

BASIC CHARACTERISTICS IN THE STRUCTURING OF INDUSTRIAL BUSINESS AND ENTREPRENEURIAL TRAINING BY PARALLEL DISTANCE LEARNING

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*Received 23 April 2012
Accepted 05 June 2012*

ABSTRACT

Distance learning is becoming one of the modern trends in acquiring education, imposed due to recent advances in information and communication technologies on the one hand, and the public needs and attitudes on the other. Gradually it expands its perimeter of application, enriching and breaking the monotony of its forms and means of implementation.

Practically distance learning appears to be a reflection of the classical forms of learning in terms of educational content as modifying and improving them, and thus contributes both to the organizational and technological improvement of the educational process.

One major problem that arises when distance learning should be a parallel or an alternative form of learning is how the learning process and individual units will be structured. In this case, this problem should not be considered and solved separately and independently from the specific purpose of training, and from the relationship and dependence between modules and courses. This is especially important because along with the removal of geographic barriers, modern information and communication tools create the possibility for integration of educational content and interdisciplinary connections.

The purpose of structuring the distance form of learning is to enable the student to obtain the necessary knowledge and skills in a particular subject area under optimal conditions for him. The distance learning in a considerably higher degree is consistent with individual abilities and needs of learners, and in this way it approaches the group to the individual training for acquiring education or qualification.

Keywords: distance learning, structuring, educational content, optimization, entrepreneurship.

INTRODUCTION

It is hardly necessary now to demonstrate need and relevance of distance learning in acquiring education-qualifications degrees by the students. Of course, the subject of discussion is whether a given subject area is suitable for this type of training, to what extent and by what technology will the educational process be implemented. For example, one has to consider distance learning in economics, law and other humanitarian fields, and secondly those in medicine, technical sciences and others. From the regulatory point of view,

the power to determine the direction and type of application of this form of acquiring degree is granted to an educational higher institution, within the limits of how they specify which professional fields and disciplines will use this form .

Meanwhile, it is specified that distance learning is equal to the full time training in term of the curriculum content, the required number of credits for the certain specialty, diploma for completed education - degree and vocational training [1]. Even the maximum workload of classes attendance is fixed to 30 % (while in part-time form it is at least 50 %).

The training materials and resources for self study in a distance learning form in a certain specialty must provide not less than 75 % of the curriculum content and to develop a methodology that corresponds to the specific specialty.

Depending on the technology provisions, the training materials and resources are classified into four levels, as follows:

- the first level includes educational and methodological materials on paper or their electronic versions;

- the second level is based on multimedia and interactive learning materials distributed on electronic media, magnetic and optical disks, audio and video equipment;

- the third-level is realized through training materials and modules for education and evaluation, located on dedicated servers with guaranteed high-speed Internet access;

- at the last, fourth level the educational materials and resources for self-study are located in an Internet-based distance education system with guaranteed high-speed access.

The organization and conduction of the distance training as well the integrated database with personal data, curriculum and virtual learning materials, assignments and tests are supported by an internet-based system.

In organizing and conducting distance learning for the third and fourth level of technology to acquire educational - qualification degree, no less than 70 % of teaching materials and resources for self study must be provided.

BUILDING UP A MODEL FOR DISTANCE LEARNING

The organization of distance learning should not be as an end in itself, but as we already noted, it must satisfy a certain existing or forming social need. It is necessary to develop a distance learning model to meet this social need. The latter brings together many different models of learning, a common feature of which is the distance between the speaker and some or all of the students [2, 3]. Like all types of training, the different models of distance learning have common characteristics, such as the presentation of content, interaction with

management, available resources and methods of evaluation. Each model in order to make accessible one or more of these components uses various technologies [4, 5].

There are different concepts of developing a model for distance learning. One of the fields is focused on the model of distance education to copy the traditional literally, or the so called "classical training" [6]. An opposite opinion is that the student's characteristics reduce the need for his/her direct contact with the teacher [7].

The models of distance education differ not only in the types of technologies they use, but also in the control they exercise over the learning process. In some models, the control is exercised by the administration and the institutions like, for instance, is the classroom in the traditional learning, while in others the control is left to the students.

In creating a model of distance training, the educational or training purposes should be determined in advance. On one hand the model must report the amount of knowledge, and skills that students acquire, and on the other hand - the characteristics of the students in terms of their personal and group goals and incentives.

In this aspect, models reflecting analogous objectives, may differ in their technology realization, which is explained by the presence of a wide range of technological means for implementing distance learning [8]. Undoubtedly, the most efficient distance learning will be realized when it is a basic or an accompanying form of other educational - qualification processes. Since the educational-qualification process is primarily informational and associated with the absorption of certain knowledge and skills, the most significant in this case is not the information-bearer but its content side. The technology implementation of the information process can only contribute to its intensification, but by no means it determines its content.

It should be noted, that there is a reason to claim that there is no education established so far without textbooks. In the same time, the purpose, the form and the manner of using a modern textbook by the learner are radically changed. In this case we should rather consider not about a textbook, but about a system of training materials, based mostly on the student's ability for private study and training, as well on the teacher's ability to control

the training process. There are two points of interaction between the subject and the object of study that determine the content model for distance education.

When building the distance learning model we must consider its positioning in the process of training and the trainee qualification. This model should provide opportunities for combining different forms of training in the same or overlapping time.

Typically for the model of distance education, based on the parallel form of education, is its feasibility for combining with almost all classical forms of education and training. The parallelism of distance education can be considered as parallel work of the individual. There is a tendency in this direction for the distance learning to displace and enter as an alternative to correspondence training in certain subject areas. However, we believe that the parallelism of distance education is primarily a form of an upgrade over a basic education degree, full time, part-time or evening form of training. (As the latter has already been forgotten).

When building a model of distance learning we should not miss the impact of modern information and communication technologies. It is hardly a coincidence that electronic technology in education is regarded as one of the systems of e-business [8, 9].

Despite the fact that modern information-communication technologies have changed the attitudes and capabilities of distance learning through one of its modifications - e-learning, they do not define primary by its goals and intended use.

MODEL OF PARALLEL DISTANCE LEARNING IN INDUSTRIAL BUSINESS AND ENTREPRENEURSHIP

Parallel distance training is an analogue of the evening training, though along with that it has its special features and advantages. The features are that the territorial commitment to learning disappears, changing the ways of presenting the material and form, and the manner of connection between the trainer and trainee. The advantages of this type of training is primarily in the more active role of the students, in the need for a methodological and information support of the process, strengthening the dialogue form of communication, especially in the third and the fourth level of the applied training distance

methods as well in accessibility, efficiency and lower tuition fees.

The model of parallel distance training in Industrial Business and Entrepreneurship includes the following basic elements:

- basic foundation related to the form of presenting information connected to the knowledge acquisition in the subject area such as books, textbooks and supplementary materials;
- existence of a two-way relationship between the teacher and the student (obtaining knowledge and control over it), between student and an administrative unit (enrollments, fees, service announcements, administrative issues, etc.) as well between the teacher and the administrative unit (grading the exam in the ledger and shaping of the student status);
- availability of multimedia products related to teaching material such as presentations, video and audio clips provided to students;
- availability of software solutions for holding conference calls in real time such as open source software, chat, audio and video conferences).

When building a model for parallel distance training in Industrial Business and Entrepreneurship we should determine the amount of knowledge and skills that students should acquire. They must be structured into separate units, modules that help shaping the acquired trainees qualification. In terms of the amount of knowledge and skills, the training content can be modified depending on its nature, the knowledge already acquired and the implementation level of training. Basically, this can be achieved through differentiation in terms of the levels. Thus, the first module is based on the first and in basics - on the second level, combined with a certain normatively stipulated attendance workload. This creates a direct contact between students and teaching staff, and reliability of the ongoing control.

The modular principle provides an opportunity for continuity of training and the integrated use of the acquired knowledge. Thus, the information related to the introduction of students in each discipline significantly reduces. This is achieved through the modular material presentation on a carrier.

The knowledge control must correspond to the process of knowledge accumulation and to report the achieved level at each stage in this direction. This specifies

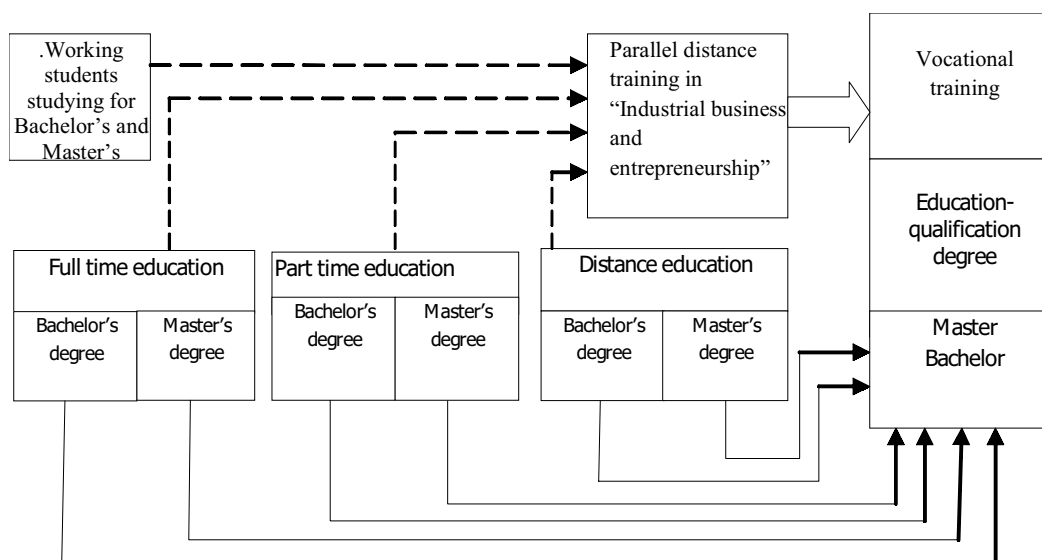


Fig. 1. Educational and training model.

that its performance must combine various forms to enable students to self-assess the acquired knowledge, respectively - to self-study control.

In a general form, the model of parallel distance training in Industrial Business and Entrepreneurship will reflect the bilateral relations of this process within the process of obtaining education and training (Fig.1).

Parallel distance learning includes all elements and means of distance learning such as distance training, distance education, distance education technology, information and education environment, network technology, an electronic library, case, electronic publications and a tutor.

The distance learning process is focused on interactive relations between the teacher and the students, based on dialogue and using training tools, independent of their location in space and synchronized in time.

E-Learning can be used depending on the Knowledge control system. It is a learning process in an electronic form via Internet or an intranet network, using a special system for controlling the learning process. Distance Education will include a set of educational services and an educational system, which provides the distance learning process with confirmation of the educational qualifications. The Distance education technology is a system of tools, methods and forms of education, offering consistently reproducible and formalized representation, delivery and control of

knowledge. Information and education environment is identified in telecom software and educational space with uniform technological resources to conduct the educational process in the Internet environment, regardless of professional specialization (level of education offered), organizational-legal form and ownership of learning units. Network technologies (Internet training) is the learning in which students are connected with a source of information, with a teacher or with each other, through the Internet (Intranet). An essential element of this learning is the electronic library, which is a hardware-software complex, providing an opportunity to gather and provide updates to users via a telecommunications network of information resources with educational reference and other purposes. The set of teaching materials of different media such as print, audio, video, and electronic materials provided to the student for private study, and the description of a particular practical situation, offered to students for independent analysis, forms the so called "Case". It is based on so-called "case" technology for distance learning. It is implemented by using a special set of educational and methodological materials ("case", "pocket-book" and "set"), clearly structured and equipped accordingly. These materials are provided to the students for private studies.

The educational-methodical program and the Information Complex provide the learner with an opportunity to acquire the self-study course in online and

offline modes for the formation and acquisition of new knowledge and skills in a particular subject area and in certain degree forms - a computer (electronic) course or electronic educational-methodical complex whose component part is part of an the electronic edition (EID).

At its base is the electronic training document, as group of electronic documents passed through editorial processing for distribution in an unamended mode. They themselves form the educational electronic publications, which are performed in accordance with the accepted typology for educational and methodical literature and may represent a complex of educational and methodical materials with a different level of program implementation.

The tutor occupies a special place in the system of electronic distance learning. He/She has acquired a certificate for lecturer and consultant (instructor, mentor) helping learners in the organization of individual learning and carrying out an educational and methodical supervision of the learning process within a specific curriculum.

Educational materials play the most important role in the system of parallel distance learning. Their quality and coverage can be significantly enhanced through electronic learning journals. They combine the advantages of electronic editions with those of the electronic textbooks.

At the core of educational electronic editions for parallel distance learning in Industrial Business and Entrepreneurship is the supporting synopsis of lectures. In a synthesized form it presents a summary of the full scope of material in a given discipline or field, characterized by input - output relations and the application of the acquired knowledge. The supporting syllabus is usually accompanied with control issues associated with the trainees self-study. In addition, there is a difference between the supporting synopsis of electronic bearer and electronic supporting synopsis. The first only makes a paper copy, while the second contains a number of advantages, such as hyperlinks, the existence of subject-heading, etc. The other elements of the educational and methodical complex of training materials are supplemented by guidelines for practical tasks, tests and case studies, a reduced textbook, presentations, materials for testing knowledge and skills. In each training module the structure of educational and

methodical complex is specific and consistent with its goals and overall training objective.

CONCLUSIONS

The development of distance learning is a result of the development of societal needs for education, training, information and communication technologies. A distinction between education and training in this direction should be made.

The parallel form of distance learning enriches the palette of forms of distance learning, expanding their applicability. The model of this form indicates that it is compatible with all forms of education degrees and is complementing them.

The parallel distance learning in Industrial Business and Entrepreneurship indicates that this is an extremely appropriate form in the interdisciplinary field of knowledge, which is upgrading for a number of basic forms and disciplines in education. It is usable both for students in the process of training, and those currently working in this or other areas of practice.

The application of the parallel distance learning in Industrial Business and Entrepreneurship is determined not only by modifying the training time by the trainees themselves, but by the comparatively low fees of this type of training.

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