Teachers' training needs report

Angelos Konstantinidis

December 2010

Hellenic National Support Service of the eTwinning action
http://www.etwinning.gr/

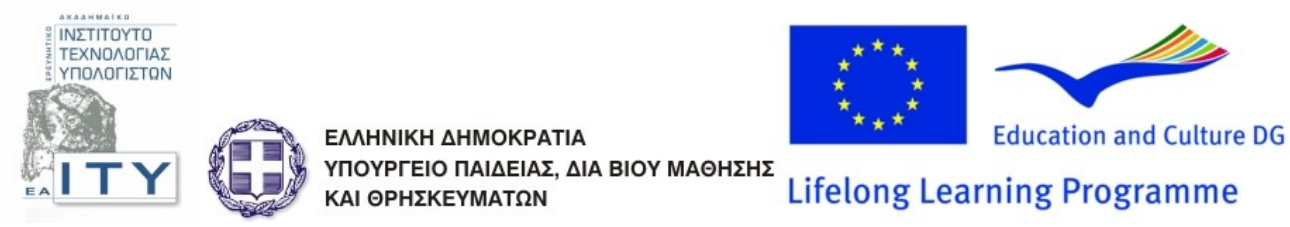

Table of Contents

1. Introduction

1.1 Background

Hellenic National Support Service (NSS) of the eTwinning action organizes and runs online courses for Greek teachers. The aim of this initiative is twofold: to spread the eTwinning action in Greece and to train teachers in Information and Communication Technologies (ICT). The first online training seminar hosted by the Hellenic NSS took place in 2008 and focused on cross-curricular thematic approach projects in the eTwinning action. Nearly 60 teachers participated in that seminar which lasted 6 weeks. During 2010, the Hellenic NSS offered six online courses with a variety of subjects ranging from project method to Web 2.0 tools to teachers' professional development to poverty and social exclusion. These training courses spanned from 10 to 21 days each, and overall, approximately 400 teachers participated (Hellenic NSS of eTwinning 2010). However, around 900 teachers had applied to participate in at least one of the courses, while more than 1400 applications for participation were submitted in total. Hence, a substantial number of teachers was kept out of the training programme, while it was uncertain whether these training courses met the needs of the Greek eTwinning members. Apart from that, the need for more training opportunities has long been raised by eTwinning members across Europe (Crawley et al. 2009, p.33). Thus, in order to address these issues in a more efficient and effective manner over the following year, the Hellenic NSS decided to plan and administer a research with reference to teachers' training needs.

1.2 Research basis of the report

One of the prime objectives of the eTwinning action is 'to identify school twinning as an opportunity for all young people to learn and practice Information & Communication Technologies (ICT) skills, as well as promoting awareness of the multicultural European model of society' (Crawley et al. 2009, p.3). Anne Gilleran stressed that the purpose of

eTwinning is 'to bring the teachers and students of Europe closer together through working together' (2006, p.2), while 'experimenting with new methods of teaching, new technologies and new ways of performing traditional tasks' (2007, p.2). At the same time, one of the chief merits of eTwinning has always been flexibility as 'teachers became empowered to decide what to do and how to do it, with the sole requirements of exploiting ICT and collaborating with colleagues in another European country' (Crawley et al. 2009, p.3).

From another standpoint, the Hellenic Pedagogical Institute (2010c) following the strategic aims set by the Council of the European Union in May 2009, focuses on the need to provide appropriate initial training and continuous professional development to teachers within the concept of lifelong learning. Within this rationale, it is emphasised how important it is to secure that the training is tailor suited to the different training needs of the teachers.

Finally, online training courses organised by the Central Support Service (CSS) of the eTwinning action were very successful in terms of how participants rated the learning experience (Crawley et al. 2009, p.39). Besides, it is documented in the literature that online learning fosters teacher-student interaction (Burbules 2002), assists learners to learn from experience (Alexander and Boud 2001), collaborate with their peers and take control over their learning (Joliffe et al. 2001). Therefore, online learning serves equally well both eTwinning aims and those set by the Hellenic Pedagogical Institute (2010c).

Drawing from these perspectives, this report is the first dedicated look at eTwinning members' training needs that the Hellenic NSS has undertaken.

1.3 Objectives

The objectives of this report are as follows:

- ➔ To profile the characteristics of Greek teachers who are interested in participating in online training courses of the eTwinning action.

- ➔ To investigate teachers' training needs regarding subjects to be covered in online courses, and how these needs are differentiated with respect to their: (a) domain, (b) type of school, (c) teaching experience, (d) experience in European actions and especially in eTwinning.
- ➔ To investigate teachers' motives for participation in online courses, and how these motives are differentiated with respect to their: (a) domain, (b) type of school, (c) teaching experience, (d) postgraduate training, (e) ICT skills, (f) type of internet connection at home, (g) experience of participation in online courses, (h) experience in European actions and especially in eTwinning.

1.4 Research methodology

During the time period (October-December 2010) the research was conducted, approximately 3.400 Greek teachers were registered in eTwinning (Konstantinidis 2010). A quantitative survey method has been selected, as it is a simple and straightforward way to study attitudes, beliefs and motives (Robson 2002, p.233), while it is a time/cost saving method and affords access to unique populations (Wright 2005).

1.4.1 Instrument

Data was collected by means of an online survey developed on the LimeSurvey application and hosted on the Hellenic NSS website. The survey comprised three sections and is presented in the Appendix.

In the first section, demographic characteristics of participants were collected through ten questions (gender, age, teaching domain, educational attainments, current school type, teaching experience, knowledge level of foreign languages, type of internet connection at home). Additionally, average daily use of computer and participants' experience in use of internet and computer technologies were collected within this section.

The second section consisted of four questions and inquired participants' involvement in eTwinning, Comenius, and other European actions.

In the third section, data referring to participants' experience and attitudes towards online training were collected through seven questions. Two 6-point rating scales with seventeen questions in total, largely derived from Pedagogical Institute's questionnaire (2010a), aimed at gathering participants' perceptions about alleged important subjects or issues in an online course and motives to participate in it. The response scale for each item ranged from "not at all" (1) to "very much" (5), while, consistent with Ryan and Garland (1999) suggestion, an additional "not applicable" option allowed respondents to provide an answer that is true to their experience. Three optional open-ended questions allowed participants to provide examples and other qualitative feedback.

1.4.2 Sampling strategy

The sampling strategy involved self-selecting and opportunity sampling methods. Firstly, eTwinning newsletter subscribers (around 3.200 Greek eTwinning members) received via the October's newsletter information about the study and a link to the survey. Moreover, they were being reminded about the survey via the registration announcement to the course "Poverty and social exclusion" in November. Secondly, during the "Poverty and social exclusion" course, participants were prompted twice to fill in the survey. Finally, the survey's link with information regarding the research study was publicised for two weeks during December on the Hellenic NSS website and teachers were openly invited to participate. These mixed recruitment methods elicited a total of 318 usable responses (out of 380 total responses), yielding an adjusted response rate of about 10% of the total eTwinning members invited.

1.4.3 Data analysis and findings

SPSS (2008) and OpenOffice.org (2010) were employed for data analysis and graphical display. Only relationships that were found to be both related (according to the chart) and statistically significant (according to non-parametric tests) are presented. Significance testing at the 95% confidence level was carried out on the quantitative results reported in this paper. This means that where findings are reported as "statistically significant", there

is only 5% or less probability that the difference between the samples is by chance, and is different from the main population.

1.5 Executive Summary

1.5.1 Profile of teachers

Approximately 400 Greek teachers were offered a place in the online training courses held by the Hellenic NSS during 2010. Still, a substantial number of teachers were kept out of the training programme.

The survey about teachers' training needs received 380 responses (318 were usable), achieving a response rate of around 10%. Nevertheless, the sample appears to be representative of Greek eTwinning members.

Teachers seeking to participate in online training courses of the eTwinning action are between 26 and 55 years of age, mostly women (70%).

In terms of teaching domain, they are mainly foreign literature teachers (32%), primary school teachers (15%), Greek literature teachers (10%), ICT teachers (9%), mathematics teachers (7%), physics/chemistry/biology/geology teachers (6%), kindergarten teachers (5%), and electrical/mechanical engineer teachers (4%).

They are working in all major school types (kindergarten, primary school, secondary school, high school, technical education school), still, most of them (81%) are working in primary, secondary, or high schools.

Their teaching experience varies from a few years to over two decades, while the majority (85%) has at least 6 years of teaching experience.

They are well-educated; close to two-third (62%) have a second bachelor degree, or masters degree, or doctorate, or other officially awarded further training diploma, while 45% have a postgraduate degree (masters or doctorate).

They have little experience of online training; most of them (54%) have never attended an online course, while only 11% have attended three or more online courses.

They have good foreign language level. Practically all know English, while the majority (85%) has a medium, at least, level of knowledge. Additionally, 45% know French, 35% German, 17% Italian, and 11% Spanish.

They have rather high technological profile. The great majority (91%) has broadband internet connection at home, while less than 2% have no internet connection at home. Similarly, the great majority (94%) uses computer (for work, entertainment or information) for more than 1 hour a day, while 42% use computer for more than 3 hours a day. Finally, roughly all (99%) have an e-mail account and can use a word processor, while 85% have good or very good level of ICT skills, meaning that they use sophisticated applications (e.g. excel, photoshop, etc.).

Quite surprisingly, most teachers (67%) have not completed an eTwinning project, while merely 11% have completed more than two eTwinning projects. However, more than half (54%) have been involved in a European action (such as eTwinning, Comenius, Leonardo, Erasmus, Grundtvig, etc.). Finally, over one-fourth (26%) have been involved in more than one European actions.

1.5.2 Important subjects in an online course

First of all, it should be noted that all proposed subjects were regarded as important by most participants. Proposed subjects are listed below sorted by importance, while in parentheses is indicated the percentage of teachers who deemed each subject as very or very much important for them:

- new technologies implementation (92%)
- support innovative activities in classroom (eTwinning, Comenius, etc.) (88%)
- contemporary instructional approaches (86%)
- instructional design per domain (74%)
- classroom management issues (71%)
- cross-cultural education (71%)
- development of creative relations with parents and students (65%)
- students' assessment (56%)

- special education (53%)

In addition, several subjects were put forward by respondents, yet their answers were not focused on any specific subject area. Finally, it was found that less experienced teachers esteemed as more important subjects about students' assessment than more experienced ones.

1.5.3 Important motives for participation

The three most important motives for participation were closely related with syllabus and methodology of the course. Timely information about the course was also perceived to be a very strong motive. Participation motives are listed below sorted by importance, while in parentheses is indicated the percentage of teachers who deemed each motive as very or very much important for them:

- personal interest (93%)
- active trainee participation (93%)
- connection of educational theories with practice (92%)
- timely information about content, aims, etc. (88%)
- professional interest (82%)
- professional development points (70%)
- training courses during off-school season (47%)
- recommended by someone (31%)

In addition, several motives for participation were put forward by respondents, yet their answers were not focused on any specific motive.

2. Sample description

2.1 Demographic characteristics

The sample consisted of 222 (69,8%) female and 96 (30,2%) male participants (see Figure 1). According to recent statistics provided by the Hellenic Ministry of Education, Lifelong Learning and Religious Affairs (2009a, 2009b), 65,2% of teachers in Primary and Secondary Education are female (total population 168.100; 109.591 female and 58.509 male). Therefore, the sample is a fair representation of the teachers' population with respect to gender.

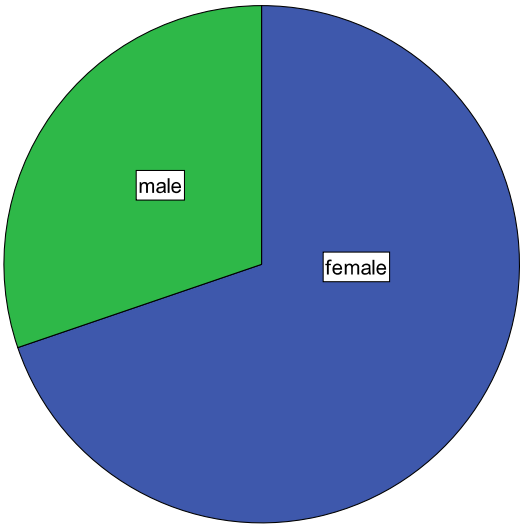

Figure 1: Participants' gender.

In terms of age, respondents ranged from 21-25 to 56 and above category. However, roughly all respondents (96,5%) were between the ages of 26-55, while more than half of the respondents (62,8%) were between 36 and 50 years old. As can be seen in Figure 2, the sample is not balanced; rather it follows the normal distribution (Skewness: -0,136; Std Error of Skewness: 0,137; Kurtosis: -0,626) and it appears to be proportional to the sample of Pedagogical Institute's study (2010b, p.21) with respect to age.

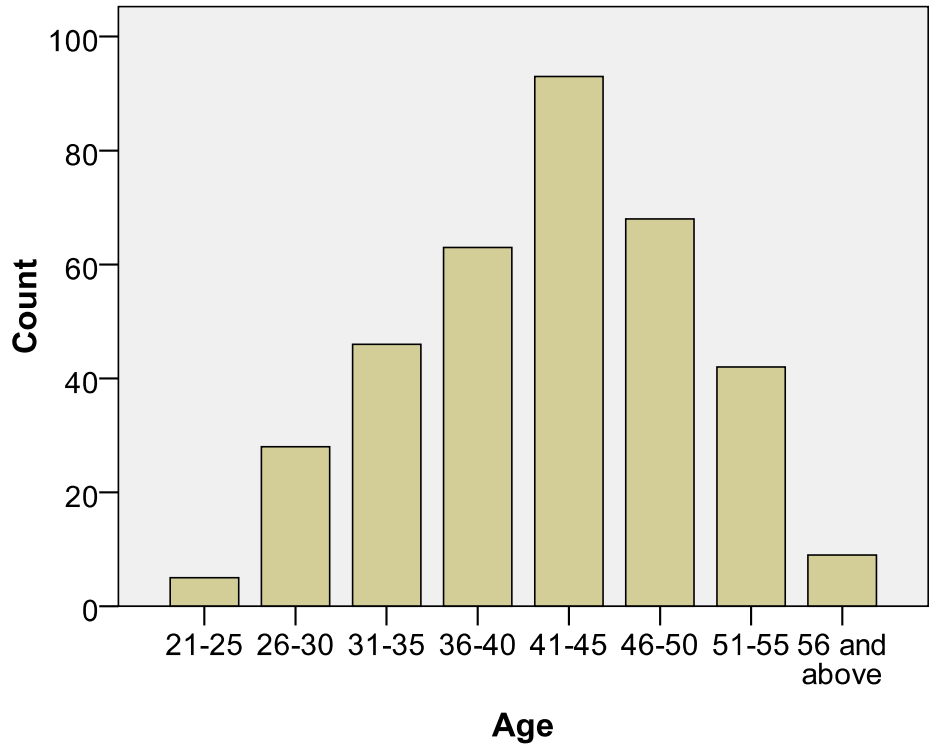

Figure 2: Participants' age.

Currently there are 158, more or less, teaching domains in Greece, yet only teachers from 29 different teaching domains responded to the survey. Teaching domains with very few responses (less than 2% of the total number) were merged into the "other" category, reducing the number of different teaching domains to ten, which comprise the 88% of the total population. As it is shown in Figure 3, foreign literature teachers (English, 15,7%; German, 9,4%; French, 6,6%), primary school teachers (15,1%), (Greek) literature teachers (10,1%), and ICT teachers (9,4%) were the most frequently encountered

teaching domains among participants in the survey, comprising exactly 66% of the total sample. Similarly, in a user survey across Europe conducted by the CSS in 2008, it was found that the first four categories of the respondents to the survey were foreign language teachers, primary school teachers, ICT teachers and literature teachers, while foreign language teachers dominated in the sample (Crawley et al. 2009, p.19-20). Therefore, it can be hypothesized that the sample is a fair representation of Greek eTwinning users with respect to teaching domain.

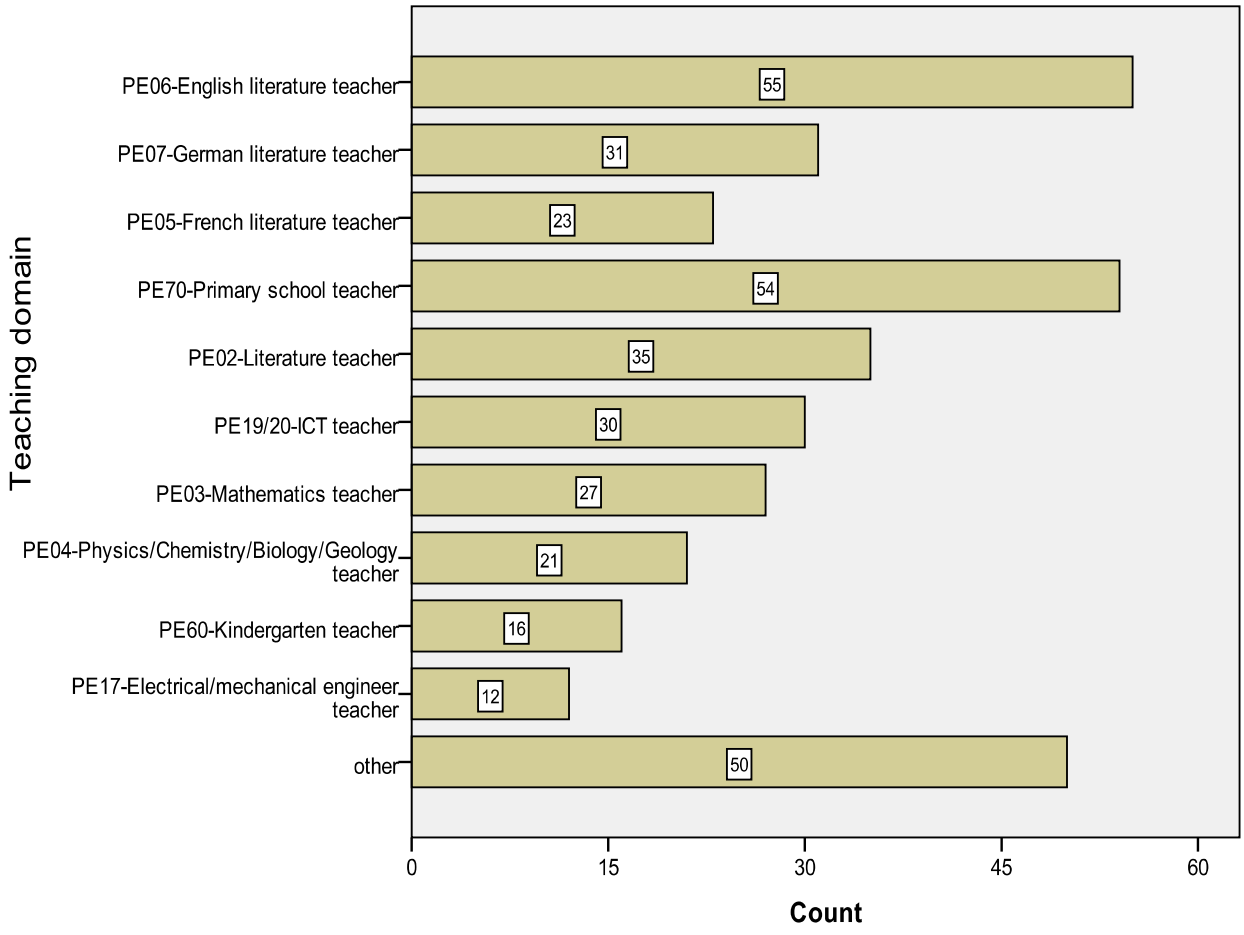

Figure 3: Participants' characteristics categorized by teaching domain.

Participants were not equally distributed among different school types. Moreover, this distribution is not representative of the school type ratio in Greece (Hellenic Ministry of Education, Lifelong Learning and Religious Affairs 2009a, 2009b). Nevertheless, the sample appears to be proportional to the sample of Pedagogical Institute's study (2010b, p.16-17), with a few exceptions (regarding teachers' numbers in primary and secondary schools). As expected, most participants (95,6%) work in the five major school types, while secondary school (34,0%), primary school (26,1%), and high school (20,4%) were the three most common school types in the sample. Foreign literature and ICT teachers were present in both primary and secondary education.

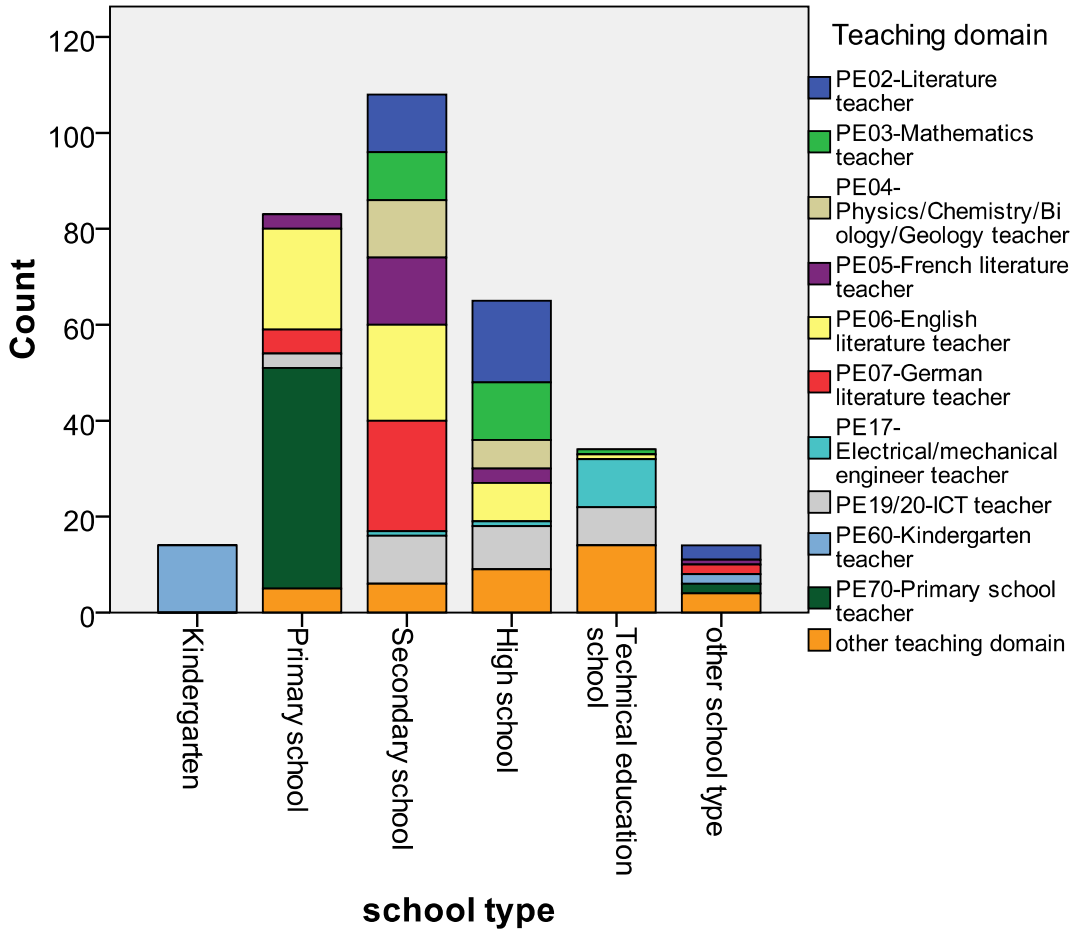

Figure 4: Participants' characteristics categorized by teaching domain and school type.

With reference to participants' teaching experience, as can be seen in Figure 5 the sample is almost equally balanced (Skewness: 0,126; Std Error of Skewness: 0,137; Kurtosis: -1,113) and it is nearly identically proportional to the sample of Pedagogical Institute's study (2010b, p.24). It is important for the study that 84,9% of the participants reported sufficient teaching experience (six or more years), thus it can be hypothesized that they were suitable to reflect and assess their needs as teachers.

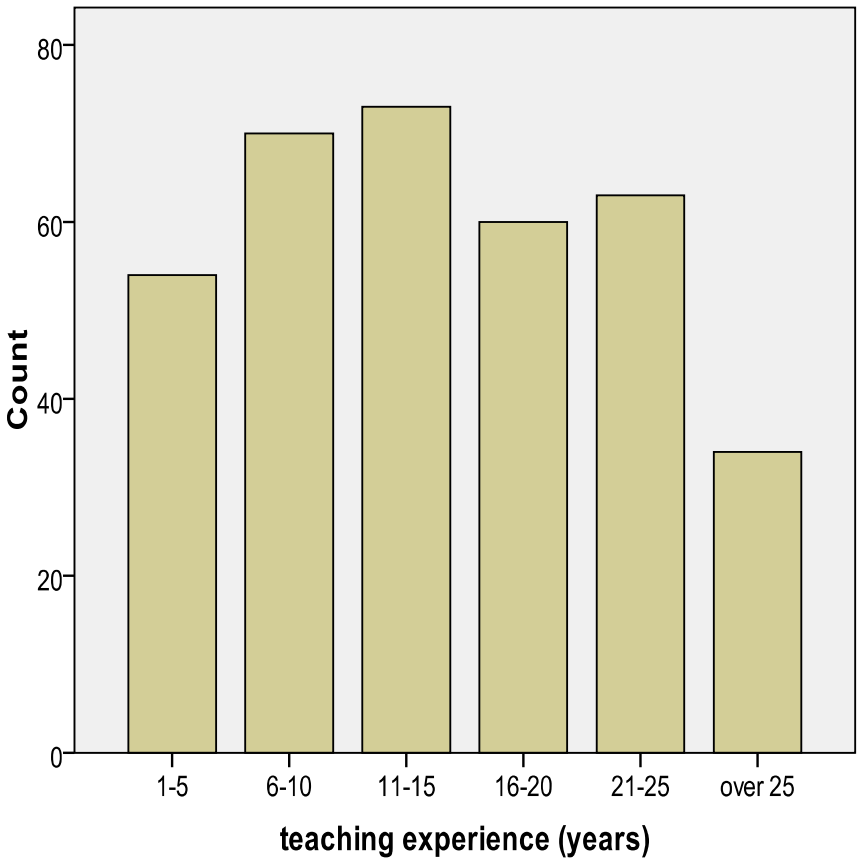

Figure 5: Participants' teaching experience in years.

Table 1 summarizes the demographic profile of the participants including their age, school type, teaching domain, and teaching experience.

Item		Frequency	Percentage
Age	21-25	3	0,9
	26-30	24	7,5
	31-35	45	14,2
	36-40	58	18,2
	41-45	80	25,2
	46-50	62	19,5
	51-55	38	11,9
	56 and above	8	2,5
School type	Kindergarten	14	4,4
	Primary school	83	26,1
	Secondary school	108	34,0
	High school	65	20,4
	Technical education school	34	10,7
	other school type	14	4,4
Teaching domain	PE02-Literature teacher	32	10,1
	PE03-Mathematics teacher	23	7,2
	PE04-Physics/Chemistry/Biology/Geology teacher	18	5,7
	PE05-French literature teacher	21	6,6
	PE06-English literature teacher	50	15,7
	PE07-German literature teacher	30	9,4
	PE17-Electrical/mechanical engineer teacher	12	3,8
	PE19/20-ICT teacher	30	9,4
	PE60-Kindergarten teacher	16	5,0
	PE70-Primary school teacher	48	15,1
	other teaching domain	38	11,9
Teaching experience	1-5 years	48	15,1
	6-10 years	65	20,4
	11-15 years	66	20,8
	16-20 years	51	16,0
	21-25 years	59	18,6
	over 25 years	29	9,1

Table 1: Participants' demographic profile.

2.2 Educational profile

Most participants were found to pursue further training. Close to two-third of the participants (N=198, 62,3%) had a second bachelor degree, or masters degree, or doctorate, or other officially awarded further training diploma. Additionally, exactly 45% (N=143) had a postgraduate degree (masters or doctorate). More specifically, 17,3% (N=55) of the participants reported an officially awarded further training diploma, 12,9% (N=41) reported a second bachelor degree, 43,4% (N=138) reported a masters degree, and 3,8% (N=12) a doctorate (see Figure 6).

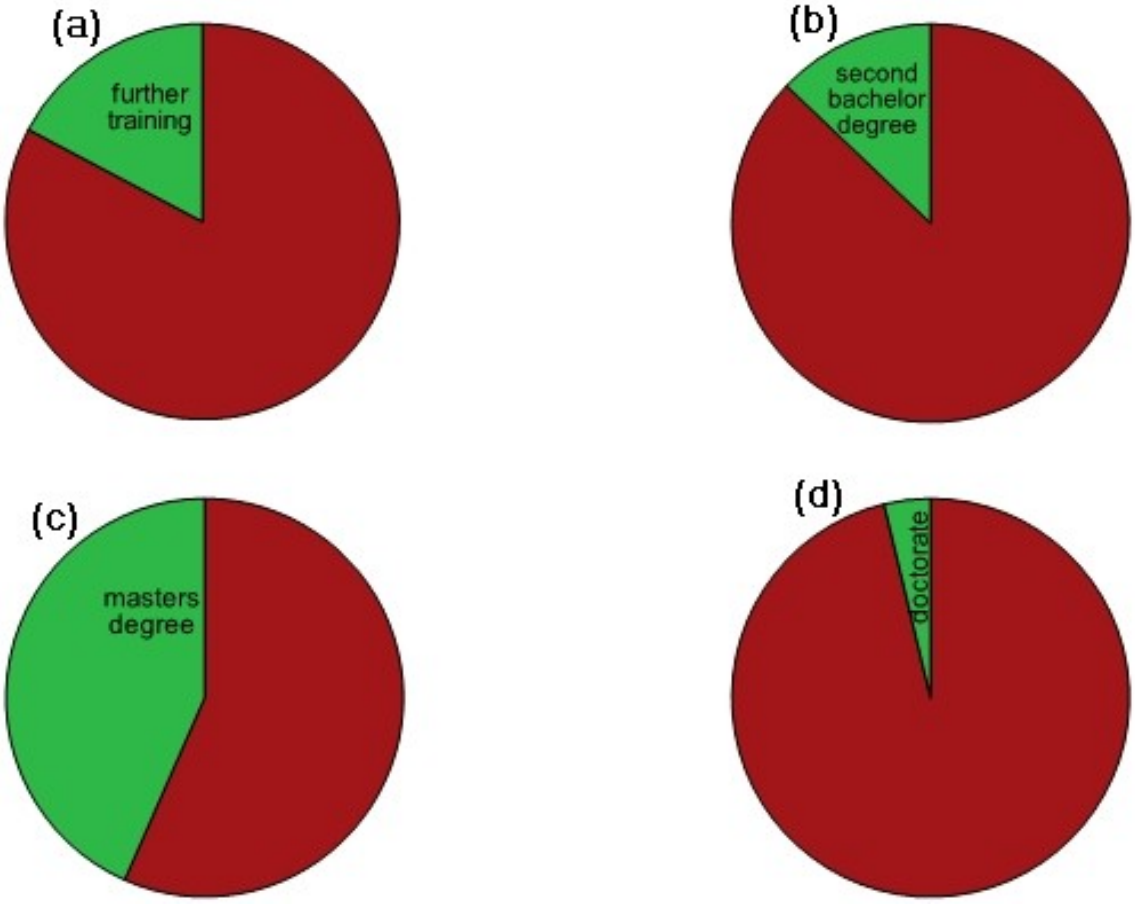

Figure 6: Participants' educational achievements. Participants with: (a) further training diploma, (b) second bachelor degree, (c) masters degree, (d) doctorate (green color), compared with the rest of the participants (red color).

As shown in Figure 7, most participants did not have adequate experience of online training. Less than half of them (N=145, 45,9%) had attended at least one online course, whereas just one out of ten participants (N=36, 11,4%) had attended three or more online courses.

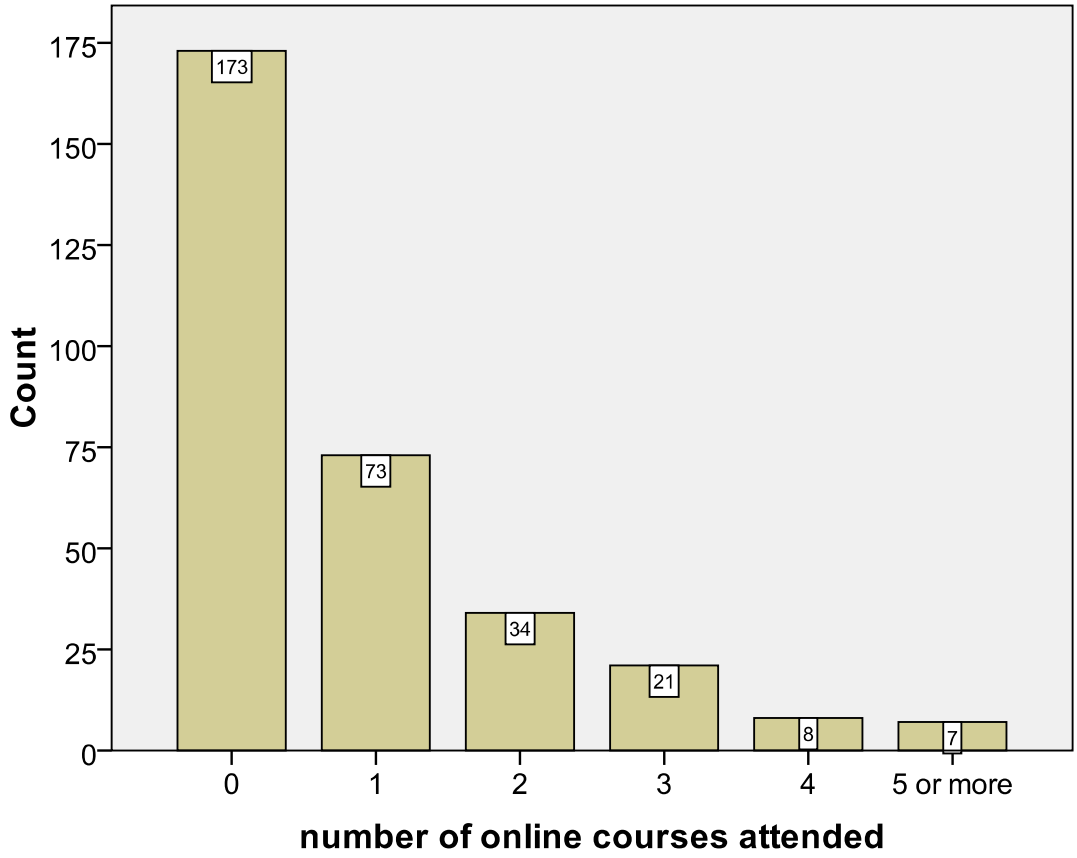

Figure 7: Number of online courses attended by participants.

Participants had good foreign language level. Practically all participants (N=317, 99,7%) reported that they knew English, while the majority (N=269, 84,6%) reported a medium, at least, level of knowledge. Nearly half of the participants (N=144, 45,2%) reported that they knew French, over one-third (N=112, 35,2%) German, 16,7% Italian, 11,0% Spanish, and 6,0% reported that they knew another foreign language. What is more, the vast majority (N=285, 89,6%) reported that they knew one foreign language at least at medium level, while, on average, every participant knew at least two foreign languages. However, it should be taken into account that nearly one-third of the participants (N=101) were foreign literature teachers. Figure 8 illustrates participants' level of knowledge per foreign language.

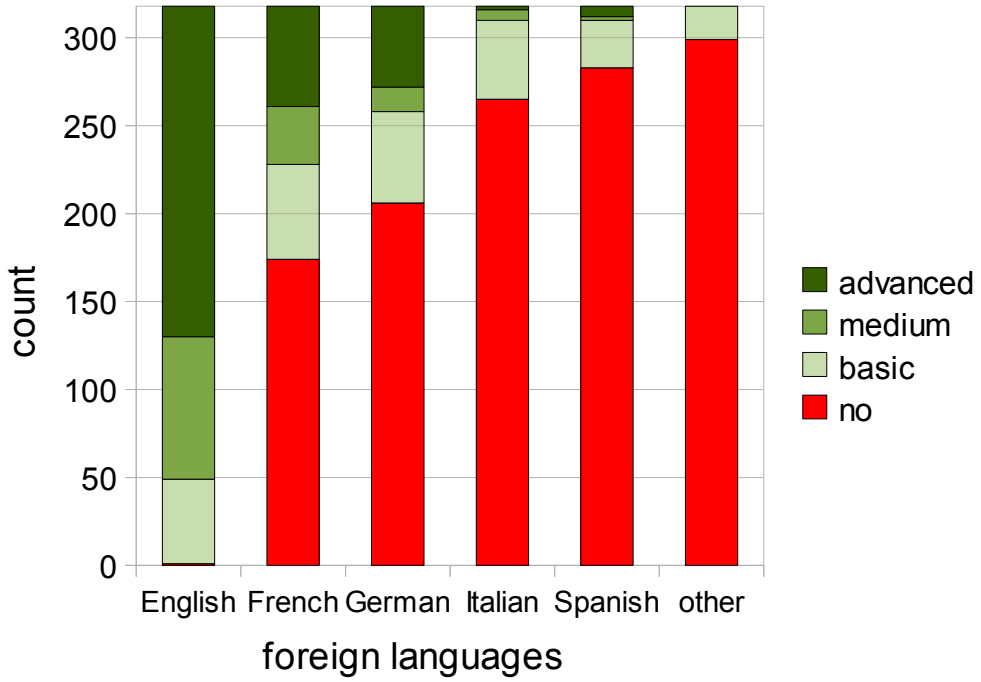

Figure 8: Participants' knowledge of foreign languages.

2.3 Technological profile

Participants had rather high technological profile. The vast majority of the participants (N=290, 91,2%) had ADSL (broadband) connection at home, while only 8,8% (N=24) had PSTN (dial-up) internet connection. Similarly, the vast majority of the participants (N=298, 93,7%) reported that they were using computer (for work, entertainment, or information) for more than 1 hour a day, while 42,5% (N=135) reported that they were using computer for more than 3 hours a day. Finally, roughly all participants (N=314, 98,7%) reported to have at least a medium level of ICT skills, meaning that they use word processor and they have an e-mail account. What is more, one-third (N=107) reported that they can use 1-2 more advanced applications, such as excel and photoshop (good level), while more than half of the participants (N=163) that they use several advanced applications (very good level). Figure 9 depicts the technological profile of the participants.

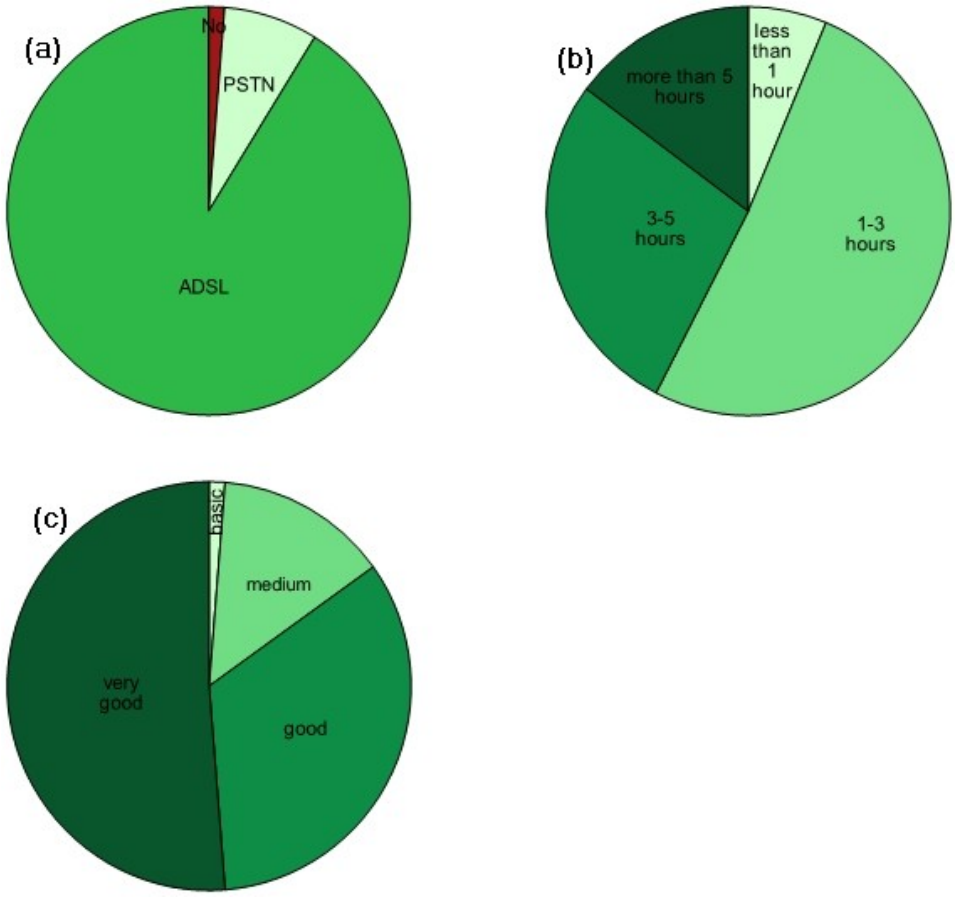

Figure 9: Participants' technological profile with reference to: (a) type of internet connection at home, (b) average daily computer usage, (c) ICT skills.

2.4 eTwinning profile

It was expected that most respondents to the survey would have been experienced eTwinning members. On the contrary, merely one-third of the participants (N=106) had completed at least one eTwinning project, while only one-third of them (N=36) had completed more than two eTwinning projects (see Figure 10).

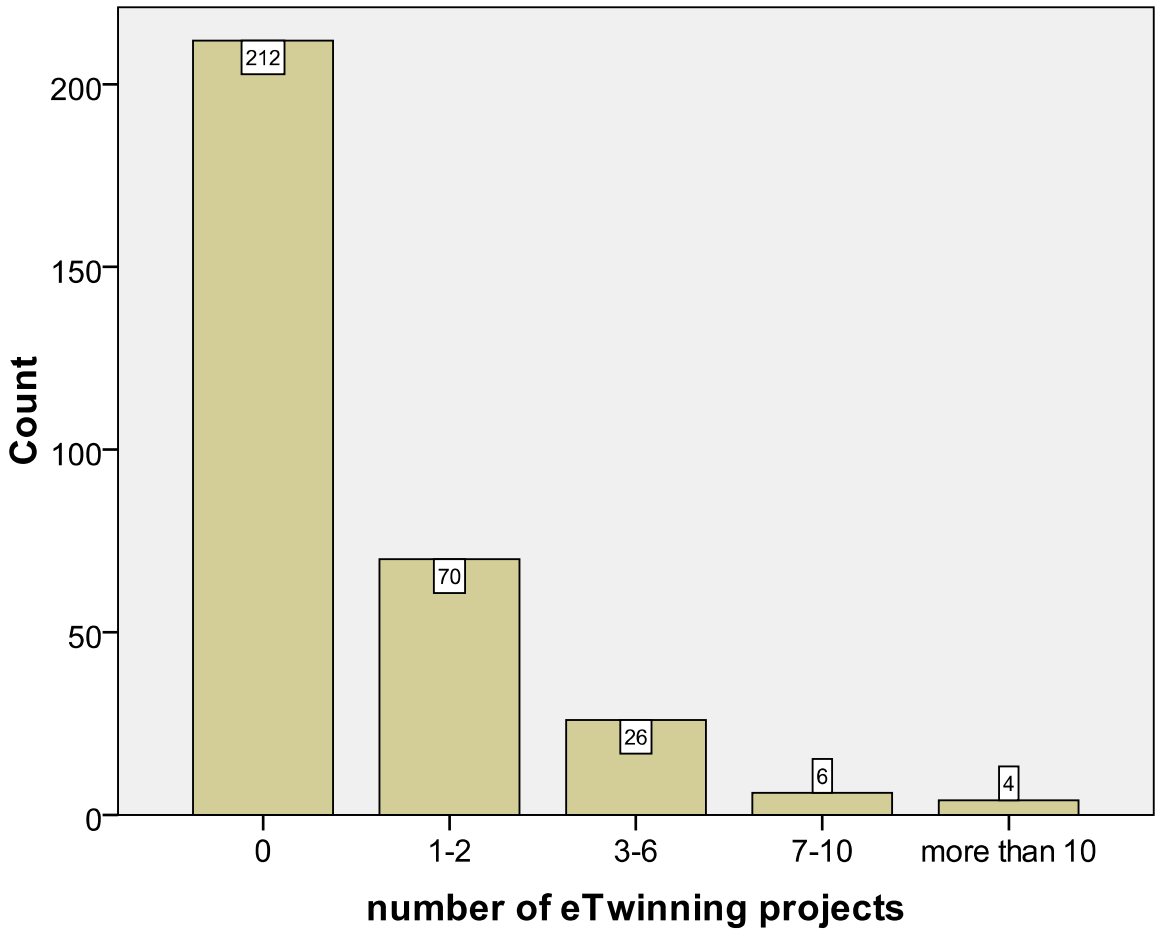

Figure 10: Number of eTwinning projects completed by participants.

However, one-fifth (N=65) of the participants had been involved in another European action (e.g., Comenius, Leonardo, Erasmus, Grundvtig, etc.), resulting in a total number of 171 participants (53,8%) experienced in a European action project. It is also promising that over one fourth of the participants (25,5%) has been involved in more than one European actions (see Figure 11).

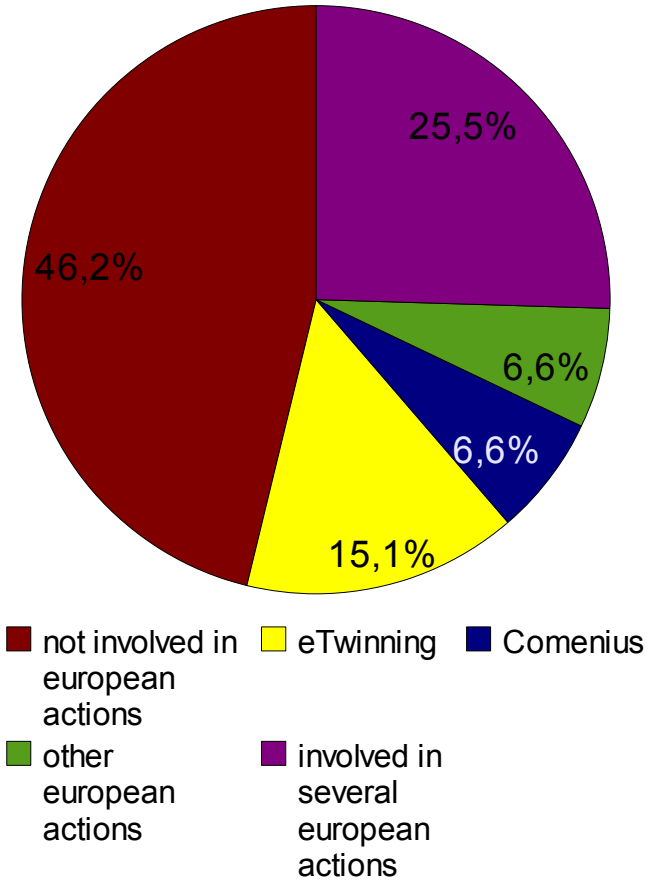

Figure 11: Participants' involvement in European actions.

3. Data analysis

3.1 Important subjects in an online course

Teachers' perceptions with regard to important subjects or issues in an online course were collected through nine questions and are presented in Figure 12 sorted by importance. In order to facilitate chart and results interpretation, "not applicable" was merged with "not at all" category, since the cause and effect of "not applicable" response are often close to cause and effect of the "not at all" response. What is more, "not applicable" category attracted only a few responses in every question (less than 5%).

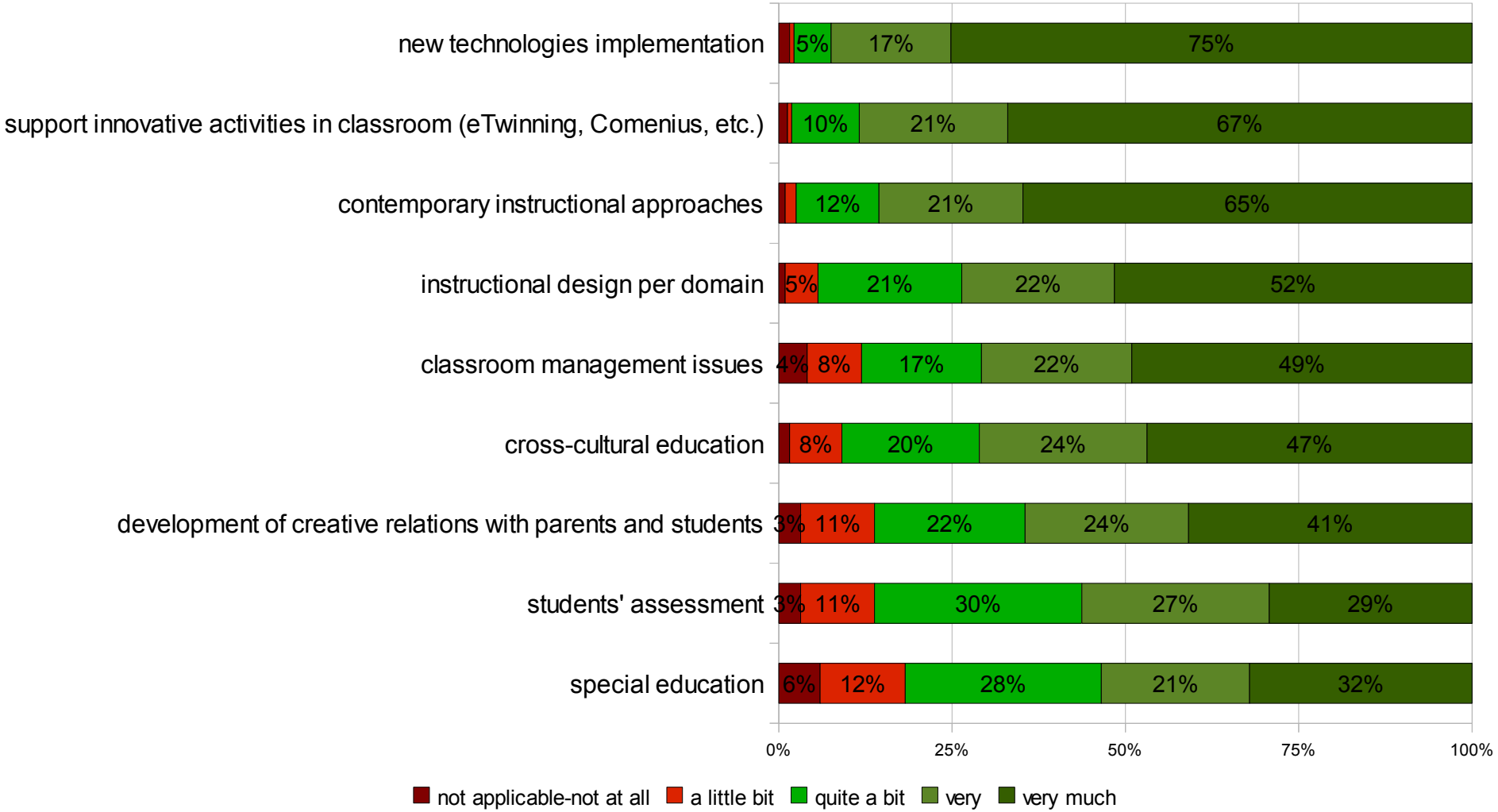

Figure 12: Participants' perceptions about important subjects in an online course.

A first look at the results confirms that all the proposed subjects and issues are important for the majority of teachers. Over nine out of ten of the respondents considered that subjects about new technologies implementation were very or very much important for them. Subjects about supporting innovative activities in classroom or contemporary instructional approaches were deemed of high importance by more than eight out of ten of the respondents. Subjects about instructional design per domain, classroom management issues, or cross-cultural education were deemed of high importance by seven out of ten of the respondents. More than six out of ten of the respondents considered that subjects with reference to development of creative relations with parents and students were very or very much important for them. Finally, at least half of the respondents reported that subjects about students' assessment or special education were of significant importance to them.

Descriptive statistics regarding participants' choices are presented in Table 2.

important subjects in an online course		not applicable	not at all	a little bit	quite a bit	very	very much	Total
new technologies implementation	frequency	5	0	2	17	55	239	318
	percent	1,6%	0,0%	0,6%	5,3%	17,3%	75,2%	100%
support innovative activities in classroom (eTwinning, Comenius, etc.)	frequency	4	0	2	31	68	213	318
	percent	1,3%	0,0%	0,6%	9,7%	21,4%	67,0%	100%
contemporary instructional approaches	frequency	2	1	5	38	66	206	318
	percent	0,6%	0,3%	1,6%	11,9%	20,8%	64,8%	100%
instructional design per domain	frequency	2	1	15	66	70	164	318
	percent	0,6%	0,3%	4,7%	20,8%	22,0%	51,6%	100%
classroom management issues	frequency	11	2	25	55	69	156	318
	percent	3,5%	0,6%	7,9%	17,3%	21,7%	49,1%	100%
cross-cultural education	frequency	4	1	24	63	77	149	318
	percent	1,3%	0,3%	7,5%	19,8%	24,2%	46,9%	100%
development of creative relations with parents and students	frequency	6	4	34	69	75	130	318
	percent	1,9%	1,3%	10,7%	21,7%	23,6%	40,9%	100%
students' assessment	frequency	5	5	34	95	86	93	318
	percent	1,6%	1,6%	10,7%	29,9%	27,0%	29,2%	100%
special education	frequency	8	11	39	90	68	102	318
	percent	2,5%	3,5%	12,3%	28,3%	21,4%	32,1%	100%

Table 2: Participants' responses regarding important subjects in an online course.

3.1.1 Differentiated needs

Due to the small number of responses it was not feasible to reliably identify special training needs based on teachers' domain, type of school, or experience in eTwinning and other European actions. However, as it can be observed from the pie chart series below, less experienced teachers esteemed as more important the subject about students' assessment than more experienced ones.

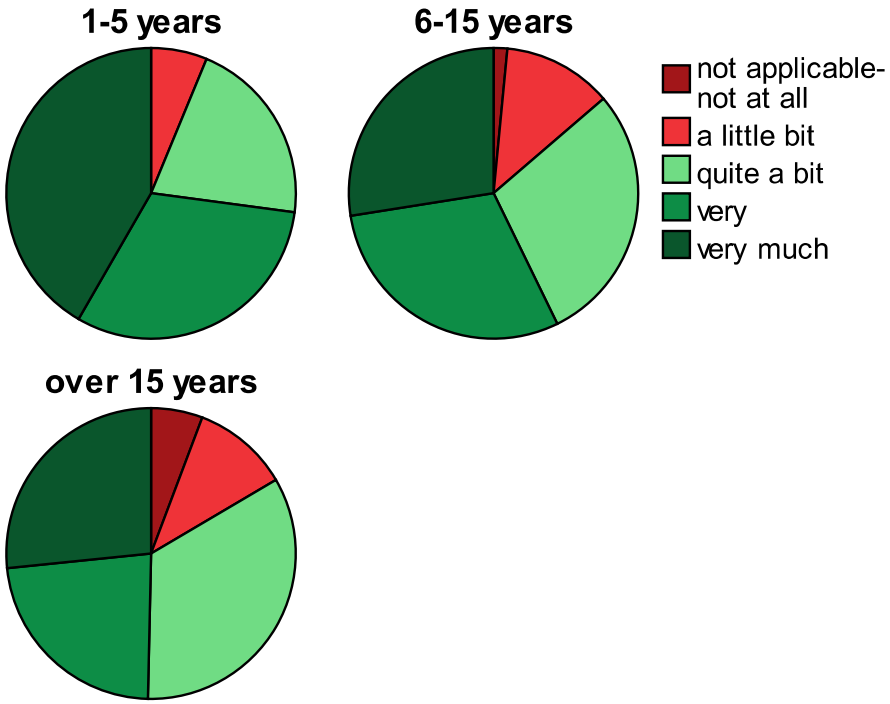

Figure 13: Differences in perceptions regarding importance of students' assessment subject between groups with different teaching experience. Teachers were categorized into three groups based on their teaching experience (1-5 years: low experienced; 6-15 years: medium experienced; over 15 years: high experienced).

Although the difference between their perceptions is minor, this finding is statistically significant according to Sommers' d, Kendall's tau-b, Kendall's tau-c, and Gamma tests. A more detailed list of frequencies is presented in the contingency table below.

			students' assessment					Total
			not applicable-not at all	a little bit	quite a bit	very	very much	
teaching experience	1-5 years	Count	0	3	10	15	20	48
		% within teaching experience	0,0%	6,3%	20,8%	31,3%	41,7%	100,0%
	6-15 years	Count	2	16	38	39	36	131
		% within teaching experience	1,5%	12,2%	29,0%	29,8%	27,5%	100,0%
	over 15 years	Count	8	15	47	32	37	139
		% within teaching experience	5,8%	10,8%	33,8%	23,0%	26,6%	100,0%
Total		Count	10	34	95	86	93	318
		% within teaching experience	3,1%	10,7%	29,9%	27,0%	29,2%	100,0%

Table 3: Cross tabulation between teaching experience and students' assessment variables.

3.1.2 Qualitative feedback regarding the important subjects

Only sixteen teachers replied to the qualitative question in this subsection, whereas an additional ten valid responses were gathered from the last qualitative question (general comments). Moreover, teachers' responses spread across a wide range of subjects, hence it was impossible to perform qualitative analysis on the responses. Responses were grouped into three broad categories and are listed below for future reference:

i. Topic specific subjects
   - Intercultural-cultural themes (arts, local history, music, theatre, etc.).
   - Social exclusion and accessibility issues. Access to ICT for disabled people. Training courses on ICT for disabled people.
   - Advisory in terms of profession guidance.
   - Foreign language developing skills via ICT use.
   - Development and reinforcement of self-regulated learning, achieved by the use of web 2.0 tools.
   - Training on web tools (aiming to enrich eTwinning projects with a plethora of asynchronous communication types and increase creative collaboration).

- Geographical training.
- Development of online community for teachers, students, parents, directors, social services, etc.
- Use of twinspace-eTwinning desktop.

ii. Subjects regarding teaching methodology
- Interdisciplinary teaching.
- Familiarization with useful in the teaching procedure ICT tools.
- Project development in classroom.
- Teaching performance evaluation.

iii. Subjects regarding school milieu
- Construct of psychological resilience and health to students and educators.
- Collaborative and creative relations development among educators in a school unit.
- Collaboration and exchanging knowledge, skills and teaching techniques between educators of varying domains in terms of interdisciplinary approach.
- School unit management and creation of innovation climate.

3.2 Motives for participation in an online course

Teachers' perceptions with reference to motives for participation in an online course were collected through eight questions and are presented in Figure 14 sorted by importance. Same as before (see paragraph 3.1), in order to facilitate chart and results interpretation, "not applicable" was merged with "not at all" category.

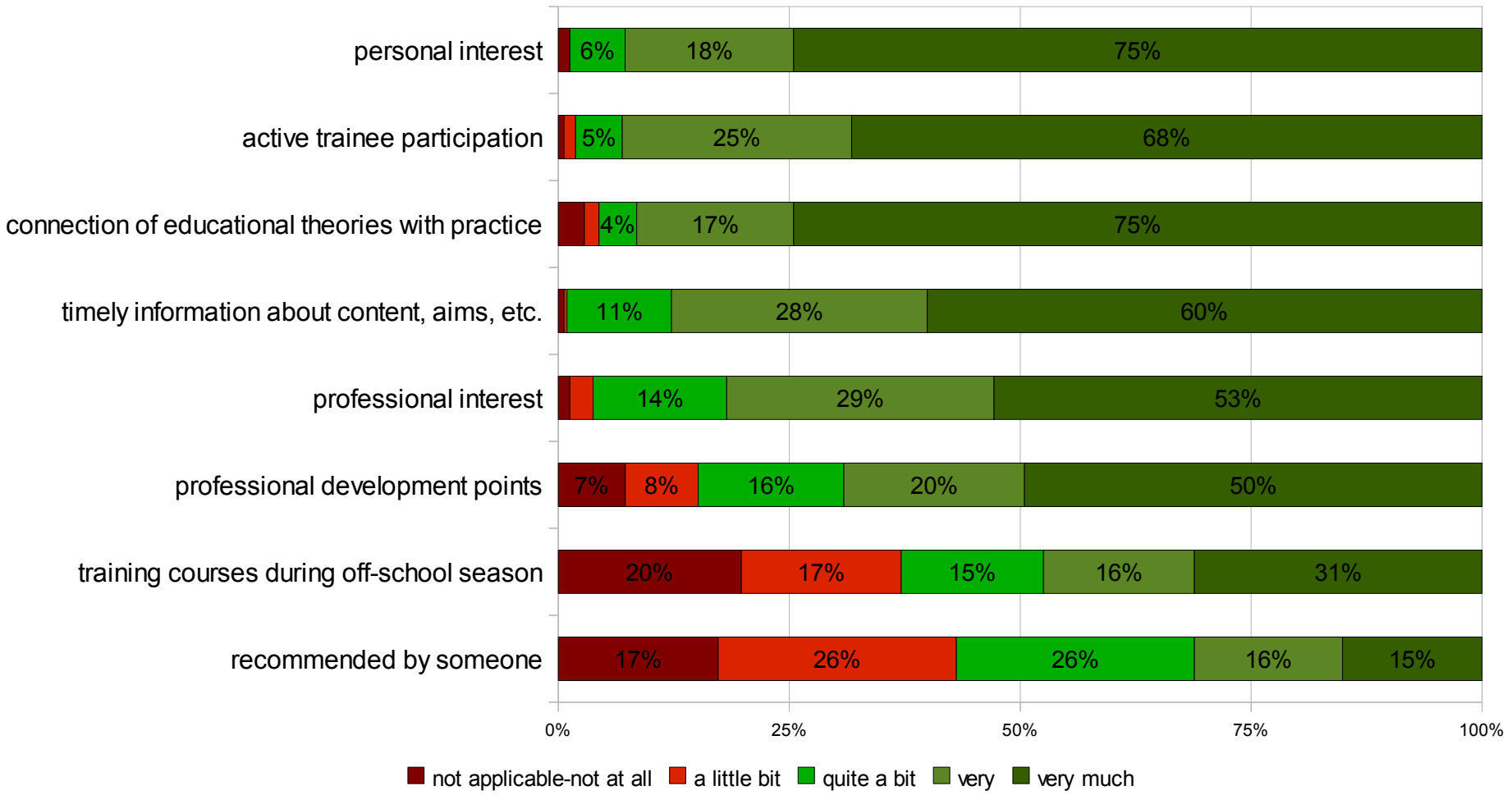

Figure 14: Participants' perceptions regarding motives for participation in an online course.

The three most important motives for participation in an online course were perceived to be personal interest, active trainee participation, and connection of educational theories with practice. All three are closely related with syllabus and methodology of the course. Over nine out of ten of the respondents considered that these three were very or very much important motives for them to participate in a course. Almost at the same level was perceived to be on-time information (about content, aims, methodology, etc.), which is again related to content and syllabus of the course, yet it is more connected with issues of scheduling and preparation. Over eight out of ten of the respondents considered that professional interest was a very or very much important motive to participate in a course. Exactly seven out of ten of the respondents considered that getting professional development points was a very or very much important motive to participate in a course. Just about half of the respondents considered that a very or very much important motive to participate in a course was if that was to be conducted during off-school season. Finally, three out of ten of the respondents considered that a very or very much important motive to participate in a course was if it was recommended by someone.

Descriptive statistics for participation motives are presented in Table 4.

important motives to participate in an online course		not applicable	not at all	a little bit	quite a bit	very	very much	Total
personal interest	frequency	4	0	0	19	58	237	318
	percent	1,3%	0,0%	0,0%	6,0%	18,2%	74,5%	100%
active trainee participation	frequency	1	1	4	16	79	217	318
	percent	0,3%	0,3%	1,3%	5,0%	24,8%	68,2%	100%
connection of educational theories with practice	frequency	9	0	5	13	54	237	318
	percent	2,8%	0,0%	1,6%	4,1%	17,0%	74,5%	100%
timely information about content, aims, etc.	frequency	2	0	1	36	88	191	318
	percent	0,6%	0,0%	0,3%	11,3%	27,7%	60,1%	100%
professional interest	frequency	2	2	8	46	92	168	318
	percent	0,6%	0,6%	2,5%	14,5%	28,9%	52,8%	100%
professional development points	frequency	5	18	25	50	62	157	317
	percent	1,6%	5,7%	7,9%	15,7%	19,5%	49,4%	100%
training courses during off-school season	frequency	16	47	55	49	52	99	318
	percent	5,0%	14,8%	17,3%	15,4%	16,4%	31,1%	100%
recommended by someone	frequency	8	47	82	82	51	48	318
	percent	2,5%	14,8%	25,8%	25,8%	16,0%	15,1%	100%

Table 4: Participants' responses regarding motives for participation in an online course.

3.2.1 Differentiated participation motives

Due to the small number of responses it was not feasible to reliably identify special motives for participation in online courses based on teaching domain, type of school, teaching experience, or experience of participation in online courses.

Similarly, it was not possible to identify differences based on ICT skills, average daily use of computer, or type of internet connection, since, as it was presented, most respondents reported an adequate daily use of computer, good ICT skills and more than nine out of ten had high speed internet connection at home. On the other hand, this is a strong sign about the characteristics of eTwinning members.

Additionally, no differences were found as regards motives for participation in online courses between teachers with varied experience in eTwinning. However, as can be seen in Figure 15, teachers who were not involved in European actions reported more motivation to participate in an online course if it was of professional interest to them.

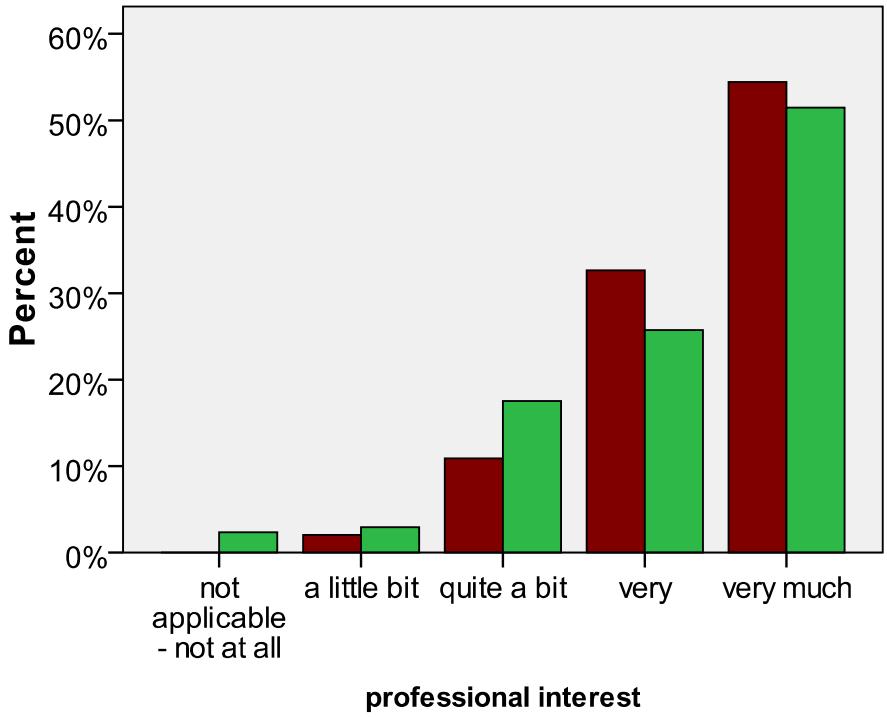

Figure 15: Differences in perceptions regarding importance of professional interest motive (for participation in an online course) between teachers involved in European actions (green colour) and teachers not involved in European actions (red colour).

This relationship was not statistically verified by any test, yet it marginally failed (p=0,058) in the uncertainty coefficient test. A more detailed list of frequencies is presented in the contingency table below.

			professional interest					Total
			not applicable - not at all	a little bit	quite a bit	very	very much	
Involvement in European actions	Not involved	Count	0	3	16	48	80	147
		% within involvement in European actions	,0%	2,0%	10,9%	32,7%	54,4%	100,0%
	Involved	Count	4	5	30	44	88	171
		% within involvement in European actions	2,3%	2,9%	17,5%	25,7%	51,5%	100,0%
Total		Count	4	8	46	92	168	318
		% within involvement in European actions	1,3%	2,5%	14,5%	28,9%	52,8%	100,0%

Table 5: Cross tabulation between professional interest and involvement in European actions variables.

Galvin indicated that teachers who complete successful eTwinning projects show personal commitment to the project, while they believe that their involvement in eTwinning 'has been good for them in a personal/professional sense' (2009, p.15). Hence, it seems that once being involved in a successful project, there are no clear boundaries between personal and professional interest. Surprisingly, this relationship has not emerged for teachers with eTwinning projects, albeit, more widely, for teachers involved in any of the European actions (eTwinning, Comenius, Erasmus, Grundvig, Leonardo, etc.). Therefore, it could be argued that teachers who are involved in European actions have a weaker sense of professional interest for participation in an online course compared to teachers who are not involved in European actions.

3.2.2 Qualitative feedback regarding participation motives

Only twelve teachers replied to the qualitative question in this subsection, whereas an additional seven valid responses were gathered from the last qualitative question (general comments). Hence, once again, it was impossible to perform qualitative analysis on the responses. Their answers as regards motives for participation in an online course spanned a broad gamut of topics, but were grouped down to three general categories:

i. Motives with reference to the online course
   a) General course characteristics
      - Quality of the trainers.
      - Homogeneity in training groups as regards interests, ICT skills, etc.
      - Duration of the training.
      - Duration of compulsory attendance (hours per week).
      - Timely information about the course.
      - Timely information about responsibilities of the participants in the course.
   b) Syllabus of the course
      - Connection of training with school books.
      - Contemporary theories.
      - Realistic content.
      - Pragmatic knowledge.
   c) Methodology of the course
      - Self-paced learning, flexibility.
      - Get in contact with other trainees. Emphasis on the use of online networking applications between trainees.
      - Interactive communication with peers and tutors.
      - Collaborative learning.
      - Creativity.
      - Self-action.
      - Research.
   d) Evaluation of the course

- Self-evaluation.
- Evaluation of trainees.
- Evaluation of trainers.
- Evaluation of online training course.

ii. Intrinsic motivation
- Personal satisfaction.
- Continuous update on new or innovative practices.
- Personal development.
- Lifelong learning pursuit.

iii. Extrinsic motivation
- Professional development.
- Professional development points, certification.
- Recompense for attending optional training programmes (to the teacher or to the school unit).

3.3 General comments regarding the training programme

The last question of the survey requested open-ended comments about teachers' needs. Thirty-four teachers replied to the last qualitative question, yet as aforementioned, most responses focused on the two previous qualitative questions. Their responses were grouped, whenever possible, and are listed below:

i. Complaints
- about the low number of participants in the online courses;
- about the quality of previous courses;
- about non-timely update regarding online training courses.

ii. Requests for more training courses during the school season.

iii. Suggestions
- for offline meetings before or during online training courses;
- for in-school online training (via teleconference);

- for creating domain courses by involving school counselors;
- to involve highly qualified teachers as assistant trainers in online courses.

References

Alexander, S. and Boud, D. (2001). Learners still learn from experience when online, in *Teaching and Learning Online: Pedagogies for New Technologies*. J. Stephenson, London, Kogan Page: pp.3-15.

Burbules, M. (2002). Like a Version: playing with online identities. *Educational Philosophy and Theory.* (pdf, e-reserve), 34(4), pp.387-393.

Crawley, C., Gilleran, A., Scimeca, S., Vuorikari, R. & Wastiau, P. (2009). *BEYOND SCHOOL PROJECTS. A report on eTwinning 2008-2009*. Central Support Service for eTwinning, European Schoolnet, Rue de Trèves 61, 1040 Brussels Belgium, www.eun.org, published September 2009. Retrieved: 20 December 2010, http://www.etwinning.net/en/pub/news/publications.htm

Galvin, C. (2009). Project Implementation and impact, in *eTwinning in the classroom: A showcase of good practice (2008-2009)*. Edited by Christina Crawley, Valentina Garoia, Anne Gilleran, Patricia Wastiau. Central Support Service for eTwinning, European Schoolnet, Rue de Trèves 61, B-1040 Brussels Belgium, www.eun.org, published December 2009. Retrieved: 20 December 2010, http://www.etwinning.net/en/pub/news/publications.htm

Gilleran, A. (2006). Introduction, in *Learning with eTwinning*. Edited by Anne Gilleran. Central Support Service for eTwinning, European Schoolnet, Rue de Trèves 61, B-1040 Brussels Belgium, www.eun.org, published April 2006. pp.2-3. Retrieved: 20 December 2010, http://www.etwinning.net/en/pub/news/publications.htm

Gilleran, A. (2007). Introduction, in *Learning with eTwinning, A Handbook for Teachers*. Edited by Christina Crawley, Petru Dumitru & Anne Gilleran. Central Support Service for eTwinning, European Schoolnet, Rue de Trèves 61, B-1040 Brussels Belgium, www.eun.org, published April 2007. Retrieved: 20 December 2010, http://www.etwinning.net/en/pub/news/publications.htm

Hellenic NSS of eTwinning (2010). *Online training courses*. Hellenic National Support Service of eTwinning. Retrieved: 20 December 2010, http://www.etwinning.gr/?sectionId=59&articleId=0&resultset=1

Hellenic Ministry of Education, Lifelong Learning and Religious Affairs (2009a). *Primary public and private education in Greece, school population per gender, number of schools-departments-alumni-teachers, school year 2008-2009*. Hellenic Ministry of Education, Lifelong Learning and Religious Affairs/Statistics Department, 37 Andrea Papandreou street, 15180 Marousi. Retrieved: 20 December 2010, http://www.ypepth.gr/el_ec_category6638.htm

Hellenic Ministry of Education, Lifelong Learning and Religious Affairs (2009b). *Secondary public and private education in Greece, school population per gender, number of schools-departments-alumni-teachers, school year 2008-2009*. Hellenic Ministry of Education, Lifelong Learning and Religious Affairs/Statistics Department, 37 Andrea Papandreou street, 15180 Marousi. Retrieved: 20 December 2010, http://www.ypepth.gr/el_ec_category6641.htm

Joliffe, A., Ritter, J. & Stevens, D. (2001). Eighteen steps for building a web-based learning event. *The online learning handbook: developing and using web-based learning*. (London, KoganPage), pp.58-84.

Konstantinidis, A. (2010). *Teachers' registration in the eTwinning action*. Statistics report, December 2010. Hellenic National Support Service of eTwinning, http://www.etwinning.gr/

OpenOffice.org (2010). Calc 3.2.1. http://www.openoffice.org/

Pedagogical Institute (2010a). *Questionnaire study about teachers' training needs*. Major training programme, Pedagogical Institute.

Pedagogical Institute (2010b). *Major Training Programme (2010-2013): Research study about training needs: A. Teachers*. Major training programme, Pedagogical Institute, published October 2010. Retrieved 20 December 2010 from: http://www.epimorfosi.edu.gr/images/stories/e-books/ap_anagk/pdf/1_ekpaideytikoi.pdf

Pedagogical Institute (2010c). *Major Training Programme (2010-2013): The role of studying training needs in teacher education: Comparative Results*. Major training programme, Pedagogical Institute, published October 2010. Retrieved 20 December 2010 from: http://www.epimorfosi.edu.gr/images/stories/e-books/ap_anagk/pdf/6_sygkritiki.pdf

Robson, C. (2002). *Real world research: a resource for social scientists and practitioner-researchers*. Madden, Mass.; Oxford, Blackwell Publishers.

Ryan, C. and Garland, R. (1999). The use of a specific non-response option on Likert-type scales. *Tourism Management*, 20, pp.107-113.

Wright, K.B. (2005). Researching Internet-based populations: Advantages and disadvantages of online survey research, online questionnaire authoring software packages, and web survey services. *Journal of Computer-Mediated Communication*, 10(3), article 11. Retrieved: 12 December 2010, http://jcmc.indiana.edu/vol10/issue3/wright.html

Appendix

I. Survey

Ερωτηματολόγιο για τη διερεύνηση των επιμορφωτικών αναγκών των εκπαιδευτικών

Ατομικά Στοιχεία

Οι παρακάτω ερωτήσεις σχετίζονται με προσωπικές και επαγγελματικές πληροφορίες.

***1) Φύλο:**

- Γυναίκα
- Άνδρας

***2) Ηλικία:**
Επιλέξτε μια από τις παρακάτω απαντήσεις

- 21-25
- 26-30
- 31-35
- 36-40
- 41-45
- 46-50
- 51-55
- 56-60
- 61 και πάνω

***3-4) Κωδικός του κλάδου σας:**
Επιλέξτε μια από τις παρακάτω απαντήσεις

- ΠΕ
- ΤΕ
- ΔΕ

***5)Πανεπιστημιακές Σπουδές:**
Μπορείτε να επιλέξετε μία ή περισσότερες απαντήσεις

- Παιδαγωγική ακαδημία ή σχολή νηπιαγωγών
- Α.Ε.Ι.-Α.Τ.Ε.Ι.
- Δεύτερο πτυχίο
- Μετεκπαίδευση
- Μεταπτυχιακό
- Διδακτορικό
- Άλλες σπουδές:

***6) Τύπος σχολείου που υπηρετείτε:**
Επιλέξτε μια από τις παρακάτω απαντήσεις

- Νηπιαγωγείο
- Δημοτικό
- Γυμνάσιο
- Λύκειο
- Τεχνική-Επαγγελματική Εκπαίδευση
- Άλλο (παρακαλούμε προσδιορίστε)

***7) Διδακτική εμπειρία (αριθμός ετών):**
Επιλέξτε μια από τις παρακάτω απαντήσεις

- 1-5
- 6-10
- 11-15
- 16-20
- 21-25
- πάνω από 25

***8) Γνώση ξένων γλωσσών:**

	καθόλου	βασικό	μέτριο	προχωρημένο
Αγγλικά				
Γαλλικά				
Γερμανικά				

9) Άλλες ξένες γλώσσες:

*10) **Σε ποιο επίπεδο θα κατατάσσατε τον εαυτό σας με βάση τις γνώσεις που έχετε για τη χρήση των νέων τεχνολογιών;**
Επιλέξτε μια από τις παρακάτω απαντήσεις

βασικό (π.χ. ξέρω να κάνω χρήση μόνο βασικών εφαρμογών στο internet)

μέτριο (π.χ. χρησιμοποιώ το word συχνά και έχω email)

καλό (π.χ. κάνω χρήση 1-2 προχωρημένων εφαρμογών όπως το excel, το photoshop κτλ)

πολύ καλό (π.χ. κάνω χρήση αρκετών προχωρημένων εφαρμογών)

*
11) Πόσες ώρες ασχολείστε με τον Η/Υ καθημερινά, κατά μέσον όρο, (για δουλειά, ενημέρωση, διασκέδαση κτλ);
Επιλέξτε μια από τις παρακάτω απαντήσεις

λιγότερο από 1 ώρα

1-3 ώρες

3-5 ώρες

πάνω από 5 ώρες

*
12) Τι είδους σύνδεση Internet έχετε στο σπίτι?
Επιλέξτε μια από τις παρακάτω απαντήσεις

Δεν έχω σύνδεση Internet στο σπίτι

Απλή (με σύνδεση μέσω της τηλεφωνικής γραμμής)

ADSL

Ευρωπαϊκές Δράσεις

Οι παρακάτω ερωτήσεις σχετίζονται με τη συμμετοχή σας στη δράση eTwinning και σε άλλες ευρωπαϊκές δράσεις γενικότερα.

*
13) Πόσα προγράμματα eTwinning έχετε πραγματοποιήσει; (μέχρι 30 Σεπτεμβρίου 2010)
Επιλέξτε μια από τις παρακάτω απαντήσεις

κανένα

1-2

3-6

7-10

πάνω από 10

*
14) Πόσα προγράμματα Comenius έχετε πραγματοποιήσει; (μέχρι 30 Σεπτεμβρίου 2010) Επιλέξτε μια από τις παρακάτω απαντήσεις

κανένα

1-2

3-6

πάνω από 6

*15) Έχετε ασχοληθεί με άλλες ευρωπαϊκές δράσεις;

Ναι

Όχι

*
16) Με ποιες άλλες ευρωπαϊκές δράσεις έχετε ασχοληθεί; Μπορείτε να επιλέξετε μία ή περισσότερες απαντήσεις

Comenius

Erasmus

Grundtvig

Leonardo

Άλλες (παρακαλούμε προσδιορίστε με ποιες):

Στοιχεία σχετικά με τη διαδικτυακή επιμόρφωση

Οι παρακάτω ερωτήσεις σχετίζονται με τις απόψεις και τις εμπειρίες σας σχετικά με τη διαδικτυακή επιμόρφωση.

*17) Έχετε παρακολουθήσει διαδικτυακό πρόγραμμα επιμόρφωσης;

Ναι

Όχι

*18) Πόσα διαδικτυακά προγράμματα επιμόρφωσης έχετε παρακολουθήσει;

Μόνο αριθμητικές τιμές επιτρέπονται σε αυτό το πεδίο

***19) Σε ποιο βαθμό θεωρείτε ότι οι παρακάτω θεματικές ενότητες είναι σημαντικές σε ένα διαδικτυακό πρόγραμμα επιμόρφωσης; (διαβαθμίστε όλες τις ενότητες)**

	καθόλου	λίγο	αρκετά	πολύ	πάρα πολύ	μη σχετικό/μη εφαρμόσιμο
Διδακτική μεθοδολογία κατά γνωστικό αντικείμενο						
Σύγχρονες διδακτικές προσεγγίσεις						
Αξιοποίηση των Νέων Τεχνολογιών						
Αξιολόγηση μαθητών						
Διαχείριση προβλημάτων σχολικής τάξης (μαθησιακές δυσκολίες, προβλήματα συμπεριφοράς, ειδικές ομάδες, κ.ά.)						
Προώθηση και υποστήριξη καινοτόμων δράσεων (eTwinning, Comenius, Περιβαλλοντική Εκπαίδευση, Αγωγή Υγείας, κτλ.)						
Ειδική Αγωγή						
Ανάπτυξη δημιουργικών σχέσεων με μαθητές και γονείς						
Διαπολιτισμική Εκπαίδευση						

20) Αν υπάρχει κάποια άλλη θεματική ενότητα που δεν αναφέρεται παραπάνω και είναι σημαντική για εσάς παρακαλούμε σημειώστε την:

***21) Σε ποιον βαθμό θεωρείτε ότι τα παρακάτω είναι σημαντικά σε ένα διαδικτυακό πρόγραμμα επιμόρφωσης; (διαβαθμίστε όλες τις περιπτώσεις)**

	καθόλου	λίγο	αρκετά	πολύ	πάρα πολύ	μη σχετικό/μη εφαρμόσιμο
Έγκαιρη γνώση περιεχόμενου, στόχων, μεθοδολογίας, κ.ά.						
Ενεργή συμμετοχή των εκπαιδευομένων						
Η επιμόρφωση να γίνεται πριν την έναρξη (Σεπτέμβριος) και μετά τη λήξη (Ιούνιος) του σχολικού έτους						
Μοριοδότηση της επιμόρφωσης						
Να μου το συστήσει κάποιος/α						
Επαγγελματικό ενδιαφέρον						
Προσωπικό ενδιαφέρον						
Σύνδεση της θεωρίας με τη διδακτική πράξη στην τάξη						

22) Αν υπάρχει κάποιο άλλο κίνητρο που δεν αναφέρεται παραπάνω και είναι σημαντικό για εσάς παρακαλούμε σημειώστε το:

23) Παρακαλούμε σημειώστε οποιοδήποτε άλλο σχόλιο που κατά τη γνώμη σας θα μας βοηθήσει να ανταποκριθούμε καλύτερα στις ανάγκες σας:

II. Survey (translated from Greek)

Questionnaire survey regarding teachers' training needs

Personal Information

The following questions are related to personal and professional information.

***1) Gender:**

- Female
- Male

***2) Age:**
choose one among the following answers

- 21-25
- 26-30
- 31-35
- 36-40
- 41-45
- 46-50
- 51-55
- 56-60
- 61 and above

***3-4) Specialty Code:**
Choose one among the following answers

- PE (University education)
- TE (Technological education)
- DE (Secondary education graduates)

***5) University studies:**
You can choose more than one among the following answers

- Primary education academy
- Higher Educational/Technological Institute
- Second degree
- Further inner training
- Masters degree
- Doctorate
- Other studies:

***6) School type you are working at:**
choose one among the following answers

- Kindergarten
- Primary school
- Secondary school
- High school
- Technological education
- Other (please specify)

***7) Teaching experience (in years):**
Choose one among the following answers

- 1-5
- 6-10
- 11-15
- 16-20
- 21-25
- more than 25

***8) Knowledge of foreign languages:**

	No	basic	medium	advanced
English				
French				
German				

9) Other foreign languages:

*10) To which level would you rank yourself as regards your knowledge in new technologies use?
Choose one among the following answers

Basic (e.g. I know how to use basic internet applications)

Medium (e.g. I use word processor quite often and I have e-mail account)

Good (e.g. I use 1 or 2 advanced applications as excel, photoshop etc)

Very good (e.g. I use several advanced applications)

*
**11) How much is the average time (in hours) you spend daily on your computer (for work, entertainment or information)?
Choose one among the following answers**

Less than 1 hour

1-3 hours

3-5 hours

more than 5 hours

*
**12) What type of internet connection you have at home?
Choose one among the following answers**

I do not have internet connection at home

Dial up connection (via phone line)

ADSL

European Actions

The following questions relate with your involvement in the eTwinning action and other European actions in general.

*
13) How many eTwinning projects have you carried through (until the 30th September 2010)? Choose one among the following answers

none

1-2

3-6

7-10

more than 10

*
14) How many Comenius projects have you carried through (until the 30th September 2010)? Choose one among the following answers

none

1-2

3-6

more than 6

*15) Have you ever been involved with other European actions?

Yes

No

*
16) With which of the following European actions have you been involved?
You can choose more than one among the following answers:

Comenius

Erasmus

Grundtvig

Leonardo

Other (please define):

Information regarding online training

The following questions are related to your perceptions and experiences with reference to online training.

*17) Have you attended an online training programme?

Yes

No

*18) How many online training programmes have you attended?

***19) To what extent do you consider the following subjects as important in an online training programme?**

	not at all	a little bit	quite a bit	very	very much	not applicable/not relevant
Instructional design per domain						
Contemporary instructional approaches						
New technologies implementation						
Students' assessment						
Classroom management issues						
Support innovative activities in classroom(eTwinning, Comenius, etc.)						
Special education						
Development of creative relations with parents and students						
Cross-cultural education						

20) Please write down any other subject you consider important and is not mentioned above:

***21) To what extent do you consider the following aspects as important on an online training programme?**

	not at all	a little bit	quite a bit	very	very much	not applicable/not relevant
Timely information about content, aims, methodology, etc.						
Active trainee participation						
Training courses during off-school season						
Professional development points						
Recommended by someone						
Professional interest						
Personal interest						
connection of educational theories with practice						

22) Please write down any other motive you consider important and is not mentioned above:

23) Please write down any comment you consider helpful to us better respond to your needs:

This research study was an initiative of Angelos Konstantinidis, member of the Hellenic NSS.

No extra funding required by the Hellenic NSS.

Hellenic National Support Service of the eTwinning action

http://www.etwinning.gr/

email: etwinning@sch.gr