The F.A.R.B.E. eLearning system

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Abstract

E-learning saves the world!? ELearning is a buzz word. ELearning promises much. In how much these promises will be honoured does not only depend on the system architecture. Organisation, culture, efficiency and sustainability will win or lose depending on the degree of adequately connecting the features of eLearning applications with the established routines of their target groups. We have developed the didactic F.A.R.B.E. learning system, which refers to Georgi Lozanov's suggestopedia.
Our software to create F.A.R.B.E. modules, which will be virally distributed starting at a certain stage of development, will set new standards in facilitating the preparation and follow-ups for teachers, trainers and their clients. Distributing and using the modules, which can be licensed in groups according to requirements, will be effected in an eLearning exchange. The easy-to use quality assessment, which is compulsory when the modules are used, will fix the day price for the download. Teaching performance based on extensive preparation will be made more worthwhile for novices as well as for charismatic experts as they can use the F.A.R.B.E. platform to make their mark on excellent didactic performance. The first platform within the learning system will be "Competence training for aspirants for executive positions" combining user feedback loops and high-quality professional compilations.
This presentation will show the effects of our learning system on knowledge management in learning organisations on a profit and non-profit basis. Users, which are competitors in business life, can learn from and with each other as they cooperate in virtual networks, which are characterised by the complex interaction of informal competition and formal cooperation without fearing to lose face or to reveal sensitive information. At the start of the project the learning architecture is aimed at a) the art of management, b) didactics in health care, c) pedagogy. F.A.R.B.E.'s principles, however, can be transferred to other fields of competency.

1. Screen revolution? Why not stay lazy?

All progress in civilisation is due to people who are unsatisfied. So why not stay lazy, lay back to wait and see what happens? What are the evils sparking revolutionary ambitions of eLearning activists? In our opinion there are the following three social fields which give cause to be especially unsatisfied: education, management and care for the elderly.
A) For decades teachers' education has not been adequately based on the state of art in psychology. There will not be sufficient people who are ready to face the real challenges on earth. Instead there are zillions of experts in Pokemon, Legoland and Second Life. If society cannot tell teachers which direction to take, teachers will feel left alone in the classroom. What is right and what not? An effective methodology is needed to build a personality which fills the cultural disorientation of current societies.
The contents taught have been outdated for 30 up to 80 years. Today's psychology leaning towards systems science reaches education on a rudimentary level only. Education, however, without applied psychology cannot be more than a mouth without teeth or tongue. First of all didactics are neglected in teaching education. The Educators' Compass developed by our team uses the

eLearning potential to establish a focus in the cloud, which brings teachers, parents and developers of curricula together.
B) Management has just started to realize that ecologists and economists have the same aim: to solve an equation. Inasmuch as classic economy only considers facts based on numbers and figures, macro- and microeconomic requirements get more and more in conflict with each other. Our F.A.K.T. eLearning tool (Competence training for aspirants for executive positions) prepares decision makers to see and manage their organisations no longer as trivial machine-like systems but to lead them as a species of its own with social organisms.
C) Problems with the care of the elderly are on the increase. A skilled workforce, being taught only rudimentarily how to deal with the challenge of caring for people, meets a management which leads their institution into the future on the basis of naive and outdated management ideologies. “Today’s problems are yesterday’s solutions.“ (Peter Senge)
It is the elderly who are the losing party in this two-way game of meeting excessive demands. Similar to children caught in an education which swings between education fads the elderly are hardly able to say what is missing. Their needs are often not met in the struggle for prestige among the competing interest groups involved in the care process.

2. Quality in care as a co-product of systemic interaction

“It is never to early to think of the future!“ says a motto of a major German insurance company. In the face of threatening demographic trends in Germany, potential care clients and a skilled workforce are united in asking the following: Are the economically feasible costs the only criterion to adjust the way people are cared for or are there some other limits and communication hindrances which must be taken into the benefit-cost analysis? In other words: Can generated synergies mobilize resources? Can improved organisational and communication processes free up funds which have up to now not been considered in financial accounting?

The following figure 1 shows the (incomplete) macro-system of social interest groups involved in care management and quality.

Having a look at the synergetic interaction of the interest groups involved in care and care training at this macro-level, you can see that the common focus can easily get lost. That is the reason why it is difficult for institutions to learn together and to formulate quality guidelines for care and care training. Using the advanced technology of online interactive eLearning solutions is the obvious way to create a bulletin board to focus attention. The initial aim of our K.T.P. (Training Care and Nursing Competencies) eLearning tool is to establish a common focus for communication between the interest groups.
Now the interaction between training organisations and institutions offering practical training is briefly described as a basis for introducing our solutions. The fact that the value of theoretical knowledge attributed to practical work by time-served employees is often irrationally depreciated can be explained from an objective background. Trainees in their first year face considerable problems in orientation as they cannot combine the solutions offered with the according problems due to a lack of practical experience.
Learning starts in the traditional classroom only, never in a practical environment with ready-made solutions. Facing the many well-intentioned answers, the trainees ask themselves for a good reason why they need what they learn. They do not have the question yet which is linked to a potential answer. In particular in their first year of training, they have not yet worked in a practical context to check the suitability of the question! Without recognised relevance, however, there is no emotional contribution given. Without this motivation, in turn, the learning effects are not sustainable. Emotional involvement is essential to release the neurotransmitters in the brain required to prime the willingness to learn new things and to create associative networks. A person needs to be challenged – not too much and not too little – so that the readiness for mental restructuring is created within a given stress tolerance.

3. The F.A.R.B.E. Principle

The basis of K.P.T. is an innovative didactic learning and teaching concept, which can also be transferred to other fields of training (e.g. pre-school teachers). Modules built according to this principle can directly be used as a template for teaching. Practical tests have shown that this type of teaching was a) very well received, however, b) linked to substantially more input by the teacher. Students regarded this form of learning as much more oriented towards practical issues. The fact that learning is typically associated with stress and strain was no longer relevant and instructions were very intense and reached a high degree quality.
Using the didactics of the F.A.R.B.E. Principle, the course of learning inflicted upon students seems to turn the process on its head. F.A.R.B.E. emulates the natural way of learning, which we go when we learn without realizing that we learn. It is only with the benefit of the hindsight that we form theories about our successes or failures. This every-day course of events has also been confirmed by neurological studies (e.g. Libet, 2007). First a problem challenging us is mentally represented, second an intuitive decision is made (Gigerenzer, 2008) and only afterwards theories are formed to explain the interactions.
Insight into the didactic principle of the Training Care and Nursing Competencies Module is immediately and intuitively gained:

F: Questions or problem scenarios which are always asked or faced prior to answers or solutions
A: Selection of answers which are unambiguously correct or false
R: Reflecting personal relevance of the subject in question: “To what extent is this related to me?“ Ease to remember and systematic memory are the result of narrative connections of situational frames also known as “stories/histories” created by describable behavioural sequences.
B: Further every-day examples which make the correct answer plausible
E: Explanation, summary and classification according to the theoretical frame: “Nothing is more practical than a good theory!” (Lewin)

F: Teaching which is even today inflicted upon students and trainees is effected by the following didactic principle: The Teacher or trainer provides fascinating answers to questions which were not asked by students due to their lack of practical experience. Students just console themselves with the hope of the coming work placement. Seeing this catastrophe for learner’s motivation it is short of a miracle that so many students learn anything. That is the reason our learner’s software puts the horse in front of the cart and starts with practical problem situations instead of ready-made answers.

For this reason good scenarios found in every-day care are much more important than universally correct answers and patent remedies. Experts for relevant practical input for decision-making problems are first of all specialist staff in care institutions. Let’s ask these people, who are the first to notice new requirements, about the problems they are facing! Their quantitative and qualitative assessment of the learning modules makes the K.T.P. “fresher and fresher”. This system is run together with the expert “competency in care and nursing” bulletin board where yesterday’s, today’s and tomorrow’s specialists can fight and reconcile when discussing issues in care and nursing.

A. Executives and managers are different from their employees in so far that they make decisions. The decision-making process is inevitably a risky one. It is the taking of substantial risks and the bearing of the necessary responsibility which results in acceptance shown by the employees and which justifies higher salaries. That is the reason why the online system is not based on interpretations but on options for decision-making and on actions which can be unambiguously justified on the basis of situational and professional reasons. If two out of five solutions in a multiple choice test can be used in practice, the distracting three others show as much potential for learning as the correct answers in K.T.P. When formulating the distractors, all the more than plausible false opinions, short-cuts and stop gaps will be taken up which have been circulating in care and nursing institutions for years causing damage.

R: The letter “R” is for reflexion. According to the narrative approach the brain learns when it connects situational frames with each other. Parents use this technique to put their children’s brains in order when they tell them stories. There is an entertaining illustrated story line covering all issues and

problems found in care practice to generalize the correct solutions in the multiple choice tests. The dialogues between the protagonists of the scenarios classified by subject can be simulated in learning

teams, discussed and varied with different outcomes. The storyline for a subject with one F.A.R.B.E. module is the silver-bullet approach for types of learner who orient towards action to gain expertise in care and nursing. Learners are invited to put themselves in the position of professional characters and roles who act according to the decision-finding approach: Rolf, the time-served care giver, Maike the trainee, the resident elderly and other nurses and care givers.

B: If “the” psychology applied is a good one, it reminds us more often of things people know intuitively and call this common sense. These things, however, are hard to put into words. This implicit knowledge taking the form of unwritten rules of thumb and formulas for success can be considered the unconscious in organisations. If “ordinary” care givers have the possibility to grasp organisational interrelations without entailing more costs, the probability will rise that committed care givers and nurses who know about the relations between management and organisation will initiate changes in their institutions on their own (the principle of empowerment). Short video sequences are added to this part which show examples of every-day live in care situations to suggest which of the answers provided in section A provide suitable ways of action. The “correct” answer, however, is given in the last step.

E: This is the section where learners are provided with the correct answer. Afterwards the reasoning behind the “correct” and “false” options is explained. Important in this context is the fact that also false answers are substantiated. The section “Classification and theoretical frame” contains the definitions, tables, graphs, illustrations and scientific deductions known from classic textbooks. Learners preferring this theoretical approach can start in this section with their studies.

At the end of the project there will be 500 questions and 2500 answer options covering sociological and psychological issues.

Figure 2*:* Screen shot showing the contents structure according to the curriculum for care and nursing

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