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The training of teachers and trainers:

one of the priorities of the Commission's *e*Learning action plan

Outcomes of the proceedings[1]

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1. **INTRODUCTION**

The rapid and extensive introduction of information and communication technologies (ICTs) into daily life, education and training has had a profound effect on the role of teachers and trainers and dictates improvements in their skills and competences. In the *e*Learning action plan adopted in March 2001, the Commission makes this issue a priority for the development of a Europe of knowledge.

For its part, since 1999 the European TTnet network (CEDEFOP) has adopted as one of its core themes training teachers and trainers to master ICTs.

This convergence between a Commission priority and the work of the TTnet network provided the theme of the 4th TTnet network Annual Conference, which brought together the coordinators and experts of the national networks gathered in Thessaloniki on 13 and 14 December 2001.

2. **A COMMUNITY PRIORITY**

Ensuring that everyone has access to and uses ITCs is a European Union priority. At the Lisbon Council in March 2000 the President of the European Commission, Romano Prodi asserted that the way to sustainable growth, better jobs and greater social cohesion in Europe is through a knowledge-based economy.

In this connection, open and distance learning (e-learning) appears to be particularly suited, especially among young people, to developing the skills and knowledge necessary to succeed in this new economy.

The role of teachers and trainers is very rapidly proving to be fundamentally important to the creation of a veritable 'digital culture' for all. But are teachers and trainers trained to use the new tools or are they seeking out such training? Studies reveal contrasting situations. Whereas the 2001 Eurobarometer report considers that nine out of ten teachers have confidence in ITCs, the surveys conducted by Cedefop are less optimistic: most of the trainers who use ITCs say that they have not received specific training, that they have taught themselves and have more need of collaborative work than a training course.

3. **A TTNET PRIORITY**

The work done by the network since 1999 has allowed the identification of a number of questions that are common to the various Member States and to take further the methods of analysing the changes imposed by the growing use of ICTs in training:

– key role of individuals and organisation in managing the changed linked to ICTs (new work organisation, new distribution of tasks);

– need for a specific design and development function for open and distance learning schemes;

– importance of the political and strategic context for the choice of training schemes and their implementation;

– beginnings of a competency framework for e–learning trainers.

The European Commission's *e*Learning action plan (March 2001) stresses the role of teachers and trainers in the emergence of a genuine 'digital culture'. The action plan accordingly proposes a number of concerted key measure along the following three main lines:

(1) an inventory of projects and an analysis of models relating to initial and continuing training for teachers and trainers in the new skills required;

(2) taking stock of existing e-learning resources;

(3) an analysis of the skills and qualifications needed by tomorrow's teachers and trainers.

Within the framework of the guidelines laid down by the Commission, in spring 2001 the TTnet network put in place a tool to support the 'teachers and trainers' part of the *e*Learning action plan, which comprises three working groups ('project groups'):

(1) a group with the task of analysing innovative experiences in the field of the training of teachers and trainers (Group 1);

(2) a group with the task of identifying the skills of teachers and trainers involved in e-learning schemes (Group 2);

(3) a group with the task of preparing a guide to online resources and services (Group 3).

Each project group included experts in the field of the training of teachers or trainers and a national network coordinator with the task of coordinating the production of the groups work in liaison with Cedefop and the other members of the network.

The aim of the 4th TTnet network Annual Conference was an initial assessment of the outcomes of the project groups at the end of a short pilot phase (September to December 2001), to check the relevance of their approaches in relation to the guidelines laid down in the *e*Learning action plan, and finally to refine the research methods used with a view to continuing work on a bigger sample involving more national networks.

4. GROUP 1: ANALYSIS OF INNOVATIVE PRACTICES AND THEIR TRANSFERT

Of the 34 experiences catalogued by the national network coordinators, six were studied in detail both in terms of their innovativeness and the skills required by the training actors:

(1) Autofod (France),

(2) Siemens Learning Valley (Belgium),

(3) FAS Open and Distance Training (Ireland),

(4) Computer-Mediated Tutoring (United Kingdom),

(5) Profiss (Portugal),

(6)   IT Mirror (Denmark).

Beyond the content of the six cases, the work of the experts allowed a number of horizontal elements to be identified for characterising innovative experiences and research methods.

4.1.   Describing the different levels of innovation

In order to analyse 'innovative' experiences, there have to be indicators for describing the type of innovation and the level at which it is applied. In the sample of six case studies, five indicators were identified:

– a technical indicator: characteristics and performance of the tool (platform or portal) which was the medium for the training scheme;

– a pedagogical indicator: systematic combination of methods and resources between distance training and classroom-based training (blended solutions);

– an organisational indicator: the extent to which the system is open to new fields of activity and new groups of training recipients;

– an economic indicator: productivity of the scheme, as regards its cost-effectiveness;

– a professional indicator: direct link to the development of the training profession and the training organisation.

4.2.   To determine the new design and development constraints

Analysis of the schemes studied reveals common characteristics in terms of their design and development:

– project design: importance of the organisation's prior strategic vision, coherence between the substance and the form of the scheme, constant regulation in relation to constraints on the ground;

– project management: participative approach involving decision-makers and actors in the field of training. In environments (cultures, organisational modes) which are sometimes unfavourable to innovation, the involvement of decision-makers and managers has been crucially important in the development of the schemes;

– project organisation: open training schemes marked by the disruption of the unities of time, place and action; a high degree of decentralisation with the involvement of actors in individualisation and customisation, customised support through the introduction of new functions (tutoring–coaching).

It is worth noting that certification is a practically non-existent or as yet unexplored aspect of the schemes studies. Finally dissemination occurs mainly through websites, seminars, conferences, publications, etc.

In none of the six cases did the experts observe a sudden break due to the introduction of new technologies, which on the contrary was part of a continuum between the old and new modes of organisation.

4.3. Clarify the outcomes, preferring to obtain information directly from actors

The first question raised is that of the gathering of information. In a field where descriptions and concepts are far from being stabilised, preference should be given to collecting information directly from actors, increasing the number of interviews and onsite visits.

The question of the methods used for gathering information also requires clarification of the very aim of the project. If the aim is to observe the professional development of training actors within and through e-learning schemes, case studies on the training of teachers and trainers of vocational training are not sufficient. Professional development is a process whose duration and multiple forms go beyond training to include all aspects of the organisation and management of skills.

On this point, the experts propose conducting a study over a longer term in order to observe how processes acquired in the course of training can be reinvested and reused by teachers and trainers in the professional experience, and what changes occurred in the field of the organisations concerned.

Finally, bearing in mind the multiplicity of actors and for the sake of efficiency it is important to redefine which players or occupations should be observed as a matter of priority in light of the main target groups to whom the work of the network is addressed.

4.4. Adapt the form and dissemination of the outcomes

Finally, the final form of dissemination of the outcomes should be specially adapted to the target groups and should be thought of at the same time that the analysis tools are designed. The appropriate format for the dissemination of the results calls for a new stage of work to be taken into account in the TTnet tool: selection of the data and information most suited to the target groups concerned, choice of their form of dissemination.

4.5. Transfer of innovative practices

The question of the transfer of 'good practices' is of central importance to the creation of the European education and training area. If in fact this space is to be extended as a result of a process of information exchange and experience sharing, the analysis of 'good practices' and their dissemination more widely is a necessary but not sufficient precondition for their transfer.

In most cases, as the experts confirm, the activities analysed were not designed or conducted with the aim of transfer in mind. Questions should therefore be asked about the meaning of the terms 'good practice' and 'transfer'.

4.5.1. What is a 'good practice' in the field of education and training?

This question is all the more difficult to answer in the field of training owing to the strong temptation to take refuge behind the novelty of the tools and modes of transmission, in other words to assimilate 'good practice' to novelty. Novelty appears to be inherent in innovation but is not sufficient to characterise it.

Innovation in training thus remains a difficult concept to pin down. However, it is possible to mark out its boundaries on three sides:

– change characterises innovation: 'a deliberate, intentional and voluntary change, but not all change is innovation' (Françoise Cros);

– a completed action, underpinned by values, geared to the resolution of a problem to the search for a new competitive advantage;

– finally, innovation should be considered as a process; unlike a project, innovation develops in a succession of non-linear phases, marked by an uneasy balance between risk-taking and the management of uncertainties. Thus, innovation is subject to inventive design and development, creating values.

The question which arises at this point is whether a practice constitutes a real innovation in the training of trainers not only through its means but also through its processes, products, and the results achieved. In other words, the very notion of 'good practice' relates back to the impact of the innovation that it contains, on the system of which it is a part; outside that system, we then talk of 'transfer'.

4.5.2. How can 'good practice' be transferable?

The concept of transfer relates her to the possibility of a practice to function as a model, as a reference capable of inspiring other practices. Rather than making a theoretical contribution, a good practice acts through the virtue its displays. However, the transformation of the original experience into a transferable expertise constitutes a process in its own right, for two reasons:

– Contexts are not comparable. In view of the diversity of national contexts, the direct transfer of a given experience is rarely possible;

– The original experience is highly contextualised. To transfer means to translate an experience made in a particular context so that it provides material for the design and implementation of similar practices in radically different economic, cultural and social environments.

Thus any transfer presupposes a stage of analysis intended to identify the invariables in the diversity of practices, in other words to 'de-contextualise' an experience that is necessarily local so that it can be made 're-contextualisable' in other environments. Hence the transfer takes place through a mediation process.

In conclusion, the analysis of the innovative experience should be conducted as a real translation of the initial experience so that it can provide inspiration for the design and implementation of new practices. The transfer of an experience from one context to another needs an additional mediation function to be brought into

play. It is in this function that the TTnet network should, in view of its expertise and representative nature, play a key role:

- as an exchange forum, by virtue of the fact it brings the various actors into contact with one another;

- as a expertise forum, through analysis and translation of innovative experiences;

- as a community for dissemination, by virtue of the very nature of the network.

By gradually taking over the results elaborated by the experts and by through consultation with them, the various national networks thus become co-actors in the transfer of innovative practices in the training of teachers and trainers.

5. GROUP 2: THE SKILLS AND QUALIFICATIONS OF TRAINING ACTORS IN THE eLEARNING TOOL

The second TTnet working group had the task of analysing the same six innovative practices with a view to achieving the following three complementary objectives:

- to identify from among the skill changes taking place those which could be taken as stable and lasting components of new occupational profiles;

- to identify, going beyond the unique features of the implementation contexts, those skill elements that could contribute to the construction of a common skill foundation at Community level.

- to pinpoint the conditions favourable to the acquisition and maintenance of new skills with a view to activating the transfer and acquisition process.

Project Group 2 started off by making explicit its acceptance of the notion of skill in its dual individual and collective aspects: skill enables professional problems to be addressed and/or solved satisfactorily in a given context, by bringing into play various capacities in an integrated way. According to this definition, skill does not exist outside the use made of it in a given context. It is thus on the basis of an analysis of the environments in which trainers evolve and of the manner in which trainers themselves evolve that it is possible to describe the skills deployed. However, this contextualisation should not preclude competences being considered as transferable between contexts.

Activities and tasks are defined on the basis both of existing work and interviews with professionals (for example, for the multimedia production process) in order to determine whether the analysed tasks are essential or marginal.

In each of the cases studied, the operator questioned stated whether the task was marginal or non-existent, secondary, frequent, or was central to their occupation. Similarly, correlations were made to establish whether or not the skill was necessary of the activity.

5.1. Emergence of mediation and design

The hypothesis that an occupation is a contingent combination tasks was turned out to be correct. Some occupations, such a trainer, still appear to be versatile,

whilst other more specialist occupations are emerging, focused on a limited number of tasks with two fields of specialisation: mediation and design.

Despite the various names, the work of Group 2 allowed the identification of five 'generic' job profiles in the implementation of e-learning schemes:

– instruction designer who acts upstream in the process, in training design and development and the design of training media: design of training content; analysis of course content, choice of methods, planning of the learning and assessment processes, identifying cases; outlining and validating scenarios for training media;

– subject-matter expert who also acts upstream in the process. The core of his occupation is complementary to that of the designer;

– trainer: the term is used generically for all profiles. It is at the heart of the traditional occupation in the implementation of training: teaching, support, content, developing motivation and self-learning capacities, development of group activities, transfer of learning to the work situation.

– distance learning tutor, acting during the implementation and assessment of training. He motivates learners, helps them to develop their learning capacities, monitors their progress.

– coach or mentor: plays a role in direct contact with learners. His activities concern cognitive fields rather than the development of motivation.

Not surprisingly, however, these roles do not necessarily have the same meaning across Member States. Clearly, however, two primary roles are emerging: that of instructional or materials designer and that of tutor or coach – the first focusing on the production of e-learning materials, while the second concentrates on the support and tutoring of learners. Not only is e-learning leading to the emergence of new roles (such as the e-learning tutor or mentor) but traditional job functions (such as instructional design) are themselves being changed.

Presented next are some of the key issues that emerge from the report and also from the discussion which followed the presentation.

5.1.1. Core roles of e-teachers and e-trainers

While the project has identified a range of key roles, it is not clear whether there is a need for more or less specialisation within these roles. For example, can the roles of tutor, coach, mentor and expert (provided a distinct definition of each could be agreed, and this is by no means certain) be combined into the activity of one person, or should they be undertaken by different individuals? What would be the impact of specialisation on the development of the necessary skills required to function effectively in the job? Are there combinations of roles that work most effectively – for example, tutor and coach, mentor and expert? If the roles are combined, do individuals possess the necessary abilities and traits to learn how to perform them? Is it possible (or desirable) to combine 'hard' skills such as instructional design with the more 'soft' skills such as mentoring?

5.1.2. Learner-centred models

There was support both in the report and from the conference itself for the notion of learner-centred models of learning. This means that we should endeavour to move away from notions of didactic delivery of content and towards the idea of learning communities, communities of practice and knowledge management systems (of which learning is an important element). This means that learners themselves come to:

– identify what they want to learn;

– establish how they want to learn it (through what systems/materials), where and when;

– what outputs they want to achieve.

The role (and therefore the requisite competences) necessary for e-teachers and e-trainers becomes one of facilitating this process (providing guides to where materials can be found, for example, not necessarily providing the materials themselves) and providing learning and pastoral support.

5.1.3. Competency models

The work undertaken through Project 2 has yielded a very functional framework of competency descriptors that provide a useful and solid basis for further development. There is, however, a growing school of thought that argues that knowledge itself is socially constructed. Therefore, rather than presenting organisations with a list of competences from which they can identify their own skills, another approach would be work with e-teaching and e-training practitioners in an action research mode. Through this process, the researchers could begin to identify shared meanings and tacit knowledge about what it is like to be 'competent' and to emerge with 'thick descriptions' of competence. It is possible, then, to produce a richness of description and also, possibly, the identification of new competences, so far not identified.

Another, and equally significant issue, is level of competence. It is necessary but insufficient to know if someone is competent – we need to know if this is at the level of novice, expert or somewhere in between. Competency mapping, then, is multi-dimensional, by range but also by level. Finally, in addition to pedagogic and technical skills, are there other skills and aptitudes required for e-teaching and e-training development? For example, since the development of materials and learner support both involve creativity, team work, communication, collaboration and innovation (to name but a few), should these also be defined as essential competences?

5.1.4. The uses and value of competency frameworks

The establishment of a competency framework is essential and provides the underpinning to a number of other development activities. For example, it would be unwise and probably unfeasible to develop learning materials, training systems and qualifications frameworks, without knowledge of the range of competences required by e-teachers and e-trainers. These resources, training and qualifications

systems, in turn, are key to the development of knowledge and skills needed by e-learning organisations. In a sense, they mediate between competency frameworks and skills.

Once established, competency frameworks can also be used to offer a standard against which individuals, organisations or sectors can benchmark themselves. For example, a teacher considering becoming an e-teacher could examine the range of e-competences required and decide what additional skills, aptitudes and attitudes she/he needed to acquire (through training and professional development). Evaluating the gaps between the range of competences required and what people/organisations possess, also provides the basis for policy development and planning.

The work of Group 2 now needs to be validated by the undertaking of further case studies of 'good practice'. This could focus on:

– validating the roles identified;

– identifying new roles, if they exist (possibly through action research to explore how practitioners socially construct their knowledge and therefore their view of competences);

– clarifying the definitions of roles across Member States;

– creating a database of competences so that the benchmarking process is against a set of standardised norms (generated through the completion of an on-line proforma or skills assessment tool, by multiple participants);

– mapping competences against roles;

– researching whether there should be more, less or the same level of specialisation across job roles.

6.   GROUP 3: A GUIDE TO ON-LINE RESOURCES AND SERVICES FOR THE DISSEMINATION FO RESULTS

The trend towards a training culture based on the sharing of knowledge and the networking of skills assumes that all training actors have easy and organised access to educational resources.

For that reason, Group 3 of the Cedefop TTnet tool has prepared a draft guide to on-line resource and services to assist the network and professionals. The information it contains will also be constantly updated. The first parts of the guide have been made available on the TTnet site on Cedefop's European Training Village with a view to meeting a number of functional aims: simplicity, attractiveness, speed, credibility and utility.

The resource guide has used all the materials emerging from the six case studies analysed. It is structurally complex because it provides links between the case studies, the professional profiles and the relevant electronic resources available on the Internet. The outcomes of the first two project groups (case studies and job profiles) are presented in the guide. However, to take full advantage of the power of such a tool, other media are being prepared: knowledge annuals, in-depth interviews, workshops, videos, etc. The

main users of the guide are organisations that train teachers and trainers and teachers and trainers themselves.

The discussion with participants allowed us to identify specific areas where there are limitations:

– the problem of copyright and intellectual property right for information put online;

– need for constant input and updating of data;

– setting up of a maintenance team devoted to meeting this objective;

– importance of improving the guide on new technologies from the point of view of the professional effectiveness and motivation of users;

– need for an approach that is resolutely geared to the needs of training recipients;

– question of whether it is appropriate to expand the target group beyond teachers and trainers;

– possibility of allowing direct entry of information on the site and the associated question of quality control;

– harnessing national and Community complementarity by exploiting links between various websites;

– question and difficulty of the choice of languages to be put online in order to remain attract to the greatest possible number of users.

The general view is that the first information put online already meetings a number of real needs:

– it is considered a useful tool for informing teachers, trainers, decision-makers and researchers about new resources and new issues related to e-learning;

– the current maintenance team is already capable of providing the necessary updates in the fields of contents and technologies;

– the European Training Village and its guide lend credibility to the content presented on e-learning, help to raise awareness of the related issues, and confer on that content and those issue a sort of European quality label.

In this sense the guide to online resources is due to become a favoured tool of the network, acting as a vector for communication and the dissemination of 'good practices' in distance learning.

It remains only to convince all members of the network to make it their own, to make suggestions for improvements, to enrich the content and to promote the resources it contains in each of the Member States of the European Community.

7. CONCLUSION

The analyses of the working groups on the training of teachers and trainings in specific e-learning skills have provided significant, interesting and tangible results. They confirm the credibility of the TTnet network in this field.

This line of work remains a priority for the TTnet network for the coming years. Other objectives on the agenda of future seminars include providing policy-makers with appropriate quality indicators for e-learning, enlightening the choices facing decision-makers and future project leaders in e-learning schemes, seeking appropriates ways of disseminating innovative practices and improving as far as possible the resource guide. The aim of the European network is currently to consolidate the methodologies tried out and to adapt them in the light of the first assessments with the aim of their more systematic and widespread use.

Each national network should take advantage of the expertise developed at European level and build up its own on bases shared by everyone. This involves the implementation of a new project-orientated working method and involving only a number of networks. In this way a larger number of actors from the national networks are involved in the sharing of information and the development of common tools.