TeNeGEN

LEONARDO DA VINCI - TRANSFER OF INNOVATION

NEEDSANALYSIS

BASED ON 110 QUESTIONNAIRE

Education and Culture DG
Lifelong Learning Programme

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NEED ANALYSIS

BASED ON 110 QUESTIONNAIRE

Introduction

According to the survey of World Internet Project 2007: „On the basis of the data, it appears that the development of the Hungarian information society reached a turning point in 2007. Whether we examine the index of computer access, or that of internet access, it is apparent (Chart 1) that diffusion has significally sped up over the past year, relative to earlier years : the proportion of households equipped with a personal computer increased by 11%, and the proportion of homes possessing internet access increased by 14%. As a result of this, in the half of 2007, there was a computer in nearly half of the households (49%), and internet connection in more than one-third of the households (35%). This, at the same time, means that in 71% of the households equipped with a computer, a pre-paid internet plan can be found. On the basis of all this data, it is not an exaggeration to state that, over the year, the diffusion of the computer, and especially of the internet, has entered th so-called ascending phase, and that over the next few years, further dynamic growth can be expected."

We can assume that in spite of the economical breakdown these trends are continued. It is based on the latest survey that are estimating the new generation's internet usage. They are reporting us a very intensive internet usage:

"Hungarian youth are using new technology in the same rate as the well developed countries' teenagers; no matter if its computer, internet, mobile phone or MP3 player. 945 of the 14-17 years old children use internet, so we can say that today there are only a few teenagers who never use internet in any form. 41% has MP3 player, and one-third of them have digital camera. They are the ones who grown up with the era of the digital technology: for them it's obvious to use internet, mobile phone and other digital tools to communicate, to play and live their emotional and social life. As they are the age group who has the most wide social connections, behavior patterns that mainly based on communication are spreading very fast. Those activities where they have to "act" are much more popular than those where they are just admitting passively. Popular activities can be games, dating sites, or some creative process. A new group has appeared among the Hungarian youth, those who use digital technology for creating: pictures, videos, texts. These activities develop the skills for self-expression, and promote the spread of such creative attitude."

On the other side standing those teacher generation that was not socialized in this digital environment, and uses much more less the internet. Most of them are not speak that language (because of their age, or socialization), and those new subcultures of the youth are totally unknown for them.

Contemporary groups teach each other effectively to live this new culture, and commercial lobby can take advantage from it. It does not lead only to negative phenomenon (e.g. stereotyped loneliness, addiction, influence) but to organized network knowledge sharing, and lifestyle methods. If it was true in the past that contemporary groups have a high affection on value-sharing, than the school knowledge life, that's more true in digital subcultures. As Balázs Fűzfa declared on the radio: the problem is not how to motivate the students to learn, the problem is that students are not able to understand the communication tools that teachers use to motivate them.

Independent, collective knowledge creation are not built in the current traditional, hierarchical knowledge sharing educational system. Aim of our project is to give a helping hand to teachers to get acquainted with this new world, and to show them how to implement internet in education. So we needed a snapshot that gives us a picture about the teachers' internet usage, and their visions about it. We asked 110 Hungarian secondary-school teacher, and the results of this survey can be found here with comments.

Personal Details

1. Country

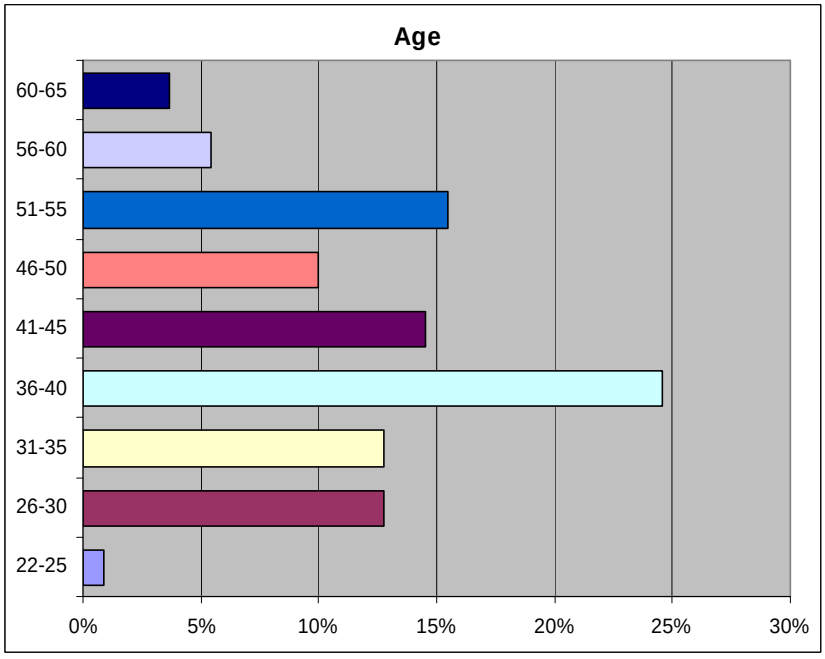
1.1.1. Answers

Hungary

2. Age

1.1.2. Distribution of answers

22-25	1
26-30	14
31-35	14
36-40	27
41-45	16
46-50	11
51-55	17
56-60	6
60-65	4



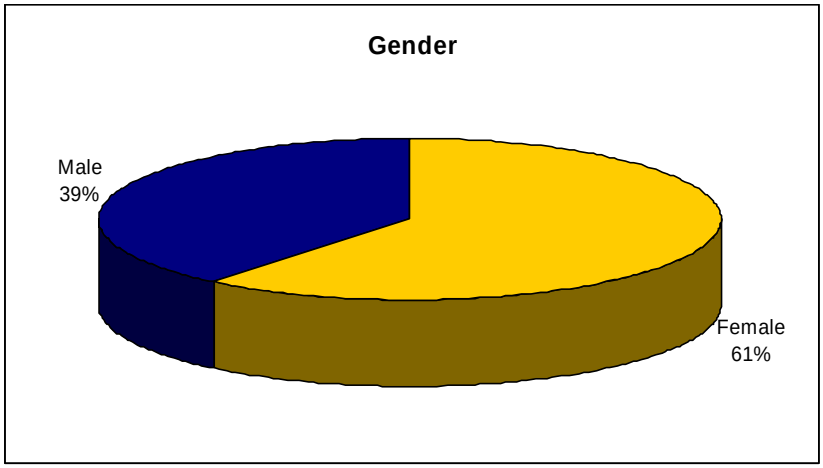
1.1.3. Evaluation

Survey is not based on a representative sample. We assume that this on-line survey was filled out by those teachers who are more familiar with the computer. Sample might show a little bit more positive picture because of this fact. But there is no big difference between the sample and the average Hungarian vocational school teachers: most popular group in Tenegen-sample (age:36-40) the rate is 25%, and the country-sample (age:30-39) is 27,3% (Central Statistics Office Hungary, 2006)

3. Gender

1.1.4. Distribution of answers

Female	67
Male	43



1.1.5.

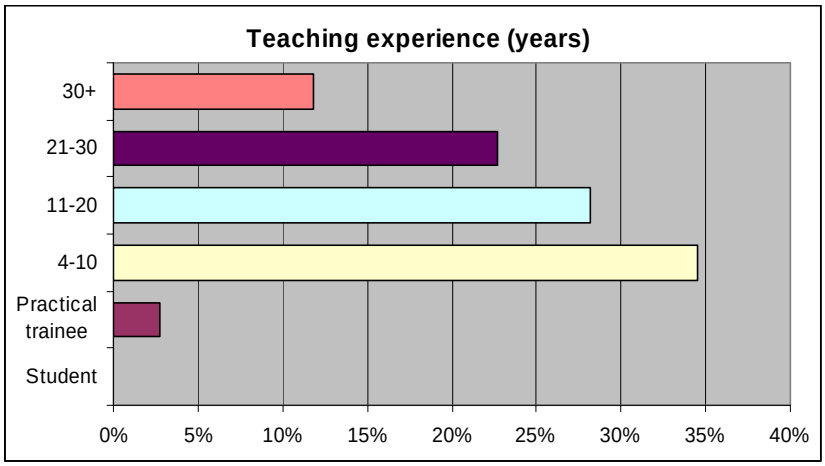
1.1.6. Evaluation

Gender distribution shows that representation is generally right: country data in 2006 was 64,3% for the female.

4. Teaching experience (years)

1.1.7. Distribution of answers

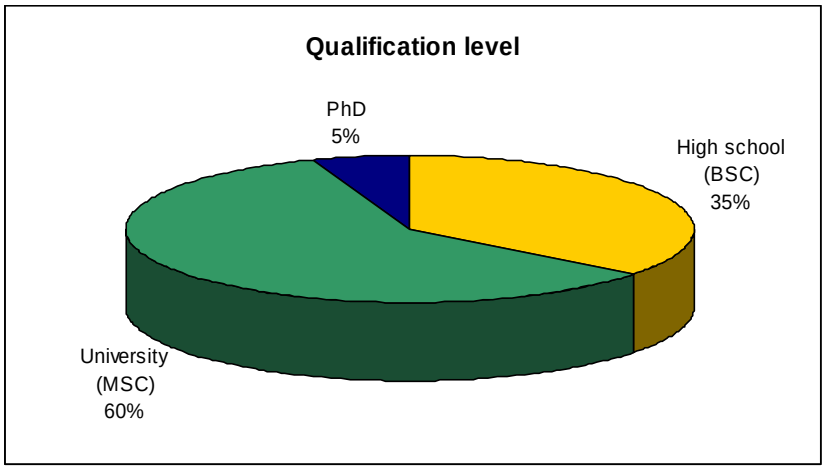
Student	0
Practical trainee	3
4-10	38
11-20	31
21-30	25
30+	13



5. Qualification level

1.1.8. Distribution of answers

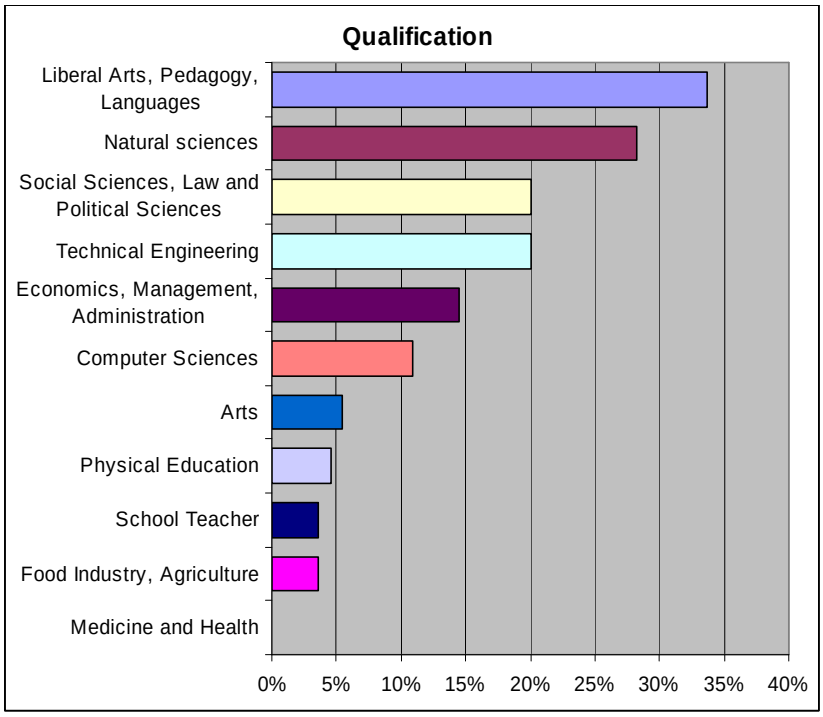
High school (BSC)	39
University (MSC)	65
PhD	6



6. Category of your subjects

1.1.9. Distribution of answers

Liberal Arts, Pedagogy, Languages	37
Natural sciences	31
Social Sciences, Law and Political Sciences	22
Technical Engineering	22
Economics, Management, Administration	16
Computer Sciences	12
Arts	6
Physical Education	5
School Teacher	4
Food Industry, Agriculture	4
Medicine and Health	0



7. What do you teach?

1.1.10. Answers

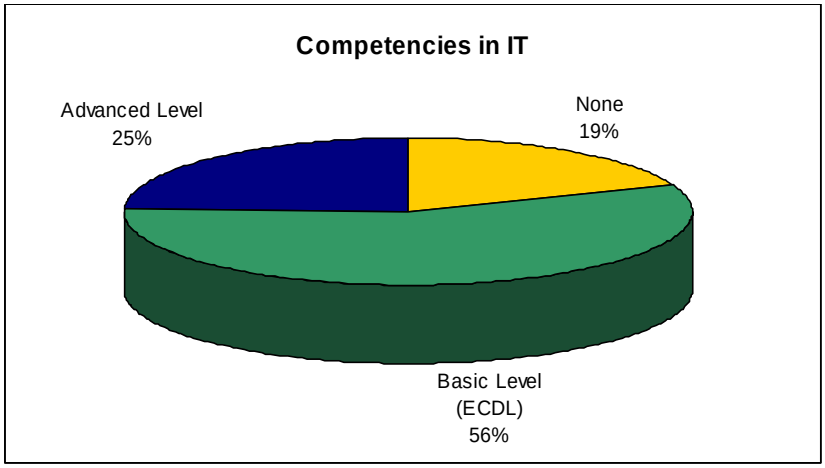
Substantive answers given by 100%.

One person teaches nothing. We can find a wide range of special subjects and general subjects as well. We can also find "I teach everything in the first 4 years in elementary school."

8. Competencies in IT

1.1.11. Distribution of answers

None	21
Basic Level (ECDL)	62
Advanced Level	27



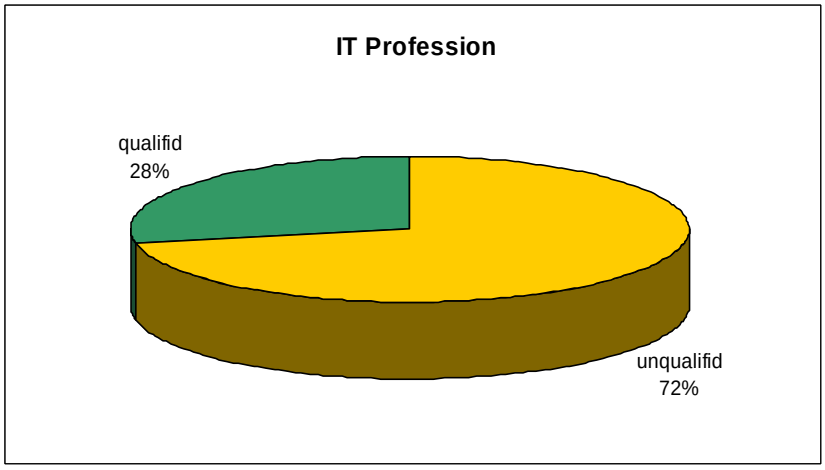
1.1.12. Evaluation

In the case of technical competency it seems that we have to separate technical competency (like ECDL) and the competency of didactical internet usage. The majority has a basic technical knowledge, but they are remaining on that level, and not familiar with the new, interactive tools. I we assume that those who have chosen "advanced" they know web 2.0 tools, and then in the remaining part were 30% who are familiar with that tools.

9. Your IT Profession

1.1.13. Distribution of answers

None	79
Database Administrator	5
	5
IT teacher	5
ECDL, computer-user, software operator	4
System Administrator	2
E-learning	2
Multimedia	2
Software developer	1
System Designer	1
Data processing specialist	1
IT specialization of primary school teachers	1
Technical teacher	1
IT-engineer teacher	1



1.1.14. Evaluation

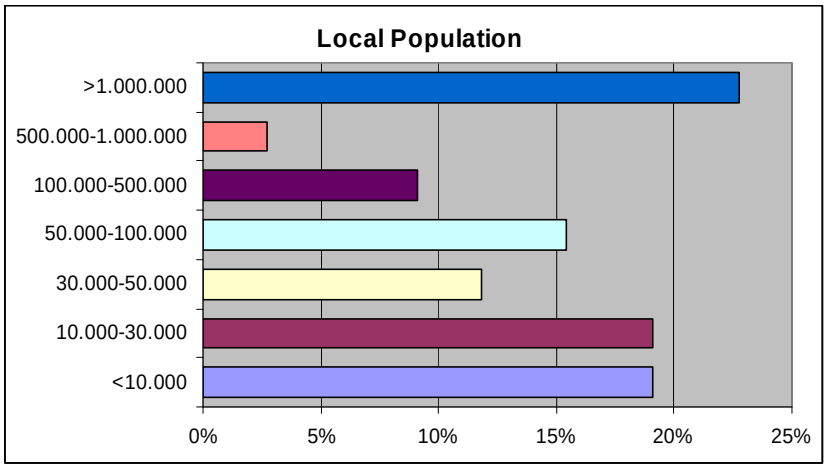
Only the 28% percent of the teachers has advanced ICT competences. The "

Working environment

10. Population in your town/city

1.1.15. Distribution of answers

<10.000	21
10.000-30.000	21
30.000-50.000	13
50.000-100.000	17
100.000-500.000	10
500.000-1.000.000	3
>1.000.000	25

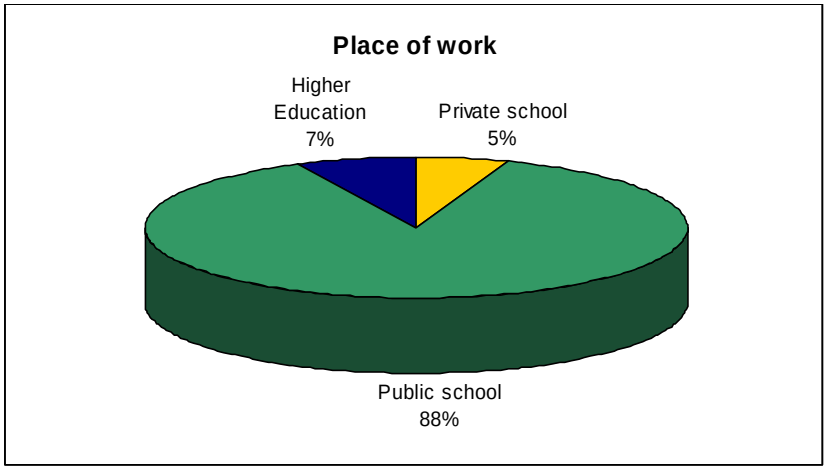


Big city school teachers' and small village school teachers' answers are almost equal here.

11. Your school is a

1.1.16. Distribution of answers

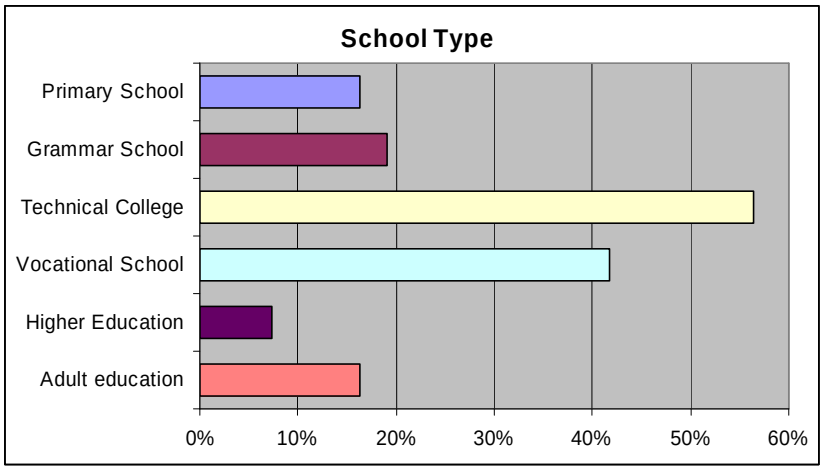
Private school	6
Public school	96
Higher Education	8



12. Type of school

1.1.17. Distribution of answers

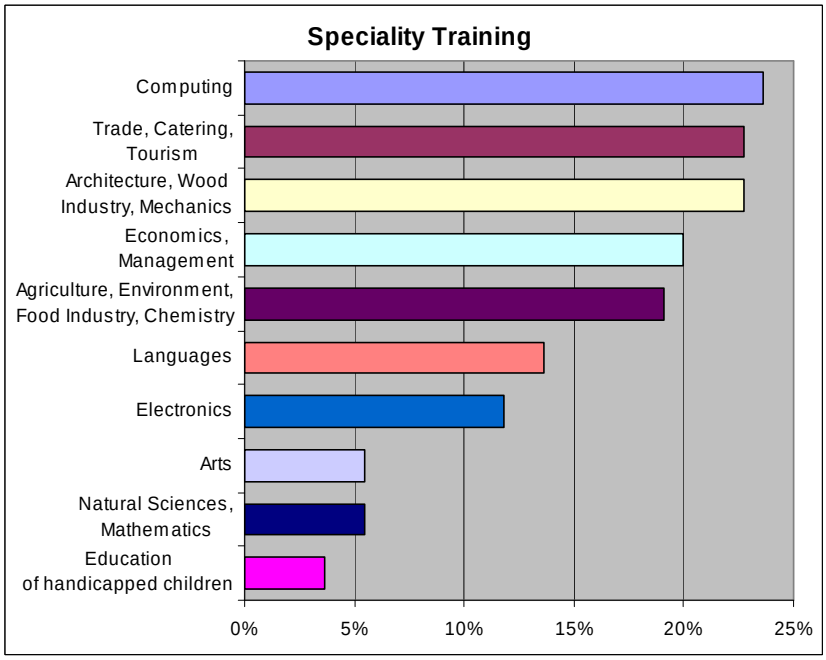
Primary School	18
Grammar School	21
Technical college	62
Vocational School	46
Higher education	8
Adult education	18



13. Your Field of Study

1.1.18. Distribution of answers

Computing	26
Trade, Catering, Tourism	25
Architecture, Wood Industry, Mechanics	25
Economics, Management	22
Agriculture, Environment, Food Industry, Chemistry	21
Languages	15
Electronics	13
Arts	6
Natural Sciences, Mathematics	6
Education of handicapped children	4
Medicine and Health	2
Physical Education	2
Pedagogy, Liberal Arts	2
Law and Politics	1
Other	12



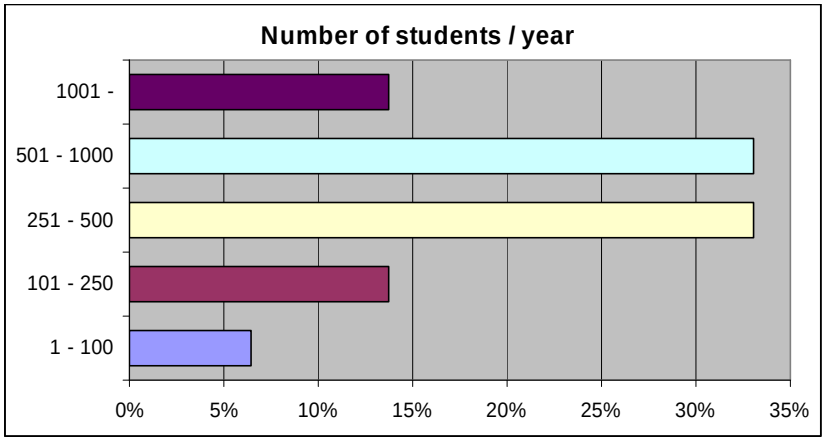
1.1.19. Evaluation

As we expected the number of IT field of study is high. Pedagogy and Philosopher fields are less represented. It might be because our questionnaire reached mainly the vocational schools. (Or were they more active?) However one of the aims of this project is to reach philosopher's field, and unfortunately we received very few information about them. What we think about these few data is that they are the most unreachable and less active group.

14. Number of students / year

1.1.20. Distribution of answers

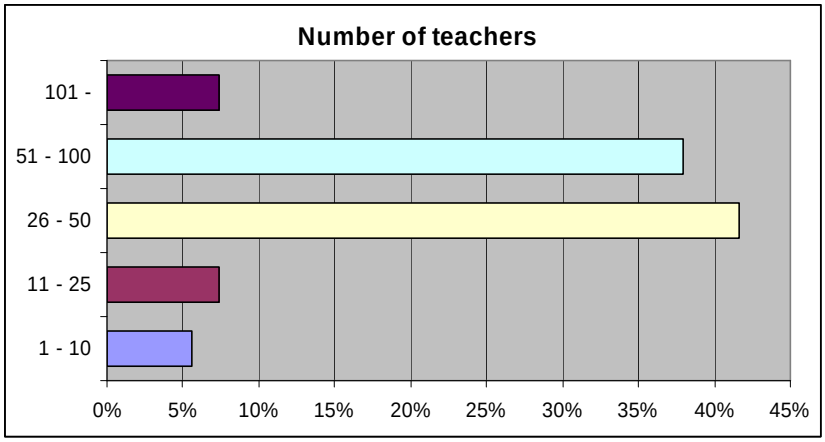
1 - 100	7
101 - 250	15
251 - 500	36
501 - 1000	36
1001 -	15



15. Number of teachers

1.1.21. Distribution of answers

1 - 10	6
11 - 25	8
26 - 50	45
51 - 100	41
101 -	8

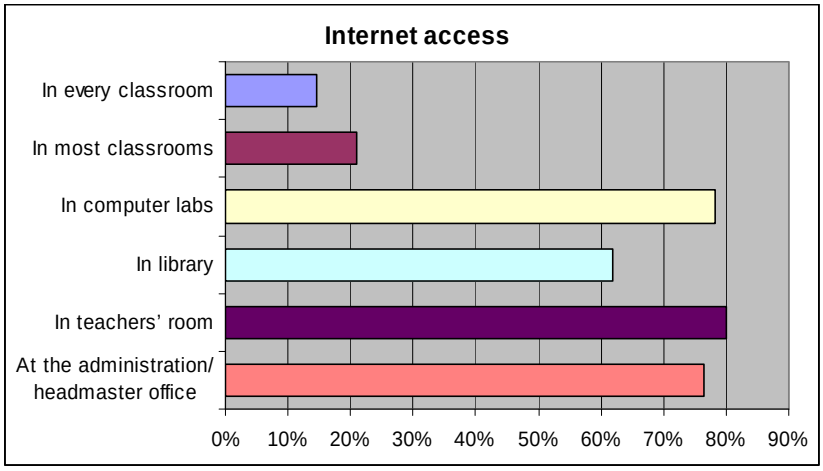


Internet usage

16. Internet access

1.1.22. Distribution of answers

In every classroom	16
In most classrooms	23
In computer labs	86
In library	68
In teachers' room	88
At the administration/headmaster office	84



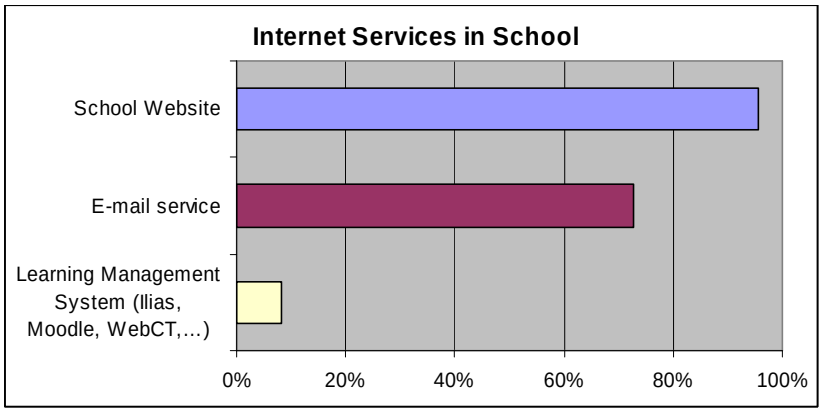
1.1.23. Evaluation

Internet can only be usable in classrooms if there is a high bandwidth connection, with a projector. This technology is for demonstration at first. But if we want to involve students in knowledge creating we have to motivate them to be in presence in high equipped classrooms, where they can search in teams, able to archive, demonstrate and communicate. This statistic shows that classrooms are poorly equipped. However every classroom has a computer room, but the movement of crowded classes might be difficult, and if they can get there, the education is mostly about technical training instead of internet based, self organized learning. For this a few times per week might be not enough.

17. Other Internet services in your school

1.1.24. Distribution of answers

School Website	105
E-mail service	80
Learning Management System (Ilias, Moodle, WebCT, …)	9



1.1.25. Evaluation

In this statistic we can see that very low number of schools using integrated education-organized software, nevertheless these software mainly can be download for free from the internet with open source. However we don't have statistics about that but we can say it for sure that in Scandinavian and Anglo-Saxon countries they use it much more often. To see a closer example: in Austria in 2004, the government gave the opportunity to use Moodle in 1000 schools (eduMoodle-projekt). Based on this we can assume that Austrian statistics are better than ours. (We don't know how the fact – that there is the mentioned software in the school, only the person who gave the answer didn't know about it - would influence the result)

Computers, computer labs in your school

18. Number of computers for students only

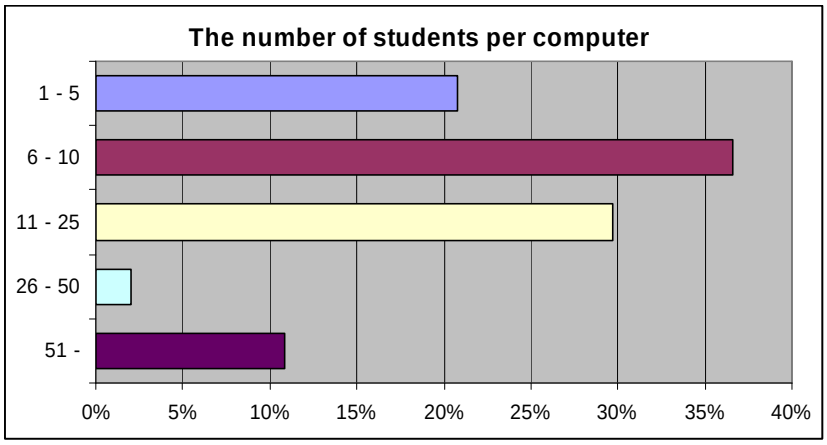
1.1.26. Distribution of answers

1 - 10	14
11 - 25	10
26 - 50	28

51 - 100	27
101 -	23

Number of students per computer:

1 - 5	21
6 - 10	37
11 - 25	30
26 - 50	2
51 -	11



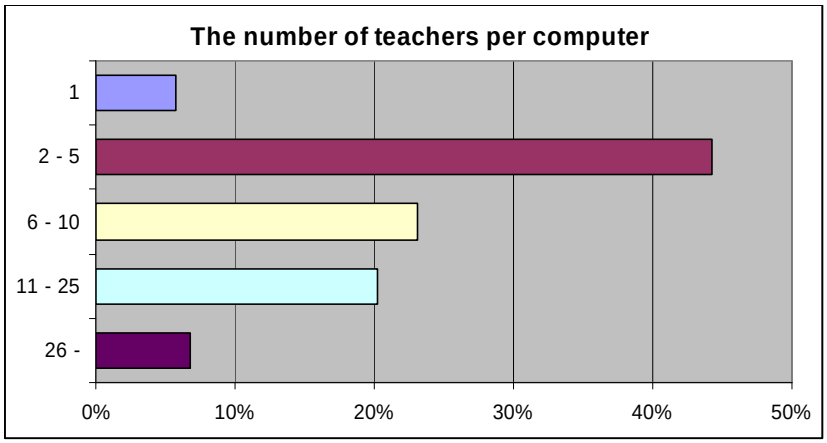
19. Number of computers for teachers only

1.1.27. Distribution of answers

1	12
2 - 5	25
6 - 10	22
11 - 25	29
26 -	17

Number of teachers per computer:

1	6
2 - 5	46
6 - 10	24
11 - 25	21
26 -	7



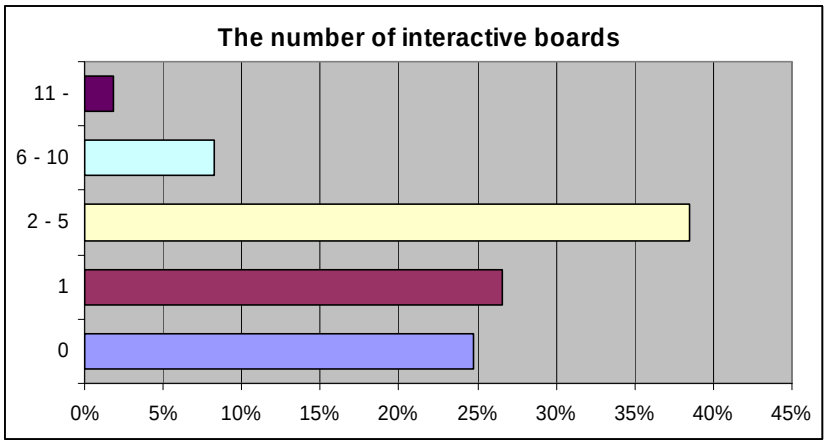
1.1.28. Evaluation

In most of the schools (44%) 2-5 teachers share a computer, so the situation is not really good even in better equipped schools. (It might give better results if we also count with the internet usage of teachers at home.)

20. Number of interactive boards

1.1.29. Distribution of answers

0	27
1	29
2 - 5	42
6 - 10	9
11 -	2



1.1.30. Evaluation

This statistic could only be evaluated if we would know the substantive usage.

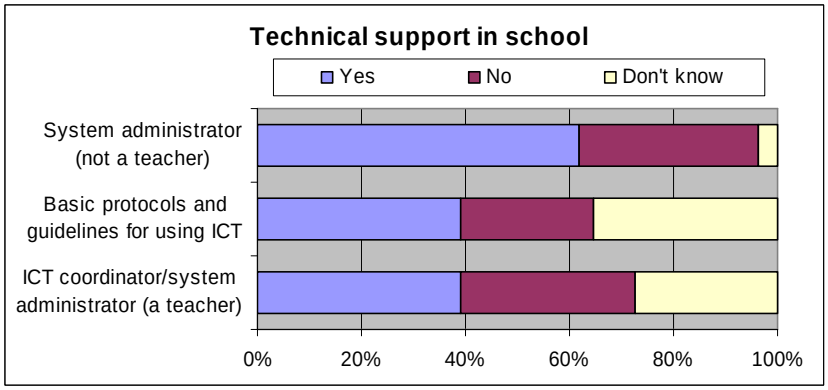
Technical support

21. Technical support in school

1.1.31. Distribution of answers

Yes	No	Don't

			know
System administrator (not a teacher)	68	38	4
Basic protocols and guidelines for using ICT	43	28	39
ICT coordinator/system administrator (a teacher)	43	37	30



1.1.32. Evaluation

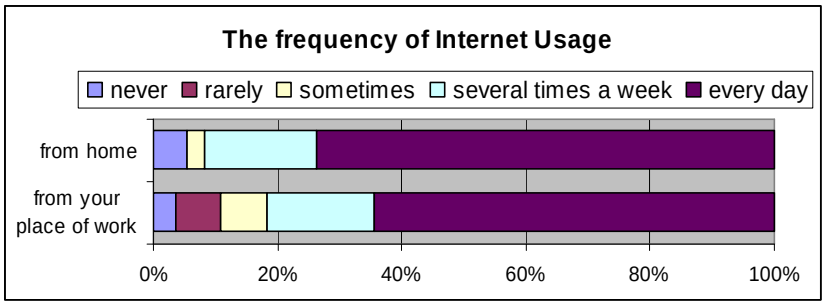
One of the possible obstacles is the fact that teachers get no appropriate support for using ICT tools at classroom. We think it's a positive result that 62% of the teachers working in such a school that have an independent system administrator, but we cannot say that a teacher nowadays in Hungarian schools get a full technical support for making „digital lessons".

Activities on the Internet

22. Do you connect to the Internet

1.1.33. Distribution of answers

	never	rarely	sometimes	several times a week	every day
from home	6	0	3	20	81
from your place of work	4	8	8	19	71



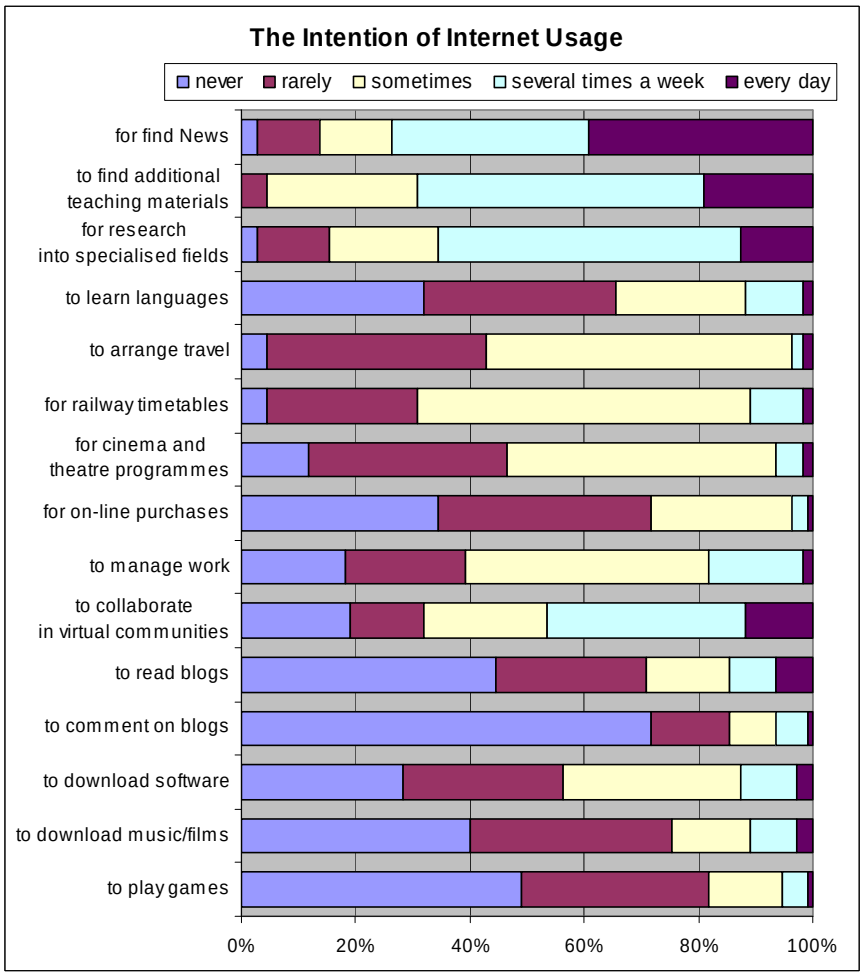
1.1.34. Evaluation

This statistic proves that teachers use the internet at home more frequently than at school.

23. Do you surf on the Web

1.1.35. Distribution of answers

	never	rarely	some-times	several times a week	every day
for find News	3	12	14	38	43
to find additional teaching materials	0	5	29	55	21
for research into specialised fields	3	14	21	58	14
to learn languages	35	37	25	11	2
to arrange travel	5	42	59	2	2
for railway timetables	5	29	64	10	2
for cinema and theatre programmes	13	38	52	5	2
for on-line purchases	38	41	27	3	1
to manage work	20	23	47	18	2
to collaborate in virtual communities	21	14	24	38	13
to read blogs	49	29	16	9	7
to comment on blogs	79	15	9	6	1
to download software	31	31	34	11	3
to download music/films	44	39	15	9	3
to play games	54	36	14	5	1



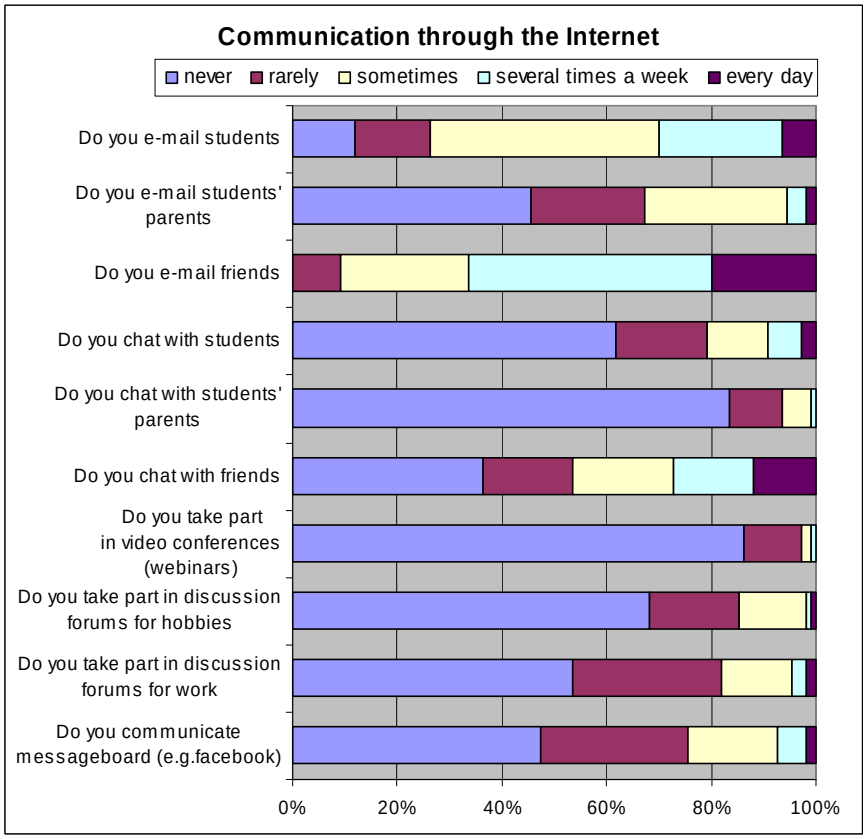
1.1.36. Evaluation

Here we analyze how the usage of interactive media relates to searching-receiving activities. At first it's obvious that teachers use mostly the last mentioned (news, educational sites, expert researches) and they use rarely the interactive activities (social network, blog, games). We can say the same about the usage of tools for active communication. (They use in high number the e-mail.)

24. Communication through the Internet

1.1.37. Distribution of answers

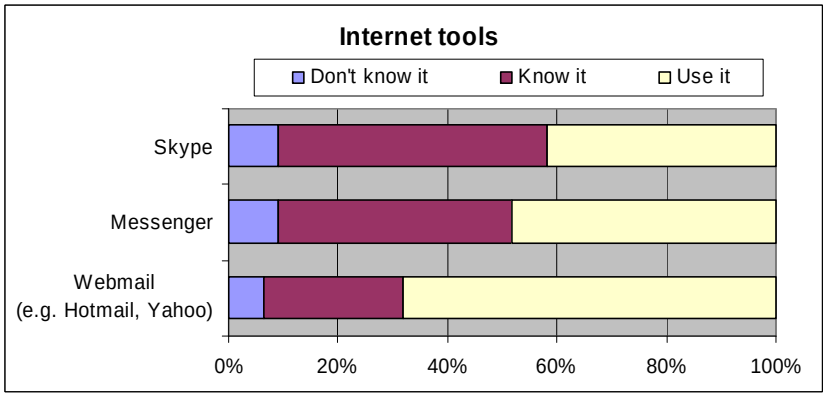
	never	rarely	some-times	several times a week	every day
Do you e-mail students	13	16	48	26	7
Do you e-mail students' parents	50	24	30	4	2
Do you e-mail friends	0	10	27	51	22
Do you chat with students	68	19	13	7	3
Do you chat with students' parents	92	11	6	1	0
Do you chat with friends	40	19	21	17	13
Do you take part in video conferences (webinars)	95	12	2	1	0
Do you take part in discussion forums for hobbies	75	19	14	1	1
Do you take part in discussion forums for work	59	31	15	3	2
Do you communicate messageboard (e.g. facebook)	52	31	19	6	2



25. Do you know the tools as follows

1.1.38. Distribution of answers

	Don't know it	Know it	Use it
Skype	10	54	46
Messenger	10	47	53
Webmail (e.g. Hotmail, Yahoo)	7	28	75

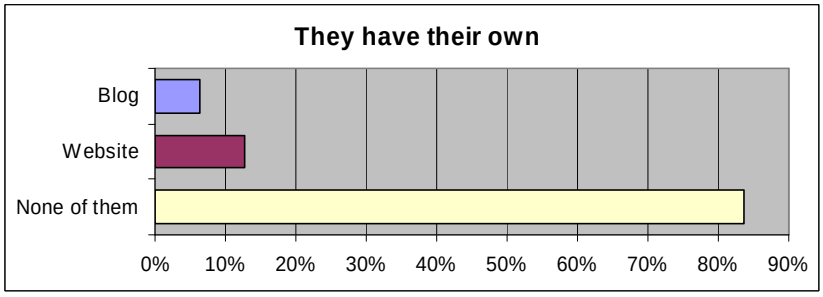


Experiences on the Internet

26. Do you have your own

1.1.39. Distribution of answers

Blog	7
Website	14
None of them	92



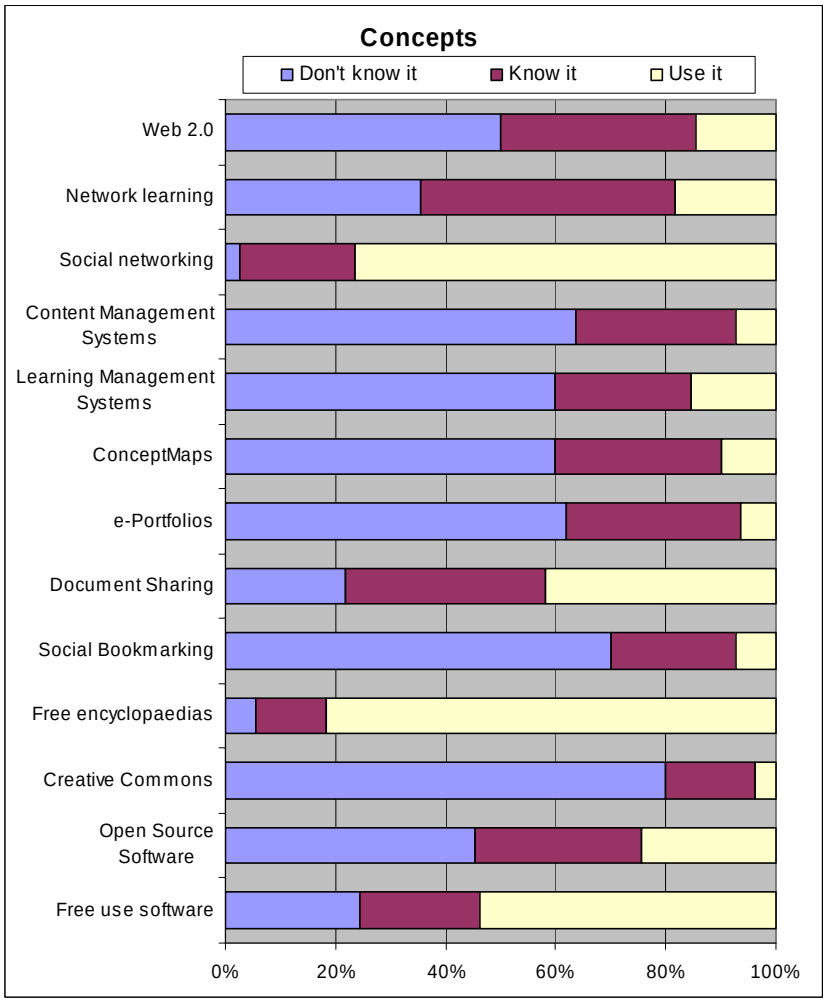
1.1.40. Evaluation

Very few teacher have time, mood or competence to write an own blog, or maintain an own website. This data cannot be evaluate only in itself. If we take into account that 36% of teenagers between 14-19 reads and 17% also write a blog, then we can realize the big difference between the two generation.

27. Are you acquainted with the following concepts?

1.1.41. Distribution of answers

	Don't know it	Know it	Use it
Web 2.0	55	39	16
Network learning	39	51	20
Social networking	3	23	84
Content Management Systems	70	32	8
Learning Management Systems	66	27	17
ConceptMaps	66	33	11
e-Portfolios	68	35	7
Document Sharing	24	40	46
Social Bookmarking	77	25	8
Free encyclopaedias	6	14	90
Creative Commons	88	18	4
Open Source Software	50	33	27
Free use software	27	24	59



1.1.42. Evaluation

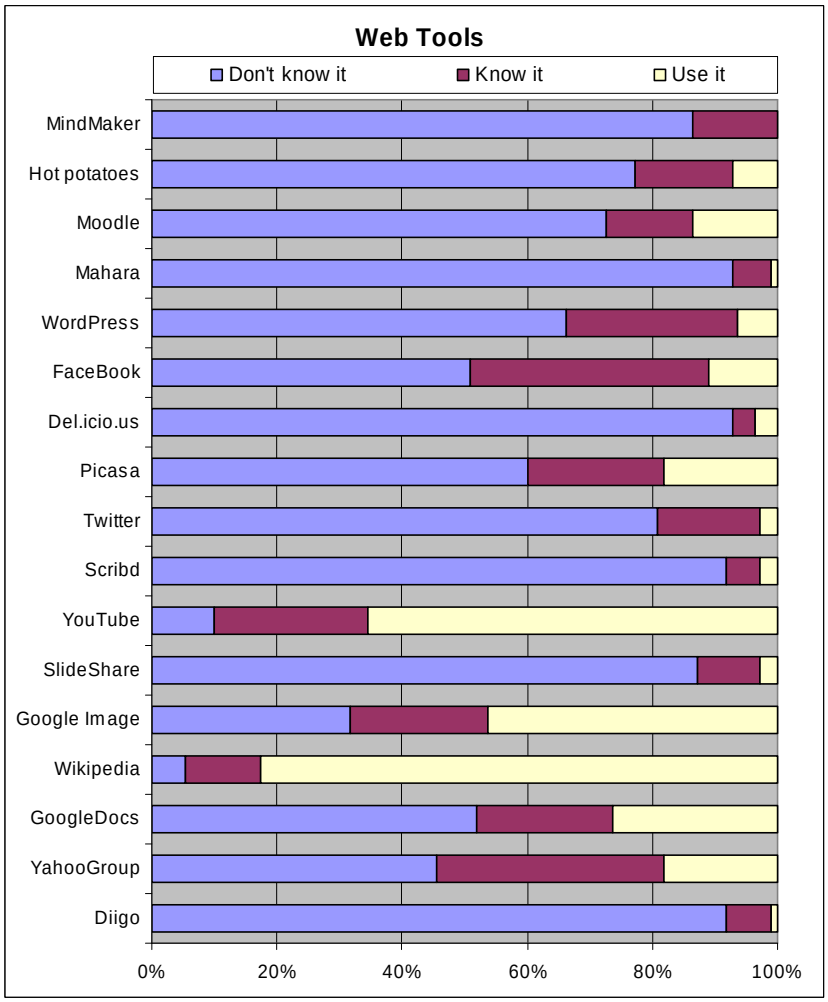
This table contains important information about the course: social bookmarking which is a great knowledge sharing software, is used and known in a really low level. That's the same with the e-Portfolio which has an important role in network learning. So for using this 2 tools, Tenegen consortium will develop a separate content.

28. Do you know the Web Tools as follows?

1.1.43. Distribution of answers

	Don't know it	Know it	Use it
MindMaker	95	15	0
Hot Potatoes	85	17	8
Moodle	80	15	15
Mahara	102	7	1
WordPress	73	30	7
FaceBook	56	42	12
Del.icio.us	102	4	4
Picasa	66	24	20

Twitter	89	18	3
Scribd	101	6	3
YouTube	11	27	72
SlideShare	96	11	3
Google Image	35	24	51
Wikipedia	6	13	91
GoogleDocs	57	24	29
YahooGroup	50	40	20
Diigo	101	8	1
Other: GoogleTalk, GoogleNotifier, Mindmeister, Hi5			1



1.1.44. Evaluation

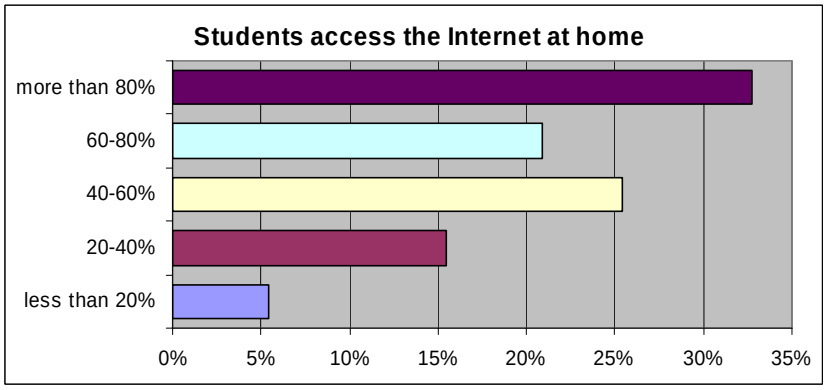
It's clearly visible from the table that usage of web 2.0 tools are in a low level. It's strange that Moodle which is a world wide know tool is known by very few teachers. Here we can see that the program used for creating e-Portfolio or Social Bookmarking content sharing, knowledge map creator, or „Twitter" which is a world news channel are really far away from teachers. However these tools are exactly those that students use.

Your students on the net

29. How many of your students have home Internet access estimate if need be?

1.1.45. Distribution of answers

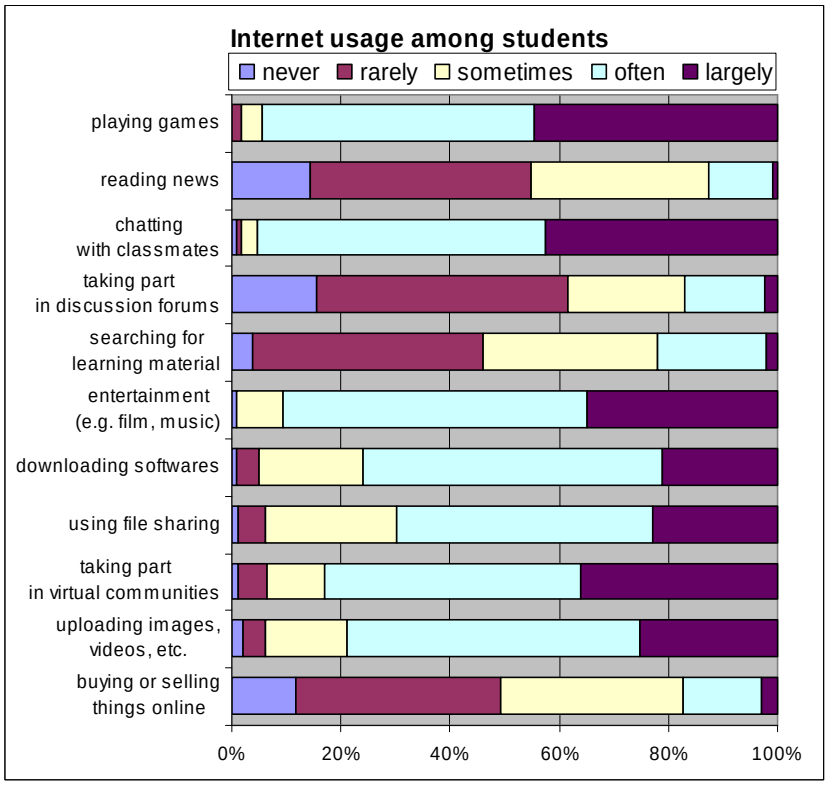
less than 20%	6
20-40%	17
40-60%	28
60-80%	23
more than 80%	36



30. Can you categorize their net activities according to frequency

1.1.46. Distribution of answers

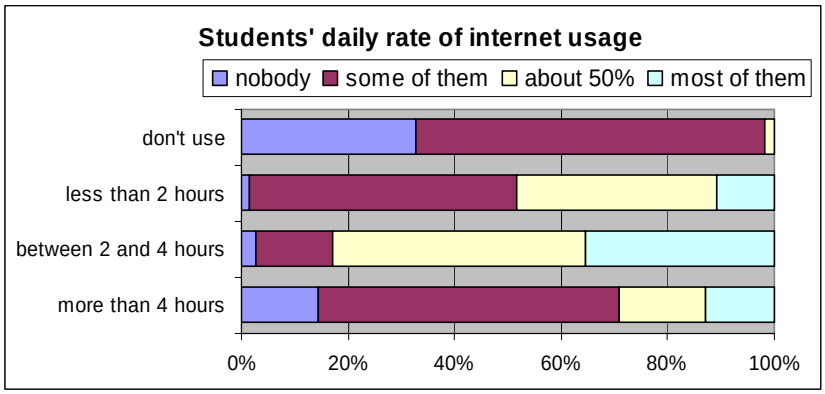
	don't know	never	rarely	sometimes	often	largely
playing games	2	0	2	4	54	48
reading news	6	15	42	34	12	1
chatting with classmates	4	1	1	3	56	45
taking part in discussion forums	27	13	38	18	12	2
searching for learning material	6	4	44	33	21	2
entertainment (e.g. film, music)	4	1	0	9	59	37
downloading software	10	1	4	19	55	21
using file sharing	27	1	4	20	39	19
taking part in virtual communities	16	1	5	10	44	34
uploading images, videos, etc.	11	2	4	15	53	25
buying or selling things online	41	8	26	23	10	2



31. How many of your students use Internet each day

1.1.47. Distribution of answers

	nobody	some of them	about 50%	most of them
Don't use	18	36	1	0
Less than 2 hours	1	32	24	7
Between 2 and 4 hours	2	11	36	27
More than 4 hours	9	35	10	8
I cannot estimate	34			



1.1.48. Evaluation

Fanta Trendriport has also measured internet usage amongst 14-19 year old teenagers. According to this: „2/3 of 14-19 years ols teenagers (67%) uses internet daily, and further 21 % uses internet more times/week. According to NRC 2007 survey teenagers spend minimum 1-2 hours/day in front of the computer, 2/3

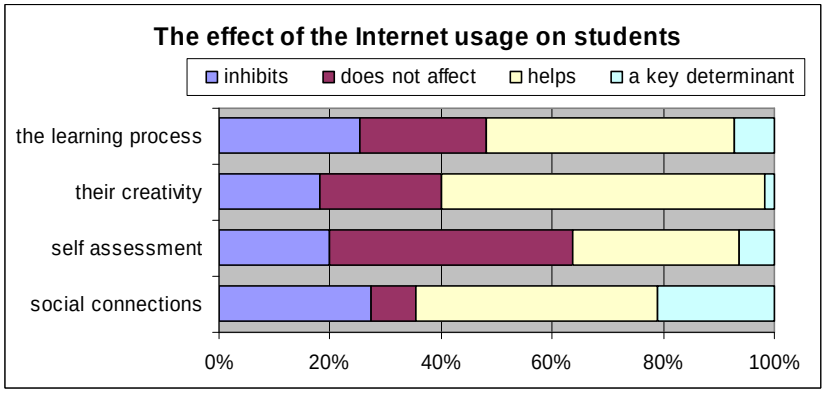
spend 3-4 hours and 1/6 spend more than 5 hours! On weekends this number raises, 1/3 spend minimum 5 hours on the net.

Datas are not comparable but it's obvious that teachers are in aware that most of their students uses internet intensively.

32. What impact does the Internet have on the following activities?

1.1.49. Distribution of answers

	inhibits	does not affect	helps	a key determinant
the learning process	28	25	49	8
their creativity	20	24	64	2
self assessment	22	48	33	7
social connections	30	9	48	23



1.1.50. Evaluation

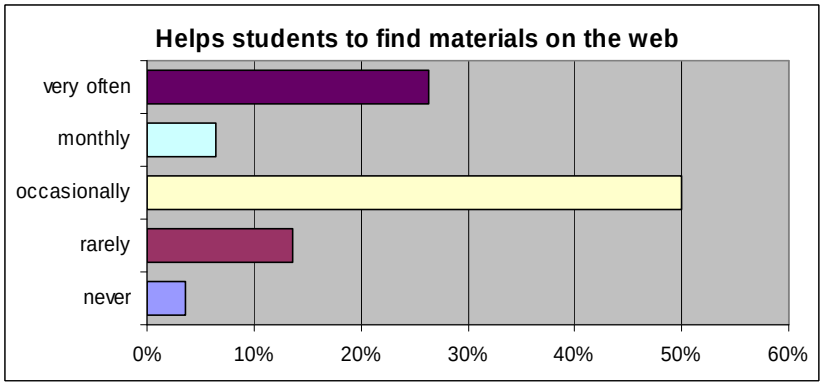
It is notable that 50% of the teachers think that internet usage does not affect or inhibits the learning process. According to the literature there are many meta-ability that can be developed by computer games:

- Motivates to learn new things
- Helps concentrating and attention-maintenance
- Helps team work and knowledge sharing
- Helps ind rafting the experiences
- Helps in listening to others
- Helps discussions and arguments to clear the facts
- Helps in calculation
- Helps in risk management
- Helps in learn from our mistakes
- Support us in innovative steps
- Helps to understand others
- Develops soft-motorical abilities
- Helps to pay attention on others ideas.

33. Do you help your students with searching additional learning material on the web?

1.1.51. Distribution of answers

never	4
rarely	15
occasionally	55
monthly	7
very often	29



1.1.52. Reasons

100% gave substantive answer.

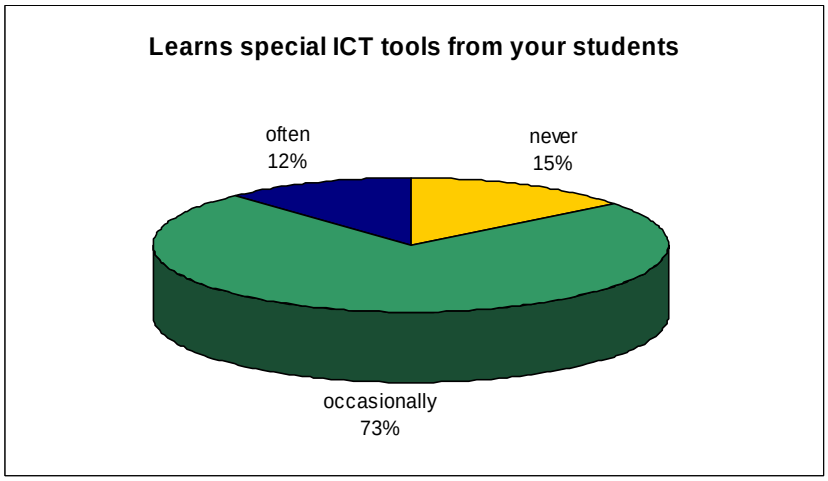
Some extremes:

- without internet not a child nor a man can exist. The post human existing period without internet will disappear from the history of Homo Sapiens.
- There is not time for writing a schoolbook.
- They are smarter than me, can search more effective
- They are not able to search for it even with guidance. They are not interested in it.

34. Do you learn how to use special ICT tools from your students?

1.1.53. Distribution of answers

never	16
occasionally	81
often	13



1.1.54. Evaluation

At this point we reached a pedagogically and psychically exciting point. It's almost for sure that average student has more competency in using web 2.0 tools than an average teacher. One of our lesson could be „How can I learn from my students?" But it is necessary to say that involving student's knowledge is an important mission, and teacher have to get use to that fact that there are ability areas where students are more experienced than them.

35. Do you know the meaning of the term "Digital native" or "Net Generation"? If yes, write your "definition" of the terms?

1.1.55. Answers

100% gave substantive answer.

- 1/3 don't know
- Usual answer: youth of today.
- Strange answer: 'born with it' ability of internet and PC usage

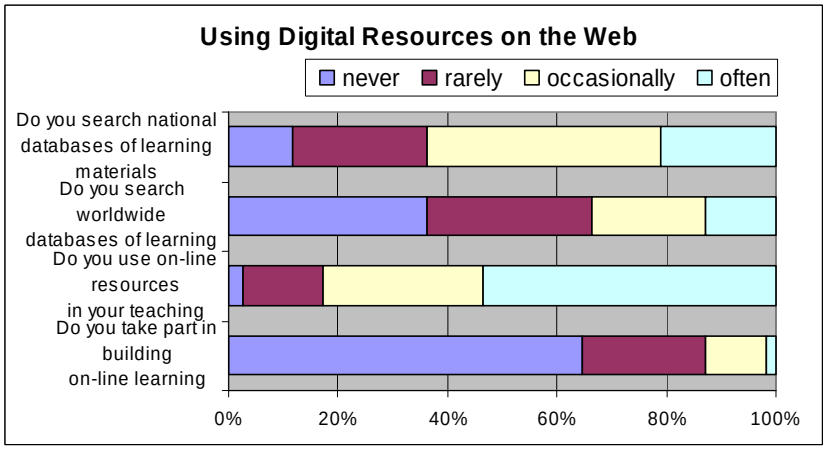
Search, evaluate, design, create e-learning contents

36. Using Digital Resources on the Web

1.1.56. Distribution of answers

	never	rarely	occasionally	often
Do you search national databases of learning materials	13	27	47	23
Do you search worldwide databases of learning materials	40	33	23	14
Do you use on-line resources	3	16	32	59

in your teaching				
Do you take part in building on-line learning databases	71	25	12	2



1.1.57. Evaluation

Here we can demonstrate the difference between the active and passive usage: active database building is minimal. We would have to know that the highly usage of the internet is what kind of: teachers apply it to compile new knowledge, or for illustrating.

37. Which on-line Databases do you know/use

1.1.58. Answers

Sulinet Digitális Tudásbázis (SDT)	29
Wikipedia	11
Google	3
MEK	3
minisztériumi honlapok	3
NSZFI	3
online szótárak	3
Celebrate	2
magyarorszag.hu	2
Realika	2

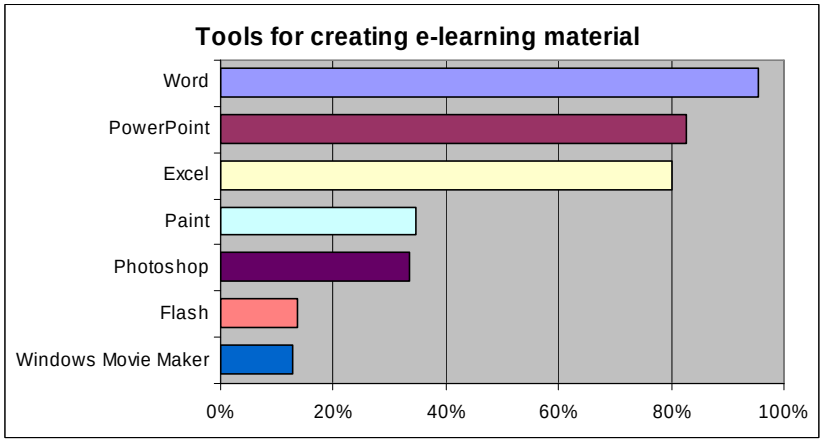
1.1.59. Evaluation

This table raises an important research question: Knowledge basis of the high costed Sulinet program can1’ be use properly, or teachers are not ready for using materials that are quite good in didactical view. Let’s leave this question open this time.

38. Do you use the following tools to create e-learning material

1.1.60. Distribution of answers

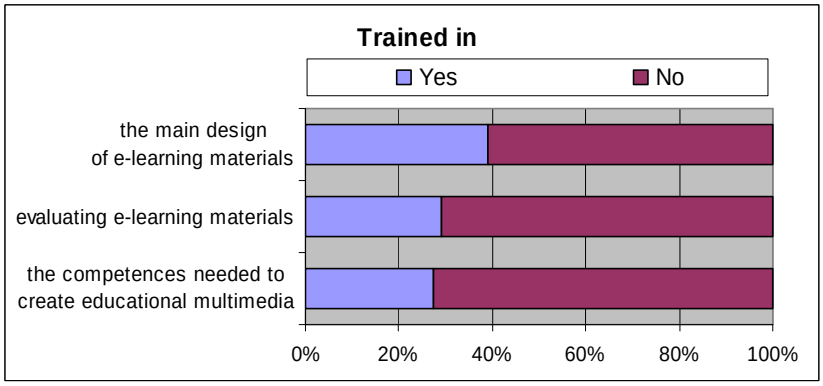
Word	105
PowerPoint	91
Excel	88
Paint	38
Photoshop	37
Flash	15
Windows Movie Maker	14
FrontPage	8
Adobe Premiere	8
Gimp	6
Dreamweaver	5
Toolbook	3
exeLearning	3
Audacity	3
None of them	3
Other	11
Corel Draw	1
Photofiltre, Adobe Illustrator	1
PhotoFiltre, Hot-potatoes, Notepad, Studio9, PDFcreator, Delphy7, Turbopascal, …	1
lapoda logo	1
Corel x3	1
EWB	1
Moodle	1
Smart Table software	2
Windows Media Encoder, docs.google.com	1
Comenius logo	1



39. Are you trained in?

1.1.61. Distribution of answers

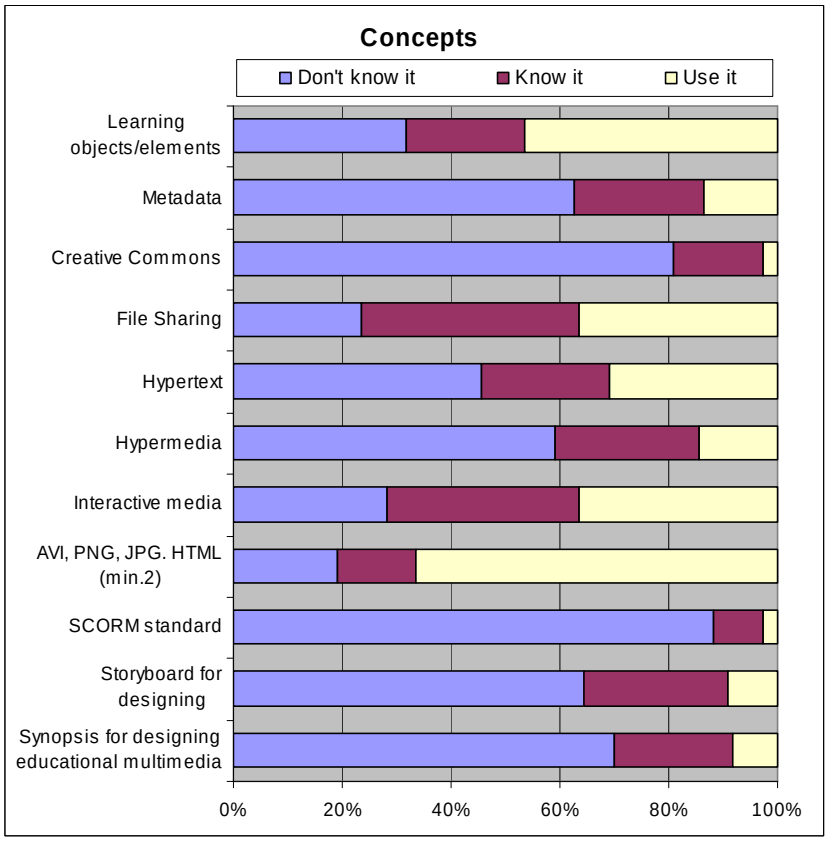
	Yes	No
the main design of e-learning materials	43	67
evaluating e-learning materials	32	78
the competences needed to create educational multimedia	30	80



40. Are you acquainted with the following?

1.1.62. Distribution of answers

	Don't know it	Know it	Use it
Learning objects/elements	35	24	51
Metadata	69	26	15
Creative Commons	89	18	3
File Sharing	26	44	40
Hypertext	50	26	34
Hypermedia	65	29	16
Interactive media	31	39	40
AVI, PNG, JPG. HTML (min.2)	21	16	73
SCORM standard	97	10	3
Storyboard for designing educational multimedia	71	29	10
Synopsis for designing educational multimedia	77	24	9



1.1.63. Evaluation

We have to be aware with this question. If we ask about do they know or use tools in generally, we will receive more higher value if we ask about it specifically.

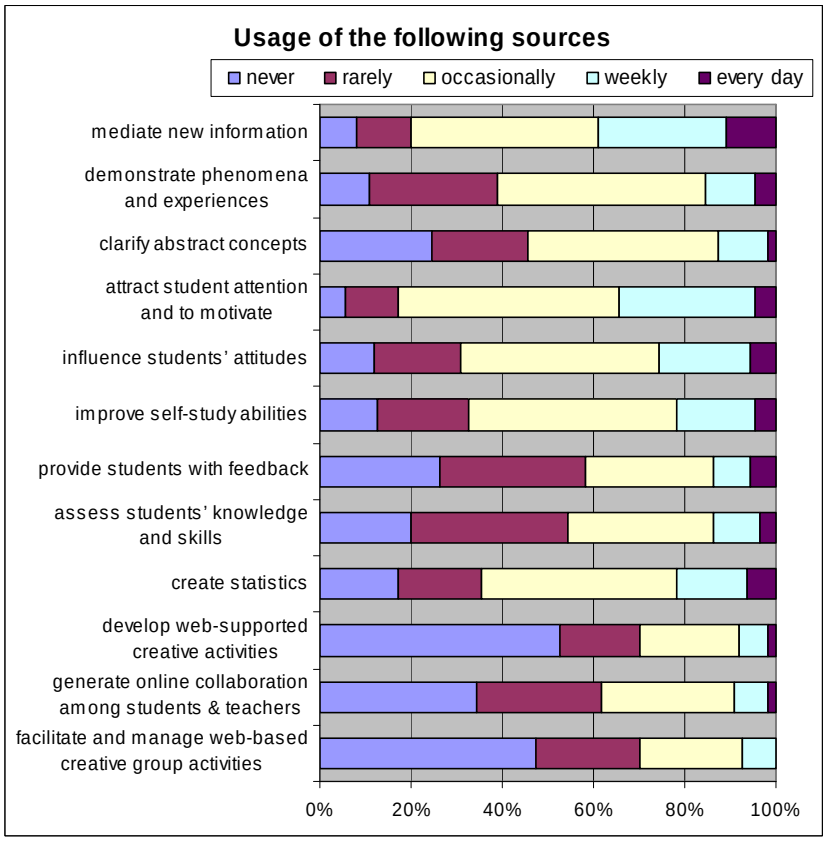
ICT tools in your pedagogical practice

41. Do you use ICT tools, and Web resources to

1.1.64. Distribution of answers

	never	rarely	occa-sionally	weekly	every day
mediate new information	9	13	45	31	12
demonstrate phenomena and experiences	12	31	50	12	5
clarify abstract concepts	27	23	46	12	2
attract student attention and to motivate	6	13	53	33	5
influence students' attitudes	13	21	48	22	6
improve self-study abilities	14	22	50	19	5
provide students with feedback	29	35	31	9	6
assess students' knowledge and skills	22	38	35	11	4
create statistics	19	20	47	17	7
develop web-supported creative activities	58	19	24	7	2
generate online collaboration among students & teachers	38	30	32	8	2
facilitate and manage web-based creative	52	25	25	8	0

group activities (project work)



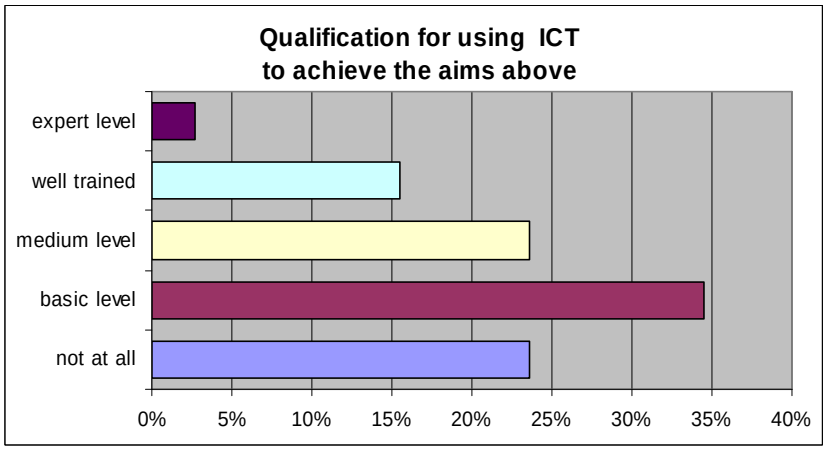
1.1.65. Evaluation

We can fix it again that one way knowledge sharing tools are highly used , and network learning, collective knowledge producing, datas referring to interactive web using are very low.

42. Are you experienced in using ICT to achieve the aims above?

1.1.66. Distribution of answers

not at all	26
basic level	38
middle level	26
well trained	17
expert level	3



43. Specify one of your favourite and most effective ICT tools

1.1.67. Answers

67% mentioned tool/tools.

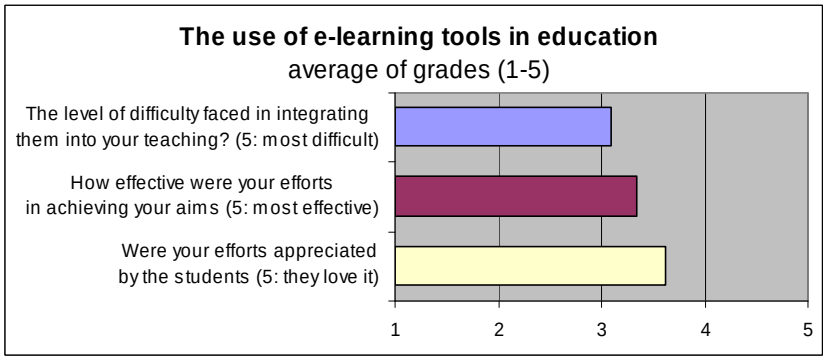
Mostly mentioned tools: laptop, projector, interactive table. Extreme cases said Word, or file exchanging.

All answers are in Annex 5.

44. If you use e-learning tools in the classroom, grade them!

1.1.68. Distribution of answers

	1	2	3	4	5
The level of difficulty faced in integrating them into your teaching? (5: most difficult)	4	8	28	15	3
How effective were your efforts in achieving your aims (5: most effective)	2	11	18	18	8
Were your efforts appreciated by the students (5: they love it)	2	5	19	18	13

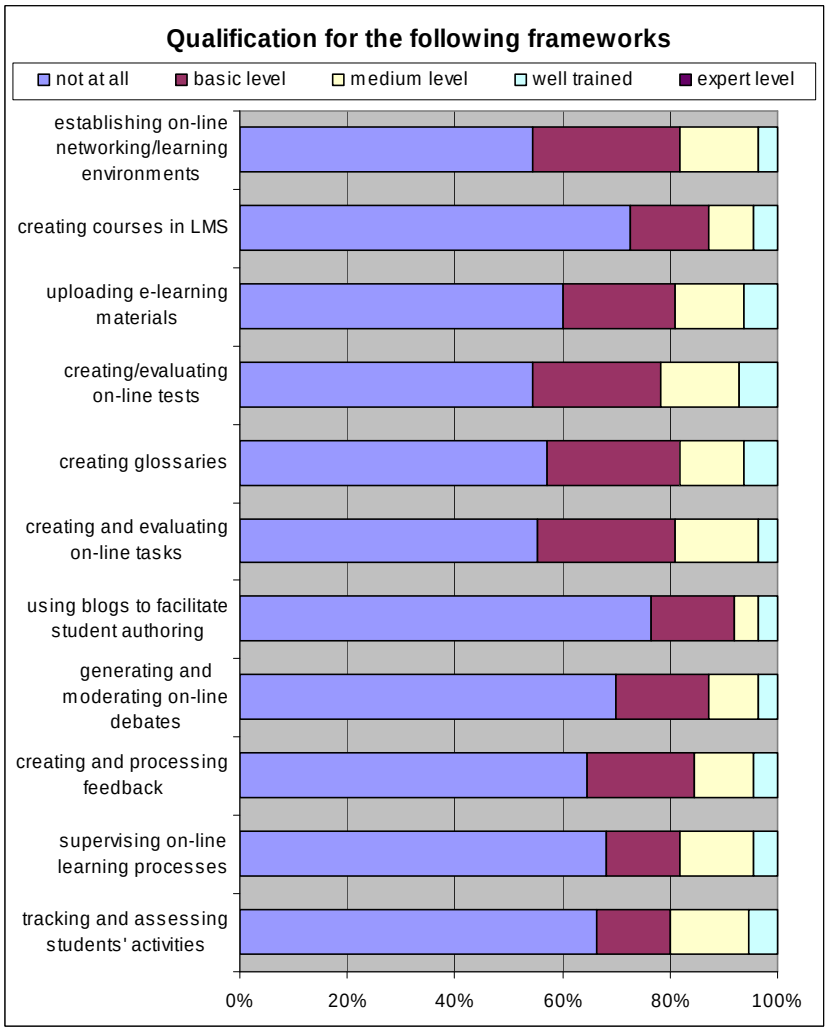


Online learning environment

45. Are you trained / experienced in?

1.1.69. Distribution of answers

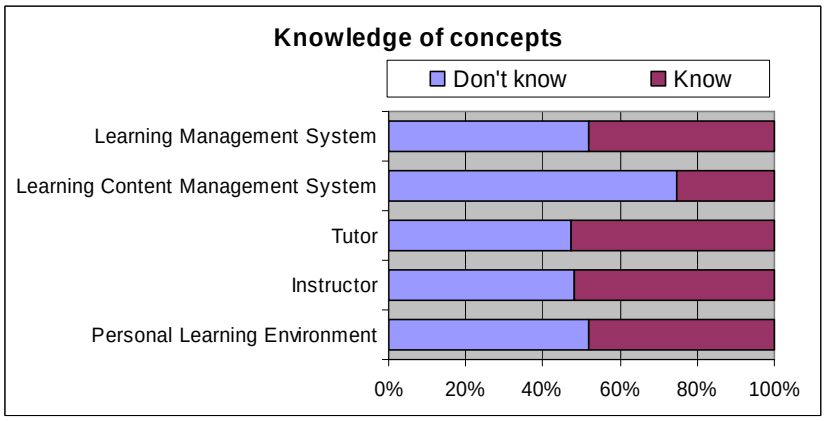
	not at all	basic level	medium level	well trained	expert level
establishing on-line networking/learning environments	60	30	16	4	0
creating courses in LMS	80	16	9	5	0
uploading e-learning materials	66	23	14	7	0
creating/evaluating on-line tests	60	26	16	8	0
creating glossaries	63	27	13	7	0
creating and evaluating on-line tasks	61	28	17	4	0
using blogs to facilitate student authoring	84	17	5	4	0
generating and moderating on-line debates	77	19	10	4	0
creating and processing feedback	71	22	12	5	0
supervising on-line learning processes	75	15	15	5	0
tracking and assessing students' activities	73	15	16	6	0



46. Do you know the following concepts?

1.1.70. Distribution of answers

	Don't know	Know
Learning Management System	57	53
Learning Content Management System	82	28
Tutor	52	58
Instructor	53	57
Personal Learning Environment	57	53



1.1.71. Evaluation

Table 45. and 56. confirm that for most of our teachers e-learning frame systems are totally unknown area. That's why Tenegen course pay attention on this.

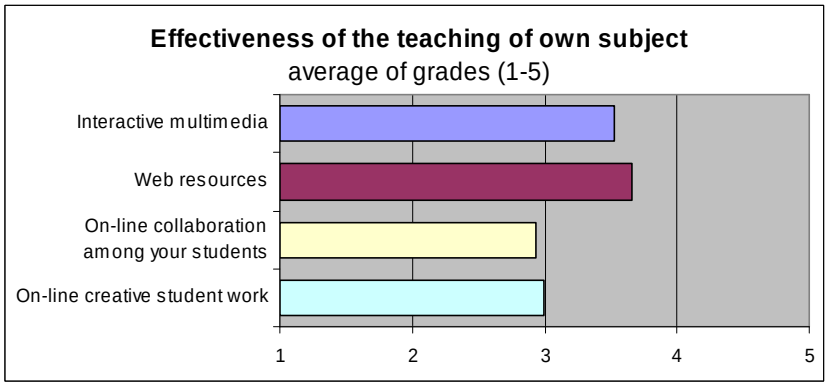
Effectiveness

47. Do following ICT tools increase the effectiveness of the teaching of your subject

1.1.72. Distribution of answers

	1	2	3	4	5
Interactive multimedia	11	10	26	36	27
Web resources	3	10	35	35	27
On-line collaboration among your students	18	21	35	22	14
On-line creative student work	16	24	32	21	17

1.1.73. Chart



1.1.74. Evaluation

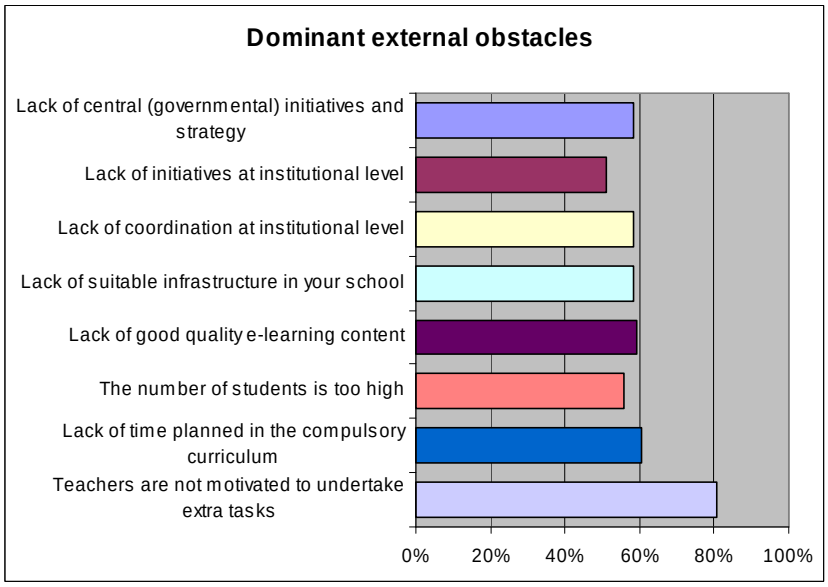
It is revealing that teachers evaluate team group very low. However in Anglo-Saxon and Scandinavian world connectivism and collective knowledge producing slowly becomes a new pedagogical paradigm.

According to European surveys ICT tools are not integrated into the pedagogical programmes of schools.

48. Rate these obstacles which are outside of your responsibility?

1.1.75. Distribution of answers

	dominant factor	manageable problem
Lack of central (governmental) initiatives and strategy	64	46
Lack of initiatives at institutional level	56	54
Lack of coordination at institutional level	64	46
Lack of suitable infrastructure in your school	64	46
Lack of good quality e-learning content	65	45
The number of students is too high	61	48
Lack of time planned in the compulsory curriculum	66	43
Teachers are not motivated to undertake extra tasks	88	21



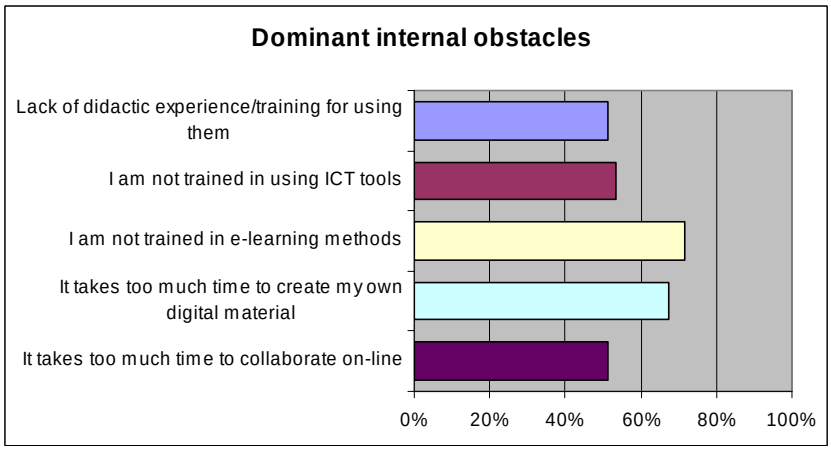
1.1.76. Evaluation

Preparing the digital learning materials, organizing integrated learning environment at an institute level, didactical training of teachers at the beginning, requires a really intensive aligned work, and huge cost efforts. Students should be actively involved and collective knowledge processing based on internet requires different timetable, different volume of materials, different supervising methods, different salaries and motivations. That's why many teacher thinks that these factors are critical.

49. Rate these personal issues?

1.1.77. Distribution of answers

	dominant factor	manageable problem
Lack of didactic experience/training for using them	56	53
I am not trained in using ICT tools	58	51
I am not trained in e-learning methods	78	31
It takes too much time to create my own digital material	74	36
It takes too much time to collaborate on-line	56	53



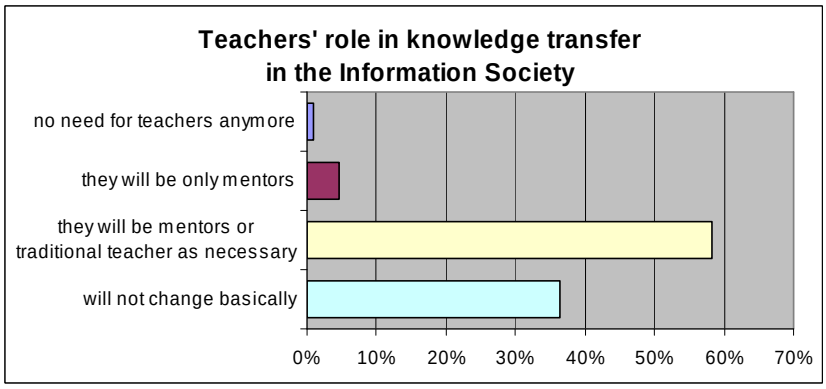
1.1.78. Evaluation

This table confirms that training of the teachers are essential – Tenegen course pays an important role in it.

50. On the path towards an information society how will the role of the teacher be changed with respect to, or influenced by knowledge transfer?

1.1.79. Distribution of answers

no need for teachers anymore	1
they will be only mentors	5
they will be mentors or traditional teacher as necessary	64
will not change basically	40



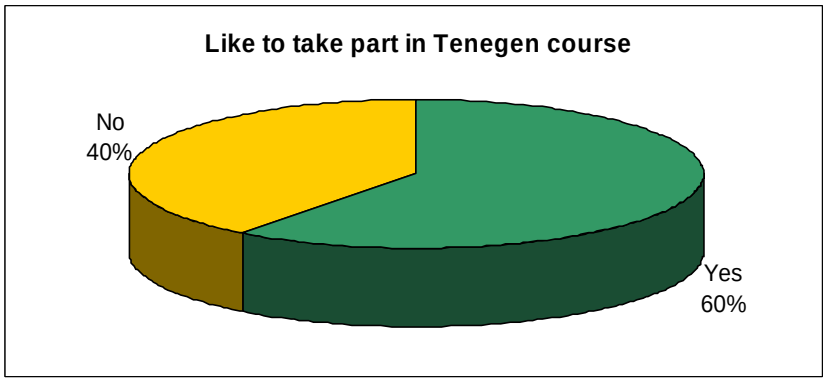
1.1.80. Evaluation

It's not oblivious from the answers that how many of them thinks that teachers will change from traditional teachers to mentors, but the answer „will not change basically" refers to conservatism.

51. Would you like to take part in Tenegen course?

1.1.81. Distribution of answers

Yes	62
No	41



1.1.82. Evaluation

Teachers feel that they need a further training. That's why we established Tenegen project.

- According to all the answers we can make the conclusion that at least for half of the teachers the interactive world of web 2.0 is unknown.
- Our impression is that internet nowadays is only the extension of the traditional, linear standard teaching.
- Infinitesimally low the number of those who has experience in network organized, self organized, connective knowledge sharing, whether it is an experience exchange on the net between teachers, students, or it is a teacher – student knowledge sharing.
- The basic situation is that linear thinking teachers teach simultaneously thinking students
- Beside average internet usage, it is also question how familiar are teacher with the different web tools in a didactical, subject specific point of view.
- Complex planning and managing on institutional level (technology, service, time schedule) are essential. Managing e-learning should be a crucial point of the course.