TECHNOLOGY ENHANCED LEARNING (TEL) ACTIVITY DESIGNING IN THE CONTEXT OF TEL CURRICULUM QUALITY ASSESSMENT

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• **Teaching/learning quality** – the suitability of opportunities to promote self-development of learner’s personality, evaluating quality requirements set up by the learner him/herself or by others, institutional goals and user needs, when learning and teaching possibilities and situations created contain all the characteristics satisfying the learning and teaching process participants’ needs (Lauzackas, 2005; Savickiene, Pukelis, 2004)

• **Quality evaluation** – a process during which the assessment of quality of a certain object is being performed and the decision concerning the improvement of the object quality is accepted
Concepts

- **Quality assessment dimension** – the area that is significant to the quality of the object under assessment, and it more or less determines the existence of quality characteristics of the object under assessment (Savickienė, Pukelis, 2004)

- **Teaching/learning curriculum** – the consistency and interaction of the main teaching and learning process parameters in a constant development process. This conception describes the overall context of teaching/learning, where each element is oriented towards a goal, determined by the interaction with other elements, and has its own particular place and meaning (Lauzackas, 2005)
Concepts

- **Designing teaching/learning curriculum** – constant improvement of training program parameters oriented towards a perspective: improvement of existing processes with respect to learning needs’ changes, new training programs, etc. (Lauzackas, 2005)

- **Distance teaching/learning** – a form of teaching/learning when a learner does not have a direct contact with a teacher. Communication is ensured with ICT tools (Lauzackas, 2005).
The structure

1. DESIGNING DISTANCE TEACHING/LEARNING CURRICULUM
2. QUALITY CONCEPTION OF DISTANCE TEACHING/LEARNING CURRICULUM DESIGNING
3. QUALITY ASSESSMENT AND IMPROVEMENT OF CURRICULUM DESIGNING
4. QUALITY ASSESSMENT DIMENSIONS OF DISTANCE TEACHING/LEARNING CURRICULUM DESIGNING
5. CONCLUSIONS
1. DESIGNING DISTANCE TEACHING/LEARNING CURRICULUM

Common agreement

• designing DT/L curriculum is the objective of the science of education (Anderson, 1997; Atkins, 1993; Kozman, 1991)
• DT/L planning, realization and effective teaching and learning organization issues should be decided during DT/L curriculum designing
"Slippery area"

- Distance studies are becoming a method and form of studies (Janilionis et al, 2006), and they properly respond to the **predominant learner perspective**
- This perspective can be dangerous if it determines quality assessment decisions
- It is necessary to discuss possible descriptors of DT/L curriculum components while searching for quality assessment parameters of DT/L curriculum designing and factors influencing its quality assessment
1. DESIGNING DISTANCE TEACHING/LEARNING CURRICULUM

The context of creation of learning possibilities requires broad analysis of:

- education policy and management (Paul, 1990; Simonaitienė, 2001; Želvys, 1999)
- cases of the use of new technology (Anderson, Elloumi, 2004; Bates, 1990; Mason, 1994)
- discussing the ways of getting to know your learners (Gibson, 1990; Morgan, 1992; Olgren, 1991; Thorpe, 2002)
- assess learners’ preparedness to use distance learning possibilities
- conditions created for the learners, learning and teaching phases and learning and teaching outcomes that are experienced by the learners and teachers practitioners themselves (de Burge, 1994)
DT/L = *traditional*?

According to J. Bourdeau ir A. Bates (1996), DT/L is *directly based on traditional teaching and learning curriculum designing ideas*. 
1. DESIGNING DISTANCE TEACHING/LEARNING CURRICULUM

DISTINGUISHED (SPECIFIC) FEATURES

Among other thing, DL/T curriculum contains specific features, like:

- individualized learning and teaching, and tutoring
- asynchronous communication, as typical characteristics of a DT/L situation (Mizoguchi, Bourdeau, 2000)
- macro and micro learning DT/L curriculum designing paradigms (Mizoguchi, Bourdeau, 2000)
- support system influencing DT/L directly. M. Thorp (2002) states that the accessibility of each other among learners, as well as the accessibility of a tutor have the potential to emphasize DT/L as an individualized form
- In a mixed context, all the participants share natural and virtual environments, when the latter is created during DT/L curriculum designing and its realization with the help of ICT (Mizoguchi, Bourdeau, 2000)
1. DESIGNING DISTANCE TEACHING/LEARNING CURRICULUM

Design models and templates

R. Gagne (1985) points out three main elements in curriculum designing theory:

1) the use of learning objectives taxonomy in curriculum designing, as well as the classification of learning outcomes

2) the creation of internal and external conditions to reach learning outcomes, and

3) nine teaching and learning organization methods that can become a template to design teaching and learning curriculum and organizing teaching and learning
M. Knowles suggests that adult learning and teaching curriculum could be designed with the participation of adults to:

1) perceive the reasons why they need to learn
2) learn on the basis of experiential learning (Kolb, Boyatzis, et al 1999)
3) learn using problem-based method
4) immediately apply learning achievements in practice
1. DESIGNING DISTANCE TEACHING/LEARNING CURRICULUM

*Design models and templates*

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1. DESIGNING DISTANCE TEACHING/LEARNING CURRICULUM

*Design models and templates*

C. M. Reigeluth (1999) analytical model and curriculum designing theory suggest that learning and teaching curriculum design has two components:

1. teaching organization methods related with the learning context
2. learning situation deciding teaching organization effect

M. Knowles (1984), C. M. Reigeluth (1999), as well as D. Verpoorten, D. Leclercq et al (2006) models can be characterised as open and dynamic, as well as applicable in practice, analytical and concise in component integration.
Ch. Argyris and D. Shon suggest the following action sequence for the improvement of teaching/learning process:

1. Variables causing changes
2. Action plan
3. Consequences

1 pav. Reflektivi veiklos tobulinimo schema (Argyris ir Shon, 1974, cituota Smith, 2001)

Fig.1. Scheme for reflective improvement of activity (Argyris, Shon, 1974, cited by Smith, 2001)
2. QUALITY ASSESSMENT AND IMPROVEMENT OF CURRICULUM DESIGNING

- According to L. Anderson (1997), the *consequences* of this reflective process can be felt by the person performing reflection action, and another participant who is not related with the process of reflection.

- Assessment of T/L curriculum designing takes place *correlating* teacher’s and T/L curriculum author’s experience, T/L process and learning outcomes.
• D. Van Damme (2000) points out the importance to ensure the quality of separate segments of curriculum

• existing segments of DT/L curriculum should be prepared on the basis of quality standards and requirements
D. Leclercq and M. Poumay (2003) suggest four groups of assessment criteria of DT/L curriculum designing:

- Content and information
- Technical
- Scientific
- Applicability

McNaught (2001) presents the following assessment criteria:

- Meeting the needs of learners with different learning styles
- Promotion of effective teaching/learning
- Responsive teamwork during DT/L curriculum designing
- Collaboration and problem solving plans, and activities during teaching/learning organization
- Modular, segmented DT/L curriculum designing, when the learners have to prove their knowledge in each phase of the model
4. QUALITY ASSESSMENT DIMENSIONS OF DISTANCE TEACHING/LEARNING CURRICULUM DESIGNING

T. Reeves (1997) suggests dimensions that are important for the success of DT/L curriculum designing:

- Epistemology, from instructive to constructive teaching/learning
- Philosophy of Education
- Psychology - teaching/learning process should be first based on the formation of a proper behaviour (behaviouristic, cognitive conception etc.).
- Projection oriented to reaching the learning objectives
- Experimental validity, i.e. the creation of situations and contexts where learners can directly apply new knowledge and skills
- The role of the teacher and his/her affect to learning quality
4. QUALITY ASSESSMENT DIMENSIONS OF DISTANCE TEACHING/LEARNING CURRICULUM DESIGNING

- Flexibility, when teaching/learning resources dedicated to teaching/learning curriculum can be modified during teaching/learning organization process according to contextual needs and changes.
- Learning from mistakes
- Origin of motivation
- Learning control mechanisms
- Encouragement of learner’s activeness, creating active learning possibilities
- Collaborative teaching/learning
- Cultural aspect
4. QUALITY ASSESSMENT DIMENSIONS OF DISTANCE TEACHING/LEARNING CURRICULUM DESIGNING

Synthesis

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- Philosophy of Education
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Synthesis

On the basis of the ideas above, we recommend to define the following quality assessment dimensions of distance teaching/learning curriculum designing:

- epistemological
- pedagogical (changing it to educational dimension, according to K. Pukelis, 1998, which encompass both pedagogy and andragogy)
- psychological
- experimental validity and
- cultural

The projection oriented to achieving learning objectives, flexibility of teaching/learning organization process, learning from mistakes, and learning control mechanism can be attributed to the **dimension of learning strategy consistency**.
4. QUALITY ASSESSMENT DIMENSIONS OF DISTANCE TEACHING/LEARNING CURRICULUM DESIGNING

Synthesis

• The dimension entitled as "teacher role and influence to learning quality" by T. Reeves (1997), to our opinion, becomes the object of several other dimensions: epistemology, psychology, education dimension, as well as technological dimension and other positions, including philosophical and cultural one, chosen by the teacher, that become the factors influencing learning quality.

• We would presume that flexibility dimension and learning from mistakes, mentioned by T. Reeves (1997), are interrelated with the dimension of experimental validity and are a part of it.
4. QUALITY ASSESSMENT DIMENSIONS OF DISTANCE TEACHING/LEARNING CURRICULUM DESIGNING

Metacognitive approach

T. Reeves (1997) supports M. Pearn and P. Downs (1991) in describing autonomous learners as ones who:

• know which model helps them reach learning objectives successfully
• wait for the information about their own activity, wishing to improve the efficiency of their learning activities
• accept responsibility for their learning process
• know their learning needs and perform constant self-evaluation
• test on their own different learning methods
• research qualitative resources and apply new ideas
• learn from mistakes aiming at knowledge and development of better subject comprehension
• aim at developing open, reliable point of view, rather than defense strategy. Become informal learning experts, i.e. are able to learn from everyday situations
• Invest in their learning and improvement
D. Shon (1994) points out the necessity to prepare learners for future professions and presents the conception of a "reflective practitioner" - a specialist performing reflection, acting on a regular basis for a major period of time, but also is able to think over his/her actions, to reflect and act the same moment, with the goal to accept the most proper decision in a certain situation.
4. QUALITY ASSESSMENT DIMENSIONS OF DISTANCE TEACHING/LEARNING CURRICULUM DESIGNING

*Something’s missing...*

- the authors of DT/L curriculum often do not have necessary competencies to select proper technological solutions for curriculum realization
- authors trust (or have to trust) the opinion of ICT specialists and their recommendations
- rapid improvement of new generation internet tools raise a new hope DT/L curriculum authors themselves will be capable to:
  - manage user - suitable environments
  - select the methods most convenient to realize curriculum online
  - organize distance teaching/learning

We do not discuss the technological competencies necessary for this process here, however, we emphasize the necessity to evaluate the **technological dimension** that must be included in the model of quality assessment dimensions of distance teaching/learning curriculum designing
During DT/L curriculum designing, three components can be identified:

1. *teaching/learning subject* (or study subject)
2. *teaching/learning situation* (internal and external conditions affecting the success of learning and constantly changing), and
3. *teaching/learning organization*, that should be characterised by the flexibility criterion, as it directly depends upon the changing teaching/learning situation
We suggest that assessment of quality could be performed according to the following quality assessment dimensions:

- teaching/learning strategy consistency
- experiential validity
- epistemological
- cultural
- philosophical
- psychological
- metacognitive and
- technological dimensions
2 pav. Nuotolinio mokymo/si turinio projektavimo kokybės vertinimo dimensijos
Fig.2. Distance teaching/learning curriculum designing quality assessment dimensions