

ZRÍNYI MIKLÓS
NATIONAL DEFENSE UNIVERSITY
Doctoral Council

GERŐ PÉTER

author's review of
the doctoral (PhD) dissertation on

USE OF LIFE TAILORED E-LEARNING
WITH EXAMPLES ON THE MILITARY HIGHER EDUCATION

Budapest
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***USE OF LIFE TAILORED E-LEARNING
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Supervisor:

SERES György DSc, ingénieur, lieutenant-colonel
academic doctor in military sciences

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1. THE SCIENTIFIC PROBLEM

In a lot of learning processes it can be observed that many of the learners have to face learning difficulties even if they do possess all the skills and prolegomena needed for the learning success.

The same problem can be seen at the opposite side as well: we know several excellent professionals who can hardly deliver their knowledge: to develop a learning material that can be understood also by laymen (since learners are laymen); to make the learner to wish to be absorbed in the proper issue.

On the one part there are professionals being less successful in knowledge transfer; on the other part we see the learners whose learning success lags behind the level expected by their capabilities.

There is no proper process or methodology that could be used as safe black line for the professional who, with all her/his good intents, wants to develop learning materials, to support learners, but hasn't enough practice and can't (or doesn't want to) be lost in theoretical issues.

2. GOALS

Goals of the present research are: to clarify the requirements of the methodology mentioned above as a missing one; systematic survey of tools and methods that can be used; and finally: fixing the determining points of the methodology. Properly:

- to create a new definition for competence acquisition, competence expansion achieved by learning (that is a re-worded, refined definition for competence), making the acquired competence or rather the expansion of competence more widely identifiable and measurable through the new definition;
- to separate the learning content and the knowledge delivering-receiving methods, letting these two studied specially and therefore shaped, developed and assessed specially;
- to form the rules of describing the learning content, so that the learning content should be the subject of the proper measuring process; and to achieve the possibility of a decomposition of stringency, transparency and modularity;
- to form a methodology for creating learning material and learning process fitting all the points mentioned; to differentiate the learning support rules systematically.

3. RESEARCH METHODS

Research begins with drawing the limits of the goals exactly. As a result of that: the research area is: learning material development and learning support for the open and flexible learning process of an adult learner who learns in the interest of her/his own learning goals.

I have studied professional literature from several directions: from resources of pedagogy, on adult learning, from the fields of training techniques and technologies, and from the military engineering sciences.

Then there came the systematic way to achieve the research goals: to imagine and realise the methodology fitting the mentioned conditions.

4. SHORT DESCRIPTION OF THE RESEARCH PERFORMED

The first chapter is about the refinement of the goal and basic concept.

The second chapter contains the review of the professional literature and the conclusions I have made.

Then, chapter by chapter, there come

- the issue of competence, competence based learning, and measuring processes belonging to the learning goal;
- the professional material; the transparent module (lesson);
- the learning material; learning motivation; interactivity and multimedia;
- roles in the learning process,

as proper steps to build the methodology at issue.

This is followed by a summarizing review of the methodology of Life-Tailored Learning.

The 8th chapter lists the new scientific results and some recommendations.

The last chapter contains a review on the opportunities of using the methodology in civilian and military higher education and in adult training respectively.

There are some examples of using the methodology in education and in learning material development. There is an appendix on (self)assessment, another one on professional materials; the 3rd appendix is on a military case study: steps for learning material development are shown by a proper issue from the career course.

5. CONCLUSIONS

In the course of research I could make the statements that

- there was no answer for my research questions in the professional literature (different bunches of professional literature get close to the problem but they do not deal with it in depth);
- but the goals can be achieved, as:
 - it is possible to create a new definition for competence acquisition, competence expansion achieved by learning (that is a re-worded, refined definition for competence),
 - and this makes the acquired competence or rather the expansion of competence more widely identifiable and measurable;
 - the learning content and the knowledge delivering-recvieving methods can be separated,
 - so that these two can be studied separately and therefore shaped, developed and assessed separately;
 - the rules of describing the learning content can be formed,
 - so that the learning content should be the subject of the proper measuring process; and to achieve the possibility of a decomposition of stringency, transparency and modularity;
 - there can be formed a methodology for creating learning material and learning process fitting all the points mentioned; to differentiate the learning support rules systematically.

I could state and practically proof that the established methodology (Life-Tailored Learning)

- can be taught in higher education,
- and can be used in the practice.

6. NEW SCIENTIFIC RESULTS

As the results of my research work being the basis of my dissertation,

1. I have created a new definition for competence, making the acquired competence or rather the expansion of competence more widely identifiable and measurable,
2. I have separated the concept and features of „professional material” and „learning material” so that it can be applied in the practice of learning content and knowledge delivering-recieving process by a consistent manner;
3. I have worked out the rules for performing measuring activities and for creating a professional material which allows to divide the learning material and the learning process into stringent, transparent and modular lessons (modules),
4. And, by organising all the above mentioned issues systematically, I have worked out – and on several adult training courses I have tested – the methodology of „Life-Tailored Learning”: a proper, harmonised, easy-to-learn, applicable methodology for the learning material development and methodology for the open and flexible learning process of an adult learner who learns in the interest of her/his own learning goals. In addition the methodology contains
 - 4.1. fixing the criteria of a measuring method leading to a trusty result,
 - 4.2. fixing the criteria of the least part of the professional material thtat can be differentiated,
 - 4.3. ban of „referring fowards”,
 - 4.4. and prescription for the sequence of the steps in learning material development (learning goals => closing conditions and measuring them => entrance conditions and measuring them => professional material => learning material).

7. USING THE RESEARCH RESULTS IN THE PRACTICE

New results can be used in the civil and military higher education and in adult education as well.

Refining the definition for competence acquisition, competence expansion achieved by learning results the acquired competence or rather the expansion of competence more widely identifiable and measurable.

As a consequence of renewing the concept and features of „professional material” and „learning material” by a consistent manner easy to use in the practice, transparent and modular learning content, learning materials and courses can be developed.

Wording the rules of developing a professional material being suitable for performing measuring process, makes it possible to divide the learning material and the learning process into modules (lessons) that allow stringent, transparent and modular decomposition.

By the methodology concerning on developing learning material and learning process fitting all the issues above – and as a part of this: exact differentiating of the learning-helper roles (lecturer, consultant, tutor, mentor) – the whole of learning material- and course development and also learning-helper activity gets the „black lines” missed in the 1st paragraph of this review.

8. RECOMMENDATIONS

Speaking about the possible use of the research results achieved, one has to draw the boundaries of adequacy of the methodology based on the concept of competence formed by me, and operates by dividing the professional material from learning material, transparent and modular learning process, and a professional material, learning material, learning process all fitting to the methodology.

It is adequate to serve learning material and learning-helper activity those learning processes, that can be characterised by extension of competence and applies to the adult learner's own measurable learning goals. It does not fit to any „hobby” learning process.

So it can be especially useful for acquiring professional knowledge, behaviour, skills of handling given situations, in or outside the schooling system, speaking about formal, informal or non-typical learning, in directed or self-directed manner. As a representative field: it can be useful in military (and in general: in civil servants') training in higher or post-gradual education and in retraining too. It has to be pressed that the structure of transparency and modularity makes easy for proper professionals to acquire the competencies of other professions. And not least: based on the educators' retraining at the National Defense University in 2007, the methodology is adequate for learning material developer and learning helper training for higher-education professionals who have no precognition in andragogy.

The dissertation contains some recommendations for further research and development as well:

- Recommendation for IT tools for teaching and learning, based on experimental research; and
- Developing a practical technology for developing, documenting, evaluating and assessing graph-structured learning material and environment.