,9	4,2	10,7	9,4	10,8
Total	number	33	30	112	24	28	32	259
	% of country	100,0	100,0	100,0	100,0	100,0	100,0	100,0

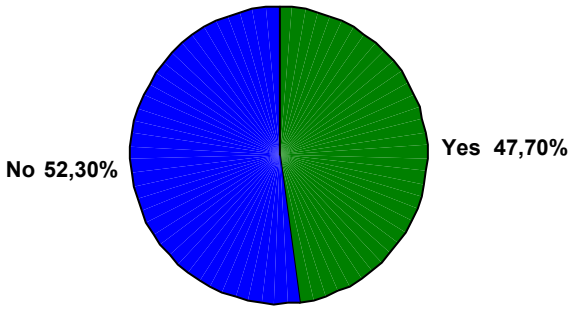
Although in general the women in the survey were rather optimistic to make use of the new knowledge they gained in the attended IT course outside their job, in Spain (97%) there are the most women who have this expectation, but again in France there is the highest amount of women, who remain sceptical (17%).

Generalizing these findings we can say, that the sample of women having been interviewed in Slovakia were the most optimistic about the positive outcomes of the IT course they had attended. On the other end is France, where the highest proportion of women took part in the survey, who remain sceptical.

FEARS AND OBSTACLES

Nearly half of the women having been interviewed are able to improve their IT knowledge without professional help, but slightly more (52%) are not able to do so. This result shows, that the sample in the survey is very heterogeneous, which is of course due to the specific situation in the partner countries.

Can you improve your IT knowledge without any help?



Looking at this more carefully, it becomes clear, that in France (65%), however, especially in Spain (82%), vast majorities of the women having been interviewed have he ability to rely on their own as regards to developing their computer knowledge. This fact probably makes them evaluate the course, which they attended, in a more relaxed way, since they are not fully dependent on it. In addition to this assumption, one has also to take into consideration, that the women in Spain already have the best pre-knowledge as regards to IT and the highest education level (see above), which might explain their self-confidence.

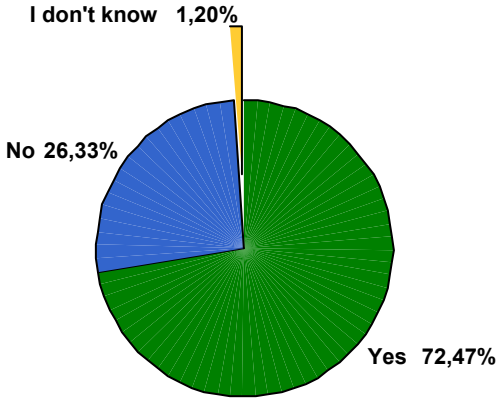
Chance to improve IT knowledge without help by country

		Spain	France	Czech	Slovakia	Germany	Finland	Total
Yes	number	27	11	41	8	9	10	106
	% of country	**81,8**	**64,7**	40,6	50,0	34,6	34,5	47,7
No	number	6	6	60	8	17	19	116
	% of country	18,2	35,3	59,4	50,0	**65,4**	**65,5**	52,3
Total	number	33	17	101	16	26	29	222
	% of country	100,0	100,0	100,0	100,0	100,0	100,0	100,0

In France, the case is slightly different, but also significant. Here we find one of the highest proportion of women with a rather high education level, but the smallest proportion of women with pre-knowledge. This might explain their high level of self-confidence, which is combined with a generally sceptical attitude towards computer knowledge.

However, most of the women (73%) having been interviewed in the survey are not alone if they need help with computer problems.

Is there anybody who can help you with a work with PC?



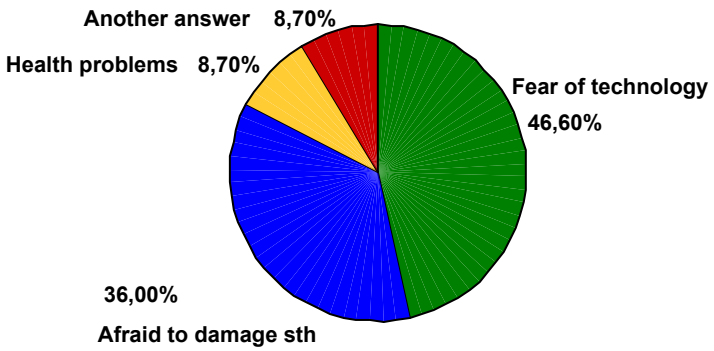
Broken down by the countries which were part of the survey, there is a clear profile of countries, which differentiates Slovakia on the side, where most of the women (90%) find help, from Finland (35%) and again especially from France (48%) on the side with a low amount of support.

Existance of help as to work with PC by country

		Spain	France	Czech	Slovakia	Germany	Finland	Total
Yes	number	25	14	81	18	19	19	176
	% of country	75,8%	51,9%	75,0%	**90,0%**	73,1%	65,5%	72,4%
No	number	5	13	27	2	7	10	64
	% of country	15,2%	**48,1%**	25,0%	10,0%	26,9%	**34,5%**	26,3%
don't know	number	3						3
	% of country	9,1%						1,2%
Total	number	33	27	108	20	26	29	243
	% of country	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Another important aspect of the motivation and fear of women attending an IT course, is the question, whether there are severe obstacles against the use of computers. Having asked this, most of the women name the fear of an unknown technology (47%) and the fear of damaging something (36%). However 17% have not answered this question, and we have to assume, that they do not have any problems.

Obstacles for work with PC



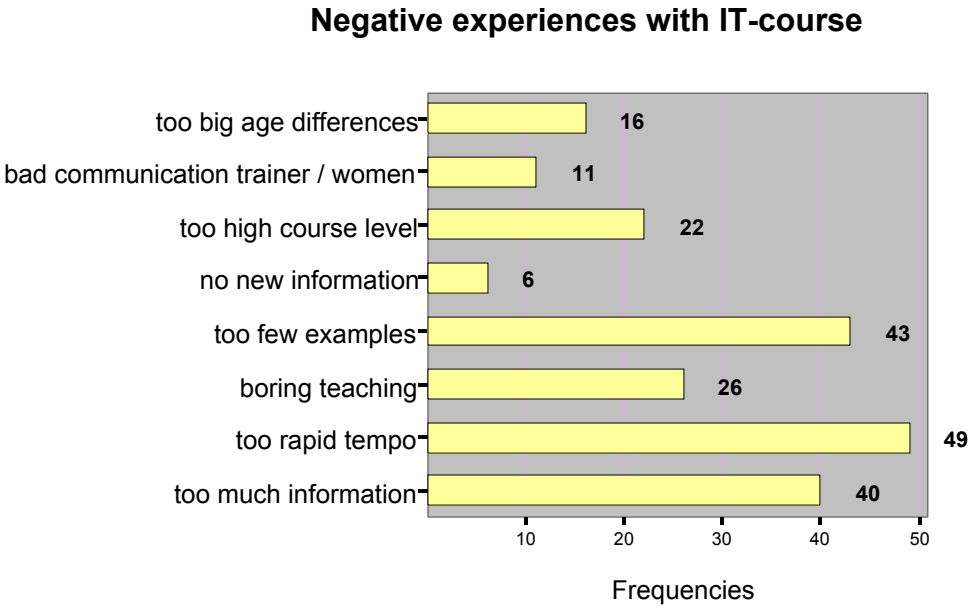
If these results are broken down by the countries in the survey, it shows that among the German women the fear of a new technology is comparably the highest (68%), and in Spain (9%) and the Czech Republic (23%) it is the lowest. However there is a wide fear of damaging something among the women in the Czech Republic (55%).

Obstacles for your work with PC by country

		Spain	France	Czech	Slovakia	Germany	Finland	Total
Fear of technology	**number**	3	17	26	14	19	18	97
	% of country	**9,1**	56,7	**23,2**	58,3	**67,9**	56,3	37,5
Fear to damage something	**number**	11	3	61				75
	% of country	33,3%	10,0%	**54,5%**				29,0%

EVALUATION OF IT-COURSES

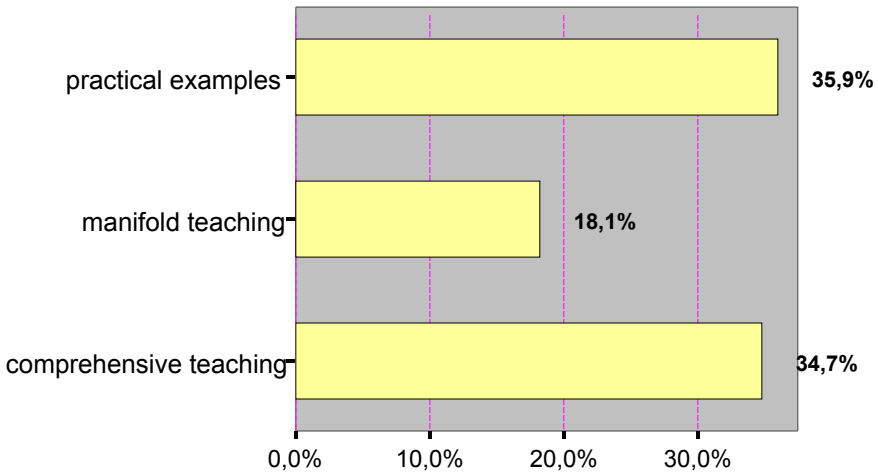
In order to understand the women's expectations concerning a good IT-course, it is necessary to reflect upon their experiences with former courses, having been good or bad. From 243 answers given the most answers (n = 49) mentioned, that the pace in the course was too high, 43 women said, that the trainer had not sufficiently provided practical examples, 40 women found, that there had been too much information, and 22 thought, the level of the course was too high.



So all in all, these critiques can be summarized to a number of 154 expressing difficulties with the course level being too demanding.

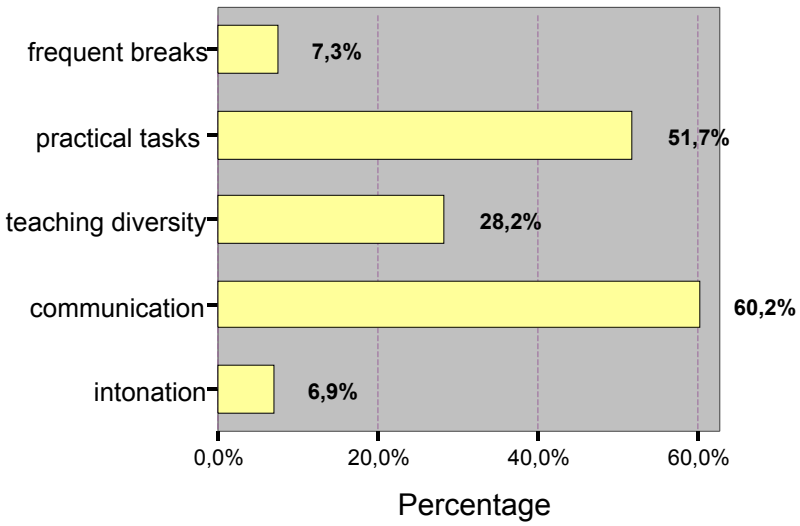
If asked about positive characteristics of an IT-course on the other side are, more than one third of the women having been interviewed mentioned many practical examples, and a comprehensive way of teaching (35%).

Positive characteristics of an IT-course

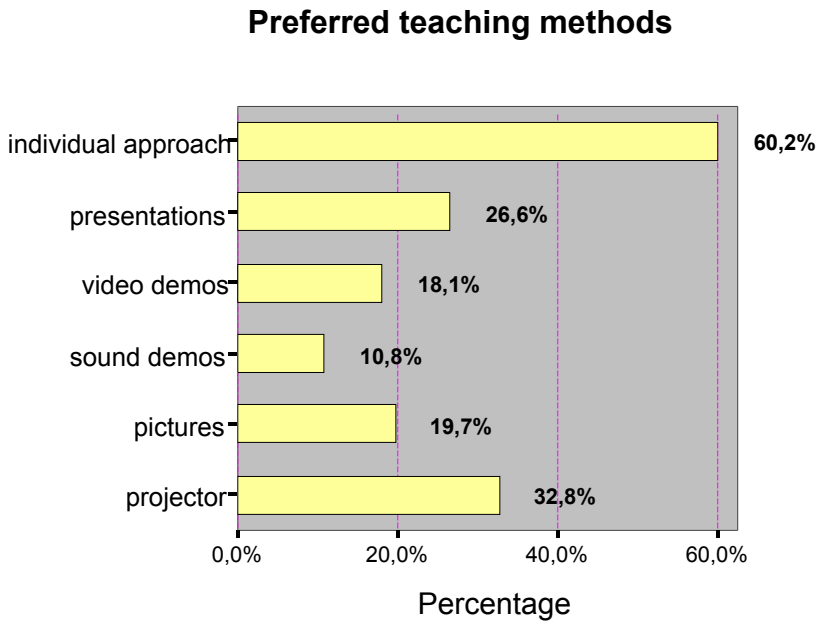


Being asked more specifically about what they think dimensions of a successful training method were, which maintains their interest, 60% of the women in the survey find an intensive and frequent communication between trainer and trainees helpful, and 52% of them mention practical tasks again.

Successful training methods



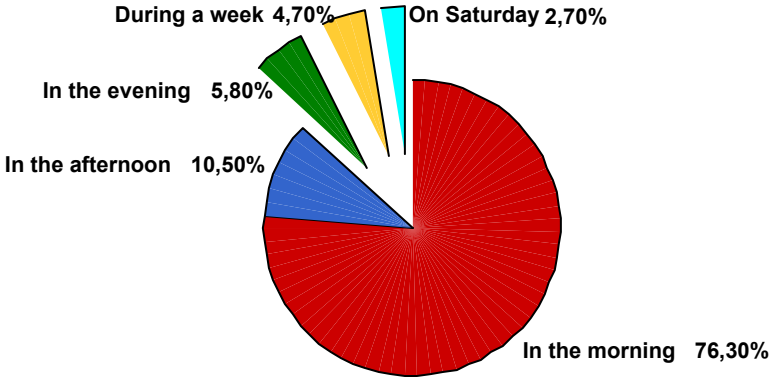
In terms of technical and media supported teaching methods most of the women are quite sceptical, but prefer an individual approach by the trainer (60%).



REQUIREMENTS

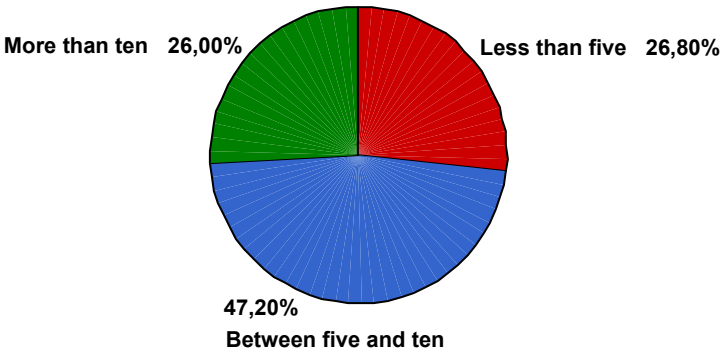
One of the objectives of the survey was to get to know, under what kind of conditions the women having been interviewed preferred to be taught. One of the dimensions in question was the ideal time, when an IT-course should take place, which a vast majority of 76% of the women answered with “in the morning”.

Preference for the time for an IT-course



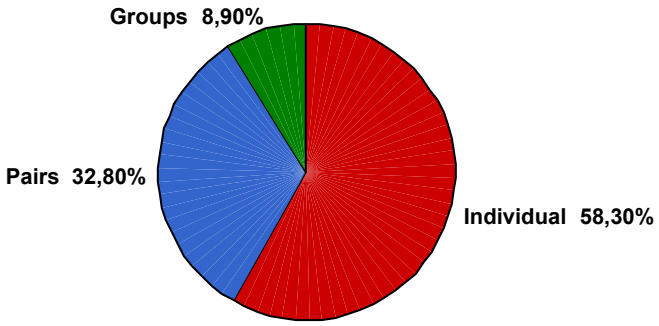
Another criterion was the preferred size of the class group. Most of the women (47%) preferred between 5 and 10 students, and half of the rest more, the other half less students.

Preference for number of participants in IT course



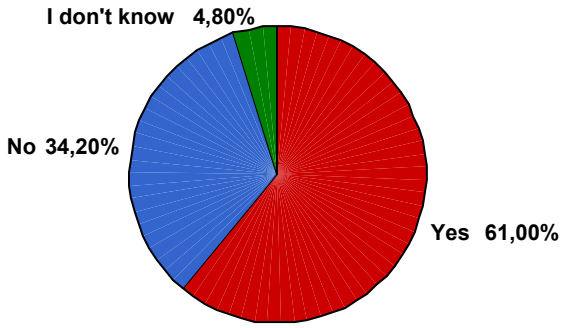
Most of the women (58%) prefer individual exercise in an IT course as compared to 33% of them asking for exercises in pairs.

Preference for exercises in IT course



Another question concerned, whether the women preferred an intensive IT-course, which most of them (61%) agreed upon.

Preference of an intensive IT-course



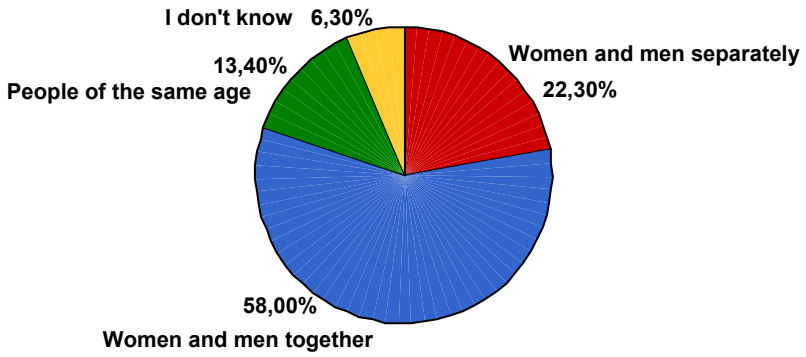
However, this is not true for all partner countries. For some unknown reasons a majority of the women in the Spanish and French survey neglected this organisation form.

Preference of an intensive IT course by partner country

		Spain	France	Czech	Slovakia	Germany	Finland	Total
I don't know	number	2		9				11
	% of country	6,1		9,7				4,8
No	number	21	19	13	5	10	11	79
	% of country	**63,6**	**67,9**	14,0	23,8	38,5	36,7	34,2
Yes	number	10	9	71	16	16	19	141
	% of country	30,3	32,1	**76,3**	**76,2**	61,5	63,3	61,0
Total	number	33	28	93	21	26	30	231
	% of country	100,0	100,0	100,0	100,0	100,0	100,0	100,0

At first glance very surprising seems to be the fact, that only 22% of the women pointed out, that if women learn IT they should learn it separated from men. In contrast, 58% are not opposed to having men in their course, so gender is not a problem for them since a clear majority of them specified they prefer classes with men and women together. 13% of the interviewed women stated that the main aspect to have in mind when to organise a good group is age.

Preference for organisation of IT course



Broken down by countries, only in Finland (54%) and in Germany (61%) there is a majority of women, who prefer separated courses for women and men. This, however, maybe due to the fact, that these women attend gender separated classes, so that they

prefer, what they know. In the other countries, the women follow the same logic, since they have been asked in classes, which do not separate between men and women.

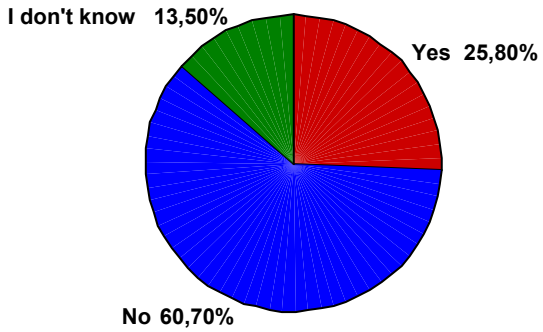
Preference for dIfferent people in an IT course by partner country

		Spain	France	Czech	Slovenia	Germany	Finland	Total
I don't know	number	3		11				14
	% of country	9,1		10,3				6,3
People of the same age	number	17	4	9				30
	% of country	**51,5**	13,8	8,4				13,4
Women, men together	number	13	24	67	6	9	11	130
	% of country	39,4	**82,8**	**62,6**	**75,0**	39,1	45,8	58,0
Women, men separately	number		1	20	2	14	13	50
	% of country		3,4	18,7	25,0	**60,9**	**54,2**	22,3
Total	number	33	29	107	8	23	24	224
	% of country	100,0	100,0	100,0	100,0	100,0	100,0	100,0

GENDER SPECIFIC STATEMENTS

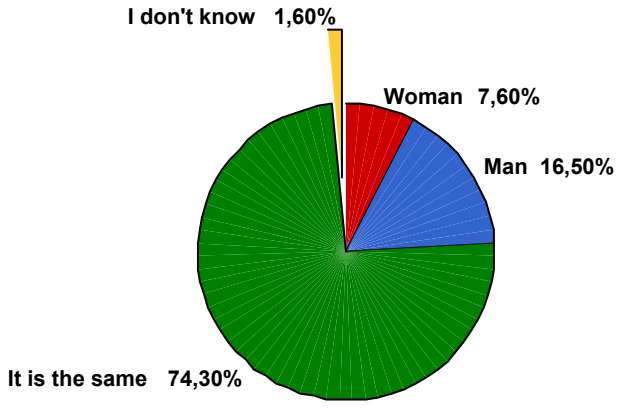
One important objective of the survey was to get to know information about the feelings of the women in IT-courses towards the gender of their trainers and whether the competence of them differs in a gender specific manner.

Difference in teaching IT-courses between male and female trainers?



Concerning trainer gender most of the women (61%) in IT-courses say that there is no difference in teaching IT between male and female trainers. Only 26% think, that there are differences. It is due to this statement, that 74% of the women having been interviewed also thought, that there is no difference in the quality whether a man or a woman is the teacher for their IT-course. Only 8% hold a woman for the better teacher, but 17% think, that men as teachers are even better in order to teach women.

Who can explain better in an IT course?



Again broken down by countries, as expected in Finland (60%) and in Germany (68%) a majority of the women think, that there are differences in teaching IT classes between male and female trainers. This result follows the same logic as above mentioned: the women having been interviewed confirm their experience, which they gained in the IT-courses, which they attended, and they have no systematic data base, on which they could compare male and female trainers.

Difference in teaching IT-courses between men and women by country

		Spain	France	Czech	Slovakia	Germany	Finland	Total
I don't know	number	7	2	20	1		1	31
	in % of country	21,2	8,3	17,9	7,1		4,0	13,5
No	number	26	15	69	13	7	9	139
	in % of country	**78,8**	62,5	61,6	**92,9**	33,3	36,0	60,7
Yes	number		7	23		14	15	59
	in % of country		29,2	20,5		**66,7**	**60,0**	25,8
Total	number	33	24	112	14	21	25	229
	in % of country	100,0	100,0	100,0	100,0	100,0	100,0	100,0

This result holds also true for the women's opinion, whether male or female trainers are the better teachers, although generally a vast majority think, that there is no difference in terms of the gender.

Gender specific competence of explaining subjects in an IT-course by country

		Spain	France	Czech	Slovakia	Germany	Finland	Total
I don't know	number			4				4
	% of country			3,7				1,6
The same	number	33	12	80	14	21	25	185
	% of country	**100,0**	40,0	74,1	77,8	75,0	78,1	74,3
Man	number		17	21	1	1	1	41
	% of country		**56,7**	19,4	5,6	3,6	3,1	16,5
Woman	number		1	3	3	6	6	19
	% of country		3,3	2,8	**16,7**	**21,4**	**18,8**	7,6
Total	number	33	30	108	18	28	32	249
	% of country	100,0	100,0	100,0	100,0	100,0	100,0	100,0

However, the highest amount of women being in favour for female trainers we can find in Finland (19%) and again in Germany (21%), surprisingly also in Slovakia (17%). France builds the contrast case again, since there is the highest amount of women, who are in favour of men (57%).

5. CONCLUSION. HINTS FOR A METHODOLOGY FOR IT-TRAINING FOR WOMEN

If all the answers, which the women of the various countries in our suvey gave, are evaluated in an overall examination, there seems to be much evidence for their demand to be taught in a way, which does not make computers an end in itself. A clear majority of them in all countries appeals for practical examples, which link the fascinating new technology to purposes, which get their logic from needs and problems of the sphere of everyday life.

This result can be confirmed by findings from the gender sciences, that women much more frequently link their computer science interest to a larger societal framework. This corresponds with their cultural role, which often imposes on women an open eye for social responsibility and for problem solving, which takes the consequences of their actions into consideration, instead of a preference for area specific solutions. Women rather attach their interest in computer work to other arenas of life, so that the contexts and connections of computing to other arenas makes the learning of computer work meaningful for them. In addition women often emphasize the importance of having computing and their programs "do something", while men often have the approach, that computers are something or even somebody. They often express their interests of learning all about the computer as a pleasurable end in itself. Attraction towards computing comes early, and becomes part of their identity, so that the computer becomes a kind of toy to them.

The consequences of the distance between women and the computers are, that women often speak of struggling to maintain their own confidence and breadth of interest in the computer environment. As an indicator for this we can interpret their fear to damage something as one of the results of the survey. In contrast, since computers seem to be closer to the men’s personality, there is less of such fear.

However, the majority of the women having been interviewed do not ask for a special methodology, nor do they want specific courses for women. They do not see any difference in the teaching competence between male and female trainers either. So in general, there is hardly any gender specific view on teaching nor learning in IT-courses to them.

Thus, as consequences from this survey for the development of teaching methods for IT-courses there seems to be no need to construct a women specific methodology. However, there has to be an interactive atmosphere, that enables enough bringing in the concrete ends and the practical purposes, that women learn IT for. That is to say: connecting the technical sphere of computer work to the everyday life experience of the women in a course. In addition to this, it seems to be very important, that the

background of the women is being taken into consideration. This is true for their education level as well as for their pre-knowledge and former experiences concerning the work with a computer.

In this respect, the learning women do totally agree with most of the trainers, who are also not in favour of a standard methodology, but prefer an individual approach, which is based on their own experience and on the features of the individual women in their classes. And the majority of the trainers also agree with the quest for integrating many practical exercises in the course.

A curriculum for an IT-course must therefore not narrowly be focused on mere technical aspects, with applications and multidisciplinary projects deferred to the very end. This gives beginning women the false message that IT is "only technical," abstracted away from real world contexts. Feminist educator Sue Rosser [1990], from her investigation of gender and science education, argues that "insuring science and technology are considered in their social context…may be the most important change that can be made in science teaching for all people, both male and female" (p.72.) Computer science professor Dianne Martin [1992], in her article "In Search of Gender Free Paradigms for Computer Science Education," discusses "a premise for the gender bias in computer science: the existing educational paradigm that separates studies of science, math, and computer science from studies of the humanities, starting in the secondary schools." She speculates that an integrated approach to computer science would attract more women students, and that "greater attention [should be paid] to values, human issues, and social impact as well as to the mathematical and theoretical foundations of computer science." (p. 1)

The results of our survey do not ask for a gender specific methodology, but for a learner oriented approach, which is sensitive towards the specific needs of different learner groups, them being women or men. If an IT-curriculum is constructed in light of these considerations, it has the greatest chances to be successful.

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APPENDIX 1

Training in ICT - Questionnaire for women Training in ICT - Questionnaire for women

Profile:

1. Age: ……

2. Family situation[1]: ❑ married ❑ single ❑ ……

3. Frequency of dependent children: …… Frequency of other persons you take care about: ……

4. Years of praxis/occupation: …… years of the work with PC: ……

5. Level of achieved education[1]: ❑ primary ❑ secondary without the final exam
   ❑ secondary with the final exam ❑ university

6. Qualification (branch): ……

Requirements:

1. What is your idea about the ideal IT - course:

Frequency of participants[1]: ❑ less than 5 ❑ 5 to 10 ❑ 10 to 15 ❑ more than 15

What do you prefer having a practical training with PC[2]:

❑ the individual exercise ❑ exercise in a pair ❑ exercise in a bigger group

Who could explain you better - as to your opinion – the matter in an IT course[1]:

❑ woman ❑ man ❑ in is the same (it depends only on a teacher) ❑ I don't know

As to your opinion, is it better when a course is organised for[2]:

❑ women and men separately ❑ women and men together ❑ people of the same age ❑ I don't know

I'd like better an intensive course (5-6 hours/day): ❑ yes ❑ no ❑ I don't know

The most appropriate time for a course[2]:

❑ in the morning ❑ in the afternoon ❑ in the evening ❑ during a week ❑ on Saturday

2. Do you need a help for a care about a child (or another person): ❑ yes ❑ no

1. only one choice
2. multiple choice
3. use the scale 0 – 5. 0 – low, 5 – high. Only one answer.
4. add another answer

Expectation:

1. What do you expect after finishing a course[2]:

Better chance to get a job:	❑ yes	❑ no
Better salary:	❑ yes	❑ no
Development of my professional career:	❑ yes	❑ no
Enhancement of a productivity of my work:	❑ yes	❑ no
Better orientation in collecting and elaboration of information (Internet):	❑ yes	❑ no
Utilisation of new knowledge out of my job	❑ yes	❑ no

Interest:

1. How much are you interested in a work with PC[3]: ❑ 0 ❑ 1 ❑ 2 ❑ 3 ❑ 4 ❑ 5
2. How much are you interested in „surfing" on Internet[3]: ❑ 0 ❑ 1 ❑ 2 ❑ 3 ❑ 4 ❑ 5
3. How much are you interested in shopping through Internet[3]: ❑ 0 ❑ 1 ❑ 2 ❑ 3 ❑ 4 ❑ 5
4. Have you got any possibility to work with PC out of your job: ❑ yes ❑ some hours/week ☐
5. Is there anybody who can help you with a work with PC: ❑ yes ❑ no ❑ I don't know
6. Have you already got any knowledge on the work with PC[3]: ❑ *no, I haven't*

In Windows:	❑ 0	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5
In text editor (for example Word):	❑ 0	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5
In spreadsheet (for example Excel):	❑ 0	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5
In database (for example Access, SQL):	❑ 0	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5
With Internet:	❑ 0	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5
With the electronic post (e-mail):	❑ 0	❑ 1	❑ 2	❑ 3	❑ 4	❑ 5

7. What are for you the most important obstacles for your work with PC?[2]

❑ a fear of a unknown technology ❑ I am afraid that I can damage something
❑ health problems during the work with PC ❑ problems with a keyboard
❑ problems with a mouse

❑ .....[4]

8. What do you like at most during your work with PC? .....

.....

9. Do you work with PC more: ❑ in your work ❑ in private ❑ the same ❑ I don´t work with PC

Motivation:

1. I can use IT-knowledge gained in a course[2]: ❑ in private ❑ in my work
2. The course is necessary for my work[1]: ❑ yes ❑ no ❑ I don't know
3. The course is necessary for my private life[1]: ❑ yes ❑ no ❑ I don't know
4. Do you want to improve your qualification in IT[1]: ❑ yes ❑ no ❑ I don't know

Way of learning:

1. If you already complete any IT-course,

   what didn't you like[2]*:*

❑ many new information ❑ a to quick tempo ❑ a boring teaching ❑ few practical examples
❑ no new information ❑ the level of the course ❑ a bad communication between a trainer and trainees
❑ a big difference in an age of trainees ❑ .....[4]

   what did you like:

❑ comprehensive way of teaching ❑ a manifold teaching ❑ many practical examples
❑ a way of teaching (please, describe briefly): .....

.....

2. How do you want to be taught optimally? What way of IT-teaching would fit you at most?

.....

.....

3. Can you improve your IT knowledge without any help (self-study)?: ❑ yes ❑ no
4. How many times did you take part in any IT-course? ☐
5. If you took part, how much did you use your newly gained knowledge?[3]

❑ 0 ❑ 1 ❑ 2 ❑ 3 ❑ 4 ❑ 5

6. I like when a trainer use for a training:[2]

❑ projector ❑ pictures ❑ sound demonstrations ❑ video demonstrations ❑ presentations
❑ individual approach ❑ .....[4]

7. Which methods used by a trainer were successful for a maintaining of your interest:[2]

❑ changes in a voice intonation of a trainers ❑ a frequent communication between a trainer and trainees
❑ a diversity of teaching ❑ many practical tasks ❑ more frequent breaks
❑ .....

8. As your opinion, does a woman another way of teaching than a man for an IT-training?

❑ yes ❑ no ❑ I don't know

APPENDIX 2

Training in ICT - Questionnaire for Trainers

Profile

1. Age: ……

2. Gender: ❑ man ❑ woman
3. Level of achieved education[1]: ❑ primary ❑ secondary without the final exam
   ❑ secondary with the final exam ❑ university
4. Qualification: .....
5. Further education .....
6. IT-trainer (years): ☐ pedagogical praxis (years): ☐
7. Have you got any experience with groups[2]:

❑ mixed (men and women) ❑ women only ❑ men only ❑ big differences in age of trainees

Observation

1. Did you use a different approach for teaching men and women: ❑ yes ❑ no

Give an example: .....

.....

2. What kind of questions do you face most often at IT-courses from the side of women:

.....

.....

3. What kind of troubles do women have most often when working with PC:

.....

.....

4. How do you help women not to be afraid of IT: .....

.....

5. Are women at IT-courses generally active: ❑ yes ❑ no
6. How do you verify the success of a course[2]: ❑ a final test ❑ a questionnaire

❑ a contact with participants after the end of a course ❑ .....[4]

7. What is better[2]: ❑ an individual learning (1 person – 1 PC)
   ❑ learning in pairs (2 person – 1 PC)

1. only one choice
2. multiple choice
3. use the scale 0 – 5. 0 – low, 5 – high. Only one answer.
4. add another answer

Way of teaching

1. What kind of methods do you use to keep the attention: .....

.....

2. Do you use:

❑ projector ❑ pictures ❑ sound demonstrations ❑ video demonstrations ❑ presentations

❑ .....[4]

3. Do you mind any interruption of your work by questions of participants? ❑ yes ❑ no
4. Do you use an individual approach to participants? ❑ yes ❑ no

5. For better understanding of women, do you compare IT and work with PC to any objects?

.....

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Suggestions

1. What is the most important to pay attention and emphasise in IT-courses for women?

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2. How to start an IT-course for women without any experience in IT? (give some examples)

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Conclusion

1. As you opinion, is it necessary to use a different methodology for IT-teaching women than men?

❑ yes ❑ no