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OPEN AND DISTANCE EDUCATION AT PLOVDIV UNIVERSITY (1995 – 2000)¹

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In the frame of the Phare Programme for Multi-Country Co-operation in Distance Education, the Paisii Hilendarski University of Plovdiv has been selected as a host institution for establishment of a Regional Distance Education Study Centre. The Centre has arrived at agreement with four higher institutions in the region for establishment of the local support centres. In the frame of the Centre, the open and distance learning library has been established. Two Web-sites (for the Centre and for the Project) have been designed. The courses in the field of Computer Science, Food and Flavour Industry, Ecology, Mathematics and Philology have been designed, developed and produced. More than 600 students have studied in the regional DE structures. The Project RAPIDITY was developed within the framework of the Phare Multi-country Programme for Distance Education implemented by the European Training Foundation 1997-1999.

2000 Mathematics Subject Classification: 97B30 Vocational education

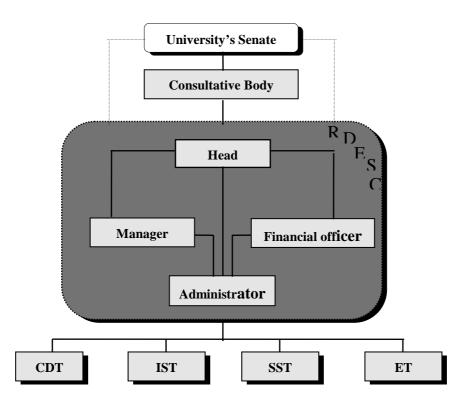
In the frame of the Phare Programme for Multi-Country Co-operation in Distance Education (DE), the Paisii Hilendarski University of Plovdiv (PU) has been selected as a host institution for *establishment of a Regional Distance Education Study Centre* (RDESC) [17].

The RDESC at PU, as one of the nominated Phare Distance Education Study Centres has been established in January, 1996 by decision of the University Senate. On 5.11.1997 the RDESC has been setted up as a unit directly under the central administration of the PU with its own funding. The legal entity responsible for the RDESC is PU. The University's Senate and personally the Rector of the PU have the responsibility for the overall supervision of the RDESC activities.

For fulfilling the important and complex role of the RDESC, a flexible and operative *management structure* was developed. This structure ensures administrative, educational and informational support of the RDESC.

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Agenda:

— Direct management link Indirect management link

The investment, operational and strategic management of the RDESC is carried out by the *Consultative Body* (CB), consisting of Head of RDESC, Manager, Financial officer and six academic persons.

The CB was assigned by the Rector of the PU. The CB is responsible for developing and refining detailed strategy, methodology and delivery mechanisms. The CB also acts as a manager which is responsible for the preparation of detailed work plans and budgets, for co-ordination and supervision of the different activities, monitoring, distribution of funds, contacts with the NCP etc. The *Head of the RDESC* acts as a Chairman of the CB. The *Manager* in particular, manages the documentation and the administrative services of the RDESC. The *Administrator* ensures the necessary administrative and academic support for the course delivery and learners' support, organisation of the pilot courses, marketing, evaluation, etc.

For carrying out every concrete activity, a number of *DE teams* – course development teams (CDT), information service team (IST), student support team (SST), evaluation teams (ET), etc. were constituted. They consist of local experts with various skills and experience to work on the details. The IST ensures communication and co-ordination, creating and exploring information resources, development of databases, WWW site etc. More than 20 persons have been engaged for course development, design and programming, support of DE, as members of the teams (CDT, IST, SST, ET, etc.).

The RDESC has arrived at *agreement* with four higher institutions in the region for establishment of the local support centres. These institutions are the University of Plovdiv, the Higher Institute of Food and Flavour Industries (HIFFI), the Higher Agricultural Institute (HAI), the University of Bourgas "Assen Zlatarov" and the University of Mining and Chemical Technology – Sofia (UMCT).

The open and distance learning (ODL) *library* has been established. The list of books and journals has been purchased. They cover the following fields: Bibliographies and directories (printed and electronic), Foundations and history of ODL, Learner needs analysis, Instructional systems design, ODL media and technologies, Design and development of printed material for ODL courses, Design and development of electronic and multimedia material for ODL, Course delivery and student support, Study centre roles and functions, Student assessment, Evaluation, quality management and assessment, Cost-effectiveness analysis, Business planning and marketing, online and other electronic information sources, etc. An exhaustive list of useful Internet DE resources is maintained in the library.

The *available equipment* is consisted of computers (server - Windows NT system and multimedia PCs), telecommunication, video and satellite, general office equipment, a copier machine, a combine binding machine, laser printer, a dot matrix printer, two telephones, fax, etc. The RDESC has at its disposal access to PSTN, PSDN and LAN.

Two Web-sites (for RDESC http://rdesc.pu.acad.bg/rdesc/) have been designed. The communication facilities of the RDESC Web-site and the Project Web-site play an important role in the communication processes (between staff, teachers and students, evaluators, teams etc.).

In future, almost all DE materials will be available via the Web site of the RDESC. So, every developer of DE course modules could have an overview on the state of the course materials.

In relation with the *aawareness raising and marketing* of the ODL the following activities have been done in RDESC:

- > a newspaper publication ("Education of 2000 will be distance", March, PU newspaper);
- a *seminar* with interested university teachers in PU and the region (15.06.98, PU). The work-programme of the seminar included discussion on new educational technologies and contemporary society, presentation of the Phare Programme for the development of distance education, demonstration of the RDESC Web site, presentation of the four local support centres structure, present and planned activities, possibilities, obstacles and needs;
- ➤ advertisement of the DE courses offered by RDESC and the RDESC services in the INTERNET, national DE network, TV and mass-medias;
- 12 research reports and papers related to applying of new technologies in development of DE learning materials. They were presented at both the national and international scientific conferences (27 Spring'98 Conference of the Union of Bulgarian Mathematicians, Pleven, Bulgaria (1), EDEN Conference'98, Bologna, Italy (1), Intern. Conference on IT, Kaunas, Lithuania'99 (1), Intern. Conference ITP'99, Plovdiv, Bulgaria (4), 26th National Conference on the Training in Physics, held in Kazanlik, Bulgaria (14.05.99 16.05.99) (1), 31st EGAS Conference on Atomic Spectroscopy held in Marseilles, France in June 1999 (1), 31st International Colloquium on Spectroscopy in the city of Ankara, Turkey, September 1999 (1), Anniversary Research Conference (to be held in

- the Technical University, Russe, Bulgaria) (1) and **Anniversary Research Conference** (to be held in the Technical University, Gabrovo, Bulgaria) (1);
- ➤ taking part in all of the *national DE actions* (meetings of National Council for DE, NCDE-RDESC meetings, seminars, etc.);
- > a *leaflet* to raise awareness of RDESC activities and to present DE offered courses;
- taking part in preparation of the advertising broadcast of the NCP and RDESCs by the National TV, etc.

For the successful *development and delivery of DE courses*, CDTs, SST, ET and IST were responsible. The RDESC CDT team has prepared a template for the DE textbooks. Courses in the field of Computer Science, Food and Flavour Industry, Ecology, Mathematics and Philology have been designed, developed and produced [1-10,13].

The pilot testing for two of the developed courses - "Information Technology: Applications" and "Introduction to Mathematics" was carried out during the first term of the Master programme "Managing of human resources" in the Faculty of Economics and Social Sciences in *PU* for 150 students. The RDESC delivered a DE course "Information technologies" with unemployed people (15 students). The course finished successfully. In the *Free Faculty of PU* the DE courses "Information Technology: Overview", "Introduction to programming" and "Textprocessing" were carried out. 39 participants from the speciality "Information Technology" studied these courses. For the 1998/99 year new 52 students were enrolled in this specialty.

The number of students in the pilot delivery of the course "Information Technology" was 232 and the realistic expected number of students during the overall course lifetime is 3000.

A DE *Master program "Information Technologies"* was prepared and presented at the Senate of Mathematics and Computer Science Faculty. The program was approved and offered after Oct. 1999.

As a result *more than 600 students* have studied in the regional DE structures.

The RDESC proposed *five candidates* (2 from PU, 2 from HIFFI and 1 from HAI) for Train the trainers course "Learning About Open Learning" (*LOLA*), a candidate for the ODL course "EU directives in the water sector including the proposed water framework directive" (*WATER*) and a candidate from the local centre in UCTM for the distance course "Gearing up with the Occupational Safety and Health Systems in the European Union" (*GOSH*). All of them have been approved. The RDESC was responsible for practical and technical support to the participants during the course. These include access to multimedia computers, creation of individual e-mail accounts, access to the Internet (e-mail and WWW), access to telephone and fax, and meeting facilities for local study groups. The RDESC organized the first *kick-off seminar* for course LOLA (11-12 February 1999, lecturer Mr. Gillen).

Many meetings, seminars and events have been organized:

- a meeting "Concept of distance education development" with lecturers and representatives from chemical and metallurgic industry (April 98, UMCT);
- > a *training course* for the staff responsible for DE support activities (5 May 98, PU);
- a working meeting for co-ordination of the course development activities "Developing DE Courses" (19 May 98, PU);
- ➤ a promotional public meeting "ODL state and perspectives in the region" for starting the formal work for development of the Regional infrastructure (11 June 1998, PU);

- ➤ a *National seminar* "Legislation and accreditation of DE" (17-19 June 98, Albena).
- ➤ a workshop "Course Development and Support of the Distance Education" (17 February 1999, RDESC Plovdiv). As a lecturer at the workshop was invited Dr. Nikolas Farnes Director of the International Centre for Distance Learning, the Institute of Educational Technology in Open University, UK. The work-programme included the topics as Course Development, Information Technologies and Media in DE, Student Support and Student Assessment, Evaluation and Research in DE;
- > a workshop "Distance Education Trends and Perspectives" (17 March 1999, Sofia);
- a national seminar "Analysis of market needs of DE (15-16 April 1999, Gotce Delchev);
- ➤ an *International Workshop* "Distance Education" as a host institution in the frame of Twenty-fourth International Conference "Information and Communication Technologies and Programming'99" (ICT&P'99), Plovdiv, 8-12 June 1999. From the staff members of RDESC there have been presented 1 invited talk and 3 short papers;
- ➤ a *training course* (regional seminar) for the staff responsible for dissemination of CMD projects (12.07.99, PU).

As a part of the activities in the field of DE, a *software package* has been developed for creating, correcting, check-up and distribution of the different types of tests. It has the subsystems for: creating the tests and organizing a database of tests; check-up and evaluation of the test items; automated generation of the text version (MS Word for Windows) of the tests from the database; automated generation of HTML presentation of the tests (for using in the Internet); extracting of the tests from text documents such as manuals, books, text samples.

RDESC was lead partner of consortium for development of distance course module *RAPIDITY* (Rapid and in-depth introduction to Information Technology). The Project RAPIDITY was developed within the framework of the European Union's Phare Multi-country Programme for Distance Education implemented by the European Training Foundation 1997-1999.

The *main objective* of the Project was to work out and test a distance education course module which assure a rapid and in-depth introduction to Computer Science (CS), Information Technologies (IT) and their modern applications for students and adult learners from different nationalities and categories.

The *consortium* of the Project consisted of the representatives of two Phare-country universities – the University of Plovdiv, Bulgaria (PU), and Vytautas Magnus University, Lithuania (VMU), and a representative of EU-country – Maison des Sciences de l'Homme, France (MSH).

The developed and produced *RAPIDITY package* consists: Course Guide, 3 textbooks ("CS: Overview" [14], "IT: Overview" [16], "CS & IT: Applications" [15]), Student's Guide [11], Teacher's Guide [12], 5 Student's diskettes x 1,44 MB (on RAPIDITY CD-Tool), 6 Teacher's diskettes x 1,44 MB (on RAPIDITY CD-Tool), CDs (RAPIDITY CD-Book and RAPIDITY CD-Tool), 1 Video-cassette, Leaflets, etc.

The course module is accompanied with tremendous quantity of *learning materials* on various media (paper – more than 1200 pages in English, 1400 in Bulgarian, 1000 in Lithuanian; video – 105 minutes; 11 computer diskettes; multi-language Web site; CD-ROM with multi-media materials, etc.). Over and above, in some directions some additional concrete results have been achieved: development of Web site for supporting authors, electronic publishing and student's self-assessment, unified design of course materials, research and 8 publications in the field of DE, etc.

The courses are intended for *six target groups* of students: Students educated and trained in the field of CS⁢ graduates in fields with wide application of IT: teachers at secondary schools needing updating and training; adult professionals using IT at work young people entering into labor market; students at the Free Faculties. More than 470 students in 10 (ten) pilot courses (vs. planed 100-120 distance students in 8 *pilot courses*) studied RAPIDITY module in Bulgaria and Lithuania. Duration of the pilot course was about 10 weeks. 445 students finished successfully the courses and only 27 students failed.

For the successful development of the DE initiative, new ideas, methods and means are necessary. In this relation, one of the important preconditions is to force sharing of personal experience about: new organizational and management forms, development of the DE infrastructure, new ODL programmes and distance courses, etc.

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