



EDUCATION AND CULTURE

Leonardo da Vinci

Series: Best practice

No 2: **Training and Health**



Vocational Training



European Commission



Our knowledge and professional skills must be regularly updated if we are to meet the new requirements of the economy and the labour market, so now, more than ever before, lifelong learning is essential for all. The Leonardo da Vinci programme, which has been the key Community instrument in the field of vocational training since 1995, provides concrete responses to these new needs.

The results of the projects supported under this programme deserve to be more widely disseminated among the vocational training community, the social partners and policy-makers. They must subsequently be adapted to other target groups, developed, used in other professional environments, and introduced into the national systems.

To this end the Education and Culture Directorate-General, which manages the Leonardo da Vinci programme, has prepared a series of brochures called "Leonardo da Vinci – Best Practice" to inform the public of the programme's results. These brochures are designed to familiarise as many people as possible with examples of best practice under the programme. The examples presented here have been selected for their impact and originality. I am pleased to present this brochure from the Education and Culture Directorate-General, which I hope you will find interesting.

Viviane Reding
Member of the European Commission
with special responsibility for Education and Culture

Introduction — " Training and Health "

The need for training, and especially for lifelong learning, is becoming increasingly acute in the field of medicine.

First, the relentless developments in the field mean that knowledge must be continually updated and tools are needed upstream, for example training curricula, learning methods, communication systems and mechanisms for exchanging and harmonising experiences.

Second, medical expenditure accounts for a growing percentage of Member States' budgets, which means that we need to look to less expensive alternatives, such as replacing hospital care with home care.

Lastly, the medical and paramedical professions are now required to have a knowledge of social sciences and public administration, in addition to their traditional scientific and technical skills.

Vocational training therefore has a very important part to play in developing a progressive medical system that is both general and specialised but also incorporates administrative and social aspects, its aim being to serve the public for whom the system is supposed to ensure greater welfare.

The Leonardo projects are the result of research carried out by groups of experts and professionals in an effort to respond to specific challenges in their fields.

This brochure contains examples of best practice which have improved the quality of vocational training and increased the level of qualifications in a wide variety of areas such as medicine itself, new technology, placements for students abroad and paramedical services.

These Leonardo da Vinci products merit further development in terms of both content and geographical scope. They have made and will continue to make a significant contribution to the development of professions and medical practices in Europe.

For further information on the Leonardo da Vinci programme and to consult the electronic version of this brochure, go to:

http://www.europa.eu.int/comm/education/leonardo_en.html

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1. CYTOTRAIN

Development of a transnational vocational training programme in cervical cancer screening incorporating the use of open and distance learning. United Kingdom - 1996

By developing a programme of further training using open and distance learning, this project tackles the problem of the shortage of qualified staff in cervical cancer screening.

This training programme is intended for young doctors and other health workers and technicians involved in the microscopic analysis of cervical smears, an integral part of cervical cancer prevention programmes in most EU Member States.

The training is modular and consists of three products:

Product 1: *"The Pap test procedure"*;

Product 2: *"Quality assurance in laboratories which undertake cervical cytology"*;

Product 3: *"Equivalent terminology for reporting cervical smears"* (CD-ROM).

These products were developed together with experts from the main European cytology centres.

The project is based on the Community directives on training in cervical cancer screening. It is to be used as a model for training in the European Union and will help to improve the standards applied in the health sector.

The project has been presented at many seminars and conferences at regional, national and international levels, for example at meetings of the "European Federation of Cytology Societies" and the "EU Cervical Screening Network European Congress of Pathology".

The training products were first distributed free of charge to all training institutes and laboratories in the United Kingdom and to various bodies in Italy.

They were then put on the market, with proceeds going to a charity fund for the promotion of further vocational training and quality standards in cervical cancer screening (prices are EUR 8.50, 13.40 and 12.40 respectively for products 1, 2 and 3).

For further information on the project:

Imperial College of Sciences, Technology and Medicine

Dept. of Cytopathology and Cytogenetics

UK - W2 1NY LONDON

Contact person: Mrs Dulcie Coleman, Tel: 44 208 383.81.42

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For further information on the products:

Mr A. Iacobitti, Tel: 39 6 36005729, fax: 39 6 3613250

E-mail: pharmit@markitgroup.it

<http://www.med.ic.ac.uk/external/Leonardo/index.html>

<http://www.papscreening.org> (site under construction at end of 2001)

2. APOLLO

New technologies and transnational cooperation as a basis for open and distance learning for all paramedical technical staff (Greece, Spain, France, Netherlands, United Kingdom). Greece - 1996

The APOLLO project, which was set up from 1996 to 1998, is intended for all paramedical technical staff undergoing basic or further vocational training, and for teachers and hospital administration staff.

It is a response to the need to improve quality and develop health care provision in Europe.

APOLLO is a course curriculum used both for distance learning for the paramedical professions via new technology and for traditional university courses, in this case in the "SBIE School of Medical Assistants" in Athens. The qualification is officially recognised by the Greek Vocational Training Organisation, which is a guarantee of the quality of the APOLLO curriculum. For solely administrative rather than academic reasons, the same courses taken by distance learning have not yet been recognised.

The APOLLO project is unique in that it uses information technologies to train the paramedical professions and to provide even the most remote regions of Europe with a transnational programme based on the experience of several countries. APOLLO's aim is to improve diagnostics, the quality of paramedical treatments and hospital administration.

The project was publicised in Europe (Greece, Spain, France, Portugal, Belgium) via a series of conferences:

- Leonardo da Vinci International Conference on "Education and Training in the Information Society: Individual and Flexible Learning" (organised by the European Commission), Lisbon, Portugal, 5-6 February 1998;
- Leonardo da Vinci "Training 2000" event (showcase of Leonardo products and seminars organised by the European Commission), Brussels, 3-4 December 1998;
- Conference/debate at 8th CATAI winter course, University of La Laguna, Canary Islands, Spain, 20 March to 2 April 2000;
- Conference/debate at 8th CATAI summer course, UNESCO, Paris, France, 17-19 September 2000;
- 5th European Telemedicine School, Island of Kos, Greece, 17-19 September 2001;
- Conference on European models of distance learning, Teleform 2001, Marseille, France.

APOLLO has already achieved substantial results and thus improved public health. Its content is undergoing further development.

APOLLO training should be available to other countries in Central and Eastern Europe and many countries in Africa and Latin America via satellite, as developed by the Athens University of Economics and Business (Informatics Department).

APOLLO training is already used by the "UNESCO Chair of Telemedicine" in the University of La Laguna, Santa Cruz de Tenerife, in Spain's Canary Islands.

Finally, two projects which are currently being developed were created as a follow-up to APOLLO:

"PROPRACTITION Network in Central Eastern European countries", set up by Hungary in 1999, plans to extend APOLLO to include Hungary, Slovenia, Greece, Romania, Cyprus and Denmark.

"CATAI-CTC Network in Europe", set up by Spain in 1999, aims to help develop new teaching methods to supplement the APOLLO project's basic training.

Further information:

SBIE School of Medical Assistants

7, Eleftherias square

EL - 10553 ATHENS

Contractor: Drak Fountoukakos, Founder of SBIE School

Contact person: Dr Anastasia N. Kastania

Scientific Coordinator of the APOLLO/Project Designer

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<http://dioptis.acmpp.aueb.gr/apollo/Odlhome.htm> (satellite transfer)

<http://dioptis.acmpp.aueb.gr/propractition/index.htm> (PROPRACTITION Network in Central Eastern European Countries)

<http://anpat.drmm.uniud.it/ctc> (CATAI-CTC Network in Europe.) I

<http://dioptis.acmpp.aueb.gr/ctc/index.htm> (UNESCO Chair of Telemedicine ODL)

3. MEMPHIS

Supplementing the training of European physiotherapists by teaching them management and information exchange techniques using new technology. Italy - 1996

This project has created a course adapted to the new training needs of managers of physiotherapy departments stemming from the rapid development and growing range of this discipline.

Through this project, managers who are increasingly required to carry out administrative tasks will be able to acquire managerial and organisational skills in addition to their medical and technical knowledge. They will also be able to cooperate with other specialists at national level or from different countries.

The Italian, French and Portuguese partners used modern telecommunication and information technologies to set up a training programme which combines the advantages of flexible training to suit everyone (the course is divided into several modules) with distance learning. The course is given on a CD-ROM containing four language versions (English, Italian, French and Portuguese).

The product was widely distributed, with 20 000 copies of a 20-page brochure going out to interested parties.

Between 1997 and 2001, seminars and conferences were held in Bari, Brussels, Estoril, Fiuggi, Yokohoma, Helsinki, Venosa, Budapest, Genoa, Potenza and Rome.

The product is expected to go on the market in the course of 2002, when accreditation procedures for training products have been defined by the Ministry of Health in Italy.

An Internet site should be set up by that date.

For further information contact:

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4. FENCE

"Development of an international study programme" (Innovative transnational training curricula) and

"Placement programme" for students of medico-social sciences (nurses) planning to work in community care
Finland - 1995/96

Local care services in the medico-social assistance sector are growing rapidly in Europe, although a great deal remains to be done to improve their quality in order to meet the growing needs of the population.

Nurses are too often trained to work in hospitals only, although home care is becoming increasingly important because of the financial and social advantages it offers.

The aim of the programme is to create a European health care course by developing new skills and knowledge to help students to meet the needs of the sector.

The FENCE project — a placement programme — follows on from the 1995 Leonardo pilot project "Community care — development of an international study programme for nurse training", which led to the creation of transnational training curricula which are regularly updated. The partner countries are the United Kingdom, Finland and the Netherlands.

With FENCE, training for young people is both theoretical and practical. The students involved first have conventional lecture-based courses and courses offered via videoconferences organised by the project partners. They then take a preparatory cultural and linguistic course to allow them to go abroad to carry out three-month placements which are regarded as an integral part of their course. Steps taken to ensure the students carry out their placements include meticulous planning and the requirement that students keep a diary recording what they have learned and the progress they have made.

The placement training ends with an assessment of social assistance skills. The assessment tool, developed by the students, teachers and training institutions, includes four language versions adapted to suit the cultural and national contexts of each country (Finland, the United Kingdom, the Netherlands and the new partner country, Hungary).

To help prevent language problems in the host country, the students have access to electronic medico-social glossaries which were compiled by the students themselves when setting up the project.

FENCE is intended primarily for students who are offered a period of practical experience abroad, which is recognised and evaluated in several European countries, in addition to innovative theoretical training based on a curriculum of knowledge consolidated at European level.

Mobility is also available to teachers wishing to develop their knowledge abroad.

The overall project also provides significant added value for professionals in the sector and for teachers in training institutes for this discipline via exchanges of experience and information between the countries involved.

The training programme described above is recognised and publicised by many national nurses' organisations, both official and private, in several European countries.

FENCE is regularly presented at "International Council of Nurses" conferences.

FENCE is also included every year in the "National nursing days" programme involving more than 2 000 professionals, where students on placement share their personal experiences with other students, teachers and workers.

FENCE is continuing to develop. By means of a third project from the group, the two above projects have been extended to include Poland and Hungary.

For further information on these training projects contact:

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Kuntotie, 2
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E-mail: salla.Seppanen@oamk.fi

5. Transnational placements to supplement vocational training in biomedical technology

High-level vocational placements can bring significant added value to university training programmes and to companies. United Kingdom - 1995

This project is the result of cooperation between the University of Paisley and its industrial partners in Germany, Italy, the Netherlands and Greece, and it has created a system of company placements for students in the final year of their biomedical technology studies.

The placements are of high technical and scientific quality and require meticulous preparation. With the help of the project partners, students must first present a research project, and when the project has been accepted they must find a company that is interested in the project.

The placement itself covers a full year, which is necessary to ensure the quality of the placement. Students apply their theoretical knowledge and have the opportunity to develop professional skills, at the same time assimilating the latest scientific developments in the biomedical sector.

This Leonardo da Vinci project has fully achieved its goal by facilitating the integration of biological science graduates into the labour market. With very few exceptions, all students have found their first job directly after their placement, as the placement is an important factor for employers in recruitment. The universities have also obtained added value from a greater knowledge of the new needs of the biomedical industry and adapting their curriculum to these needs.

Lastly, the host companies have also benefited from the placements as they have furthered their research work, thanks to the young students' academic contribution, and become open to a new European dimension.

More than 80 placements were carried out in the five years from 1995 to 2000. The project's impact and success are testified by the fact that the number of placements grew every year during that period.

The number of host countries has also increased. The University of Paisley has sent students to Ireland, Italy, France, Germany, Belgium and the Netherlands.

For further information on the project contact:

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6. ORTHOLINE

A network of orthodontists and universities from six countries set up an interactive Web-based lifelong learning system for orthodontists. Norway - 1996

The project provides orthodontists with a tool for transnational exchanges on the latest innovations in this sector and brings together knowledge from several European countries. It was set up by a partnership involving Norway, Germany, Italy, Spain, Greece and Iceland.

This post-graduate training is targeted primarily at trainers (university professors, qualified orthodontists, hospital service managers) who are regularly faced with the problem of keeping up to date with knowledge in a rapidly developing field. As a tool for open and distance learning, it also makes it possible to reach training bodies and individuals who are geographically isolated.

Ortholine is an interactive multimedia database system containing full reports on patients receiving orthodontic treatment (approximately 100 pictures) and has been available to professionals on the Web since the end of 1999. Restricted access is available to the public in "read-only" mode.

The full reports of cases treated contain a great deal of information which needs to be gathered throughout the orthodontic treatment. They provide a wide range of documentation for schools and make an invaluable contribution to further training for specialists in orthodontics.

Professionals throughout Europe have access to all data and comments: x-rays, pictures and texts. They can also become involved in real cases on the Web by sharing their comments and suggestions.

The Ortholine database was set up by teachers and participants in the post-graduate orthodontics courses at the University of Bergen and will be used as a pilot model for other courses in Europe. Open and distance lifelong learning will in future rely on patients' reports being entered in the Ortholine database.

Other tools developed:

- an Ortholine self-training CD-ROM for distance learning, comprising a theory-based course divided into modules together with analysis and graphic presentation of a range of case studies;
- a brochure setting out extracts from the database;
- an "Ortholine assessment questionnaire": self-assessment tool for users of distance learning.

For further information contact:

andrea.vergari@tin.it

dimitris.xenakis@odont.uib.no

<http://www.vjco.it> (Virtual Journal of Orthodontics)

<http://www.dntt.it> (Dental Networking Teleconsulting Team)

[http://ortholine.ifi.uib.no/user/ortholine\\$.startup](http://ortholine.ifi.uib.no/user/ortholine$.startup) (multimedia database)

7. TANDEM

Improving the quality of communication between members of health care teams, and with diabetes patients and their families (Denmark - 1997)

The goal of this project is to improve the welfare of diabetics (the number of diabetics patients increases rapidly every year) using a new approach in which patients are more closely involved in the treatment of their illness.

In order to achieve this goal, the partners created and tested a model for an approach to treating diabetes and a new system of training for doctors, nurses and other staff in the field. The aim of this innovative training is to develop communication skills in doctors, nurses and assistants, with a view to facilitating communication between them as members of a health care team but also with patients and their families, who have an important part to play in treatment of the illness.

The twelve partners from different backgrounds (for example universities, training bodies, professional groups and public administrations) in Denmark, Italy, Spain and the Netherlands worked together to produce a training manual based on the use of information technologies in communication.

The results of the project are disseminated via conferences, magazine articles and contacts with diabetics' organisations at regional and local levels. The "Virtual Center for Health Informatics" in Denmark also plays an important part in disseminating the results.

For further information contact:
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Virtual Center for Health Informatics - VCHI
Fredrik Bajers VEJ 7D2
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Tel: 45 96 35.98.45

<http://www.v-chi.dk> & <http://www.v-chi.dk/projects/index.html>

8. TEMA

Organisation of seminars and creation of teaching materials for cascade training of doctors specialising in Alzheimer's disease and other forms of depression and dementia in elderly people (Denmark - 1997)

This project was set up to provide doctors, psychiatrists, gerontologists and neurologists with further training to help them to diagnose Alzheimer's disease more quickly and precisely, as this is a disease which is continually growing in Europe.

This innovative vocational training is based on a cascade system of teaching and information via seminars. The advantages of this formula are twofold: first, each participant receives training which enables him to play the role of trainer in subsequent seminars; second, as training sessions are staggered from the centre to regional and local levels, it is possible to include a very wide range of doctors, including even those in the most remote areas.

Teaching materials were put together by the partnership, which consists of research centres and university hospitals in five countries (Denmark, Spain, Italy, Sweden and the United Kingdom). A CD-ROM management seminar and users' guide provide (potential) organisers of the seminars with the subject matter to be taught (theory, exercises, glossaries, etc.), information on drawing up the training plan, and technical instructions for the use of electronic materials.

The training programme has been recognised by the CNC (an accreditation committee in the field of medicine).

The first series of seminars in the Lundbeck Institute trained more than 200 doctors in 2001 and have already led to other seminars being set up.

The project is also publicised via newsletters (1 200 in January 2001 for the Lundbeck Institute), conferences and reports by partners and subsidiary organisations in 29 different countries. The organisation "Alzheimer's Disease International" advertised the project in its newsletters and on its website, and organised a conference in October 2001.

For further information contact:

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9. Awareness of the reality of dyslexia and easier access to training

In training and employment, dyslexia is very rarely recognised as a handicap and is too often associated with a lack of intelligence.

In the absence of specific assistance, dyslexic students and workers are often reluctant to enter into training or learn a trade.

United Kingdom - 1996

The two distinct groups targeted by this project are trainers and further training coordinators in SMEs, and those suffering from dyslexia.

The project provides the former with an information booklet and advice based on the experience and expertise of several European partners. This publication will make trainers and employers aware of what dyslexia is, help them to identify people suffering from dyslexia and help them in the workplace by adopting working methods suited to them.

People suffering from dyslexia receive specific distance training by means of a CD-ROM helping them to develop three key areas of activity: reading, memorising and understanding. These skills will help to increase their confidence and self-esteem in the workplace.

The University of Sunderland, which has many years of experience and extensive expertise in this area, has worked on the project with its Irish, Norwegian and French partners.

The results of this project were publicised by several seminars and exhibitions, including in several universities in Ireland, Iceland and Helsinki.

Brochures, newsletters and posters were printed and distributed.

The CD-ROM is distributed by the University of Sunderland for a fee.

Further information on the project:

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<http://www.sunderland.ac.uk/>

10. VETNNET

Harmonisation of training programmes for veterinary assistants with a view to introducing a European qualification. Netherlands - 1995

The occupation of veterinary assistant is one which is growing rapidly in Europe. However, training programmes are not harmonised, nor do they receive European recognition, which puts people in this profession at a disadvantage, in terms both of the quality of their qualification and the mobility of workers.

Vetnet is the international network of training institutes for veterinary assistants. The aim of its project is to harmonise the training programmes in the various Member States so that they can lead to a European qualification.

The Dutch, English and French partners set up a contact and information network to determine the differences in training systems between countries and create a standardised training programme. Given the importance of the subject, other institutes spontaneously proposed sharing their experience, and a total of 22 institutes from nine different Member States have contributed.

The first stage involved producing a manual describing the educational and structural differences between national programmes (transferable subjects).

Then the "Eurosyllabus" was developed; this is a standardised training curriculum in 13 modules allowing traditional group teaching in training institutes and individual training using open and distance learning. A CD-ROM setting out the structure of the courses was added for the use of managers and teachers.

Most countries which have a training system for veterinary assistants in Europe belong to Vetnet and take part in the courses. Institutes which do not belong to Vetnet may also have access to this training.

Lastly, development of a European qualification system is under way and should be completed in the period 2002-2004.

Results were disseminated more quickly because of the large number of institutions which became involved in the project (Netherlands, France, Finland, United Kingdom, Germany, Sweden, Denmark, Ireland) and organised conferences. New countries (Portugal, Italy, Romania, Slovenia) also joined them.

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