Comparative Analysis of Trainers' Needs in Higher Education Network

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INTRODUCTION

In October 2002 twelve Hungarian Higher Educational institutions founded *MELLearN – the Hungarian Higher Education Lifelong Learning Network.* The Association operates as a non-profit organisation and has currently 19 higher educational institution members. MELLearN works for the public benefit, initiating and coordinating educational, training, research and other academic and scientific activities. During the period of its existence, MELLearN has achieved the implementation of good inter-institutional cooperation between the member universities and represented in unison the importance of lifelong learning.

One of the main aims of the Network is to have a comprehensive picture on the training needs of trainers and staff working in higher education and initiating trainings that provide the necessary skills, knowledge required by them. For this reason, in the autumn of 2012 the Network realized an inner training database that includes the trainings for trainers offered by the member institutions of the Network. The aim of the database is to collect the best training practices HEIs can offer and providing opportunities for member institutions to try out other training courses. As the next step MELLearN launched in February 2013 a research for analysing the training needs of trainers and staff working in member HEIs. The online questionnaire was sent to the member institutions who sent them over to all trainers and staff working in the different faculties. The result of the survey provides information on the main question: what trainings are needed to improve the skills of trainers and based on that the Network can develop new courses or offer ones from the course-database.

1 BACKGROUND OF THE SURVEY

1.1 MELLearN survey

In 2006 the MELLearN Network had prepared a survey on the topic "Adult trainers' competences in higher education". The survey was based on the answers obtained from the questionnaires sent to the member institutions of the Network (24 HEIs) and to all the Hungarian higher education institutions (altogether 73). The questionnaires received provided the basis for drawing a map of the Hungarian situation on three main fields: the training of adult educators; institutional situation and trainings programmes for teachers in higher education. The survey drew conclusions and formulated suggestions for the strategies and plans to be followed.

1.2 Training of trainers at the Budapest University of Technology and Economics (2009-2011)

The present survey, discussed in this paper, had an antecedent in 2009 related to the SROP project "Training of Trainers at the University of Technology and Economics (BME)". The general aim of the project was contributing to the reduction of those missing trainer competences that are necessary for the implementation of the requirements of the Bologna-process, the European Qualifications Framework and the LLL strategy. The trainings realized within the frameworks of the project were based on a previous needs assessment of the institute. The internal survey served the purpose of having a comprehensive picture on the relevant training needs within the teaching staff. The survey was based on questionnaires and interviews with the faculty staff of BME.

1.3 The NETTLE project

The realization of the present survey was also defined by the researches executed in the NETTLE project (2004-2008). The programme encourages tertiary level educators' professional and academic improvement in accordance with the Bologna Declaration and its main goal is to provide an academic framework. As a result of this programme a collection of case studies was published in 2008 titled „Case Studies in the Development and Qualification of University Teachers in Europe", containing altogether 24 case-studies from the 24 participating countries.

2 THE RESULTS OF THE SURVEY

2.1 General background of the survey

The survey was realized in two phases: 1. in the autumn of 2012 the Network realized an inner training database that includes the trainings for trainers offered by the member institutions of the Network. 2. In February 2013 an online questionnaire was launched for analysing the training needs of trainers and staff working in member HEIs. The questionnaire was based on the one used in the "Training of trainers at the University of Technology and Economics (BME)" project. The online questionnaire was sent to all the teaching and administrative staff of the member institutions of the Network between the period January- March 2013.

The questionnaire contained three thematic units:

- General information concerning the responder: age, gender, position, duration and field of employment.

- The frequency of the usage of teaching methods and education organization modes.

- The inquiry of training needs using open questions and by choosing between given methodological and other training possibilities.

2.2 General information concerning the responders

The online questionnaire was completed by 734 persons. The gender distribution of the responders: 54% female, 38% male (8% missing data). According to the data the age distribution, as shown in *Figure 1.*, shows that the majority of the responders is between 30-50 years old (N= 429).
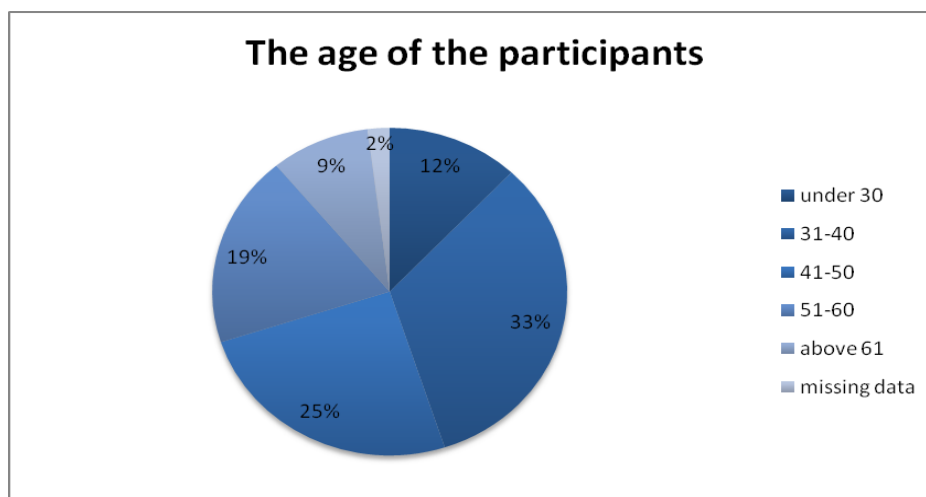

Fig. 1. The age of the responders

Examining the responders based on the institutions they work in, we found out that in 8 HEIs more than 30 persons filled out the questionnaire, while in the case of 9 institutions the number of responders were between 1-16. Based on the answers 76% of the responders were teachers, 4% research fellows and 20% administrative staff took part in the survey. As for the subjects taught, the highest number represented the theoretical subjects, followed by the seminars and practical subjects, and finally laboratory work being the least numerous on the list.

More than half of the responders have more than 11 years of teaching experiences, while 32% of the teachers have less experience, as shown on the *Figure 2.* below:
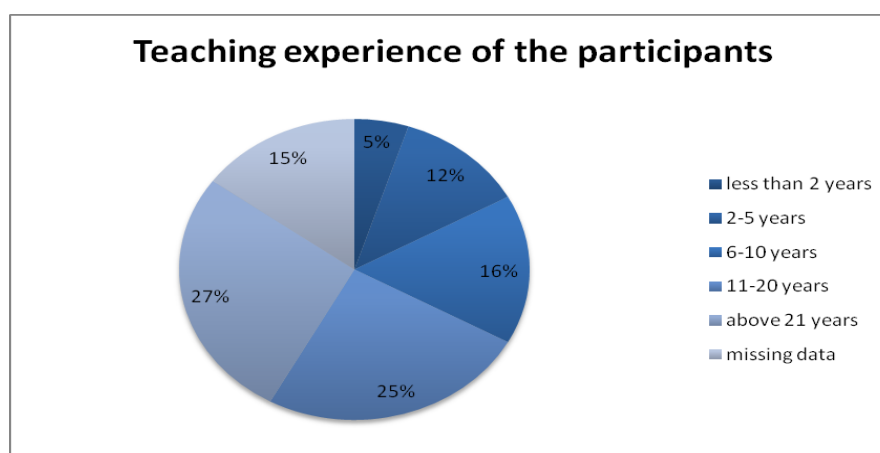

Fig. 2. Teaching experience of the participants

2.3 The frequency of the usage of teaching methods and education organization modes

We have asked the teachers involved in this survey on the most frequently used teaching methods and on the individual use of educational organization modes. We

have used a 5-point scale in categorizing the answers: 0 meaning that the respondent "is not familiar with the method", and points 1-4 ranging from "I do not use it at all" (1) to "I use it almost all the time" (4). As *Table 1.* presents, the lecture form is the most frequently used method among the respondents, within this smaller lectures and explanations are the most common. Individual work, presentation and discussions are also generally widely used among the teachers participating in this research.

Moderately frequently (above an average 2,5) are used the following methods: consultation, written examination, demonstration, experiment, team-work, practice, oral examination, research, lecture for 50-200 persons, report, and written essay. The other methods are known by less and as a consequence, used by less during their teaching career.

Table 1. The frequency of the usage of teaching methods

Teaching methods and education organization modes	The number of persons knowing the method	The average frequency of usage among those knowing the method	Deviation
lecture	644	3,22	1,006
lecture under 49 persons	608	3,15	1,047
individual work	673	3,12	,953
explanation	595	3,08	1,047
discussion	659	3,02	,928
presentation	635	3,01	1,002
consultation	644	2,95	,957
written examination	619	2,94	1,074
demonstration	616	2,85	1,038
experiment	658	2,78	1,351
team-work	649	2,74	1,017
practice	608	2,73	1,093
oral examination	614	2,64	1,074
research	594	2,52	1,047
lecture for 50-200 persons	539	2,51	1,217
report	626	2,51	1,022

2.4 The training needs

The questionnaire contained some open questions that were analyzed with the use of the Atlas Ti content-analysis program. The first question analyzed the responses given to the following sentence: "The primary difficulties I encounter during teaching …" (see *Fig. 3.*)
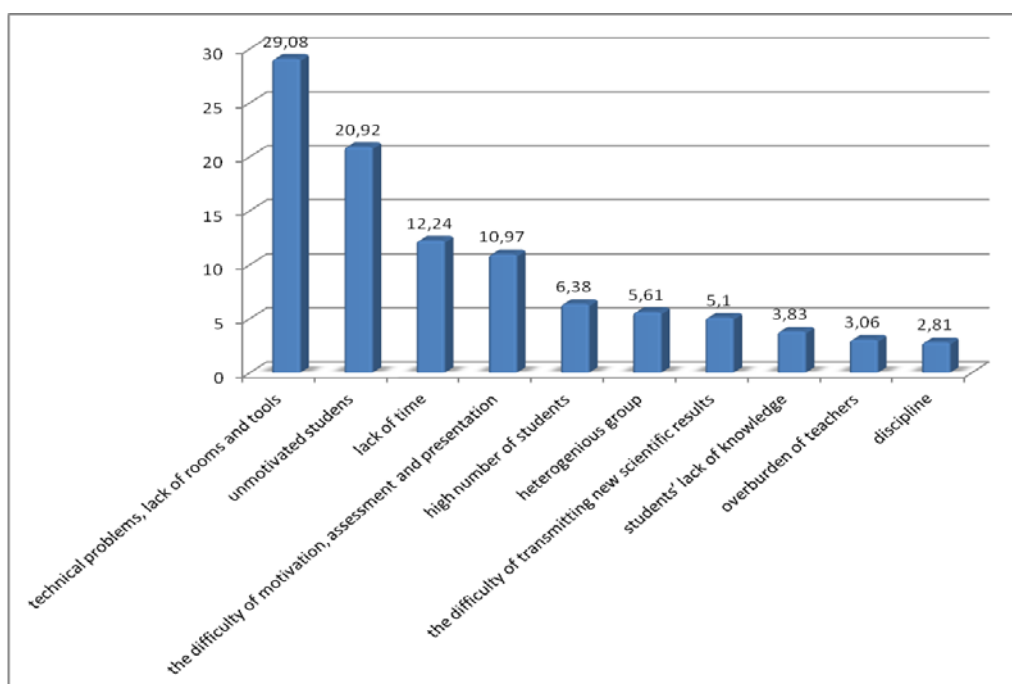
Fig. 3. Difficulties during teaching

The most responders (29,1%) emphasized technical problems that cause difficulties during teaching, meaning if the technical background is not suitable, the rooms are not proper for teaching, or there are no sufficient and suitable tools for practice. This response was followed by the one listing the unmotivated students (20,9%) as difficulties in teaching. The third difficulty was the disharmony between the quantity of curriculum versus the duration of courses: meaning the lack of time (12,2%). The next category included fears that the teachers are not capable of motivating students, how to raise interest in the subject and how to assess students (11%). Closely the same proportion (5-6%) is present in the responses when listing the high number of students, the heterogeneous groups and the difficulties of transmitting professional developments and new scientific results. These answers were followed by the mentions of the overburden of teachers, the students' lack of knowledge and difficulties of keeping discipline (3%).

The second sentence needed to be finished was the following: "The main difficulty during teaching is that the students …" According to the teachers the main difficulty related to the students is their lack of motivation: 35,4% of the responders indicated this problem. The next three categories obtained almost the same number of responses (between 9,7% - 9,2%). These answers indicated the lack of preparation, heterogeneity and problems with students as main obstacles. More precisely, the responders feel that the students are not prepared for classes; their different level of preparation, their lack of independence and their different type of interest (not connected to the subjects taught) are all representing difficulties. About 8% of the responders felt that the students' lack of knowledge and discipline (e.g. students are late and do not pay attention during the classes) cause problems for them. These remarks were followed by the mentions regarding the students' lack of cooperation – that is not answering to questions, not asking questions, not being interactive during the classes (7%). 4% of the teachers mentioned the students' deficient learning, attentive and cognitive skills, and referred to the differences of the interest fields; while around 3% noted the high number of students the source of difficulties.

The third question related to finishing the following sentence: "As a teacher I feel I need to improve …" *Figure 4.* demonstrates the answers given to this question:
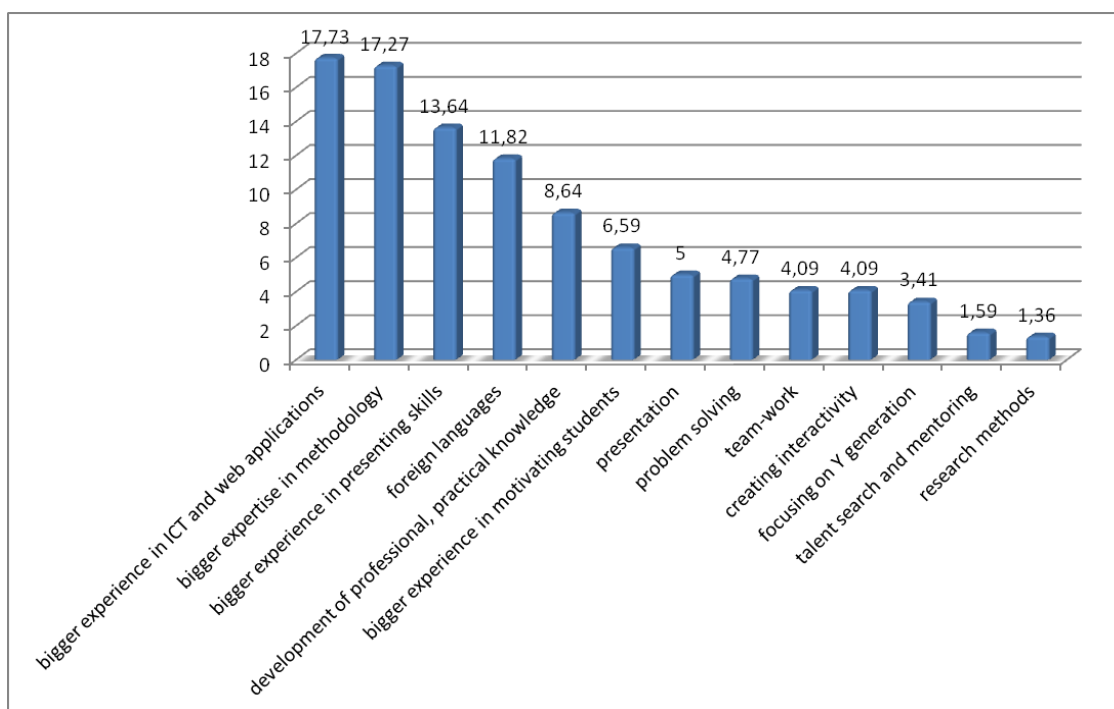

Fig. 4. Fields of improvement

17,7% of the answers noted the need of improving on the field of ICT and web applications; 17,3% emphasized the importance of methodological improvement; 13,64% of the responders would need the development of presentation skills, while 11,8% the development of language skills. 8,64% of the responders indicated the need for professional improvement; 6,6% feel that motivating students would be needed step for development and 5% would require the improvement of presentation techniques. Around 4-5% of the responders would need the development in the fields of creating interactivity and problem solving, in team-work methods, in focusing on the digital generation and in presentation techniques. The improvement in research methods and in talent search and mentoring represents about 1,5% of the responses.

The fourth open question concerned the training needs and was formulated in the following way: "In the next 3 years I would gladly participate in a training where I can learn …" The majority of the answers required methodological trainings, followed by training needs related to ICT, motivation, handling education technology tools, e-learning, foreign languages and interactivity. The responders would like to participate in trainings improving presentation techniques and handling students with physical/psychological disadvantages. Professional and efficiency improving trainings are also very much required, followed by the need for trainings helping the better support of the digital generation.

The summary of the answers to the fifth question is here as follows. The open question was phrased this way: "For maintaining the students' interest I would learn …." The teachers indicated the necessity of learning how to motivate students in the greatest number (27%). This was followed by the needs of having methodological (26%) and ICT (16,36%) trainings. 10,75% is the rate of those who consider learning presentation techniques the key to maintaining the students' interest in the subject taught. 7% of the respondents think that the best way of teaching students is improving interactivity and reacting to the special needs of the Y generation.

The last question referred to the other types of trainings the teachers would like to take part in, that could help them in their work. 28,57% of the responders said that professional trainings would be the most important to them; 26,67% indicated that they would like to participate in ICT trainings and 20% would prefer psychological trainings over the previous ones. Finally 14,29% of teachers would require methodological, 8,57% of them language and 1,9% rhetoric improvement trainings (see *Figure 5.* above).
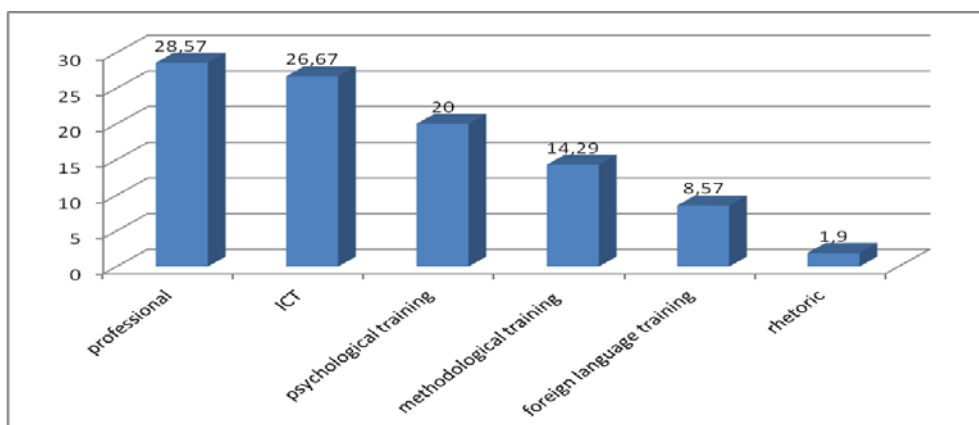

Fig. 5. Preference of other types of trainings

3   SUMMARY

Summarizing the results of the content analysis of the survey we can conclude that all the institutes involved indicated that the academic staff would require methodological and ICT trainings and they would like to improve their presentation skills. Hereafter we have investigated in two groups the need and the willingness of the responders to participate in the trainings. On one hand we have analyzed separately the different *methodological trainings* and the *other trainings*. In composing the training offers we have taken into consideration the results of the previous surveys connected to inner trainings in HEIs (training of trainers at BME). On the other hand the responders had the opportunity of choosing other trainings too. (The responders had to choose four trainings altogether in the two groups without marking the order.)

According to the *methodological trainings* 40% of the responders expressed demand for training in preparation for teaching foreign language courses and in curriculum development for e-learning. Beside these, more than 1/5 of the responders would like to improve oneself in the fields of problem-based learning, andragogy, education of talented students, measurement and evaluation of students' performance and use of ICT. The demand is also high for cooperative and project methods, and for learning methodology as seen in Table 2.

Table 2. The demand for methodological trainins

Trainings	Number of choices by the responders (N=734)
preparation for teaching foreign language courses	289
curriculum development for e-learning, distance learning	289
problem-based learning	189
andragogy	170
education of talented students	166
measurement and evaluation of students' performance	163

application of ICT in teaching	155
cooperative methods	151
project-based teaching	145
learning methodology	135
mentoring	110
specific professional methodology	108
general professional methodology	95
learning guidance	84
measuring prior knowledge	81
tutoring	77

Among *other trainings* the most popular were languages, presentation skills, tender writing and special professional language training, as 1/3 of responders would choose these. More than 20 % of respondents expressed the need for training in the use of electronic database, development of educational program, education-development negotiation, stress- and conflict management and negotiation. Economic and educational administrations are also popular among non-teaching staff as almost 1/4 of the respondents would participate in these trainings.

Training needs among participants was high (83,2 %) according to the responses given to the question "Would you participate in inner trainings?". Those who refused participating in trainings (10,4%) referred to lack of time and age. (6,5% did not reply to this question).

Summarizing the previously compiled training database we can conclude that the respondents specified the most popular required trainings as: preparation for education in foreign language, curriculum development in e-learning, language training, development of presentation skills and tender writing skills.

The following directions of training needs were identified in our survey: participants need support in the field of training in education in foreign language and presentation skills. In addition with the change of the composition of students, that means heterogeneity of age and ability. Thus participants perceive solutions in new technical instruments, methods and e-learning. Further possibilities are in connection with innovation: in this direction tender writing and curriculum development are among respondents' preferences. However self-development is underemphasized as possible solution of perceived difficulties, only stress- and conflict management appears as desired area of training.

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