# THE DEVELOPMENT OF TEACHER COMPETENCIES FOR DESIGNING AND DELIVERY OF ONLINE COURSES AT KTU DISTANCE EDUCATION CENTRE

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**Abstract**. Teachers are encouraged by their students and colleagues, as well as by their institutions that provide them with the support and resources, to face the challenges of information and communication technologies (ICT) and to use them in distance learning (DL). However, a lot of problems still remain as DL designers, deliverers and supporters understand that it is not enough to manage technology and the tools, but that it is also necessary to apply them in education. Thus it is very important not only to train university and school teachers to manage ICT, but also to use them in educational context. Thus the list of teacher competencies continues increasing, and it includes teacher's responsibility for course design delivery and learning assessment.

DL centres, especially at Universities, are responsible for teacher training for using ICT and delivering DL, as well as applying new DL methods. KTU Distance Education Centre trains the teachers on ICT use for a number of years. Recently the Centre started the research on the efficiency of using ICT in DL, and it helps teachers to gain competencies in practical training by encouraging them to become autonomous DL designers and deliverers.

**Key words:** Distance learning and training (DL), teachers, information and communication technologies (ICT), educational context, practical training, competencies and skills, teacher training, DL course design and delivery on the internet.

## 1. Indroduction

Distance learning brings big challenges to teachers from Universities, schools and other education institutions, but this new form of service delivery becomes urgent, as the need for it is detected in various target groups of learners.

Online learning and training becomes a necessary competence, thus teachers and tutors have to look for new forms of teaching and learning material presentation, in order to supply the rising demand of learners' needs. Training focused on the learner, which is opposite to the training when the learner is *instructed*, is a necessary condition for the presentation of the new forms of learning curriculum. An important element is practical learning, when the learner perceives the learning material by performing active learning tasks. These elements become obligatory constituents of online training, independently from the fact if the participants in the learning process are adults, University students or representatives of non-formal learning.

Distance learning centres and other institutions of education become responsible for designing innovative technological tools and learning methodologies, as well as application of existing ones in online training and learning. They are also responsible for teacher training on how to deliver courses using DL methods, when individual learning provides additional learning possibilities when DL methods are applied, and when blended learning forms contribute to the achievement of learning objectives by active participation and performing activities.

Therefore, such institutions should observe, analyse and perform research on learning needs, as well as prepare methodology and tools that would correspond to their learners' needs. They also have to invite teachers and learning deliverers to share their experience, to teach them to use new ICT tools in their training process, to share their ideas on using technology and finding technological solutions, as well as applying new methodologies.

Moreover, university teachers not only have to consider the learning needs and experience, as well as expectations – they have to respond to them and to supply them, suggesting individualized learning. Though individualized learning is a complex issue of the teacher workload, DL centres, including KTU Distance Education Centre, look for solutions and methods that would be applied and would solve the problem of a teacher's workload and would suite

learners' expectations. Moreover, the learning curriculum and the method would be precisely selected and adapted for the learner's circumstances.

## 2. How does a teacher feel?

First of all, teachers do not perceive the differences between distance and traditional teaching and learning fully enough. They are not willing to change their point of view when they think that application of ICT for delivery of learning material (e.g. e-book or e-textbook on the internet or a CD-ROM) transforms traditional teaching into distance one. However, there appear also new obstacles for new forms of material presentation that would influence the hostile attitude towards a change in a teaching manner.

First of all, teachers are scared by technologies themselves and by lack of necessary skills to use them. In addition, teachers often are afraid to gain new skills, as they do not want to show themselves being incompetent, or they do not want to develop their skills at home because of expensive internet connection and lack of self-confidence.

Centre of distance learning and other institutions responsible for the development of DL in Lithuania should deliver all possible support and help for teachers and train them on DL course design and delivery. In order to train a teacher on how to prepare, design and deliver DL courses, s/he needs to be introduced with ICT tools, trained how to use them, s/he has to Access technological and informational resources, but nevertheless, trained how to select ICT means for his/her subject delivery, how to plan course design phases, how to deliver the course and what roles s/he has to perform to be a *tutor*, as well as what kind of competencies are necessary in order to perform those roles. Such key issues like support, motivation, evaluation and quality assurance should be introduced for teachers as basic questions.

## 3. Developing Teacher Competencies at KTU DEC

At present, teacher training methodologies pay big attention to individualization of teaching, but it would be too far difficult to introduce each situation of problem that could possibly occur during designing or delivering DL to teachers. KTU Distance Education Centre helps KTU and teachers from other education institutions to prepare DL material for a number of years, but at the moment, it is especially very important to training teachers how they should deliver their courses online, as there is a group of teachers who design courses at the University, but there are lots of other teachers who deliver them online.

Though there is a number of methodological material prepared on how one should design and deliver training, there was not concrete course that would teach trainers practically how to deliver DL, as well as would develop necessary competencies.

### 3.1. Needs analysis

Before designing a course that would be a kind of means to develop practical teacher competencies to design and deliver a course online, KTU Distance Education Centre performed teacher needs analysis at KTU with the aim to find out the teachers' experience, needs of University units, and the needs for other DL course development, as well as teacher perception of their roles that s/he has to play to be a tutor.

Though the necessity for a course that would develop teacher competencies to tutor online was evident (there was not such course at University, as well as in Lithuania), the results of the survey indirectly influenced preparation of further methodology.

First, the teachers were asked to answer the questions about the roles that they think tutors should perform in DL delivery. Teachers named the following tutor roles:

1. To present the course content clearly and visually
2. To present the subject in an interested way
3. To manage ICT
4. To relate science with technology
5. To be quick in reaction, patient and creative
6. To be able to express oneself in writing
7. To be able to organised the study process well enough
8. To respond to questions quickly
9. To systemise the learning content and to present it on the internet
10. To coordinate learners work in real time
11. To deliver a course
12. To instruct
13. To provide consultations
14. To check the perception, learning outcomes
15. Coordinator, learning process organiser
16. Learning and content consultant
17. Motivate and other

These answers already lead to the understanding that tutor functions are perceived very differently and that for the majority of teachers it would be worth being introduced with the tutor roles classifications presented by various scientists. For example, a classical classification of tutor roles is presented by Berge (1995) when he presents the main four groups of tutor roles: **pedagogic** (intellectual work, tasks, etc.), **social** (communicating with learners and designing of friendly environment), **managerial** (organizational, procedural and administrational), as well as **technical** (help in using ICT or information that may be found when one has technical problems).

The majority of teachers expressed their wish to be trained practically on how to tutor online, and only one teacher responded no wish to be trained on this (see Figure 1).
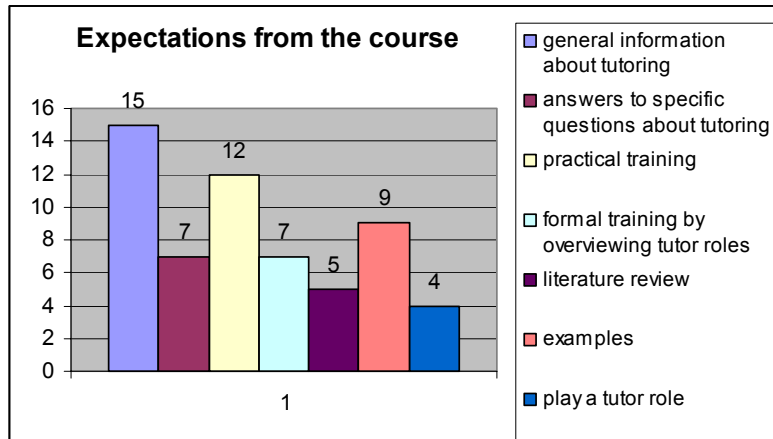
**Expectations from the course**



**Figure 1.** Needs analysis responses on training methods
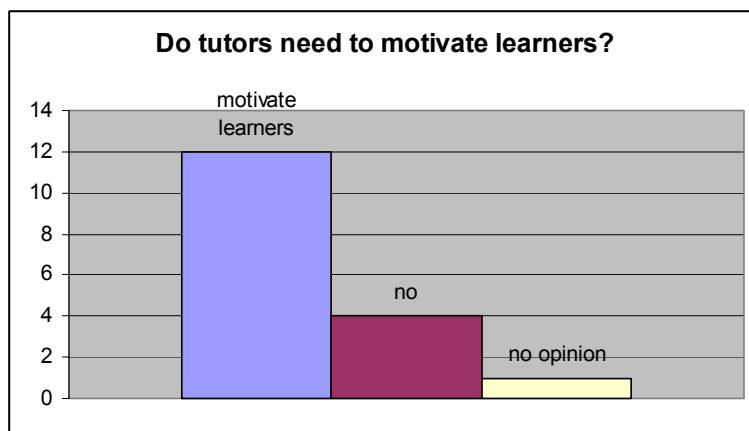
**Do tutors need to motivate learners?**



**Figure 2.** Responses about student motivation

It was also found out that only on fifth of the teachers wished to study how to tutor in face-to-face method, while the rest chose either online training (in other words, to learn how to deliver an online course being a student) or simply asked for information and literature references that would provide a possibility to study on their own and to read about tutor work and competencies.

It is interesting to note that five teachers responded that it is not necessary to motivate learners, and that it is not a tutor's responsibility (see Figure 2).

The results showed that the attitude still plays a great role and that it is one of the factors that influence DL development in each institution. Though an institution really provides big support for the development of DL courses, this is not enough for preparation of effective DL courses. Teacher enthusiasm and a new point of view are of great importance and are necessary for DL courses and learning delivery.

### 3.2. The Role and Responsibility of KTU DEC

Distance Education Centre should invite teachers for sharing activities, for presentation of positive experience cases, for research and survey of their needs and for presentation of the results and looking solutions for new effective learning methods. Active participation of teachers is necessary for this most of all, and not only form KTU, but also from education institutions from all over Lithuania, as well LieDM network. Teachers should participate in meetings to share and to develop common strategies.

In addition to this, the needs analysis survey revealed the following aspects:

- There is a positive change in teachers' opinions and preparation to tutor online (all the teachers responded that they would like to tutor online)

- The teacher – student relationships change, and students gain more responsibility and become more individual, and they express their learning needs better and better, while teachers become ready to supply their needs

Open discussions take place and teachers participate in them and discuss online learning design and delivery issues.

### 4. Practical Training – a Solution or a Game?

Bonk and Reynolds (1997, cited from Anderson) encourage the development of various activities on internet, so that the learners were able to prelate the old information with the new one in a new daylight, as

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well as to make good use of metacognitive possibilities (Anderson, 2004).

Anderson (2004) also states that in order to reach learning objectives and to respond to learners' individual needs, one have to use various learning activity examples and active learning forms. He present examples of learning activities: reading text, listening and acquaintance with the material, performing research, comparison and survey, information search in the library, in learning publications, reflection upon personal progress and new information and skills, as well as adaptation of new skills in learning tasks, especially in the cases when feedback is provided and is integrated into the final product.
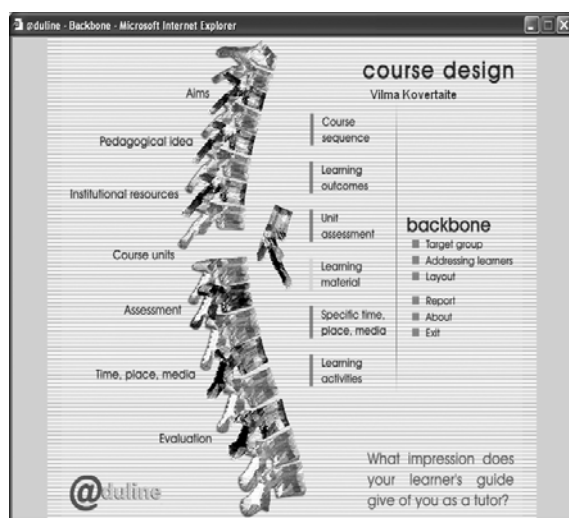


Figure 3. *Course Design course* backbone

Besides, while applying Feiman-Nemser's (1990) conceptual orientation of training classification, it was noticed that University teachers lack practical and technological (on information about existing research in the subject area) conceptual orientation training most of all. That was one more reason and encouragement to prepare such a training course and programme that would help to develop teacher competencies by practical training.

However, we should acknowledge that teachers do not perceive the practice and problem based learning methodology from the start, and it is quite difficult and complicated for them to get oriented in the course, as well as to perform self-analysis and self-reflection of the personal progress. One of the courses designed at KTU Distance Education Centre during the implementation of EU Socrates Grundtvig programme project „ADULINE: Tutoring Adults Online" (*http ://www.tkk.utu.fi/aduline*) is called **Course Design Course**. The course suggests the learners to colour the vertebra of the backbone, which corresponds to the main structure of the course and contains various practical activities, that imply different phases of course design and delivery. Future tutors have to visit all vertebras and to perceive and to perform activities

presented in each vertebra. After that they not only colour the backbone, but they also fill in the course designing plan, and gain necessary competencies to start designing their own courses.
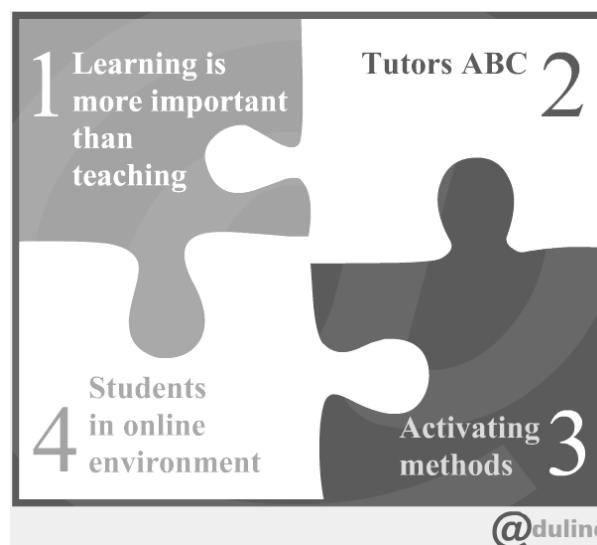


Figure 4. *Online Tutoring* course e-puzzle

Another course – **Online Tutoring course** – teaches teachers and trainers how to deliver online, and the course suggests the learners to put the e-puzzle together. Each part of the puzzle presents equally important and individual tasks. When the learner puts the puzzle pieces together after s/he respond to all puzzle questions and performs the activities, s/he collects his/her *portfolio*, but the most important thing – gains the necessary skills for online tutoring.

Both courses are developed on the basis of innovative methods of learning online, according to EU Socrates Grundtvig programme „ADULINE: Tutoring Adults Online". The learners of the courses include university teachers, representative from other adult training organisations, and they are trained fully online. A necessary condition for successful learning is active participation in the courses to achieve personal learning objectives. The goal of the courses is to develop necessary skills by practical tasks. The teachers choose the way to study the course themselves, as both courses consist of separate segments that can be acquired in any order, and each segment is individually important for individual learners. Thus we may assert that those courses are prepared not only on practice based learning, but they also correspond to individualised learning principles.

Another EU Leonardo da Vinci project called „VOCA Europe – Information technologies for Vocational Training of the Disabled" also influence the development of teacher training, as during the meetings of the Project partnership, experts from various countries discuss teacher competencies and the tools for evaluation of teacher competencies, as one of the tasks in the Project is to prepare a tool and methodology that would be devoted for teacher and tutor

competence evaluation, as well as for preparation of individual teaching plans and strategies. We can find more information about the project activities at the Project website *http://www.voca.dk.*

International programmes and projects provide the possibilities for KTU Distance Education Centre staff members to improve, to share experience with foreign partners and to get to know the latest methodologies for teacher training. We hope that teachers and students – the end-users of this process – will soon be able to fully enjoy these results.

## 5. Conclusions

According to the recommendations of latest methodologies the teachers should be trained according to the individualized approach, responding to their personal and individual needs and existing experience, as well as to their strategic objectives and expectations. KTU Distance Education Centre takes active part in the development of strategies for University and other institutions of education in Lithuania, and it start delivering not only the training for teachers on ICT, in order to train teachers to apply ICT in training, but also methodological training for teachers, when the most important issue is the use of technologies in effective teaching.

Teachers should be introduced not only with the examples of positive experience, but they should try themselves available tools and resources, and they should be able to select technologies that suite for the delivery of a specific subject.

Thus on the basis of the survey and the existing recommendations, KTU DEC applies practical teacher training when teachers actively participate in their learning and perform course activities, and they gain necessary competencies for DL course preparation and delivery.

*The main issues remain:*

- The development of teacher self-confidence and competencies for autonomous design and delivery of DL courses, support and information provision on existing possibilities, resources and latest methodologies, as well as

- Meetings and cooperation of KTU DEC together with other institutions of education and DL organisers, in order to share the information about ICT use and effectiveness, distribution of training of this kind of training delivery in Lithuania applying the possibilities provided by Lithuanian Distance Education Network for sharing and dissemination of positive experience and examples.

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