

## From the Field

### DISTANCE EDUCATION IN SLOVENIA: A CASE STUDY OF INNOVATION

LEA BREGAR  
MARGERITA ZAGMAJSTER

**Abstract** – *In Slovenia, the development of modern open/distance education started at the beginning of the nineties at a traditional university having considerable experience in the delivery of part-time study courses. The initiative of developing a distance education programme were carried out within the framework of the PHARE Programme for Multi-country Co-operation in Distance Education, in which 11 Central and East European beneficiary countries were involved. The Faculty of Economics of the University of Ljubljana was selected as a pilot institution for Slovenia. The paper shows how the synergy created through the combination of existing domestic resources as well as the local social and educational environment with outside expertise served to bring about a self-sustainable distance education programme and to improve the quality of mass higher education services offered by a traditional university.*

#### Background

**T**he Faculty of Economics (FE hereafter) is the biggest unit of the University of Ljubljana and has more than 9,400 students (undergraduate students – 4,665 full-time students, 2,725 part-time students and 1,250 distance education students; 770 graduate students, 32 doctoral students).

The current study programme is run both on a full-time and a part-time basis. Part-time studies are delivered at the FE in Ljubljana for all study levels (graduate, undergraduate, and professional higher education). In addition, a part-time high-professional school programme (Business School) is offered in nine study centres in Slovenia.

A considerable extent of part-time studies at the FE in the nineties was due to a mix of various external circumstances and some particular features of part-time studies at the FE: a shortage of knowledge of business and economic disciplines and increased demand for such educational programmes in a country in transition like Slovenia; a rapid adaptation and revision of study programmes at the FE; a relatively high level of organisation and running of current part-time study; a good

reputation of part-time study at the FE, confirmed by the equivalence of degree with a full-time degree; and good career opportunities for part-time graduates.

Although part-time study has become a considerable source of the FE's income in recent years – especially in the current situation of reduced budgets – some questions regarding its overall efficiency have been raised. Namely, the implementation of part-time studies requires particularly great efforts on the part of staff because of the considerable teaching load in full-time study. Besides, the drop-out rates tend to be much higher in the case of part-time students.

At the beginning of the nineties such a situation led to an initiative by the management of the FE to consider the feasibility of introducing distance education (hereafter DE). After a preparatory phase it was decided to initiate a DE pilot project at the FE.

The objective of the first phase of the project was to begin DE experimentally in the first year of Business School in 1995/96 in three study centres, and later (if the results permitted this) to integrate DE into the regular organisational scheme of the FE, and to develop new DE courses.

The above mentioned decision coincided with the resolution of the Ministry of Education and Sport to embark on a pilot project of DE at the undergraduate level in Slovenia.<sup>1</sup> The FE was selected as the pilot institution. At the same time the FE operated as the National Contact Point (hereafter NCP) for Slovenia in the PHARE Programme for Multi-country Cooperation in Distance Education.

## **Activity modules and underlying principles**

The starting idea for the development of the DE model at the FE was that:

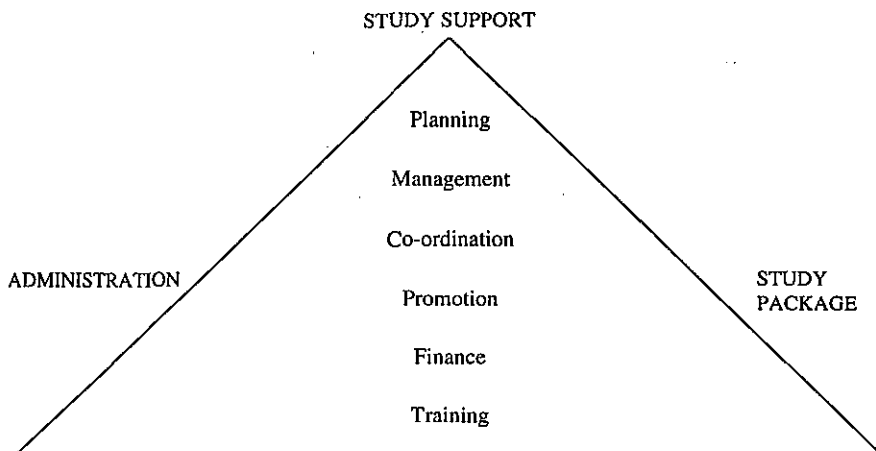
- DE should be integrated into the existing educational scheme at the FE and within higher education, and be compatible with the social environment in Slovenia in general (the principle of functionality);
- DE should be cost-effective (the principle of rationality);
- DE should be based on domestic expertise and potential, combined with foreign expertise and experience in the field of DE (the principle of supported self-development).

The development of the DE programme required the elaboration of a number of interrelated elements which can be clustered in three activity modules:

- the Study Package Module – the development of study materials for ten courses,<sup>2</sup> which comprise the first year curriculum of Business School and the elaboration of delivery procedures of study materials;

- the Study Support Module – the elaboration of elements of the DE study programme (enrollment requirements and running procedures, testing and assessment, tutoring and counseling, students' information systems, and other forms of study support);
- the Administration Support Module – the elaboration of an organisational scheme, and administrative and technical support to meet the needs of DE.

*FIGURE 1: Activity modules and underlying principles of the DE programme*



The above principles were applied in the elaboration of any element of the three modules. The application of this approach can be illustrated by means of several examples such as, for instance:

- exploiting the already available resources (equipment, information technology infrastructure at the FE and the former centres of part-time study) to set-up a network of DE study centres;
- additional training of the FE's academics who are well experienced in developing traditional study programmes and writing traditional study materials;
- taking the advantage of the small size of Slovenia to provide regular contacts between students and tutors, and occasionally between professors and students;
- building up trust in DE (as a novelty in Slovenia) on a solid reputation of the FE part-time study;
- using the services and know-how of the FE's Publishing Unit in publishing DE study materials.

## **Implementation of the distance education model**

### *General*

In line with plans, the FE started experimental implementation of the DE programme in October 1995 for the first year of the Business School at three study centres located in the towns of Nova Gorica, Ptuj and Trebnje with 230 students enrolled.

As in the case of the FE's part-time courses, the first cohort of the DE students saw an overwhelming representation of young people. Indeed, 40 percent were younger than 21 and 60 percents were younger than 26. The age range extended from 18 to 46.

More than half of the enrolled students are female. In spite of their youth and a high rate of unemployment in Slovenia, almost all students declared that they were economically active either in paid employment, self-employment or occasional employment. Only 5 students out of 211<sup>3</sup> declared themselves to be economically dependent persons.

The educational level of the students' parents indicates that the students' social background is above the Slovene average.<sup>4</sup>

The distance taught academic year lasted 18 months. The DE students were supported by tutors and professors of the FE during the period of six, seven or eight weeks of the course delivery. The support services are organised according to a pre-planned sequence of courses. The whole DE process is led and controlled by the FE, the FE being responsible for the quality of the DE programme.<sup>5</sup>

The status of DE students is equal to that of full-time or part-time students. This is possible under the statutory requirements of the existing legislation on higher education, since DE in Slovenia is defined as one of the official study forms, at a par with full-time and part-time study.

### **Study package**

Taking into account that DE students are employed and lack time, a package of study materials for independent study was prepared for each course by FE teachers. This package contains various combinations of different study materials types:

- textbooks, which integrate the elements characteristic of DE study materials;
- study guides which wrap around traditional university textbooks;
- exercises with key;

- exercises and tasks for tutorials;
- instructions for tutors;
- other media (e.g. audiotapes and diskettes).

The package allows students to achieve more flexibility in terms of time and place of study.

## Study support

Special attention was paid to two facts: first, the majority of students are young adults and are largely not used to studying independently. Second, prior study results show that a lot of students were low achievers in secondary school. For these reasons they were offered the option of using the tutorial support provided by tutors and teachers (see Table 1 for details).

TABLE 1: Study support services at FE

TYPE OF SUPPORT SERVICE	PARTICIPANTS	
Contact-sessions	professor	group of students
telephone tutorial	professor	individual student
group tutorials	tutors	group of students
individual tutorials	tutor	individual student
telephone tutorials	tutor	individual student
on-line communication	tutor, professor	individual student
video-sessions	professor	group of students, tutor

Up to three face-to-face contact sessions with FE professors are scheduled during the period of each course implementation. The FE professors are also available to students by E-mail or by telephone.

Group study sessions are led by local tutors in study centres. Local tutors are mostly secondary school teachers of related subjects (e.g. economists, mathematicians or computer specialists with a B.A. degree) specially trained for their tutor role.

The group tutorials last from two to three hours each week during the course implementation phase (in groups of 30 students). Students who have problems in understanding the contents of the course, can attend individual tutorials. They can also contact their tutor via e-mail or by phone.

Students have the opportunity to organise self-study groups in order to prepare for examinations. They can use the student room at their study centre or contact their colleagues in other study centres by e-mail.<sup>6</sup>

In the academic year 1997/98, video-conferencing was introduced as an additional means of study support programme.<sup>7</sup>

## **Administration**

Introducing DE at a traditional university requires not only an adaptation of pedagogy to the distance mode but also a careful redesigning and upgrading of organisational and administrative support in order to comply with the demands of the DE study process.

When setting up administrative and organisational support at the FE, the existing organisational structure of part-time study (in the FE's administrative office and at regional centres) was used as a base, but it was adapted to specific requirements of DE. After discussions about the necessary DE administrative services and their division among FE and the study centres, the organisational and administrative scheme of the DE programme was set up.

After a one year experimental period starting in October 1996, the DE programme obtained the status of a regular programme. It is managed by the office for part-time study. After the transformation of the first three part-time study centres into DE study centres, other part-time study centres have also been given the opportunity to operate as DE study centres. Now the DE programme is delivered in five DE study centres.

The study centres are in charge of the organisation of tutorials according to professors' instructions, and they are responsible for distributing study materials to DE students. Contact sessions are organised in cooperation with the study centre, the FE and professors. Students' enrollment takes place at the study centres; and the exercise is organised in cooperation with the FE and the study centre.

The student records data are kept in the computer database at the FE, including the data on exam scores. The study centres have the access to data at the FE via computer networks.

## Evaluation

### *Output*

In just two years, about 40 units of DE study materials have been developed for ten courses for the first academic year and for ten courses for second academic year of the Business School programme. A DE programme for the third academic year is now in the process of development. About forty members of FE teaching staff are involved in the preparation of DE courses and DE study materials. During the academic year 1999/2000, more than 1,250 DE students are enrolled in the first and second year of DE programme Business School.

### *Innovations*

The development and introduction of DE in higher education was a novelty in Slovenia and has as such induced a number of innovative processes.

The innovations which are worth highlighting are the following:

- the whole approach of the development of DE at a traditional university of a former socialist country, using the available domestic (human, material and infrastructure) resources in combination with outside expertise and in accordance with the characteristics of the local environment;
- DE programme and DE study packs, developed on the basis of the existing study programme and study materials, prepared by the same authors who write materials for traditional full-time study;
- implementing a new pedagogical paradigm, shifting from a teacher-oriented to a student-oriented process (a new role for the FE's professors who became DE course writers, facilitators and leaders of DE pedagogical process instead of being lecturers);
- setting-up a system of tutorials led by tutors, which is a new to Slovene higher education and exceptional with regard to a close cooperation between professor (course writer) and tutor;
- transformation of the former part-time study centres (workers' universities) into study centres for modern DE;
- setting up a DE information system (computer links between the FE and the study centres, creating a home page on the WWW with information on DE and hypertext study materials, with DE students getting access to all the Internet services, etc.);<sup>8</sup>

- evaluation based on a modern approach was carried out in Slovenia for the first time. It was run during the experimental period aimed at immediate improvement of the DE study process.

### *Benefits and weaknesses: students*

Undoubtedly a key feature in justifying DE is increased study efficiency. This expectation has been fulfilled, as the evaluation carried out during experimental implementation of DE programme has shown. Compared to full-time students, the DE students were found to be more successful in most courses.

In DE, the students are given the opportunity to tailor their study to their particular needs. Study materials combined with other forms of support stimulate independent study and for this reason students are in no way compelled to attend lectures. However, the actual flexibility of DE at the FE is diminished by the fact that the majority of students are nevertheless very keen to attend tutorials and contact sessions with tutors and professors according to a fixed time-schedule.

Further, the flexibility of pacing is reduced due to the fact that the programme of the Business School is a rather demanding four-year higher education programme. It requires the student to fulfil all requirements for one study year (i.e. ten exams) in 18 months, which does not allow for much free time and consequent flexibility in the pacing of study.<sup>9</sup>

Moreover, the level of flexibility is further reduced due to the fact that only some of the students are connected to Internet, even though most of them have access to a PC. The only opportunity for them to have access to Internet is therefore through the computer in the study centre. This resource is, however, rarely exploited. Attempts have been made to increase the level of electronic communication by training students in special workshops focusing on using Internet and new technologies, but this has not resulted in any major change in habits.

Apart from group tutorials and contact sessions, students have very rarely used other forms of interaction with tutors and professors. Students expressed their belief that group tutorials offered a good opportunity for resolving study problems, as did contact with tutors and other students as well as pre-exam consultations with professors. The students found the system of intensive tutorial support very helpful, noting in particular the usefulness of individualised interaction. In most DE study centres and most courses, students highly commended the commitment shown by tutors.

A large majority of students perceived as especially beneficial the opportunity of staying home while studying. A number of students noted that this was crucial for their decision to continue with their education.



### *Benefits and weaknesses: traditional university*

Distance education is not only beneficial for the student but also for the institution providing it. In the case of the FE, the following benefits may be enumerated:

- the introduction of DE was an impetus for the development of higher quality study materials which is coupled with the introduction of the modern media into the educational process. It is not only the DE students who benefit but also the full-time and part-time students.
- The routine teaching workload of professors - in particular delivering the same lecture to a number of student groups - is smaller. This makes it possible for the professors to focus on more creative work.
- The development of the DE contributes to the individual professional development of professors and other staff as well as the development of the team work and the increase of motivation to implement innovation in educational process.
- FE has so far developed programmes for more than twenty courses and is about to develop another ten. These cover especially marketable areas of professional continuing education in Slovenia (accounting, computer technology, international economics). This gives FE an opportunity to enrich its study programme supply by offering short-cycle modules in the above mentioned areas.
- The implementation of DE involved modernisation of technological infrastructure of the pedagogical process and its administrative support. The set-up of the information system, which was developed within the framework of the DE project, meant the starting point of the development of the local network which links all FE students within an overall information system.

Thanks to successful participation in the first phase of the PHARE project, FE got the opportunity to be involved in the second phase in September 1999. This experience, together with references which were obtained in the first phase, have also brought about new opportunities for wider international co-operation.

However, the development and implementation of DE does not only bring about benefits but also a lot of difficulties and extra work. Indeed, a major problem the FE is constantly facing is the rather unbalanced workload of teaching staff. Suffice it to point out that the ratio between teachers and students is by far the worst among all higher institutions in Slovenia.<sup>10</sup>

The development and implementation of DE is a complex process, involving a number of professionals from various fields and requiring a number of related

activities which do not refer only to tuition. In terms of organisation, technology and staffing, DE is far more demanding than a traditional model of education.

The altered structure of activities and players in DE requires corresponding changes in staffing, organisation and financial schemes in the educational institution. Undoubtedly, a quicker resolution of the kinds of problems already identified at the pilot stage could by increase the overall DE programme efficiency at the FE.

### *Benefits and weaknesses: the educational environment in Slovenia*

It is clear that overall, DE has brought about a number of benefits for students across Slovenia. It is opening up new opportunities for education, while at the same time reducing the pressure of students who would like to enrol in full-time studies. In terms of its aspirations for development, it is critically important for Slovenia to provide educational access to people from all age groups and social and economic backgrounds. It is also important that those who live in areas away from the university centres, where the educational background of the inhabitants is lower, should also have access to opportunities for studying. The potential of DE for the economic, social and cultural development of different areas in Slovenia has not yet been fully recognised and evaluated. Indeed, the opportunities inherent in DE should, in our view, be explicitly taken into account in the regional development planning exercise in Slovenia.

Modern DE which is supported by the use of new technologies can open up new ways to knowledge and resources and in this way change the traditional role of the teacher. The teacher who, in the traditional systems is perceived as a knowledge resource, has adopted a new role, that of a methodologist facilitating the acquisition of information and its transformation into knowledge. New technologies are introducing team work involving tutors, network engineers, editors and desk top publishers as well as specialists for pedagogy and adult education. All such changes can only take place through a constant innovation and research regarding the pedagogic process.

The experience obtained at the FE is shared with other institutions and individuals who are interested in DE. The NCP operating within the PHARE framework as a national project co-ordinator has taken over the organisation of various related activities. The promotional efforts which were coupled with successful implementation of DE at the FE have generated considerable interest in DE among other educational bodies and institutions in Slovenia. According to the records of the NCP there are more than 60 institutions in Slovenia which have shown a keen interest in the development of DE.

Favourable results have enhanced a positive attitude for the implementation of DE at other institutions, opening up possibilities for a mutual co-operation in the development of DE both on a national and international basis. It is obvious that currently Slovenia stands a good chance for an active international co-operation in DE and an intensive involvement in the process of the globalisation of education.

The opportunities tend to be reduced by the circumstances which could generally be described as conservatism, and a rigid educational environment. In practice, these phenomena manifest themselves in a number of different ways. In the first instance, there is still a lot of prejudice and misunderstanding concerning modern DE. Secondly, the institutional infrastructure is inappropriate. Key features of DE, including its openness and integration, require adequate organisational and institutional support. The organisational framework of the NCP, which was founded in 1994 at the FE to carry out the 1<sup>st</sup> phase of the PHARE project, has become too limited in order to carry the burden of efficiently co-ordinating and implementing the various tasks which fall under the responsibility of this unit. Thirdly, the criteria for career advancement and promotion of university teachers do not stimulate research in the field of pedagogic activities, and neither do they simulate the development of new didactic approaches and study materials.

Last but not least, the current system of educational funding – and in particular of higher education funding – is not adapted to the characteristics and requirements of modern forms of education, as it is based on the financing of direct forms of tuition such as lectures, seminars and practice classes. The costs incurred by modern education no longer merely refer to the staff salaries, 'blackboard and chalk' expenses, or the depreciation of buildings. Educational economics has in many ways adopted the characteristics of the economics of information services.

## Notes

<sup>1</sup> This decision was based on the findings of the research undertaken by the University Research and Development Centre. The research involved a needs analysis that led to pinning down the following priority fields: economics and business, pedagogy (in particular additional training of teachers), biology, and biotechnology. Confer: Phare Feasibility Study on the Development of a Regional Distance Education Network, Working Document of the Seminar, 19 - 20 October 1993, Budapest.

<sup>2</sup> These courses are: Introduction to Economics, Business Administration, Principles of Accounting, Information Systems in Business, Statistical Methods, Mathematics for Business, Industrial Law, Foreign Language for Business 1, Foreign Language for Business 2.

<sup>3</sup> During the first month of the running DE programme 19 students abandoned the course and therefore they were deleted from students' database, which thus contains data for 211 students.

Only 13.7 % of DE students had fathers with accomplished elementary school (or even less than that) while the percentage of Slovene inhabitants older than 15 years in the 1991 was 47%. More information are available in M.A. thesis written by M. Zagmajster (1999) *The Economics of DE in Higher Education*.

More about the implementation of DE model has been discussed in the paper written by L. Bregar and M. Zagmajster (1996) 'Development of a Distance Education Programme at the Faculty of Economics, University of Ljubljana'. In *Developing Distance Education Systems in Central and Eastern Europe*. Guidelines, EADTU.

<sup>6</sup> In DE information system development phase, access to Internet server is provided to all students. They can communicate via e-mail and have access to other Internet services. WWW server at the FE provides information on DE (<http://www.ef.uni-lj.si>).

<sup>7</sup> See L. Bregar (1998) 'The potential of videoconferencing as a study support form in a distance study programme.' Proceedings of 1998 Eden Conference, Volume 1. University of Bologna, pp. 319-323.

<sup>8</sup> See Dobnik and Turk (1996), and J. Jaklic and M. Indihar Stemberger (1996).

<sup>9</sup> Due to this reason in academic year 1998/99 the length of DE study year was extended to 24 months.

<sup>10</sup> The student/teacher ratio at the University of Ljubljana is 30, while in the FE it is about 110.

---

*Lea Bregar is Doctor of Economics, Associate Professor at the University of Ljubljana teaching Statistics at the Faculty of Economics. Initiator and head of DE implementation project at the Business School of the Faculty of Economics in Ljubljana; a head of the Slovene NCP of 1<sup>st</sup> phase of the DE Phare Programme; author of several printed study materials and on-line course on Economic Statistics. Address for correspondence: Faculty of Economics, University of Ljubljana, Kardeljeva plosèad 17, 1000 Ljubljana, Slovenia. E-mail: lea.bregar@uni-lj.si*

*Margerita Zagmajster obtained her M.A. degree on 1999 at the Faculty of Arts, Department of Sociology. From 1981-1994 employed at the University Research and Development Centre in Ljubljana as researcher in the project Introduction of DE in Slovene Higher Education Institutions. From 1994 -1997 employed as manager of Slovene National Contact Point for DE (NCP). From October 1997 head of the NCP for the Follow-up phase of the DE Phare Programme. Address for correspondence: Faculty of Economics, University of Ljubljana, Kardeljeva plosèad 17, 1000 Ljubljana, Slovenia. E-mail: ncp@uni-lj.si*

## References

- Bregar, L. (ed.) (1995) *Studij na daljavo – nove priložnosti za izobraževanje – Distance Education - New Educational Opportunities*. Ljubljana: Univerza v Ljubljani, Ekonomska fakulteta.
- Bregar, L. (1998) *The Potential of Videoconferencing as a Study Support Form in a Distance Study Programme*. Proceedings of the 1998 EDEN Conference, University of Bologna, Italy, 24-26 June 1998, Vol. 1. Budapest: EDEN Secretariat
- Bregar, L. and Zagmajster, M. (1996) *Development of a Distance Education Programme at the Faculty of Economics, University of Ljubljana* in: Developing Distance Education Systems in Central and Eastern Europe, Guidelines. Heerlen: EADTU
- Dobnik, N. and Turk, T. (1996) 'L'enseignement à distance assisté par internet: l'importance de la planification.' In J. Frankl and B. O'Reilly (eds) *Lifelong Learning, Open Learning*. Proceedings of the 5<sup>th</sup> European Distance Education Network, held in Futuroscope, Poitiers, France. Milton Keynes: EDEN Secretariat
- Zagmajster, M. and Bregar, L. (1997) 'A comparative evaluation of students' opinions on DE Courses'. Paper presented at 18<sup>th</sup> ICDE World Conference *The New Learning Environment: A Global Perspective*. Pennsylvania: ICDE (CD-rom)
- Jaklic J., Indihar Stemberger M. (1998) *Kako s pomočjo Interneta izboljšati komunikacijo med studentom in pedagogom pri množicnem studiju*. MIRK '98 Conference in Piran, Slovenia. Ljubljana: Ministrstvo za solstvo in sport, Zavod republike Slovenije za solstvo, Zavod za odprto družbo – Slovenija.