

ORGANIC PEDAGOGICAL MODEL IN HIGHER EDUCATION

Dr. Baróti Enikő
Széchenyi István University
Győr
Hungary

ABSTRACT

The environment of the 21st century adult and higher education has changed at several places. The obstacles of information flow have disappeared and the educational environment has been virtualized. At the same time, the learning habits of students have also changed radically. These changes should be followed by higher- and adult education as well. By accepting these phenomena, workers of higher- and adult education have to face a lot of fresh challenges. It is very important for them to adjust to the trends mentioned above. Even those people who are not certified teachers need information, pedagogical and psychological knowledge to be able to find their way in the pedagogy of adult and higher education. Our other goal is to assess more university majors with my colleagues in large –scale study context and also to integrate the students personality development and soft-skill competence rise into the higher education especially the engineering education.

Keywords: soft-skill competence development, higher education, motivated learning process

1. INTRODUCTION

There are moments in today's age of higher education which provide food for thought. It is time to stop and choose direction. We are part of a training process. Can we leave the beaten track? Can we take into consideration the real changes, the forces of development that affect us during learning? In the age of technology and virtual reality how to support the development of people? What must be done to integrate our students more into the learning process? What dangers must we draw attention to? (Mészáros, 2011) What kind of vocational and human values must we conduct during the learning process? How can we integrate the so called: human-centred and wishing- to-develop teaching principle into the process of curriculum-centred vocational training? (Mészáros-Baróti, 2014)

2. A BROADER INTERPRETATION OF LEARNING

Coenrad van Houten formulates an idea in his book: *Awakening the Will, Principles and Processes in Adult Learning* which can be a crutch to cling to for teachers wishing to renew and change. Those who search for the secrets of life and interested in becoming human, real thinking, development of ability to learn, the book offers new thoughts. It offers a solution instead of dominant curriculum- centred education, the integration of three paths of learning. During our lives, we encounter 3 learning paths: According to Coenrad van Houten:

1. „School or Earthly learning”, which is institutionalised, organised learning up until high and adult learning.

2. „Destiny Learning or Learning through life”, based on our life story offers deeper self-knowledge
3. „The Spiritual Schooling Path”, which focuses on the education and development of the conscious spiritual part of the human.

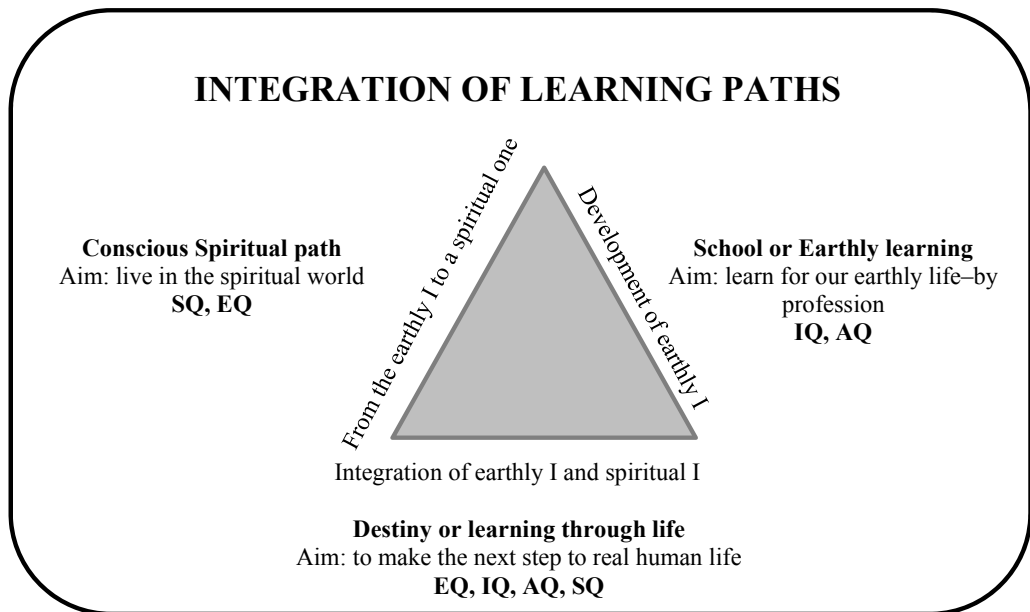


Figure 1. Coenrad van Houten: The three learning paths

The integration of these three paths is called real learning. Aiming to awake the human’s will and judging power, build spiritual power and completion of human existence. Its arena is the human I which lives the three learning paths at the same time. The Earthly I means the everyday consciousness of human ego structure, with which every days are organised. The spiritual I means our superconscious parts which are perceived when we want to reach higher spirituality, our goal of development. To learn for our Earthly I and of course acquire curriculum require effort and help increase skills and knowledge but to become human and being able to live are greater and more complex requirement. (Coenrad van Houten, 1993) We can only find real possibilities for this general and complex aim if learning institutions can draw up consciously in their educational aim the image of man that they thrive to create during learning. These ideal images will fundamentally determine the quality of learning and teaching because while teaching we influence human fates. (Mészáros-Baróti, 2015)

3. THE MODEL OF ORGANIC LEARNING

We are to introduce the learning process by Coenrad von Houten which harmonises with the analogies of human life processes. In our experience this can be an excellent base of a pedagogical thinking to understand the human itself, to get to know its own method and to improve learning teaching process and other developing activities. The attention on life processes wants to know the life and every process, which and how it fills up with life force and starts growing. The fundamental description of life processes is dealt with professional literature. What is important here is the transfer of them into learning and developmental process. It can be seen if our life sustaining processes work well than we feel good that gives us power for creative activities. In case of disturbance the balance disrupts and we are no longer

in a state of good feeling but we are to fix a broken basic feeling. It happens with our learning processes. A well- built integrated learning process causes improvement and life powers can come to life which further creates consciousness, interest, creativity and self-excessing. We can sense that this change is spiritual. It is quality not quantity change. The learning causes a conscious and conative quality change in one's self. In the next part the discussion is on the seven-life process in human's life as organic learning model. It is discussed as a mirror image of the seven learning steps. The seven learning steps can happen as an organised consecutive flow or at the same time as the life processes happen in the body. The understanding of the seven steps in-depth helps us form the learning processes of our students and ours too, also helps us harmonise the different learning processes more consciously.

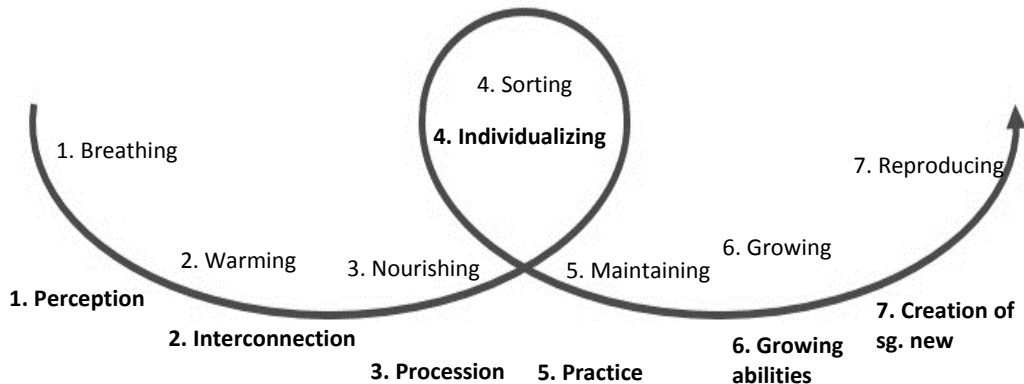


Figure 2. Organic Learning Model (source: Coenraad van Houten)

3.1. Breathing – Perception (sense)

Perception is like breathing a rhythmic process just partly conscious. From perception becomes a mental and volitional activity formed by conscious observation, and this is the base of the learning process. It is necessary to save in our memory what we need. So, the breathing is the archetype of all learning. For the first step of learning we must strengthen the perception and reception by awakening our senses and thought.

Example from Mechanics: Structures balancing topic: Perception of some kinds of structure roof structure, bridge structure and a schematic drawing of a detail of it. The teacher later tells the students what and how he sees it in his detailed, professional vision.

3.2. Warming – Interconnection/Motivation

The self has to balance the interconnection of thinking-learning process and awakening of warm interest, or cooling down an over enthusiastic state. When our motivation is higher, our level of interest is higher too, we switch inside a more active state. Our cerebation gets intense in a condition full of emotions and our memory will be more enduring. All in all, our learning capacity rises. This is conscious interconnection with a topic, curriculum, so it ensures a more personal, deeper participation. In case this step is missing than it is not a real learning process.

Example from Mechanics: Questions can be asked about the scratch from the first step e.g.: What is the bridge's structure like? What constraints provide the balance? E.g.: Examples from bridge construction practice. The destruction and story of Tacoma Narrows from 1940. Analysis of balance lost What should have been done to avoid it? Discussion, brainstorming, finding solutions together.

3.3 Nourishing - Processing

Learning is spiritual nourishing with the personal participation of self. We use the term in Hungary at a difficult topic 'digest' so we must digest the curriculum. The reference here is to the processing, understanding of it that takes more time and effort.

Example from Mechanics: E.g.: Dismantle of structural model drawings into little pieces and making simple structural models e.g.: simply supported beam, mounting bracket from loads net weights. The processing can happen in pair work or alone or in group work. E.g.: Processing of a lecture in groups constructively.

3.4. Sorting – Individualizing

This step is necessary to make it ours what we perceived, learned from the outer world. By this step we can find the newly added inner value. Now Learning happens by awakening our own will. This is the privilege of higher and adult education, where a mature individual self is ready. Without this step, learning would be just conditioning which makes thinking tough and sematic.

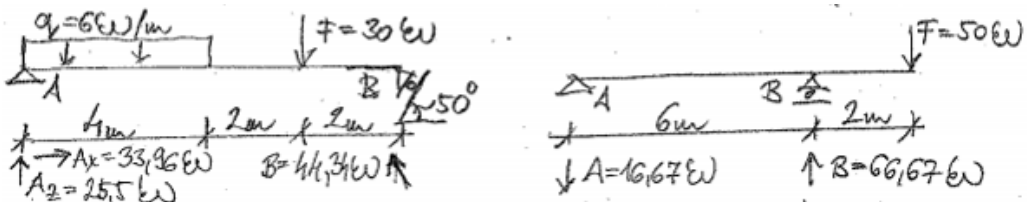
Example from Mechanics: making schematic structural model, designing an own bridge.

During making schematic structural model a new idea comes up but there is not enough basic skill, theoretical background for its exact engineering design.

3.5. Maintaining - Practice

The desire to implement the found idea, at the sorting step, here it can happen during the process of learning and practice. If we want to keep the seeds of our own idea, we need to be able to recollect them again and if we want to implement our ideas it needs regular learning and practice which require effort. If the rhythm of this practice develops imprinting happens. For the existence of this step needs sufficient environment, diligence, endurance and love.

Example from Mechanics: Balancing simple and composite supported beams and defining reaction forces. Solving more and more practice tasks individually or in a group. Making an own practice book, document file with practice examples.



3.6. Growing – Growing abilities

The aim is to develop a new skill. The power for growing is fed by the opposite pole of learning which is the driving force of personal interconnectedness and the found inner motivation. Methodically this means to put the former practice and learning into a higher synthesis. The skills can grow at practical situation the best. Project work is a great method.

Example from Mechanics: More topic offer for project work which support the implementation of own ideas. E.g.: Making a model of my favourite building or structure.



Figure 3. Students project work from Mechanics: Pasta bridges and building structure models

3.7. Reproducing- creation of something new

Considering body processes the reproduction means repetition of something similar. The ultimate aim in the learning process is to find a new and higher quality and a chance of creation. It depends on the previous six steps that the result is repetition or genuine new achievement. The one-to-one reproduction of the curriculum is not real learning rather reproduction which neither includes personal creativity, nor finding genuine and quality development. In case of reproduction, the inner self's work is stereotypical and doomed to imitation, understanding without personal involvement. This is rather a coercion of the self. It can cause the damage of the self and lead to the fragmentation of the learning process, rigidity of mind and fixed templates. This is inhibiting and reducing the free capacity of the self for real learning it also leads to bad habit and learning formation which in most cases causes fear-oriented, restricted, compulsive behaviour. The fulfilment lies in the interdependence of the seven steps, finding of own life force and use of upward force from polarity and promotion of development.

Example from Mechanics: Real task from practice. E.g.: reconstruction of a wooden bridge.



Figure 4. Students' project works: Reconstruction of Tallin bridge 2012

4. METHODOICAL CONSIDERATIONS AND TRAINING PRINCIPLES BASED ON ORGANIC LEARNING PROCESS

How to teach according to the seven learning steps? Let us think over the process from step to step from the teacher's point of view. The table below shows an overall overview of the obstacles emerging from each step and offers solutions too.

1. Table: Problems and methodical solutions during the planning of learning steps

	Obstacles	Solutions
1. Perception	Critical or strong preconception, antipathy toward the method passivity, impatience	Openness, astonishment, selfless attention towards the participants, respect and awakening the senses
2. Interconnection	Unmotivating, lack of imagination excessive stimuli, enthusiasm sensibility only for certain things	Activation of the inner self, awakening of inner enthusiasm (heat), connection of inner and outer world
3. Processing	Passive curriculum intake, one way process (IQ, EQ), Fear of the new and embarrassing questions	Increase of courage, put theory into practice, self-assessment, inspection from more points of view
4. Individualising	Fear of the change, fixation of culture response, inner instability, stick to ordinary	Creation of inner stability and individual respect, development of culture response, ensuring time and space
5. Practice	Lack of exact execution, concentration, regularity, paralysis of will, lack of purpose and enthusiasm	Planning, exact explanation of what is the use of this, maintain enthusiasm, inner discipline, endurance
6. Growth of the skills	Automatisms, ingrained thinking, lack of empathy, expectation of quick	Awakening of desire of improvement, doing the same another way, description of variations, process evaluation
7. Creating something new	Thrive for perfection fear of making mistakes, acting, taking risks, lack of self-confidence	Making real plans, regularity, fun of independent work, independent learning, self-reflexion

5. SUMMARY

The plan and implementation of a training by organic learning method integrates the observation and development of the learning human. (Mészáros, 2014) It only means in narrow sense the development of soft-skill competences, in wider sense it affects the whole human. This has been developed in art trainings but in other fields for example at technical higher education the attitude change is inevitable: Both the human and the process of development deserve attention like professional knowledge. Training development deserves similar organic process and remodelling. (Mészáros, 2013) This is what we teachers can start by remodelling our teaching processes and participating in our profession.

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