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WBT Need Analysis Report Finland

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WBT WORLD Web Based Trainers Needs Analysis Summary

Finnish Report

made for WiTEC Finland
by BBA Veera Peltonen



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1. INTRODUCTION

Computer and e-learning based teaching is becoming more and more general. Almost in every school there is at least one e-course and computer class. The meaning of an e-learning is significant when we think of the need of degrees. The faster you can get one the better. Now, when European Union is trying to organise and merge the education within its premises, e-learning is more important than ever. To have students from all over Europe is a dream of all schools and now the dream has possibilities of becoming true. Because European Union has seen an opportunity in e-learning, it has started to sponsor projects which aim to develop e-learning and more importantly develop teachers to become e-teachers.

E-learning is becoming a trend now-a-days, but still there is something missing, that would make it the hit it deserves. Now WBT-world is trying to be something for everyone, and it has made a survey to see what people think. WBT-World stands for Web Based Trainers' Wide Open Resource for learning and Development. The WBT project aims at creating the premises for improving the quality of the Internet-based courses at all levels, through: developing powerful tools for web-based trainers' competence improvement on both on technical and pedagogical skills and building a „wide open“ virtual resource for WBT, where they could learn, share experiences, be continuously informed and updated and so on.

Nowadays one can get education from almost everywhere. The best place to give education is The Internet, because almost everyone in everywhere has some a kind of an access to a computer and online. We have normal teachers and tutors to teach us in schools and institutions. They travel sometimes great distances to be as guest speakers or lecturers. There are excellent and good teachers to teach us, but no-one changes overnight to be a good or excellent e-teacher. This is why education and tutoring is needed for the teachers.

Other web based learning environments

Optima or DISCENDUM was originally a product developed in the University of Oulu which since then has been incorporated, you can build an e-course with it. Optima does co-operation with companies so that they can build a learning environment to suite their needs, for example Optima Business. (<http://www oulu.fi/english/index.html>)

PEDA.NET consists of modules which are used in different meanings. The programme is administered by the educational research department of the University of Jyväskylä. The programme is not bought but it is paid a yearly fee which can be determined either by school or by community. In peda.net there are online magazines, Verkkolehti, Veräjä, and Opspro and also there is a learning environment, Oppimappi.

(<http://www.jyu.fi/indexeng.shtml>)

2. QUESTIONNAIRE

This research is both qualitative and quantitative. This is because there are not many people answering to the questionnaires so the results cannot be held as the opinion of a greater audience. As from all the partner countries there were chosen 20 persons, who answered the questionnaire, the results cannot be processed as quite reliable. Also the results cannot be processed as valid because the questions and terms are in English and the understanding of the questions and terms is individual. This means that there is no certainty that everyone has understood the questions the same way. So the problem lies that people might think the same but answer differently, so we cannot be sure that the results are valid. The 20 persons answered the questionnaire after they had done a course. Two experts were chosen to be interviewed. The reason why these experts were chosen was their experience in e-learning. The experts were interviewed in Tulossilta's office.

2.1 G. E-learning experience

In the first set of questions were asked about his/hers e-learning experiences and whether they had appreciated the experience.

2.1.1 G.1: How do you appreciate your experience in the e-learning field?

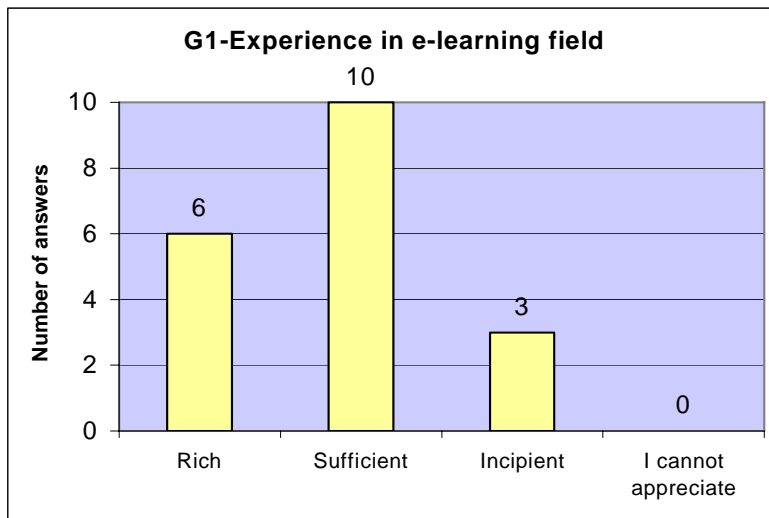


Chart 1. G1- Experience in e-learning field

No-one of the respondents could appreciate their experience in the e-learning field. Most of them thought that it was sufficient (10) and even six of the respondents thought their experience in the e-learning field to be rich. Only three chose to answer incipient. (Chart 1)

So most of the respondents are happy with their experience in e-learning field and feel that it is sufficient for them. The reason why most of them consider their experience in e-learning sufficient is probably that the e-learning field is continuously growing and you can get new experiences all the time in the different parts of e-learning. Also I think that most of the respondents consider their experience sufficient because e-learning is still quite new field when contrasted with other educational fields.

2.1.2 G.2: How long have you been working in the e-learning field?

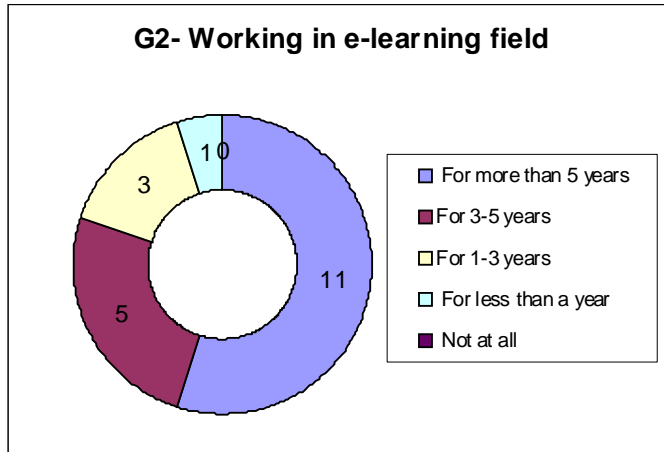


Chart 2. G2 - Working in e-learning field

In this question there was a remark: those who have chosen the “not at all” choice will pass directly to the question P1. None of the answerers chose the “not at all” choice. Only one of them had been working in the e-learning field for less than a year. Most of them had been working in the field for more than 5 years (11) and five had work for 3-5 years. Three had worked for 1-3 years.

This explains pretty well the results from the question G1. because there only few thought their experience were not sufficient and here it shows that only few has experience less than 3 years. So it seems that the more experience you have the more you think you have experience. This also is true in any field, but as the e-learning is quite new, it might not be the whole truth. As it is still quite new field, you will be getting new information all the time and the previous information might be then out dated.

2.1.3 G.3: In which competence areas would you like to share your experience?

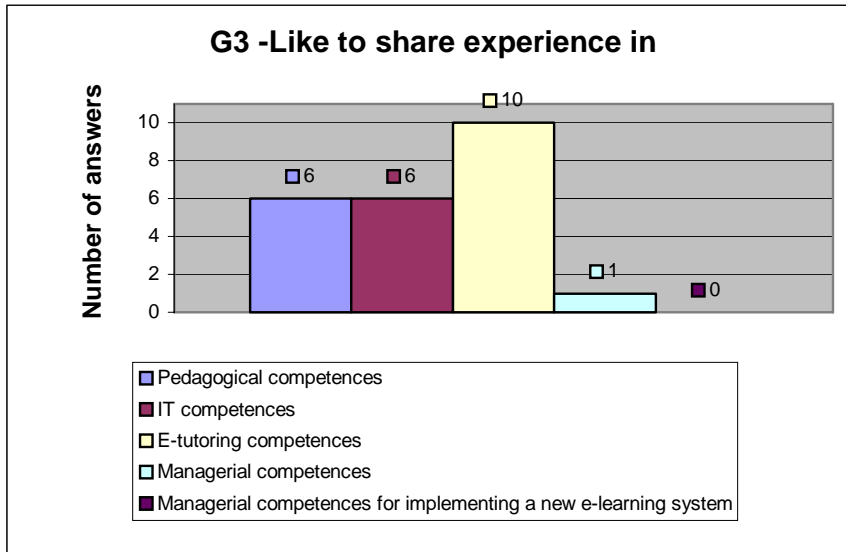


Chart 3. G3 – Like to share experience in

Some of the respondents chose more than one choice there for the total number of answers can be greater than number of respondents. Most of them wanted to share their experience in E-tutoring competences (10), pedagogical competences (6), and in IT competences (6). Only one wanted to share his/her competences of Managerial competences. Two had other kinds of competences that they wanted to share, which were production of the course material and finding those who supply e-learning. No-one chose managerial competences for implementing a new e-learning system. (Chart 3)

Because giving an advice is easy, and tutoring comes almost naturally to some teacher, it is a reason why so many respondents want to share their competencies in e-tutoring. Also nowadays it is normal to have good knowledge of IT, so it is not surprising to see that respondents want to share their competencies in it too. As there are many different schools in pedagogy, I am not too surprised to see that only six wanted to share their experience in pedagogical competences. Having said that, almost all of the respondents have something to do with teaching and they are going to be WBTs. They do have experience, but maybe they do not consider it that important as the e-learning is in question. Manage-

rial competencies are not that important, but very necessary in e-learning. If most of the respondents have educational background it is not startling that only one wanted to share experience in managerial competencies. Very useful competencies are also the production of the course material and finding those who supply e-learning.

2.2 D. E-learning difficulties

In this part we focused on their e-learning difficulties. What kind of difficulties and in which areas have they had them. Some of course didn't have any difficulties and so weren't obligated to answer these questions.

2.2.1 D.1: Have you encountered difficulties as far as e-learning is concerned?

	Yes	No
Have you encountered difficulties as far as e-learning is concerned?	12	8

Table 1. D1- Difficulties in e-learning

In this question there was a remark: those who have chosen the "no" choice will pass directly to the question P.1. Eight respondents chose the answer no and thus will not be answering in the D area. 12 respondents felt that they have encountered difficulties when e-learning is concerned. (Table 1.)

This is not surprising to hear because e-learning is quite new field and it is developing all the time so there is about to be problems. I do find it interesting that eight of the respondents did not have difficulties in e-learning. Especially when some of them have had more than 3 years of experience in e-learning area, you would think that they would have encountered at least some kind of difficulties.

2.2.2 D.2: What kind of difficulties have you had?

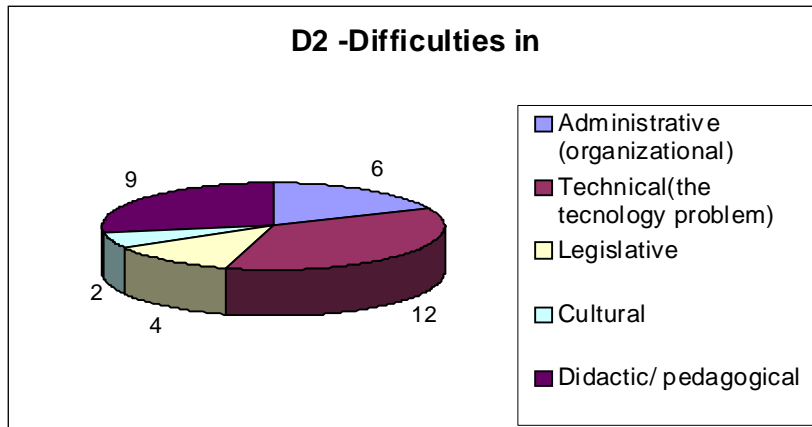


Chart 4. D2 – Difficulties in

Some of the respondents chose more than one choice there for the total number of answers can be greater than number of respondents. Most of the respondents had had difficulties in technical (the technology problem) area (12) and didactic/pedagogical area (9). Also difficulties were found in administrative (organisational) area (6). The least problems were in legislative (4) and cultural (2) area. (Chart 4.)

All the respondents that had had difficulties in e-learning had had it in technical area. This is not hard to imagine as the technology is developing with huge steps all the time. There are problems when the program is done with the newest software and the user is using the old one. Also it is normal to have problems in didactic / pedagogical and administrative area whether it is e-learning or learning. As it is certain that some students will like the course it is also certain that some will have problems with it. I found it surprising that two of the respondents have had difficulties in cultural areas as usually the learning materials try to be very non-cultural. Having said that, is the culture something that is hard to keep out of things that we teach. It is not going to be huge problem yet, as not many of the respondents have had problems with it, but still e-teachers and e-authors have to keep in mind continuously cultural aspects. Legislative difficulties are not either surprise, because in online environment there always has been and always will be some problems with legislation.

2.2.3 D.3: In the administrative aspects

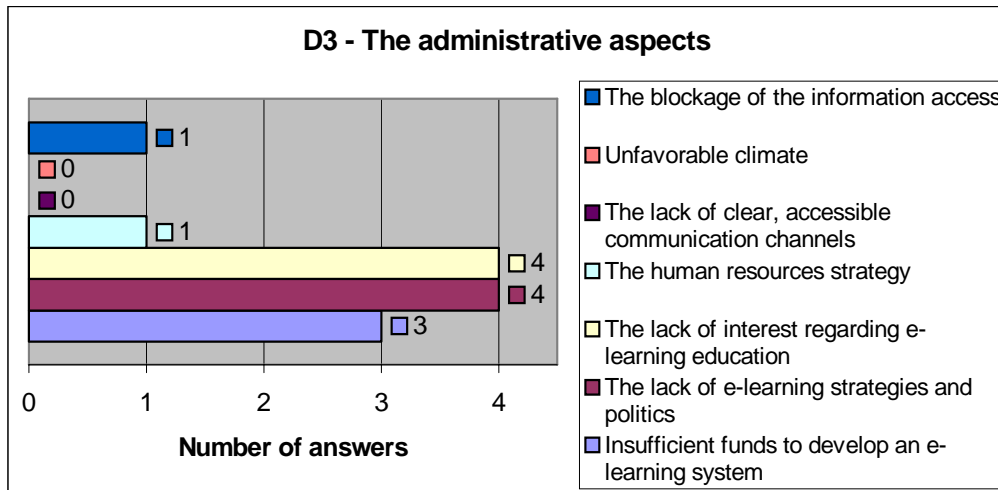


Chart 5. D3 – The administrative aspects

Because respondents had usually more than one difficulty they chose more choices and therefore the total number of answers can be greater than the number of respondents. Those six who chose the administrative aspects perceived the following difficulties; the lack of e-learning strategies and policies (4), The lack of interest regarding e-learning education (4), insufficient funds to develop an e-learning system (3), the human resources strategy (1), and the blockage to access of information (1). No-one chose unfavourable climate or the lack of clear, accessible communication channels. (Chart 5.)

It is very alarming to hear that some of the respondents have had problems with the lack of interest regarding e-learning education and e-learning strategies and politics in the administrative aspects. This is probably caused by the unfamiliarity with the subject area. Insufficient funds to develop an e-learning system are easy to imagine as no-one likes to invest in a matter that is relatively new.

The blockage of the information access can be a quite big problem if it is not handled in time. All that e-learning is; providing information to others that want to learn. The human resources strategy can also cause problems if there is no-one that you can contact to. The course will be very difficult to contact without information and personnel.

2.2.4 D.4: In the technological aspects

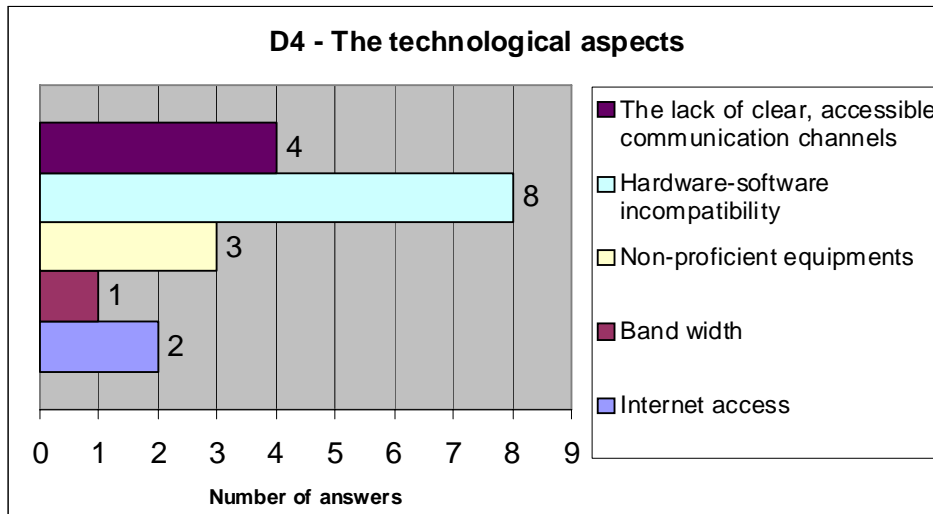


Chart 6. D4 – The technological aspects

Because the respondents had usually more than one difficulty they chose more choices and therefore the total number of answers can be greater than the number of respondents. Those twelve who chose the technological aspects perceived the following difficulties; hardware-software incompatibility (8), the lack of clear, accessible communication channels (4), non-proficient equipment (3), The Internet access (2), band width (1), and barning environment functions [sic] (1). (Chart 6)

As the technology develops itself all the time in a phase that is very difficult to follow sometimes, it is not surprising to find out that there are hardware-software incompatibilities with e-learning. The ones that make the course usually use the best software they can buy, and sometimes forget to upgrade their computers once in a while. The newest software goes hand in hand only with the newest technology, and this is something that people easily forget.

Same goes with the Internet access and band width. Old computers do not connect very well with high speed connections. It is hard to find proficient equipment for e-learning materials, as no-one has yet developed one. One might say that they are under construction.

Also older computers cannot have as big band width as new computer can. The lack of clear, accessible communication channels can be a big problem, as when the technology is in question; people want to have a direct line to some where, where from they can get some help.

2.2.5 D.5: In the legislative aspects

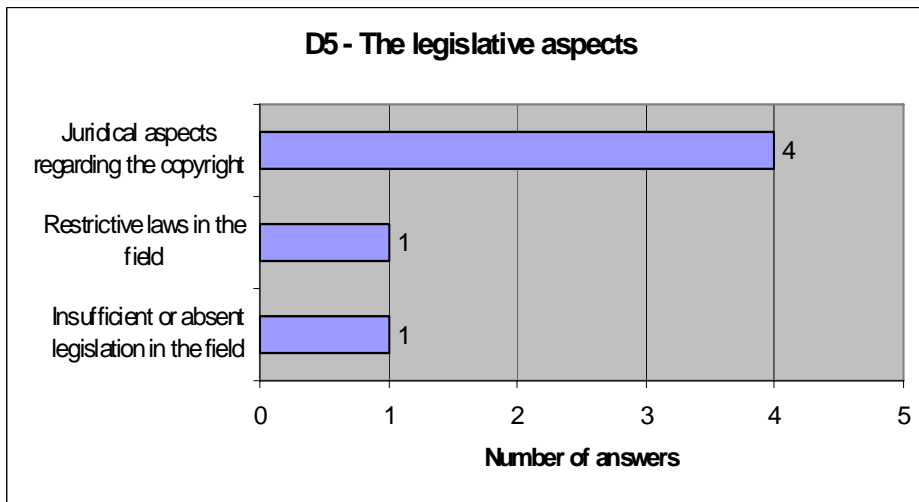


Chart 7. D5 the legislative aspects

Because the respondents had usually more than one difficulty they chose more choices and therefore the total number of answers can be greater than the number of respondents. As you can see in chart 7, those four who chose the legislative aspects perceived the following difficulties; juridical aspects regarding the copyright (4), insufficient or absent legislation in the field (1), and restrictive laws in the field (1).

All the respondents had had difficulties in juridical aspects regarding the copyright. This is understandable as the legislation in online material can sometimes be a little vague. Also you need to clarify yourself the law. Sometimes problems can be just misunderstanding. Insufficient or absent legislation in the field and restrictive laws in the field are each others opposites and thus a good example of how misinterpreting can cause problems. This also is a good example why the future WBT's should get a good education in legislative aspects as well.

2.2.6 D.6: In the cultural aspects

Because the respondents had usually more than one difficulty they chose more choices and therefore the total number of answers can be greater than the number of respondents. Those two who chose the cultural aspects perceived the following difficulty representation differences among cultures, regarding learning process and the teacher-student relation.

Culture is a subject where there are no easy solutions. We might think that in our material there is nothing that would insult or offend anyone, but we never can be totally sure. We are only experts of our own culture, and we rarely take into consideration the other cultures.

The learning process and the teacher-student relation are quite different in some of the main cultures. This gives us a quite big problem in developing a course for Europe. In Europe we have many different cultures and now we should mix them all to get one working course. This surely is not an easy task, but nevertheless; it is a task we have to do.

2.2.7 D.7: In the pedagogical aspects

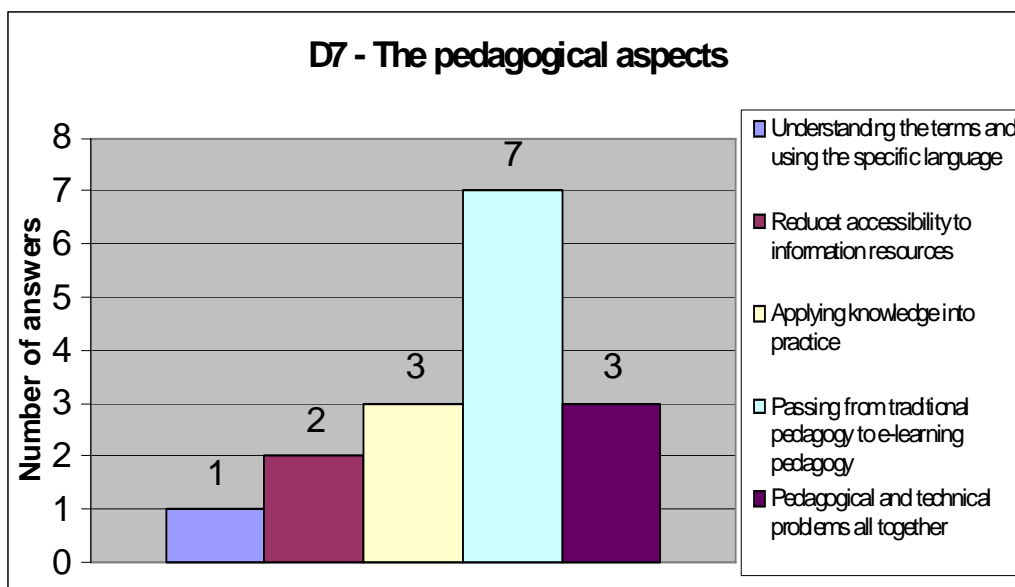


Chart 8. D7 – The pedagogical aspects

Because the respondents had usually more than one difficulty they chose more choices and therefore the total number of answers can be greater than the number of respondents. Those nine who chose the pedagogical aspects perceived the following difficulties; passing from traditional pedagogy to e-learning pedagogy (7), applying knowledge into practice (3), pedagogical and technical problems all together (3), reduced accessibility to information resources (2), and understanding the terms and using the specific language (1). (Chart 8.)

Of course there will be difficulties to go from traditional pedagogy to e-learning pedagogy as even though they are similar they have few very distinctive differences. This in mind the education of new WBT's should be easier. As it is difficult in normal class room education to apply knowledge into practice, it is also difficult in e-learning, even more so.

Pedagogical and technical problems all together are an annoyance, and they are avoidable as long as one will know what they are and what the ways of avoiding them are. Reduced accessibility to information resources in e-learning can produce big difficulties as that is what you are trying to get from it. So while planning an e-learning course you should check that all the information that you are going to put there are accessible for everyone taking part in the course.

In e-learning there is also the problem of language. In which language should it be done? Everyone knows their own native language, but there are then people who do not know more. And even though you would understand a language, some phrases and terminology can still be difficult for you. This in mind everything should be explained in plain English.

2.3 P. Educational needs: thematic areas

2.3.1 P.1: In which thematic areas from the “instructional Design” field would you like to expand?

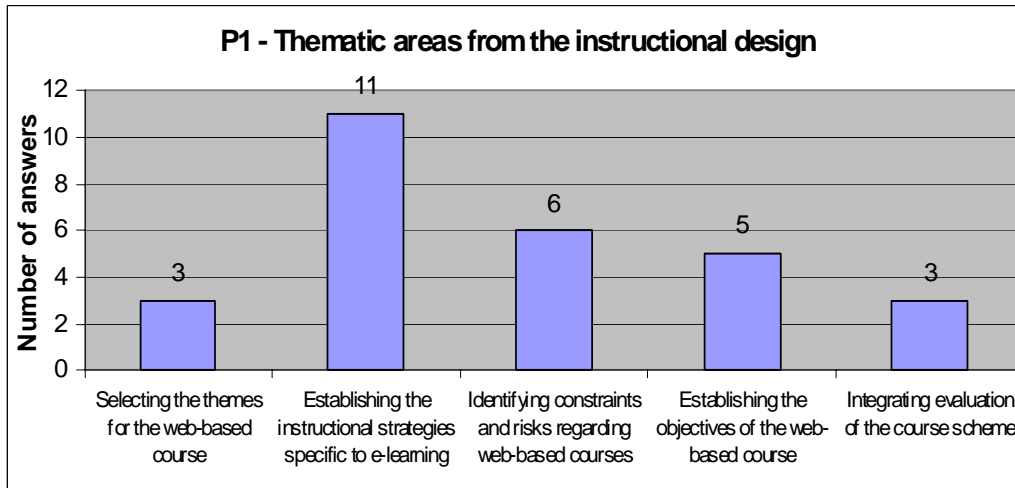


Chart 9. P1 - Thematic areas from the instructional design

The respondents would like to expand the following in their educational needs in the “Instructional Design” field. Eleven respondents would like to expand establishing the instructional strategies specific to e-learning, and six would like to expand identifying constraints and risks regarding web-based courses. Establishing the objective of the web-based course (5), integrating evaluation in the course scheme (3), and selecting the themes for the web-based course (3) were also chosen to be interesting. (Chart 9.)

According to the results, the respondents in the instructional design field take part in the course of establishing the instructional strategies specific to e-learning. Not to say that any of these subjects would not be important to study or expand experience in, but as the results show, there would not be enough participants in all the themes. Selecting the themes for the web-based course and integrating evaluation of the course scheme would be left out. Safe bets for having a course would be identifying constraints and risks regarding web-based courses and establishing objects of the web-based course. This shows that the respondents feel that they need to have these courses to be better in their job.

2.3.2 P.2: In which thematic areas from the “Web course Design” field would you like to expand?

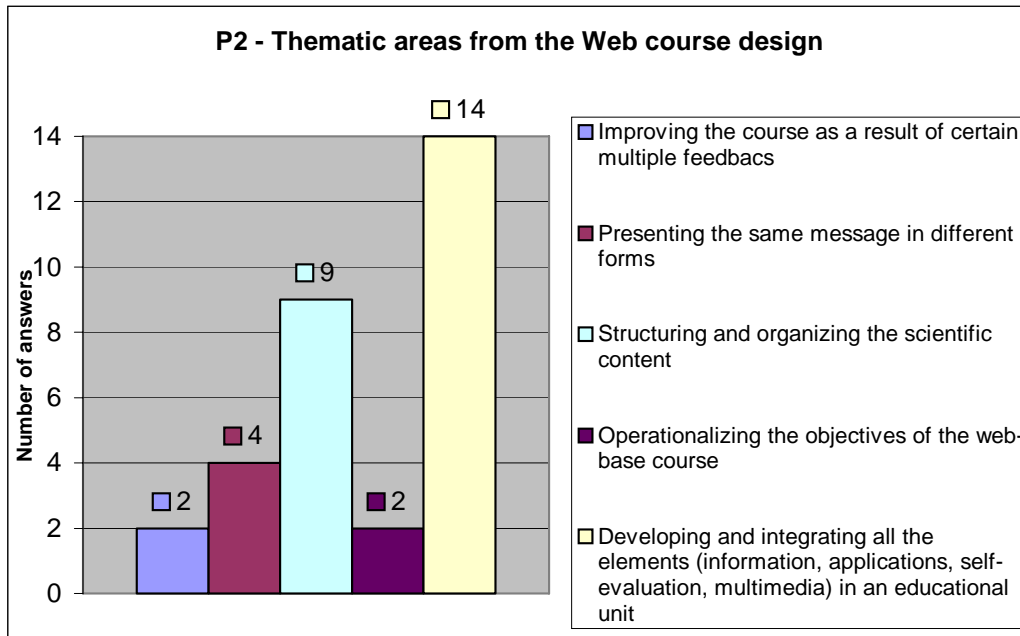


Chart 10. P2 – Thematic areas from the Web course design

The respondents would like to expand the following in their educational needs in the “Web course Design” field. Developing and integrating all the elements (information, applications, and self-evaluation, multimedia) in an educational unit (14), Structuring and organizing the scientific content (9), and Presenting the same message in different forms (4) were considered interesting. Improving the course as a result of certain multiple feedbacks (2) and Operationalizing the objectives of web-based course (2) were also considered as a thematic area where the respondents would like to expand. (Chart 10.)

In web course designs field the respondents would like to expand their knowledge in developing and integrating all the elements (information, applications, self-evaluation, and multimedia) in an educational unit. This is not unexpected as most of the respondents have educational background and experience in it. Subject teachers do not need to know or dominate these kinds of things. Nor do they need to structure and organize the scientific content. Usually the subject teachers (or any teachers) will get the material ready, and then from there they build up the syllabus.

Presenting the same message in different form is also important as the text cannot be too boring or long in online environment. Improving the course as a result of certain multiple feedbacks, and Operationalizing the objectives of web-based course were not considered that interesting subjects that the respondents would like to expand into them. They already might have experience in these, as development based on feedback is a destiny of all courses.

2.3.3 P.3: In which thematic areas from the “Evaluation system” field would you like to expand?

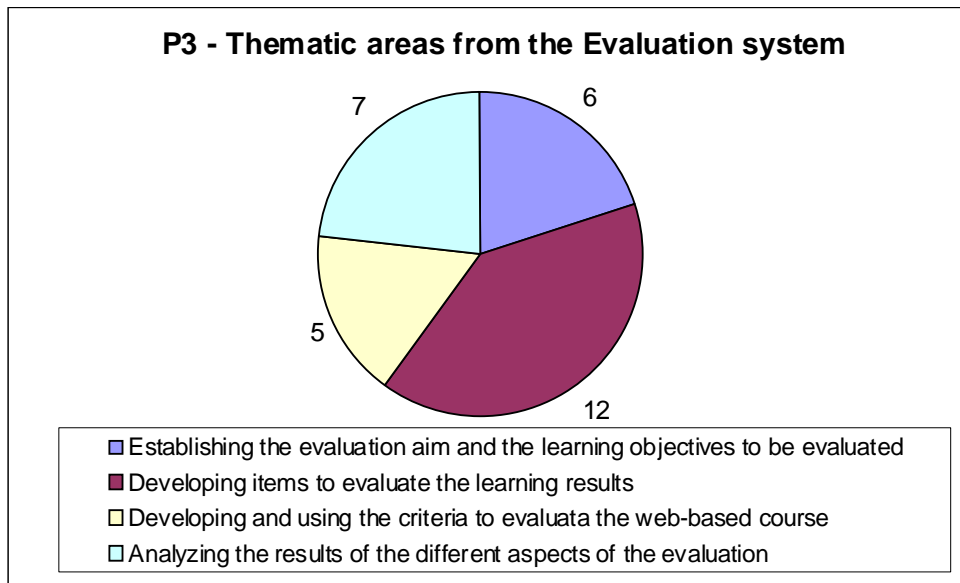


Chart 11. P3 – Thematic areas from the Evaluation system

The respondents would like to expand the following in their educational needs in the “Evaluation system” field. Most of the respondents chose Developing items to evaluate the learning results (12) and analyzing the results of the different aspects of the evaluation (7). Six respondents chose Establishing the evaluation aim and the learning objectives to be evaluated and also five chose Developing and using the criteria to evaluate the web-based course. (Chart 11.)

These all areas are very important and it is good to see that the respondents feel the same way. As a whole for course evaluation system, the results are positive and encouraging. As the most important aspect the development of items to evaluate the learning results is a good area for normal learning too. All these areas mentioned are very important and it is good to see that the respondents want to have more knowledge in these areas, because the most important thing in a course is, after teaching, the evaluation.

2.3.4 P.4: In which thematic areas from the “E-tutoring” field would you like to expand?

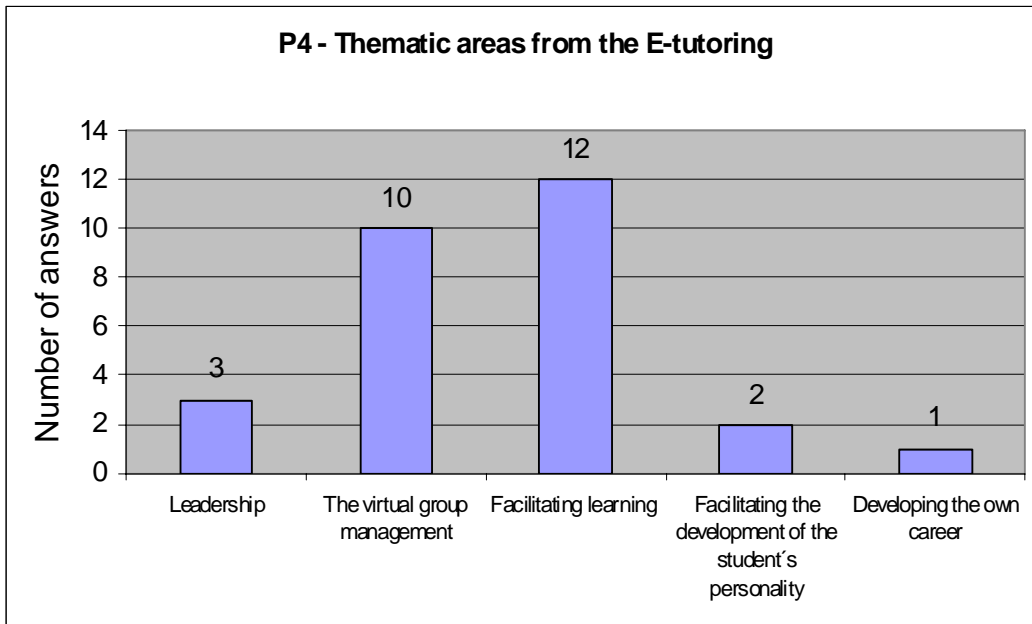


Chart 12. P4 – Thematic areas from the E-tutoring

The respondents would like to expand the following in their educational needs in the “E-tutoring” field. Most of the respondents chose in this question Facilitating learning (12) and The virtual group management (10). Also Leadership (3), Facilitating the development of the student’s personality (2) and Developing the own career (1) were chosen. (Chart 12.)

The respondents kept the virtual group management and facilitating learning important and rightfully so. They are important aspects of tutoring and e-tutoring. The respondents did not consider leadership, facilitating development of the student's personality or developing the own career important. These last three areas are kind of discussable because they in a way do not help with the students learning process. And that is what tutoring is supposed to be; help student with his learning process. The virtual group management and facilitating learning instead do just that. When they are mastered well, the tutor can help the students more easily and professionally.

2.3.5 P.5: In which thematic areas from the “Developing multimedia interactive resources” field would you like to expand?

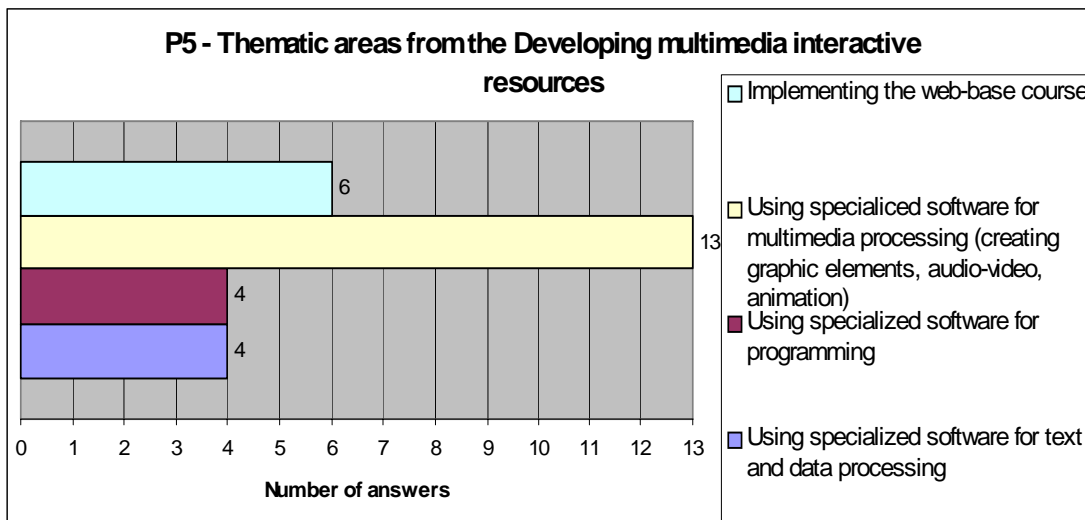


Chart 13. P5 – Thematic areas from developing multimedia interactive resources

The respondents would like to expand the following in their educational needs in the “Developing multimedia interactive resources” field. Almost all of the respondents chose Using specialised software for multimedia processing (creating graphic elements, audio-video, animation) (13). Also Implementing web-based course (6), using specialised software for text and data processing (4), and Using specialised software for programming (4) were chosen. One would like to expand in simulations. (Chart 13.)

As most of the respondents do not have education in multimedia it is understandable that they would like to have more education in using specialized software for multimedia processing (creating graphic elements, audio-video, animation). This is most certainly an area where they do not have a lot of expertise in. Even though they have experience in e-learning, still it is a good idea to have more information of implementation of web-based course. Even if they now have experience in using software and process text and data, they might not have sufficient experience as the tools are something that is developed all the time. As a whole for course developing multimedia interactive resources, the results are positive and encouraging.

2.3.6 P.6: In which thematic areas from the “Using multimedia equipment in communication” field would you like to expand?

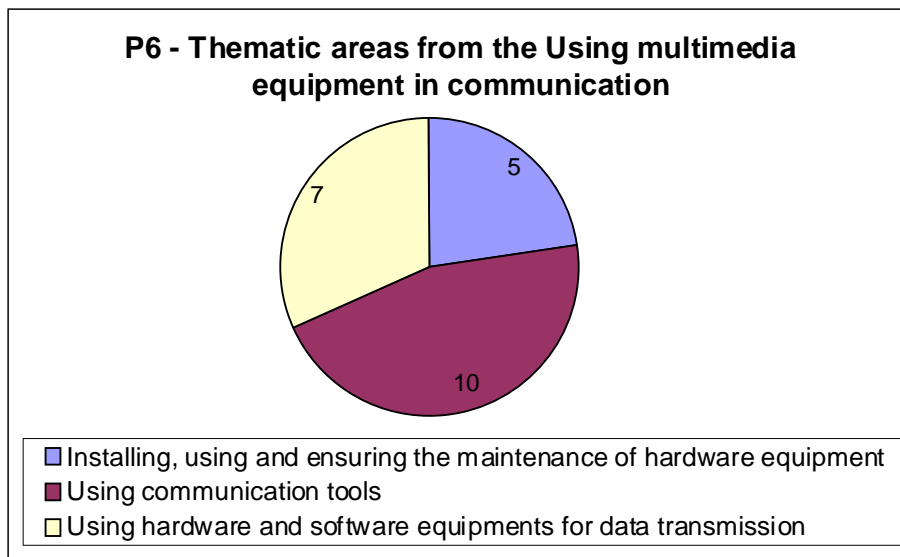


Chart 14. P6 – Thematic areas from the Using multimedia equipment in communication

The respondents would like to expand the following in their educational needs in the “Using multimedia equipment in communication” field. The respondents chose Using communication tools (10), Using hardware and software equipments for data transmission (7), and Installing, using and ensuring the maintenance of hardware equipment (5). (Chart 14.)

As in the previous question, in this also as a whole for course using multimedia equipment in communication, the results are positive and encouraging. As most of the respondents do not have education in multimedia it is understandable that they would like to have more education in using multimedia equipment in communication. The use of equipment is necessary is e-learning and thus it is unfortunate if e-teacher cannot use it. If they have more experience in normal class room teaching this is the unfortunate fact, they do not need to use there communication or hardware equipment that much or as intensively as in e-learning.

2.4 O. Educational needs: training

In this part we focused on their educational needs. More precisely, on the training of educational needs. What kind of needs and in which training areas do they have the needs.

2.4.1 O.1: If you are going to become WBT, in which of the following sub-fields linked to pedagogical training would you like to improve yourself?

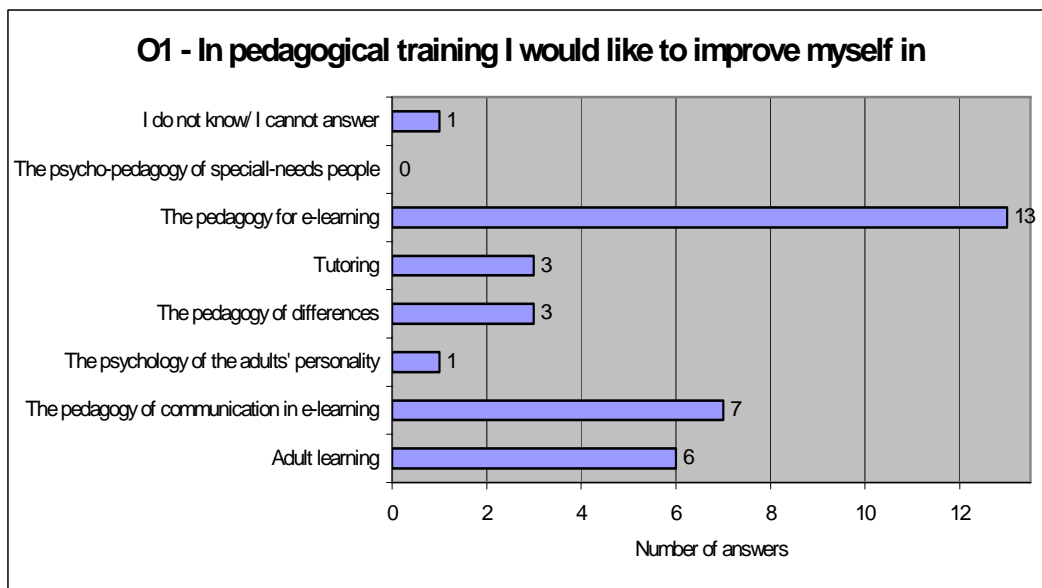


Chart 15. O1 – In pedagogical training I would like to improve myself in

Most of the respondents who were becoming a WBT would like to improve themselves in The pedagogy for e-learning (13) and The pedagogy of communication in e-learning (7). Also Adult learning (6), Tutoring (3), The pedagogy of differences (3), The psychology of adult's personality (1) were chosen. One of the respondents did not know or could not answer the question. No-one chose the psycho-pedagogy of special-needs people. (Chart 15.)

This means that there are needs for pedagogy for e-learning as well as for the pedagogy of communication in e-learning and adult learning. These could be subjects for some future courses as it shows that there would be enough part takers in them. As there is no interest or not much interest in the psycho-pedagogy of special-needs people and in the psychology of the adult's personality, these parts should be left out for now. They are very important subjects nevertheless and so later should be done another survey to see whether there is need for them. Tutoring and the pedagogy of differences should be included in the course as they are important to have even though the respondents have not liked these. In tutoring one can never have enough experience in.

2.4.2 O.2: If you are going to become WBT, in which of the following sub-fields and which are linked to technical training would you like to improve yourself?

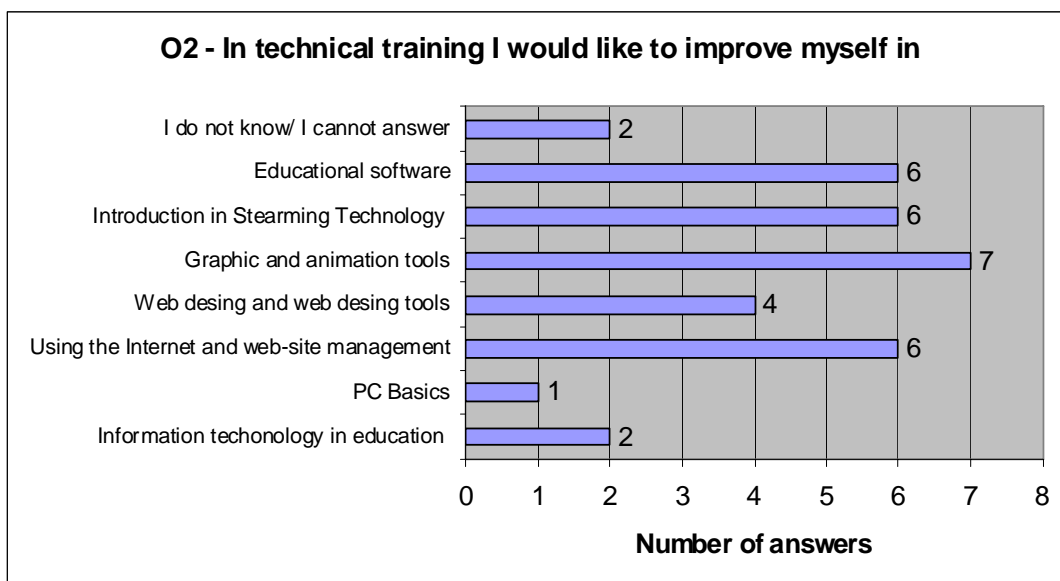


Chart 16. O2 – In technical training I would like to improve myself in

Most of the respondents who were becoming a WBT would like to improve themselves in the following sub-fields. Seven of the respondents chose Graphic and animation tools, six chose Educational software and also six Using the Internet and web-site management. Introduction in Streaming technology (6), and Web design and web design tools (4) were considered also to be important. Two of the respondents chose Information technology in education and one chose PC Basics. Two of the respondents did not know or could not answer the question. One would like to have other kinds, namely New technology (mobile learning). (Chart 16.)

I would say that it is worrying that e-teachers would need to have more training in PC basics. Luckily it seems that there is no need in here even though one has chosen it. Graphic and animation tools are something that are developed all the time so it is important that future WBT's want to have training in the area. Educational software, introduction in streaming technology and using the Internet and web-site management are also areas that do develop all the time.

These are important things and to learn them might take quite a lot of time, especially if they are meant to be learned together. Web design and web design tools are also mentioned as also is new technology namely mobile learning. It is good to find out that there might be interest in new subjects even though the already existing subjects are also quite demanding. New technology might not yet be the thing to consider, but it is a good alternative for the future.

2.5 T. Educational needs: training in related fields

In this part we focused on their educational needs. More specifically on the training in related fields of educational needs. What kind of needs and in which training in related areas do they have the needs.

2.5.1 T.1: Is it necessary to approach some other themes linked to the following fields?

	Yes	No	I do not know / I cannot answer
Intercultural communication	15	4	1
Legislation specific to e-learning	13	5	2
Organisation and management theory	8	10	2
The virtual community functioning	18	1	1

Table 2. Is it necessary to approach some other themes linked to the following fields?

In intercultural communication and The virtual community functioning, there was one of the respondents that did not know or could not answer the question. In organisation and management theory and legislation specific to e-learning there were two that did not know or could not answer. Eighteen of the respondents thought that it is necessary to approach some other themes linked to the virtual community functioning theme, while one thought it is not necessary. In organisation and management theory eight of the respondents considered it as necessary and ten considered it as not being necessary to be approached. Thirteen thought that it is necessary to approach some other themes linked to legislation specific to e-learning and five considered it as unnecessary. In intercultural communication fifteen of the respondents wanted to approach themes linked to it and four considered it as unnecessary. (Table 2.)

Organisation and management theory is something that can be considered to be left out. This is not that important, and in the beginning of their training they probably have had enough of this kind of theory. The most popular was the virtual community functioning. It is something that exists beyond education. There are virtual communities almost for everything and so it is normal to have them in e-learning as well and to educate e-trainers to use them.

Very important is also intercultural communication. I think it is even more important than the respondents might think. If we cannot convey our message to someone so that they would learn it, we have a bad course. Legislation specific to e-learning is also important as can be found earlier in this research in question D5 the difficulties in legislation aspects. As

the misunderstanding of legislation can lead to serious trouble it is a very important aspect to study.

2.5.2 T.2: Please appreciate the level of your interest in themes related to web based training of disabled persons



Chart 17. T2 – Level of interest in themes related to web based training of disabled persons

Two of the respondents had a high level of interest in themes related to web-based training of disabled persons. Two of the respondents were not interested in the subject. Nine had a low level of interest in this subject and seven had a medium level of interest. (Chart 17.)

It is a bit sad to see that the most of the respondent are not interested or has low level of interest in themes related to web based training of disabled persons. It is reassuring that there is almost as much respondents that have medium or high level of interest in the same issue. We all are human beings and so entitled to have education. To be dismissed because there are people who do not want to teach you is not right.

I think that the reason why some of the respondents have a low level of interest is because they do not know anything or not much of the subject. The level of interest might rise a little if they were given more information of the subject.

2.5.3 T.3: If you are interested in the above mentioned field, which are the themes you would like to be expanded considering your educational needs

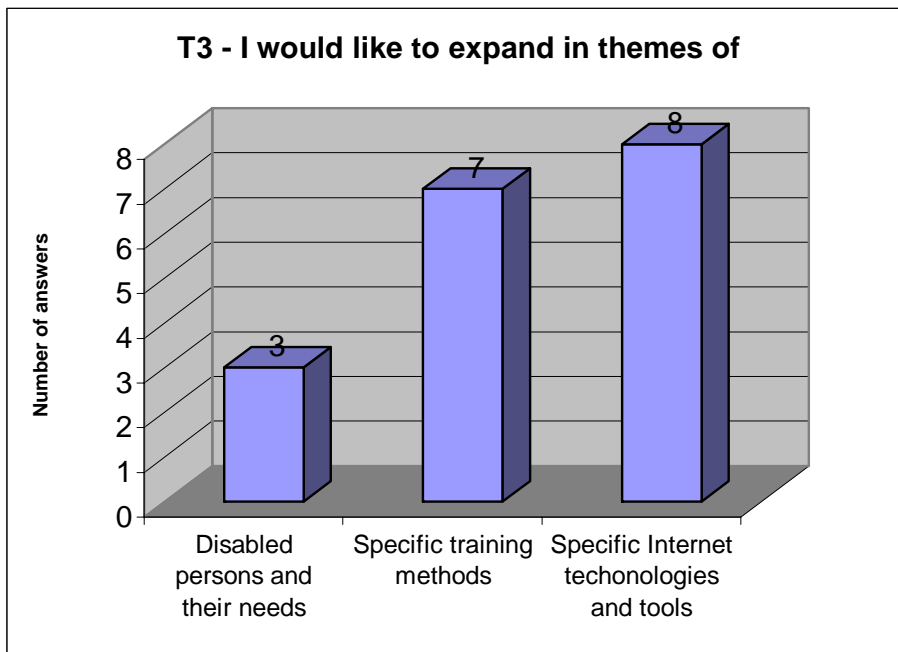


Chart 18. T3 – I would like to expand in themes of

Eight of the respondents who were interested in the above mentioned field would like to expand their educational needs to specific The Internet technologies and tools. Seven would like to expand in specific training methods and only three in disabled persons and their needs. (Chart 18.)

Even tough people have a low level of interest they would still want to learn more. Especially the specific The Internet technologies and tools is a good subject as while developing them to disabled you are also developing them for other students. Same goes the other way around too. When you develop something it usually has greater consequences than one can imagine. This is probably also the reason why respondents have chosen it. Same idea goes with specific training methods.

There is not one specific way to teach or learn a matter. If you know only one way to teach, it might be good enough for you, but it certainly is not good enough for the students. So to see that respondents are interested in the specific training methods gives me the idea that they want to improve themselves. As the question here was the themes of e-learning for disabled persons, I was sad to see that only three wanted to expand their experience in disabled persons and their needs. This is the only theme that cannot be connected to other parts of learning because here we are concentrating on the specific target group.

2.6 I. The virtual community

2.6.1 I.1: Are you a member of any virtual community?

In this question there was a remark: the questions I2-I4 address to those who answered yes at the question I1. Fourteen of the respondents said that they are a member of some virtual community and six said no. In a way there is no surprises for this as some of the respondents did not have that much of experience in e-learning field.

2.6.2 I.2: Which of the following communication tools do you prefer to use?

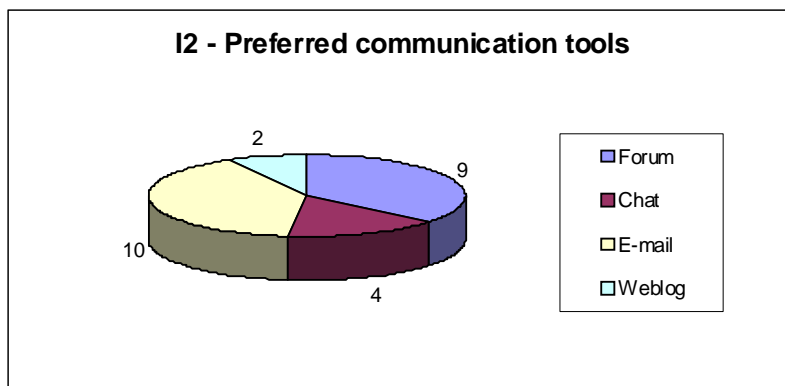


Chart 19. I2 – Preferred communication tools

Almost all of the respondents chose e-mail (10) as the tool they prefers to use in the virtual community. Nine of the respondents chose forum, four chose chat and two chose weblog. (Chart 19.)

E-mail is very widely used as it can be used after hours as well. Almost everyone has an e-mail address nowadays and some do have even more. This is a safe bet for a tool in any environment. Also forum is quite widely used as well. There are many different kinds of forums and I would be surprised if any of the respondents would never use one. These are also the most commonly used ones in virtual communities and e-learning sites. Chat is more older then we might believe, but still it is just now becoming a used tool. I would say that chat is even easier to use then e-mail, or at least it is much faster. These three would be a real power tool as they would serve all kinds of need. Weblog is little bit more unfamiliar, and only two had used it. This is not the thing to use as the tools need to be familiar to everyone.

2.6.3 Participation in e-learning areas

Participation in e-learning areas	Yes	No
Do you participate in forums/chats	12	2
Was this participation useful in your education	11	1
Have you accessed educational courses of the e-learning type in the Internet/Intranet	16	0

Table 3. Participation in e-learning areas

I.3: Do you participate in forums/chats in the Internet?

Twelve out of fourteen said that they do participate in forums / chats in the Internet and only two did not participate. (Table 3). It is reassuring that the ten out of twelve preferred the forum. This shows that it is a good tool to use. Tough, the question asks about forums/chats so it is difficult to say which one the respondents have meant. Having said that, are the forum and chat in a way very similar. The biggest difference is that in chat you cannot see the earlier day's texts and in forum you can see all the text written in there.

I.4: From your experience, was this participation useful in your education?

Eleven out of fourteen thought that the participation to these forums / chats was useful in their education and only one thought that the participation had not been useful. Two of the respondents did not answer the question. (Table 3.). These above mentioned tools are something that should not be left out as they are a convenient communication tool over the Internet. As most of the respondents say, they felt that the participation was useful in their education.

I.5: Have you accessed educational courses of the e-learning type in the Internet / Intranet?

No-one of the respondents chose that they had not taken part in an e-learning type of course in the Internet / Intranet. Sixteen of the respondents have taken part in an e-learning course. Four of the respondents did not answer the question. (Table 3.). To become a good WBT you need to take part in e-learning as that gives you a good example of what it is to be like a student in an environment like that. I would assume that you cannot have any e-learning experience if you have not taken part in an e-learning course.

2.6.4 I.6: What language do you prefer for the e-learning activity?

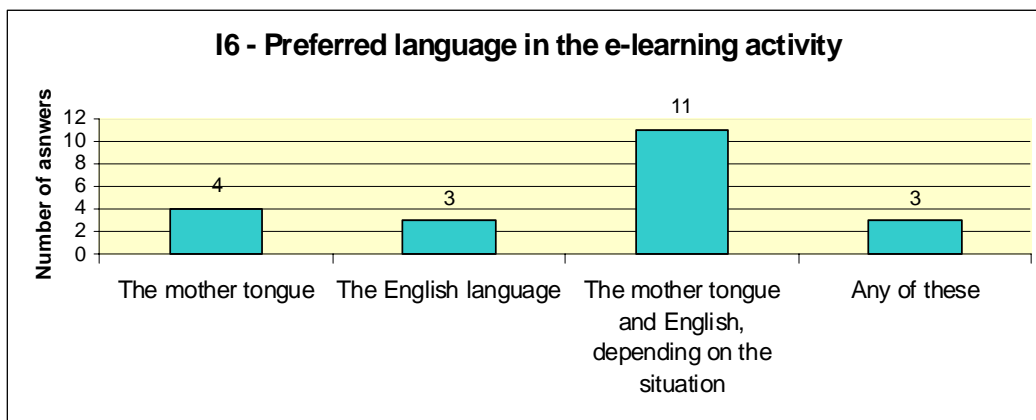


Chart 20. I6 – Preferred language in the e-learning activity

Most of the respondents preferred the mother tongue and English, depending on the situation (11) for the e-learning activity. Four of the respondents chose the mother tongue and also three the English language. Three said that any of these choices is preferred. (Chart 20.)

Most of the respondents could take part or keep an e-learning course in English or in mother tongue depending on the situation. This would mean that it is a quite safe bet, to keep an e-learning course in English as both the student and teacher would be able to understand the content. In an international e-learning activity the language can be in more than one language, if there are enough funds. Still the main language should be English, so that if the students do not understand the meaning, they could check it from the source language.

2.7 N. Information needs is guided especially towards obtaining information linked to

2.7.1 N.1: Need of general information

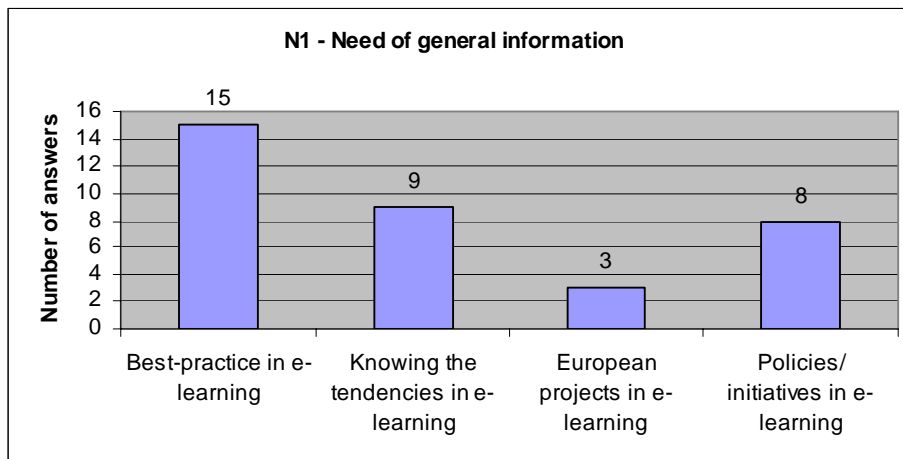


Chart 21. N1 – Need of general information

The respondents could choose a maximum of two choices. According to fifteen of the respondents the need of general information is guided towards obtaining information linked

to best-practice in e-learning. Policies / initiatives in e-learning (8), Knowing the tendencies in e-learning (9), and European projects in e-learning (3) were also chosen. (Chart 21.)

As the respondents chose the best-practice in e-learning, it shows that they want the best. I would think it as very worrying if they would not have chosen it. Same actually goes with the knowing the tendencies in e-learning. These are areas that are best to know well as they are going to be the areas of the expertise. At the moment the interest in European projects in e-learning is low. Either they have sufficient knowledge of it or they are not interested in it. This also should give an idea where to start the education of future WBT's.

2.7.2 N.2: Need of specific information

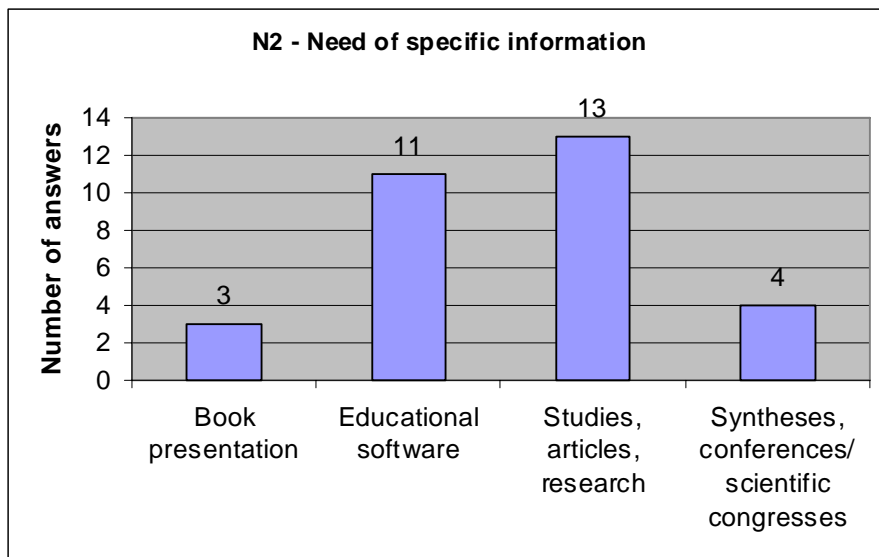


Chart 22. N2 – Need of specific information

The respondents could choose a maximum of two choices. According to thirteen of the respondents their need of specific information is guided towards obtaining information linked to Studies, articles, research. Eleven WBT considered educational software, four synthesis, conferences / scientific congresses and three book presentation fields. (Chart 22.)

This shows that the respondents need most of specific information of studies, articles and research. Not too behind was educational software. I would say that these two are important as these are something that they are going to need in their every day work. This also as it did in the previous question should give an idea where to start the education of future WBT's.

2.8 A. Attitudes: which of the following attitudes are considered as defining a WBT

A1: Attitudes

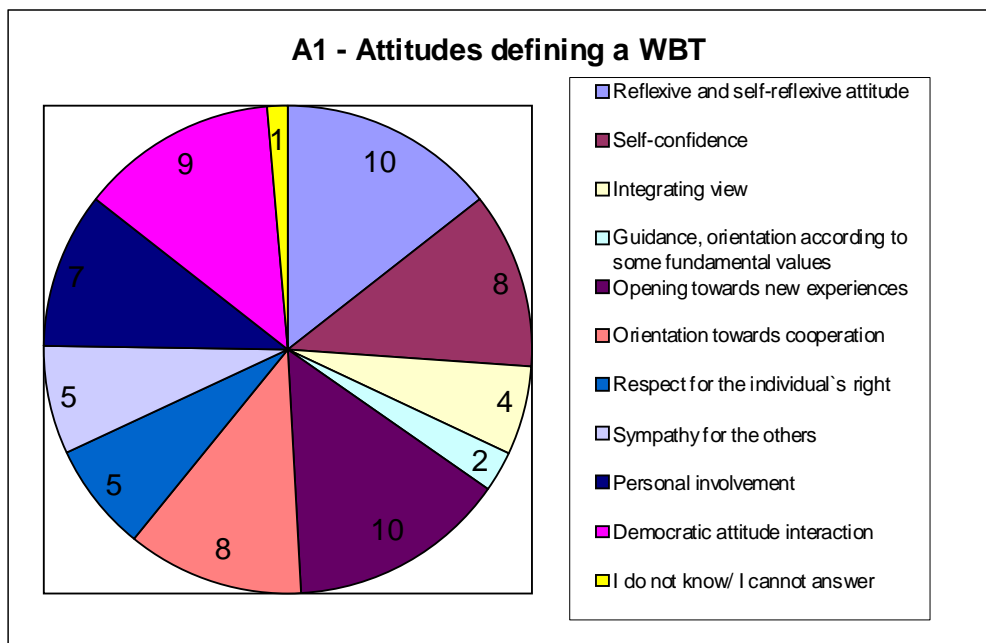


Chart 23. A1 – Attitudes defining a WBT

One of the respondents did not know or could not answer the question. Most defining attitudes were reflexive and self-reflexive attitude (10) and opening towards new experiences (10), democratic attitude interaction (9), orientation towards cooperation (8), and self-confidence (8). Also personal involvement (7), respect for the individual's right (5), sympathy for the others (5), integrating view (4), and Guidance, orientation, according to some

fundamental values (2) were chosen. One did not know or could not answer the question. (Chart 23.)

Reflexive and self-reflexive, opening towards new experiences, democratic attitude interaction, orientation towards cooperation, and self confidence were considered as the attitudes defining a WBT. These probably are also the qualities that the respondents see in themselves. These are also probably the attitudes that can be found in most teachers and so they are seen fit to be the defining attitudes of a WBT.

2.9 Z. Personal data

2.9.1 Z.1: Gender and age

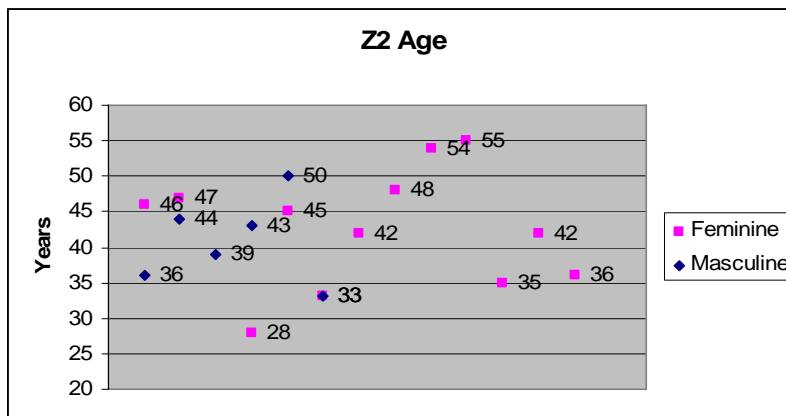


Chart 45. Z2 Age

From the respondents thirteen were feminine and seven masculine. Because of this I saw no-point of dividing the group into females and males. Also because there is not that many respondents it is better to treat them as one group. The youngest respondent was 28 year old and the oldest was 55. The average age is 42 years of age. As you can see from the chart 25, the respondents are pretty much from the same age gap. Only one is less then 30-years old and two is older then 50-years old. Two of the respondents would not tell their age. (Chart 24)

2.9.2 Z.3: Graduated from:

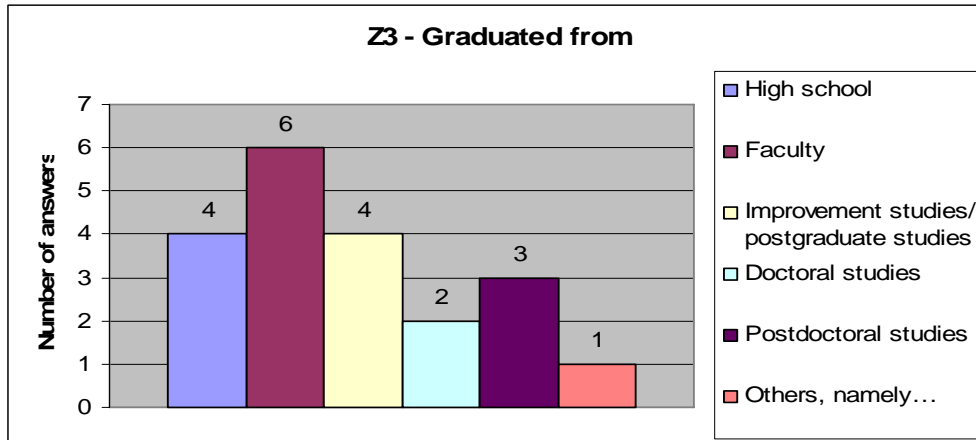


Chart 25. Z3 Graduated from

Six of the respondents graduated from faculty, four from improvement studies / postgraduate studies, and three from postdoctoral studies. Four had graduated from high school, also two from doctoral studies and one had also graduated from somewhere else, but it was not mentioned where. (Chart 25)

As can be seen in the chart 26, the respondents come from the all areas of education. Even though they all do not have a fancy degree they still are going to be a WBT. It says to me that it does not matter what kind of an educational background you have as you will get the education for the profession anyway. It is of course a big perk if you have educational background.

2.9.3 Z.4: Your training in the field

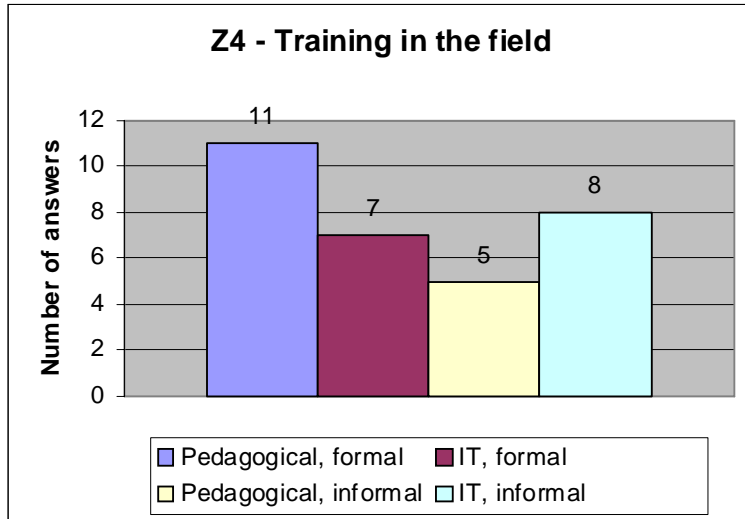


Chart 26. Z4 – Training in the field

Most of the respondents had had training in pedagogical, formal (11), and IT, informal (8), IT, formal (7) and Pedagogical, informal (5) were also chosen. (Chart 26.)

Here you can see that the ones, that have different kind of background have educated themselves informally and have probably as good information as the ones that have educated themselves formally. Of course, some of the respondents have training more than one in the field.

2.9.4 Z.5: The field of activity

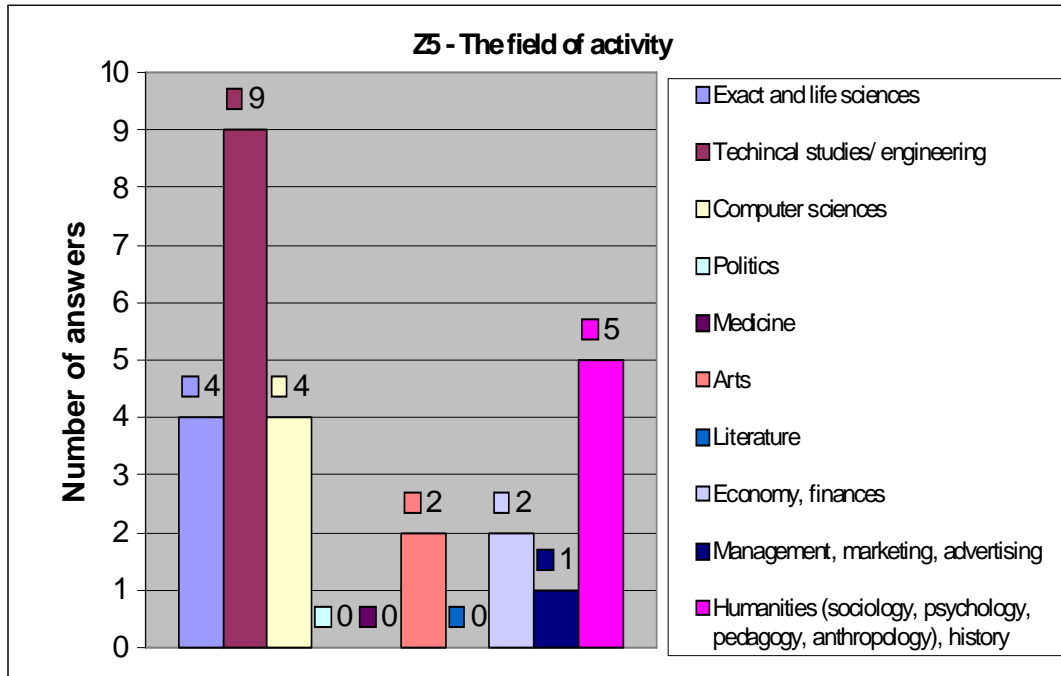


Chart 27. Z5 – The field of activity

Most of the respondents were in the fields of technical studies / engineering (9), and humanities (sociology, psychology, pedagogy, and anthropology), history (5), in exact and life sciences (4), and computer sciences (4). Also there were respondents in the fields of arts (2), Economy, finances (2) and Management, marketing, advertising (1). Three of the respondents were in other fields as well. They were environmental sciences, communications and media, and social sciences. None of the respondents chose politics, medicine, or literature. (Chart 27.)

As we think that e-learning experts should present versatile group, this is exactly what we see in these results. The respondents are working in various fields which is a good thing, as if they would come only from one area the expertise would diminish as they could not get the other point of view from other areas expert.

2.9.5 Z.6: The type of the institution in which you work.

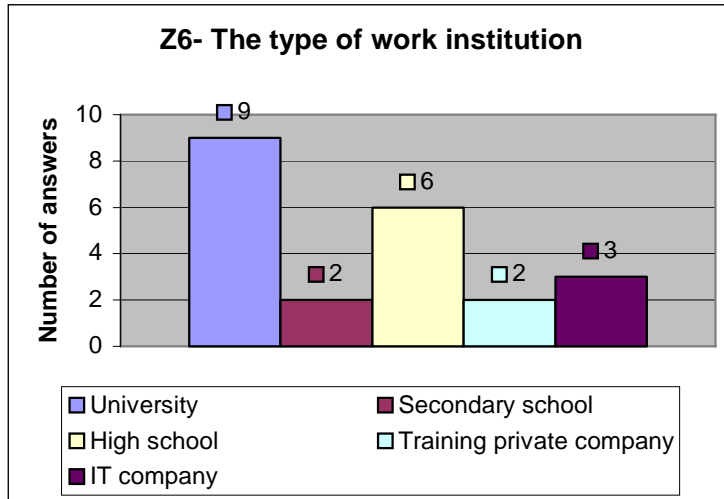


Chart 28. Z6 – The type of work institution

Most of the respondents were working in a university (9). Six of the respondents were working in a high school and three in an IT Company. Two were working in a Secondary school and also two in a training private company. One was working in another category. This was vocational adult education centre. (Chart 28.). This also indicates that the need of e-learning is not just in Universities or high schools. The need can be found in companies and other education institutes as well.

2.10 Summary

The respondents have had difficulties in e-learning and according to these difficulties they would like to learn more about these fields that they have difficulties in. They would like mostly to expand their experience in establishing the instructional strategies specific to e-learning and developing and integrating all the elements (information, applications, self-evaluation, and multimedia) in an educational unit. Also they were interested in developing items to evaluate the learning results, facilitating learning, and in using specialised software for multimedia processing (creating graphic elements, audio-video, and anima-

tion). From the area using multimedia in communication they were interested in using communication tools.

There are needs for pedagogy for e-learning as well as for the pedagogy of communication in e-learning and adult learning. These could be subjects for some future courses, as it shows that there would be enough partakers in them. Tutoring and the pedagogy of differences should be included in the course as they are important to have even though the respondents have not liked these.

Graphic and animation tools are something that are developed all the time so it is important that future WBT's want to have training in that area. Also a new technology was mentioned, namely mobile learning. It is good to find out that there might be interest in new subjects, even though the already existing subjects are also quite demanding. New technology might not yet be the thing to consider, but it is a good alternative for the future.

One of the main points was also that the respondent could take part or organize a course that is not in their mother tongue, but in English. What comes to the attitudinal perspective, the respondents would like to have or actually be reflexive and self-reflexive, opening towards new experiences, democratic attitude interaction, orientation towards cooperation, and self confidence.

Of course the respondents also wanted to get more general information of the best practices of e-learning and they would like to know more about studies, articles, research. What a WBT should present is a versatile group, and this is exactly what we see in these results. The respondents are working in various fields which is a good thing. If they would come only from one area the expertise would diminish, as they could not get the other point of view from experts in other areas.

3. INTERVIEW

I interviewed two experts, and because they want to stay nameless I will refer them as expert one and expert two. Expert one has four years of experience in e-learning and expert two has one year of experience in e-learning. They both are capable of giving good advices to this project.

3.1 The structure of the WBT competencies

- I. Pedagogical competences
 - A. *Instructional Design*
 - B. *Development of the web-based course*
 - C. *Evaluation System*
 - D. *E-tutoring*
- II. IT competences
 - E. *Develop interactive multimedia content*
 - F. *Use the multimedia equipment in communication*

Both of the experts agreed that the structure of the WBT competencies system is defined by the pedagogical competencies and IT competencies. Expert one said that the most relevant in the WBT competencies profile are competence B. Development of the web-based course and competence E. Develop interactive multimedia content He said that he chose B because no course could really work, if the instructional structure is not developed and implemented well. He chose E because good content can be ruined if the implementation is bad. In his opinion all the competencies are quite essential but he would still choose competencies A. Instructional Design and F. Use the multimedia equipment in communication to be the least essential. He chose A because the courses are developed from already existing courses, which are modified into web use. He chose F because communication is not that essential while the work is pretty much independent. He would add target group analysis so that trainer would know how to find and present the material so that the course would work to its fullest.

Expert two considers that the most relevant in the WBT competencies profile are A. Instructional Design, C. Evaluation System, and D. E-tutoring as he sees that, these contain some of the most important issues. These issues are usability of the material, feedback, how to put everything together and to improve tutoring. Also E. Develop interactive multimedia content is important while bad interactive multimedia content is something that people lose themselves in. Designing and executing multimedia should be of good quality. According to expert two the least relevant competency is F because it is one thing in which one might get lost in. Good and reasonable interaction, and multimedia is always a good thing, but it's not something that should be focused in. Expert two would not add anything to this structure.

3.2 I. Pedagogical competences

3.2.1 Competence area: A. Instructional Design

A. Instructional Design

A1. Training needs analysis

A2. Designing the course syllabus

A3. Designing the instructional strategy

Expert one did not agree that this is a good model for the competence area A. He said that there is a part missing and that part should be stylistic and abstract way of presenting information. The ways could be humour, abstract, visual, etc. depending on the person receiving the information. According to him the most relevant competency from this list is competence A1. Training needs analysis because without defining the needs it is impossible to implement any working entity. The key to everything is the definition of needs. He said that there are no less relevant competencies in this part.

Expert two in the other hand agreed that this is a good model. In his opinion the most relevant are A1. Training needs analysis and A3. Designing the instructional strategy. This

is because, being able to analyse and design, improves performance and quality. Otherwise the content for Instructional Design sounds good.

3.2.2 Competence area: B. Development of the web-based course

B. Development of the web-based course

B1. Designing the course content

B2. Developing the course content

B3. Course maintenance

Expert one agreed that this is a good model for the competence area B. According to him the most relevant for the competence area of developing the web-based course in the WBT competencies profile is B1. Designing the course content. This is because the content is the most important, because without it there is no course. Also in this part, he said that there are no less relevant competencies. Based on his experience he would add something that would take in to consideration the easiness of the comprehension in the planning phase. The material is meant online not for a book so there should be a part in planning where the target media is taken into consideration. In other words, what should the course appearance be?

Expert two fully agreed that this is a good model for the competence area B. In his opinion all three are relevant for the competence area of developing the web-based course. He would not say that any of these would be less relevant. Based on his experience, he would add a course feedback from the students in the course maintenance part.

3.2.3 Competence area: C. Evaluation system

C. Evaluation system

C1. Evaluation Design

C2. Evaluation implementation

C3. Web-based course evaluation

C4: Metaevaluation

Both of the experts agreed that the competence area C. Evaluation system is defined as mentioned above. According to expert one the most relevant for the evaluation system competence area C1. Evaluation Design and C2. Evaluation implementation because without critical evaluation it is very difficult to achieve successful goal. He said also that there are no less relevant competencies in this one nor would he add anything to this one. Everything is already very well put out.

In expert two's opinion the most relevant for the evaluation system competence area are C2, Evaluation implementation and C4. Metaevaluation. He said that without these the bottom of the whole structure will be missing. It is important to get engrossed into evaluation because it is the end result for the course, participants and the faith of the course.

The evaluation must be correct and enough demanding. In his opinion the least relevant is C3. Web-based course evaluation because it is more of a combination of the first two. It should be added as a sub-field in the C2.

3.2.4 Competence area: D. E-tutoring

D. E-tutoring

D1. Leadership

D2. Virtual group management

D3. Facilitating learning

D4. Facilitating the development of the student's personality

D5. Developing own career

Expert one agreed that the competence area D. E-tutoring is defined as mentioned above. In his opinion the most relevant competencies are D1. Leadership and D3. Facilitating learning. This is because there has to be environment that invites you to learn. The learner should have a feeling that he is listened to and cared for. The e-tutor cannot be a yes-yes tutor, but he should have a possibility to kick someone out, if that someone is not doing anything. According to expert one D4. Facilitating the development of the student's

personality is the least relevant competence. No tutor is interested in others personality and actually this one should be left out entirely, because it just will not work.

Expert two did not agree that the competence area D. E-tutoring is defined as mentioned above. This is because the D1. Leadership should not be about leadership but on the contrary about partnership. D4. Facilitating the development of the student's personality cannot be taught but tutor can give hints and advices. D5. Developing own career needs to be more clear, it does not give a clear idea whether it means teachers or students career development. In his opinion the most relevant for the e-tutoring competence area are D2. Virtual group management and D1., if it means Partnership. D2. is good because it enables that everything holds together. D1. as partnership, there will be better results with friendship and it is easier to share and receive hints and tips. He would add some practical examples of success stories to inspire others.

3.3 II. IT competences

3.3.1 Competence area: E. Develop interactive multimedia content

E. Develop interactive multimedia content

E1. Text and data processing

E2. Programming

E3. Multimedia processing

E4. Course implementation

Either one did not agree that this is a good model for the competence area E. Expert one said that because there should be a conceptual, technical scheme or layout dividing. The Evaluation of the created scheme so that the end result is rational. The most relevant competencies would be this already mentioned and E1. Text and data processing competencies. This so that one can check that the content and structure are correctly divided and they fit together.

Expert two said that this could be even more divided than what it is now, so that it would be more clearly understood. There should be very generally about everything and then an opportunity to get engrossed with a subject. He would not say any of these would be more relevant than other. In his opinion the least relevant is E2. Programming and it actually should be taken out of this category and put it out as its own category. If it stays then, it should only be handled in very general level. Based on his experience he would add a planning of multimedia entity and what is its usage value. Unnoticeable interface implemented with multimedia is good. It adds value and so we will not drift into trouble.

3.3.2 Competence area: F. Use the multimedia equipment in communication

F. Use the multimedia equipment in communication

F1. Hardware equipment use

F2. Use of The Internet tools for communication

Expert one agreed that the competence area F. Use the multimedia equipment in communication is defined as mentioned above. He would not say that other of these competencies is neither less relevant nor more relevant than the other. He would add evaluation into this, because there should be an evaluation for users need for group communication.

Expert two fully agreed that the competence area F. is defined as mentioned above. In his opinion F2. Use of The Internet tools for communication is more relevant because implementation will be done via The Internet. Neither is less relevant, both are important. He adds that these two could be combined because they both have a lot of similarities. For example camera is equipment and a communication tool (web-camera).

3.4 Attitudinal system

- Reflective and self-reflective attitudes
- Self-confidence
- Integrating view

- Guidance
- Opening towards new experiences
- Orientation towards cooperation
- Respect for the individual's right
- Sympathy for the other
- Personal involvement
- Democratic attitude in interaction

Both of the experts agree that the attributes of the WBT's attitudinal system were defined as mentioned above. Expert one would add approachability as one of the attributes, because the person's appearance should be easily approachable. The procedure that would select a WBT who is able to respond to the attitudinal requirements listed above is interview. In the interview these attitudes should be stressed. He does not think that an attitude testing is necessary because the competence is more important than character. Also personal involvement to the job is more important than persons character.

Expert two would not add anything to this list as in his opinion it is pretty standard. He did not have anything specific in mind about the procedure how to select a person who is able to respond to the attitudinal requirements listed above. He did not either see it necessary to do an attitude testing of the WBT's personality. He said also that it is about competence not attitudes. The material will bring out the attitudes and the person can then either agree or disagree.

3.5 Summary

As a whole the basic structure of WBT WORLD is good, but of course there are some areas that could be developed a bit more. The IT competence areas should be even more detailed and probably even divided more. The IT area can be very difficult especially if the student knows nothing about it.

The instructional design was pretty good according to the second expert and to it he would not make too many changes. Expert one, on the other hand would like to make it clearer and according to him there was a part missing. In development of the web-based course they would neither change anything. Expert one said that the content is the most important thing, because without it there is no course. Also the evaluation system got approved by the experts. Expert one said that without critical evaluation it is very difficult to achieve a successful goal and according to expert two, without these the bottom of the whole structure will be missing.

Expert one agreed that the e-tutoring was good and he said there has to be an environment that invites you to learn and that the learner should have a feeling that he is listened to and cared for. Expert two did not agree and he would make the definitions clearer in this part. In develop interactive multimedia content neither one did agree that it was a good model. Expert one said that because there should be a conceptual, technical scheme or layout dividing. Expert two said that this could be even more divided than what it is now, so that it would be more clearly understood.

Our experts were pretty happy with use the multimedia equipment in communication and would not make too many changes. They still would define more the definitions and they would add something to it. According to our experts the attitudes of the future WBTs are irrelevant and they would not make any tests to measure any attitudes that they might have. It was said that personal involvement to the job is more important than a person's character and it is about competence, not attitudes.

4. CONCLUSIONS AND RECOMMENDATIONS

The problems that the e-teachers have are to do with all areas of life. There are problems with didactic / pedagogical, cultural and legislative as well as administrative and technical aspects. What I would recommend, based on these difficulties that respondents have had, is that they should be taught well the legislation that goes with this field. Also when planning the courseware the text and the implementation should be planned carefully to fit the

needs and learning habits of students. This is important as the learning culture is different in different countries. As long as these future WBTs are interested in what they are doing, I would be sure that some of the administrative aspects will be cleared. Also as technology goes forward the problems that have been faced now probably solve out as well. Having said that, technology does have the tendency of first developing imperfect products that will create problems. The best solution would be to use the second alternative or another after the first one as they usually then would be the best ones.

As the old saying goes practice makes perfect, or something like that. The same goes with pedagogical difficulties. During the course I would recommend that there would be a lot of written exercises for them to practice on. The same goes with the language problems. You only need to read the definitions and terms over and over again. At least this is what my language teachers have told me over and over again.

There was a question that asks in which thematic areas from a field would you like to expand? I would recommend that they should use the ones that most of the respondents chose, as they probably would have enough partakers. The ones that did not get that much interest should not be dismissed, as they can be useful later on. Also first I would check the recommendations from the experts and after that I would offer classes in these areas. Some of the areas need to be put more clearly and specifically out as the experts have said.

As the respondents used mainly e-mail and forum those should at least be put in the WBT World. I would recommend that they would also use chat as it is getting more and more used everyday and at least the younger students usually like it. When the WBT can use chat the students can use it too to talk to the e-trainer.

As the respondents were made to choose the attitudes of a WBT, they chose probably the qualities that they see in themselves, or would like to see in themselves. It is too bad that they were not asked the importance of the attitudes, because at least the experts thought that they were unnecessary. In the experts' opinion personal involvement to the job is



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more important than a person's character, and it is about competence, not attitudes, and I do agree with them. There should not be any attitude testing of the WBT's personality.

I see that my research questions are answered, but I do have some more questions that I recommend to be looked after. What do the WBT's think of the importance of some of the thematic areas and do they think the attitudes of a WBT's are important? These questions in my mind were not answered as here the questions were mainly about what needs do they have. Based on these needs, new courses can now be made. After these courses I would make a new survey of whether the course actually answered the need and expectations.