The European Research Network on Learning to Write Effectively (ERN-LWE)

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A. ABSTRACT - Maximum 200 words, maximum 5 keywords or very short phrases

It is mainly through writing that knowledge is created and shared across boundaries of culture. A key objective is to improve our understanding of how written production is mastered and how this learning process can be made more effective for each and every European citizen, especially children at school and adults in the workplace.
Given the diversity of educational systems and languages, it is important to build a common multidisciplinary research programme, sharing theoretical, methodological and educational resources. This research programme needs to focus on four complementary areas: "Early acquisition of writing skills", "Improvements in written communication", "Design of written documents" and "Technological advances in writing tools".
By bringing together European research teams that are already working on the topic of writing - or are intending to do so -, the COST Action will support the building of an active and open network sustained by regular scientific events, research meetings and junior researchers' training. This research network will provide a means of disseminating recommendations throughout European society (schools, universities, workplace) in order to help professionals and citizens write, learn to write and teach writing more effectively within their particular cultural context, as well to communicate across cultural boundaries through writing.

Keywords : Writing skills - Mother tongue/Second/foreign language – Digital tool technology – Classroom teaching – Workplace/Professional writing

B. BACKGROUND Maximum 2-3 pages – up to 2250 words

B.1 General background

Writing as a societal question

Knowledge-sharing is the key to society's economic, social, scientific and cultural development. It is mainly through writing that knowledge is created, shared and acted upon across cultural boundaries. Research into writing in schools and the workplace, contributes to the quality of the knowledge cycle. Writing is an extremely varied activity, ranging from jotting down shopping lists, writing school essays and designing Blogs and Websites to penning novels and monographs. It can be created in various ways (handwriting, keyboarding, dictation, speech synthesis) and contexts (text messages, letters, press releases, essays, poetry, scientific papers, company reports, legal texts, etc.). The common underlying factor is that writing involves the construction of knowledge objects which are shared, understood while the writer is absent and stored for the future.

Advances in the study of writing can have far-reaching consequences for our understanding of writing, evidence-based teaching methods and democracy. The long-standing focus on reading skills is consistent with the official line that citizens must primarily be able to understand written information. However, to make their voices heard, readers must also be able to write. With the advent of new information technologies, new curricula and greater specialization in the workplace, written communication has become a vector for integration and success within our society.

In order to improve the teaching and use of writing, there must be continuous improvement in knowledge of the cognitive and linguistic processes subtending text production by skilled and developing writers to be understand by readers (text users). Writing research has become very active in Europe and makes a significant contribution to international scientific advances. Nevertheless, for historical, linguistic and cultural reasons, European research is not as unified as in the USA; researchers are relatively isolated and inter-country cooperation could be improved significantly. This means it is difficult to develop comparative studies of writing instruction in Europe and suggest applications and recommendations for improving standards and sharing knowledge across boundaries. Overcoming this problem will require (i) the creation of a European platform overarching the gap between 'regional' research cultures, promoting cooperation and providing top-flight scientific data, in order to (ii) disseminate recommendations on writing throughout society (schools, universities, workplace, citizens).

The COST Action represents an efficient and effective route to achieve this twofold objective. By co-operative research teams from different states that are already investigating writing or planning to do so, it will be able to develop an active, open network, based on the commitment of researchers and boosted by regular scientific events, meetings and junior researchers' training. The COST Action and its constitutive tools (Working groups, Short Term Scientific Meetings, Conference, Summer School, Workshops) will therefore be of invaluable assistance and accelerate the emergence of a European writing network, bringing concrete results from studies already underway and stimulating new ones in countries which do not yet have structured writing research. The participation of professionals (teachers, educators, technical writers, administrators, etc.), plus the implementation of COST's dissemination plan (Website, conferences, publications, etc.), will ensure that recommendations about how to write effectively will penetrate many areas of European society. Whereas programmes such as EUREKA and ESA concentrate on technological development and innovation, the COST Action's design means that it will be anchored in the human and social sciences. The creation of the European writing research network will constitute a useful preliminary to an application to join the EU's seventh framework programme (FP7).

Lastly, considerable cultural and economic benefits can be gained from enhancing the population's writing skills and empowering people to compose documents in a creative, understandable fashion. Writing clearly so as to be properly understood, either within one's country or across national boundaries, ensures quality and efficiency in the transmission, recording and preservation of

knowledge. The production and dissemination of appropriate and relevant documents supports social development, promotes European cohesion and contributes to transcultural unity. The main question is how written production is mastered and how its learning can be optimised for every European adult and child, in accordance with the European Commission's pursuit of the Lisbon objectives (5680/01 EDUC 18–2001; COM (2007) 61 final).

B.2 Current state of knowledge

Scientific context

Writing is a complex activity, requiring referential, pragmatic, linguistic and graphomotor knowledge to produce texts that achieves their communicative goal (Alamargot & Chanquoy, 2001). Because of this complexity, writing is studied in various disciplines (linguistics, psychology, literature, education) focusing on different aspects. Understanding the acquisition and development of expertise is vital, as it takes years of schooling to master basic skills. This process has been studied by researchers in America (composition theory: Villanueva, 1997) and also Europe (pedagogy of writing: Rijlaarsdam, van den Bergh, & Couzijn, 2005), with its many official languages.

Early writing research in the USA (1970s-80s) focused on identifying the knowledge and cognitive processes involved in writing, examining how these differed for expert and novice writers (Hayes & Flower, 1980; Hayes, 1996). These differences were then used to inform the teaching of writing (Bereiter & Scardamalia, 1987; see Hillocks, 1986, and Graham, 2006, for meta-analyses). Methodologies back then were dominated by verbal protocols (writers thinking aloud while writing), sometimes coupled with reaction times (Kellogg, 1987, 1988, 1990), and by whole-text analyses (Levy & Ransdell, 1996). The following decade witnessed a shift towards the educational aspect of writing (MacArthur, Graham, & Fitzgerald, 2006; MacArthur, Graham, Schwartz, & Schafer, 1995), reflected in developmental investigations (spelling-literacy : De La Paz & Graham, 2002; Graham, Harris, & Mason, 2005; Treiman & Bourassa, 2000), cognitive strategy analyses (Ransdell & Levy, 1996; Ransdell, Levy, & Kellogg, 2002; Ransdell & Gilroy, 2001; Ransdell & Levy, 1994), sociolinguistic perspectives (Bazerman, 2007; Flower et al., 1990) and business/technical applications (Schriver, 1997). This emphasis on educational writing, fostered by journals, academic associations and an influx of students, led to the establishment of university Writing Centers. Research on technical writing has produced concrete applications, such as the simplification of administrative documents in Canada (Clerc, 2002, 2003, 2005, 2006) and enhanced communication within companies (Alamargot, Terrier & Cellier, 2007).

In Europe, writing research and text production has also been extremely active over the last 20 years. Although initially based on the same references (Hayes & Flower's seminal model, 1980), it has had to cope with linguistic diversity, involving the teaching of L1 and L2 languages in various cultural contexts subtended by different writing codes and conventions. While American and Canadian researchers have to tackle the question of integration (sociological perspective), their European counterparts are probably more concerned with the wealth and diversity of written communication (psycholinguistic and comparative perspectives). In this context, European research has concentrated on spelling acquisition, which varies according to the characteristics of each language (e.g. due to its phoneme-grapheme consistency, the English written code is more regular than the French and should be easier to learn), and on the study of specific genres in specific cultures, and the best way of teaching them (e.g., definitions of summaries and arguments can vary from country to country). Numerous studies have focused on these two themes over the previous two decades (Andriessen & Coirier, 2000; Bronckart, 2004; Coirier, Gaonac'h, & Passerault, 1996; Fayol, 2002; Fayol, Hupet, & Largy, 1999; Nolke & Adam, 1999; Perfetti, Rieben, & Fayol, 1997; Swales, 1990; Tolchinsky, 2001), adopting cognitive and linguistic view points and, more recently, a necessarily multidisciplinary approach (Pétillon & Ganier, 2006, for an interdisciplinary initiative). In the last five years, a major advance has taken place in Europe, with the introduction of

new methods for observing writing and for analyzing how process dynamics change in the course of text production (Torrance, Galbraith, & Waes, 2007; Van Waes, Leijten, & Neuwirth, 2006). European researchers have developed tools to analyse eye movements during handwriting/typewriting (Alamargot, Chesnet, Dansac, & Ros, 2006 ; Strömqvist et al., 2006) and dictation recognition (Van Waes & Leijten, 2006). These new techniques, sometimes combined with verbal protocols and multi-level modelling (Van den Bergh & Rijlaarsdam, 1996) or data-mining techniques (Caporossi, Alamargot, & Chesnet, 2004 ; Lindgren et al., 2007), allow processes to be studied in greater depth and enhance the investigation of writing strategies in children, students and professionals. This emphasis on the dynamic nature of the writing process, served by technological tools, is reflected in recent European research on the teaching of writing. This research has mainly concerned (i) observational learning of the dynamic processes involved (Braaksma, Rijlaarsdam, Van den Bergh, & Van Hout-Wolters, 2004), (ii) interindividual variations in the dynamics of writing processes (Breetvelt, Van den Bergh, & Rijlaarsdam, 1994), (iii) the influence of instruction on process dynamics and text quality (Allal, Chanquoy, & Largy, 2003), and (iv) the constraints exerted on learning and the dynamics of writing by different genres (Bronckart, 2004; Schneuwly & Pfeiffer, 2002). These developments raise a number of issues and will have a decisive impact on writing research in Europe. Four areas need to be considered :

(i) Studies of the early acquisition of writing skills in Europe must be resumed from an educational perspective. Challenges include describing acquisition by pupils with or without learning difficulties in their mother tongue (L1) and a second or foreign language (L2), understanding learning difficulties and analysing the impact of teaching situations.

(ii) At a more advanced level, research is needed to improve written communication teaching in schools and the workplace. Challenges include describing the development of writing skills in two different languages, assessing expertise in advanced students or professional writers, understanding the factors favouring the development of expertise, designing appropriate training situations for different genres and comparing these dimensions across different countries.

(iii) Writing studies must offer European society concrete applications. In the workplace, the design of written documents is crucial : they must be simple and effective. One approach would be to describe how professional writers manage skills and knowledge in order to improve documents' communicative impact and to model this expertise. This would enhance the design of technical writing programmes for beginners and the drafting of recommendations for businesses and institutions.

(iv) Lastly, because technological writing tools represent such a major step forward in Europe, allowing the study of the dynamics of writing processes in greater depth, the focus now needs to be on further developments and standardizations, and the creation of a shared database to collect on-line measures.

B.3 Reasons for the Action

Current situation in Europe

Although the EU has a relatively large scientific community working on writing, its members are often isolated. The European Association for Research in Learning and Instruction (EARLI), and its Special Interest Group on Writing, is a dynamic force, staging biennial international conferences and managing peer-reviewed journals and an international book series. The EATAW (European Association for the Teaching of Academic Writing) has also brought together scholars in this field. However, the primary aim of these associations is to exchange research, not to support active collaboration between researchers, junior researchers' training or initiate joint research programmes. European projects involving different countries have already investigated the development of writing. From 1995 to 1999, a COST Action (A8), studied literacy (reading and writing) in dyslexic children, while a Leonardo da Vinci 1 research programme (ref. 9732504) designed a CD-ROM to help people read or write in French or German. These programmes, which

were less interested in writing itself than in literacy, have since come to an end.

A one-stop shop

Initiating collaboration between European researchers to build a platform for studying the development and teaching of writing remains a real objective. Writing Studies is an emerging discipline, and we need to transcend disciplinary boundaries and unite experts from different countries. In the USA, an interdisciplinary conference on writing, organised in 1978 by L. Gregg & E. Steinberg, set the course of research for the next two decades. With the growing need for writing specialists, applied research in North America has increasingly focused on the workplace and the university curriculum. CCCC (Conference on College Composition and Communication), ATTW (Association of Teachers of Technical Writing) and STC (Society for Technical Communication) have led the way, fostering exchanges between researchers and practitioners. Similarly, in Canada, CATTW (Canadian Association of Teachers of Technical Writing), CSSR (Canadian Society for the Study of Rhetoric) and CASLL (Canadian Association for the Study of Language and Learning) have been promoting the development of writing studies for 25 years.

To tackle writing problems nationwide, Canada recently funded the creation of a Canadian Network for Interdisciplinary Research on Rhetoric and Writing (CNIRRW). The time has come for the EU to do the same, taking advantage of the high-quality research already being undertaken place in Europe and the large number of researchers and laboratories working in the field. Focusing on better practices in schools and in the workplace, this network would raise the international profile of European research and trigger major advances.

B.4 Complementarity with other research programmes

One European project could complement the COST Action, especially in relation to data storage and database creation. The EU project DAM-LR (Distributed Access Management of Language Resources – contract no. 011841) is developing a system for building distributed electronic libraries of research resources in the Humanities, especially language-related research, all accessible via the Internet (Website: www.mip.nl/dam-lr/). The DAM-LR project is a core activity behind "CLARIN", a scaled-up and extended version which is the subject of a current application to the EU (Website: www.mpi.nl/clarin/). It might eventually prove worthwhile teaming up with DAM-LR to distribute the final database, once it has been set up (data collection and analysis in the field) under the aegis of the COST Action.

C. OBJECTIVES AND BENEFITS Maximum 2 pages –up to 1500 words

C.1 Primary objectives

"The main objective of the Action is to improve the understanding of how written production is mastered and how its learning and use can be optimised for all European citizens, especially schoolchildren and working adults. The Action will build bridges between European countries and researchers, enhancing research and disseminating recommendations throughout European society."

More specifically, the Action will (i) bring together researchers from different European countries, tackle the question of writing from a Europe-specific perspective (L1/L2, teaching methods, cultural dimensions) and stimulate the network by training junior researchers, and (ii) bridge the gap between academia and society by taking societal needs into account, and link researchers and practitioners via the provision of practical recommendations.

C.2 Secondary objectives

1) Building bridges between European countries and researchers, enhancing research:

- bringing together multi-disciplinary and inter-country teams to focus on 4 areas of research;
- building a European dimension into research projects: L1/L2 language learning, the diversity of teaching methods, different uses and meanings of writing, and research methods (e.g. digital writing tools);
- guaranteeing the scientific quality of the network by involving internationally-renowned experts in its work and assessment procedures;
- facilitating research visits to foreign laboratories (approximately 25 annual visits);
- raising the level of communication about writing in Europe and enhancing the dissemination of knowledge;
- increasing the number and standard of the network's international publications (articles in academic journals listed in the Journal of Citations Reports);
- increasing the number of collaborative publications (25% of publications authored jointly across countries and laboratories);
- building a comprehensive network encompassing the whole of Europe and involving as many European countries as possible (15 or 16 countries at the start of the Action, 25 by the end of Year 4);
- encouraging the membership of countries wishing to develop research on writing, notably in Southern and Eastern Europe;
- ensuring the long-term activity of the research network by training junior researchers in the use of innovative methods, project management and the establishment of collaborative activities (30% of all Conference and Workshop participants will be junior researchers, while in Summer Schools, they will be in the majority).

2) Bridging the gap between academia and society:

- taking account of societal needs in terms of written communication;
- increasing the number of publications that give rise to practical applications and are made accessible to wider audiences;
- increasing the number of scientific articles aimed at the general public;
- linking researchers and research beneficiaries (professionals, practitioners and citizens);

- making beneficiaries aware of the fact that research on writing is actively taking place in Europe, that it is not beyond their grasp and that it can bring significant benefits;
- publishing findings and recommendations on how to write effectively.

C.3 How will the objectives be achieved?

The COST Action will unite research teams which are already funded by their own countries but have no specific funding to support the building of a European community. It will therefore be of invaluable assistance in furthering collaboration between countries, laboratories and researchers.

Achieving the first main objective ("Building bridges between European countries and researchers, enhancing research") and its secondary objectives will require the creation of a coherent and structured system, guaranteeing researchers:
- collaborative work sessions (working meetings, laboratory placements);
- assistance in publicising their findings, in terms of communication (conferences, workshops), publications (books, translations) and training (summer school for junior researchers);
- greater opportunities for mobility (short-term stays);
- a remote working environment enabling them to centralise the data they collect, pool their resources (bibliographies, methodologies) and engage in remote writing;
- greater access to training for young scientists (summer school, placements).

Achieving the second main objective ("Bridging the gap between academia and society") and its secondary objectives will require:
- regular interaction between researchers and professionals/practitioners (at least 10% of participants at each scientific event will be professionals and practitioners, such as primary and secondary school teachers, college lecturers and/or professional writers, Website designers, etc.);
- the creation and maintenance of a Website presenting the network's findings and recommendations;
- regular communication to research recipients across Europe of information, findings and recommendations at European level (Internet, flyers, posters, CD-ROMs, DVDs, books, broadcasts).

Manpower will be required to undertake duties in the following areas:
- scientific (network management, project management);
- logistical (scientific secretary, Webmaster, organization of meetings and exchanges);
- editorial (analysis of findings, drafting and distribution of recommendations);

Funding will be needed to cover:
- scientific meetings and events;
- assistance with publications (proofreading, editing, translation);
- laboratory placements;
- invitations to international experts;
- large-scale dissemination of information and recommendations.

C.4 Benefits of the Action

At a scientific level:
- bringing down the national and linguistic barriers between researchers, laying the foundations for a platform promoting the mobility and exchange of graduate students and researchers;
- involving less developed countries in research on writing, thus enabling them to catch up with

research and best practice;
- bringing about major changes in our understanding of a highly complex human activity, with greater involvement and input from psychologists, linguistics experts (philology) and educationalists. This will avoid different disciplines duplicating costs by conducting "parallel" research, due to insufficient knowledge or application of outcomes, literature, etc.;
- standardising the technology used to study writing, in order to develop more consistent methodologies throughout Europe;
- centralising data collected from different countries in different languages, allowing European researchers to make comparative and/or translinguistic analyses, i.e. creating a multilingual database for researchers across Europe (possible cooperation with the DAM-LR and CLARIN European projects);
- training a new generation of researchers in current research approaches and techniques. The COST Action will represent the first step towards a truly international qualification for doctoral and postdoctoral students (closely comparable qualification levels across different European countries);
- raising the international profile of European research and reinforcing Europe's role in international research on writing;
- encouraging researchers to embark on new European initiatives, such as FP7.

At a societal level:
- bringing benefits in other fields, such as literacy (by linking writing and reading research) and professional writing (Website design, journalism, etc.);
- establishing links between academics and professionals, to provide better writing-related information for groups outside the COST Action, e.g. writing teachers in schools and universities, professional writers, etc. This will lead to the adoption of better - and better-informed - teaching approaches by practitioners in all application areas;
- producing position papers for education and the workplace, providing information about European education and training programmes, and the design of digital writing tools;
- drafting recommendations for European policies in education (ordinary/disabled students) and training (occupational), in accordance with country-specific linguistic and cultural characteristics, to bring about greater equity;
- contributing to European standards for written communication (writing), profiency levels (end of primary school, compulsory education, different levels of secondary school) and European attainment goals in L1 and L2;
- developing a training programme for lecturers in education (train the trainer modules);
- making resources available for professionals and practitioners (Website, CDs, DVDs);
- gaining a better understanding of how research in the social and human sciences impacts on citizens' lives, and how citizens can access, participate in, and make use of this research.

C.5 Target groups/end users

The purpose of the COST Action will be to provide resources and produce recommendations for the fields of writing, rhetoric and communication (digital, visual, multimedia), in all academic, business, government and public contexts:
- in their capacity as end-users, researchers may represent many different disciplines, including rhetoric, linguistics and applied linguistics, communication studies, cognitive psychology, education, translation studies, new media studies, Internet studies and literacy studies;
- end-users other than researchers may be professionals, students and citizens. Professionals will include the teachers of academic writing, language teachers in schools, doctoral and postdoctoral students in writing-related research areas, politicians in charge of implementing language use and vocational skills programmes, national administrations (European attainment goals), corporate training managers and all categories of professional writers.

D. SCIENTIFIC PROGRAMME - Maximum 3-4 pages – up to 3000 words

D.1 Scientific focus

The Action's research and innovation effort will focus on four areas.

Area 1: Early acquisition of writing skills (education): describing the acquisition of writing by pupils with or without learning difficulties in their mother tongue (L1) and a second language (L2); understanding learning difficulties; analysing the impact of teaching situations.

The main objective here will be to understand the acquisition and development of the linguistic units involved in written production (at infra-lexical, syntactical and textual levels). Tasks will consist in copying words or phrases, producing texts based on pictures, writing to dictation and producing unrestricted oral or written productions. Emphasis will be on interlingual comparisons and the subjects will be children with or without learning difficulties.

Programme 1.1. Spelling acquisition

- *Infralexical level*. Orthographic representations have an internal structure made up of infra-lexical units (graphemic, syllabic, morphological) which can hamper children's acquisition of writing skills (Pacton, Perruchet, Fayol & Cleeremans, 2001). The role of these units is largely determined by the orthographic characteristics of each language. Real-time analyses of written word production (latency and time course) will be used to confirm the role of graphosyllables (organisation based on graphemes - Kandel et al., 2006) and specify their characteristics in French and Spanish. The study will subsequently be extended to other languages.
- *Lexical level.* One of the questions asked in studies of lexical organisation is whether the orthographic lexicons for reading input and writing output are one and the same, or whether they can be dissociated. Experiments using the Eye and Pen device have already provided an argument in favour of this dissociation in French (Lambert & Alamargot, 2006). When adults were asked to copy out isolated words, the duration of gaze fixations on the target words depended on their orthographic frequency and regularity, unlike that of fixations on words during written text production, suggesting a possible lexical input/output dissociation. The objective will be (i) to confirm this finding in children and (ii) to extend this research to languages (Swedish for instance), which are characterised by greater phoneme to grapheme consistency (regularity).
- *Morphosyntatical level*. Current models of writing skill acquisition, especially connectionist ones, attach considerable importance to so-called *written exposure*. They suggest that the development of children's lexical systems is reflected in their ability to implicitly extract *statistical regularities* from their linguistic environment. In French, heterograph homophones, such as the endings of past participles (Lété, in press), provide an interesting example of a dissociation between orthographic and phonological forms that children have to master. For example, in the case of the opposition between the endings "*é*" and "*er*", some children display a preference for one form over another. If these preferences are indeed induced by exposure frequencies, one would expect the forms provoking the most errors to be those that are most frequently encountered in a different context, such as the corpus of texts written for children. This research will be extended to other languages featuring heterograph homophones.

Programme 1.2. Difficulties in writing and their impact on composition

Mastering graphomotor and spelling skills is a precondition for developing text production (Connelly, Dockrell, & Barnett, 2005; Graham, 1999; Graham & Harris, 1997). The aim of this

operation will be to examine the ways in which children's early language and/or literacy difficulties impact on the production of written texts. The latter will be considered in terms of the ideas generated by children and their use of the rules of written language (punctuation and spelling). These data have the potential to inform evidence-based interventions**.** Different types of impairments and difficulties in children will be investigated and compared, in a variety of languages. For instance, children with language impairment, congenital deafness or unilateral perinatal strokes will be compared with their typically developing peers. Tracing the development of writing in these different populations will lead to a better understanding of how the writing process can develop using compensatory strategies that are obscured in typical development.

Programme 1.3. Text genre acquisition

The aim here will be to find out how text genres (narrative, expository, etc.) emerge from oral language and take on a social connotation. Investigations based on spoken and written language comparisons will be carried out in languages with different conventions, such as Icelandic, French, Israeli Hebrew and English. Children, teenagers and adults will be asked to produce narrative and expository discourses, in both written and spoken modalities. Analyses of spelling, lexicon, cohesion, syntactic packaging, discourse structure, pauses and revisions will help to explain the emergence of these different genres and their relationships with linguistic conventions and social cognition.

Area 2: Improvements in written communication (education and workplace): describing the development of different writing skills in two languages; understanding the factors favouring the development of expertise; comparing and designing specific and appropriate training situations.

In the European context, students must learn their national language and the European lingua franca, i.e. Global English, for the purposes of international communication and study. This raises two questions: (i) Can relationships between L1 and L2 inform the design of effective learning environments to foster L2 writing processes? (ii) Are text genres the same in every country and if so, are teaching methods transferable?

Programme 2.1. Improving writing in L1 and L2

The aim will be to identify the conditions for successful transfers between L1 and L2 writing strategies, and to test the effects of learning environments on the quality of writing.
- *Transfers between L1 and L2 writing strategies*: Cross-national studies will be conducted to analyse the relationship between L1 and L2 writing processes, and their impact on the resulting text quality, by observing these processes online, using various research tools such as Inputlog (Van Waes, Leijten, & Neuwirth, 2006) and think-aloud protocols (Rijlaarsdam & Van den Bergh, 2006). Data will be collected from L1 students (French, Dutch, Flemish) writing in L1 and L2. The resulting texts and recordings will be analysed according to statistical procedures (multilevel analyses, growth models).
- *Testing the effect of learning environments*: A selection of the videotapes and think-aloud protocols will be used to help students learn to write effectively in L2, through observing and comparing other writers at work (Raedts et al., 2006). Students will be able to see and hear 'models' undertaking reading, planning, formulation and revision phases. The text that is studied will be an expository text, i.e. an important genre for research and business communication. Performances (recorded via Inputlog) will be compared with those of students receiving traditional instruction.
- *In an extension of this research*, other learning situations will be tested on the same principles, but with other participants and in other contexts, notably "peer learning" in occupational training and continuing education (Björk, Bräuer, Rienecker & Jörgensen, 2003) and "cognitive self-regulation instruction" (CSRI) applied to the development of writing instruction (Torrance, Fidalgo & Garcia,

2007).

Programme 2.2. Comparative analysis of genres and genre teaching methods

- *Comparisons of genres and genre teaching practices.* The aim will be to analyse the differences between prevailing academic genres in different European countries (e.g. variations in their structure, language, style, etc.) and consequent variations in teaching methods (Harbord, 1992). For instance, précis writing is practised in every country (school and workplace). Nevertheless, the wide range of functions attributed to it and the diversity of linguistic and cultural contexts in which it is practised mean that the term "précis" actually has many different definitions. The objectives will be (i) to define the different genres in different educational, social and cultural contexts, in order to achieve standard definitions and allow international comparisons (i.e. PISA: Programme for International Student Assessment) and (ii) to characterize and map the tools used to teach these genres, and provide pointers to harmonising practices throughout Europe, all the while respecting national diversity (Foster & Russell, 2003).
- *Permeability of genres between L1 and L2*: The aim is to find out how learning and mastering a genre in L2 can feed back into written production in L1 (inter-language and intercultural permeability). For example, writing skills in Romanian can be influenced by the development of critical thinking and the study of argumentative techniques in French (How can typical FLE (French as a foreign language) exercises such as "Précis writing", "Discussion" and "Essay writing" help to enhance writing skills in Romanian?). Similar investigations might include the impact of the English-language "report" genre. This research will generate a set of recommendations for the training of professional writers, translators at European level and juniors researchers undertaking international publications (Gata, 2006).

Area 3: Design of written documents (workplace): describing how professional writers manage their skills and knowledge ; improving documents' communicative impact; modelling expertise.

The chief distinguishing features of professional writing are its diversity (instructions, procedures, technical literature, administrative files, correspondence, memos, daybooks, forms, etc.) and the variety of media used (paper documents, electronic files, etc.). It involves at least one writer and one or more readers, who may be users, clients, correspondents or colleagues. The intended recipients may be professionals or, in the case of administrative documents, members of the public. In any event, it is crucial for both the organisation and the user that this information be efficiently communicated (Alamargot, Terrier & Cellier, 2005, 2007).
During the last thirty years or so, several studies have been conducted in cognitive psychology, psycholinguistics and ergonomics, in a bid to identify the cognitive processes involved in the processing of procedural instructions (computer documentation, online assistance, assembly tasks, etc.). These studies have led to a better understanding of these kinds of processes, differentiating them from those used to produce other kinds of text, including narrative (novels, reports, etc.) and didactic ones (textbooks, encyclopaedias, etc.). They have allowed the development of models describing the processes and interactive mechanisms between actions and instructions (Dixon, Harrison & Taylor, 1993; Ganier, Gombert & Fayol, 2000; Guthrie, Bennett & Weber, 1991; Kieras & Bovair, 1986; Wright, 1999; Wright & Wilcox, 1978).
Accordingly, the main goal of the two programmes in Area 3 will be to enhance the design and quality of procedural documents by (i) studying their production and reception, and (ii) producing recommendations based on their findings. A software tool helping professionnal writers to assess the quality and usability of procedural documents will be designed.

Programme 3.1. How the impact of text design on the user can provide insight for the writer

Assessing the quality of technical documents from the user's perspective makes it possible to identify the sources of problems and design suitable recommendations for technical writers (drafting, revising and improving technical documents). Two mains operations will be conducted:
- *Studying, via eye-tracking the effect of poorly-designed instructions* on the indexing process (Glenberg & Robertson, 1999, 2000), when the information given in the instruction leaflet does not match the information displayed on the device itself (e.g. some of the instructions may be in French or Spanish in the text, but in English on the device);
- *Studying the impact of text design on decision-making* in the health field, where digital documents explain the risks and benefits of alternative courses of action so that readers can weigh up the pros and cons of the different options. Critical document design features may vary according to their purpose and the characteristics of their intended readers, e.g. reading fluency in L1, whether reading in L1 or L2, and whether readers are senior adults (Wright, 2001).

Program 3.2. : Professional writers' strategies

In order to design a suitable document, writers need to develop adequate compositional strategies. This programme will seek to describe and compare writing processes implemented by professional and future professional writers (in particular, experienced journalists vs. student journalists). The production of a representative set of professional texts will be studied using the "Eye and Pen" and "Input-Log" devices. Analysing the way visual information is absorbed in the working environment (O'Hara, Taylor, Newman & Sellen, 2002) will make it possible to take stock of all the cognitive strategies used by experienced professionals and trainees.

Area 4: Technological advances in writing tools (cross-disciplinary): developing and standardising technological tools for studying and fostering the writing process; developing a database.

The use of computers as writing instruments has not only had a profound effect on writing practice, but has also opened up new possibilities for writing research. Four digital writing tools, developed in Europe within the last 5 years, will be used to conduct an extremely fine-grained study of the time course of writing processes. These tools will combine eye movement recordings (eye-tracker) with recordings of (i) handwriting using the "Eye and Pen" digitising tablet (Alamargot, Chesnet, Dansac & Ros, 2006; www.eyeandpen.org), (ii) typewriting using "EyeWrite" (Simpson & Torrance, 2006) and "ScriptLog" keylogging (Stromkvist et al., 2006; www.scriptlog.net), and (iii) typewriting and dictation/voice recognition using "InputLog" (van Waes & Leitjen, 2006; www.webh01.ua.ac.be/mleijten/inputlog/).
This is a cross-disciplinary area. The purpose of the research programmes conducted here will be to enhance these tools and validate their indicators in ordinary young and adult writers. It is anticipated that these studies will focus on professional writers and advanced students (Areas 2 and 3), as well as on beginners and/or disabled writers (Area 1).

Programme 4.1. Eye movements during writing: reading as a writing subprocess

Very little is known about eye movements during writing and notably the interplay of the processes of reading from sources and reading an emergent text. The aim of this programme will be to identify the characteristics of eye movements while writing. Young developing writers (primary and secondary schoolchildren) will be compared with more experienced writers (advanced students, experts such as authors and professional writers). Data will be collected and analysed by means of the Eye and Pen (for handwriting), ScriptLog and EyeWrite (for typewriting) devices. Various tasks involving reading while writing will be administered to assess the impact of (i) the structure of the information in the source texts (presence or absence of subtitles; Hyönä & Lorch, 2004) and the presence of pictures in the sources (Holmqvist et al., 2006; Holsanova, 2001), (ii) the text production goal (copying or summarising the source; Alamargot & Quinlan, 2005), (iii) the writers'

memory capacities (determining the exploration of the sources; Alamargot, Dansac, Chesnet, & Fayol, 2006; Hyönä, Lorch, & Kaakinen, 2002) and (iv) the writer's production strategies (using a plan reduces rereading of the ongoing text, whereas creative writing increases it (i.e. planning vs. constituting strategy - Galbraith, 1996, 1999).

Programme 4.2. Impact of digital technology on writing and the learning of writing skills.

- *Comparing handwriting and typewriting*: Handwriting and typewriting are two different manners of writing and learning to write, with contrasting uses in different countries. The aim of this project will be to understand how the low-level processes involved in each writing mode differ and can impact on higher-level activity such as spelling and induce variations in working memory demands. In handwriting, monitoring the trace can be spatially merged with controlling execution (the eye follows the pen). In typewriting, however, monitoring (on the screen) is dissociated from controlling execution (on the keyboard). In order to compare these two situations and assess the consequences for writing quality and the course of the writing process, participants will be asked to write under dictation or to copy out a series of geometric symbols, numerals, arbitrary letters, words, sentences and texts, with and without a concurrent task increasing the load on the various components of working memory (Grabowski, Blabusch & Lorenz, 2006, 2007). The eye movements recorded using Eye and Pen and ScriptLog software will be processed using data-mining analyses in order to identify and formalise specific patterns. A comparison with dictation as input will be considered (InputLog).
- *Observing one's own activity via digital recordings*: Previous research has demonstrated the effectiveness of observational learning of the writing process (Rijlaarsdam, Braaksma, Couzijn et al., 2005). The aim of this project will be to provide feedback to writers about their writing process by allowing them to watch and think about online recordings of their writing processes (i.e. observing and thinking about their pauses, eye-movement activity, etc.). This retrospective analysis, based on extremely fine-grained feedback, should enhance the meta-analysis of their own activity by showing highly proceduralised behaviour. Instructional software will subsequently be developed, based on this approach.

Programme 4.3. Data standardisation

At the present time, each digital writing tool uses its own formats and data analysis modes. For this reason, it is important to standardise the data that is gathered (XML format, introduction of standards) so that recordings can be compared and processed using a common tool. This technical and methodological harmonisation will foster the development of such tools and stimulate further analytic challenges.

D.2 Scientific work plan – methods and means

Four Working Groups (WGs) will each take charge of one area. The research programmes will be completed within 4 years. In between the meetings, workshops and conferences, the WGs will work remotely, via the Website.
The missions of each WG will include:
- leading the programmes and projects so that concrete outcomes be discussed each year at the WG's meeting and formally presented during the Workshops: data, analyses, preliminary findings, findings, recommendations;
- structuring the programmes in such a way that new researchers and/or countries can join them and enhance their development. This is entirely feasible, given the openings that have deliberately been built into each project: inter-language comparisons, comparisons of teaching methods and genres, investigations involving writers of different ages and with different levels of expertise. The aim will

be to extend observations right across Europe, all the while keeping scientific questions to the fore;
- encouraging the active participation of junior researchers;
- facilitating the mobility of researchers;
- disseminating research findings at the very highest scientific level (international communication and publications in journals indexed in the Journal of Citation Reports);
- drafting recommendations based on the findings;
- sharing all the data that is collected (database on the Website) and all useful documents (references, bibliographies, manuals, etc.);
- inviting and working with COST's international experts, either at an individual level or at the level of the associations.

E. ORGANISATION - Maximum 2 pages – up to 1500 words

E.1 Coordination and organisation

The Action will be coordinated by a Management Committee, with Working Groups overseeing activities in the 4 areas set out in the scientific programme. Led by the MC Chair, a Steering Group will be set up to optimise follow-up, coordination and management (Figure 1).

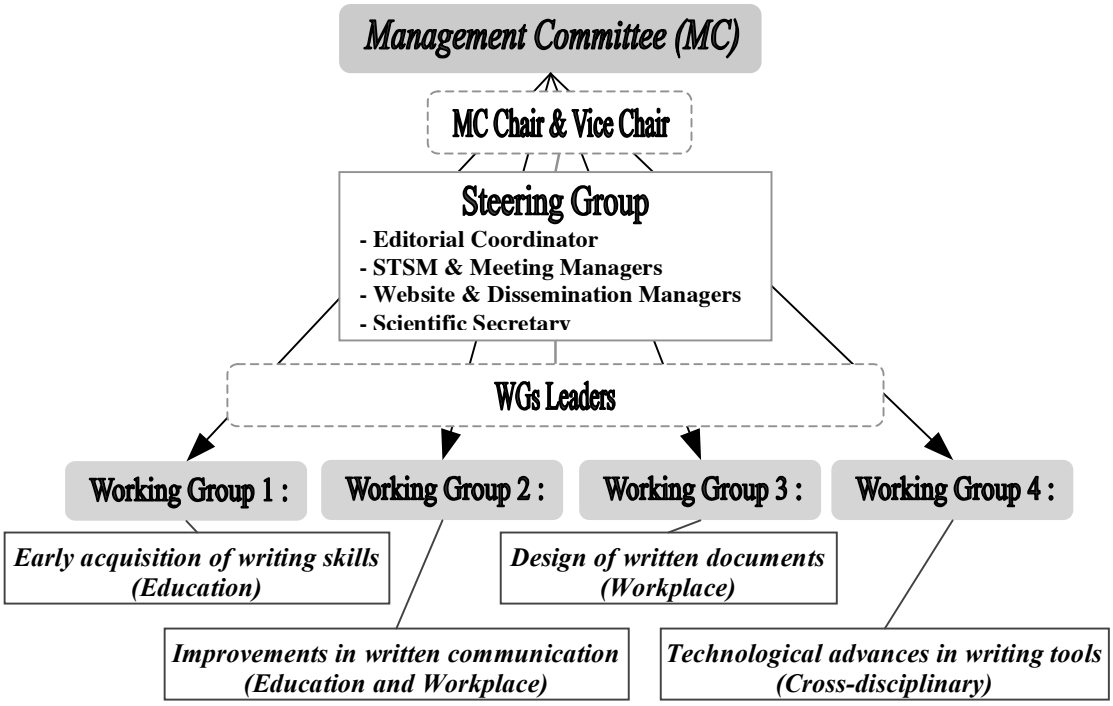

Figure 1: COST Action organisational structure

The **Management Committee (MC)** will be set up in accordance with COST Guidelines (Chapter VII of doc. 299/06 "*Rules and Procedures for Implementing COST Actions*"). In addition to its normal prerogatives, it will produce a roadmap defining the Steering Group's role and missions.
The **Steering Group (SG)** will comprise the Management Committee Chair and Deputy Chair, together with the Working Group Leaders and their assistants. An Editorial Coordinator and a Scientific Secretary will be appointed among the SG's members, together with managers responsible for STSMs (short-term scientific missions), Meetings, Websites and Dissemination, who will regularly submit reports on these activities to the MC.
The SG's missions will include:
- implementing the MC's policy decisions;
- organising and coordinating COST Action events (STSMs, meetings, workshops, conferences) disseminating research findings and managing the Website.
The SG's managers and Scientific Secretary will liaise with the MC and the Working Groups (WGs).

Research projects will be coordinated during the COST events. These will provide prime opportunities for analysing and publicising ongoing research and potential spin-offs. Networking will take place in two stages. In Year 1, the emphasis will be on linking up multidisciplinary teams and laboratories specialising in writing throughout Europe. This will enable us to exploit research already underway within national boundaries. The next three years will see the development of concerted action, especially in EU states where writing research is under-represented (S. and E. Europe).

Experiments will be planned, results discussed and recommendations drafted during the Action's meetings, notably those of the WGs. The latter will allow researchers from different countries to derive practical benefits from sharing experimental results and data, such as the creation of new research topics and inter-country partnerships. The work produced by the WGs will be used in the Workshops, where it will be communicated to the international scientific community and interested professionals. WG researchers will also support the Summer Schools, passing on their specialist knowledge and techniques to junior colleagues. Lastly, the STSMs will enable researchers to undertake advanced training and strengthen partnerships. The STSMs' scientific resources will be pooled during regular STSM meetings. The final conference will provide an opportunity to communicate all the findings of research conducted within the COST Action framework, not only to the scientific community but also to professionals and citizens. International experts will be invited to take part in these events as chairpersons, speakers and reviewers, in order to assess the standard of the COST Action's work and anchor it in the scientific community. These events will be staged in different countries in order to strengthen the construction of the European network.
Milestone events will include:
- Founding conference (start of Year 1);
- European Summer School providing theoretical and methodological training (Years 2-4);
- Workshops for presenting and discussing results (end of Years 1-3);
- Annual meeting of each Working Group, to plan experiments and analyse results;
- Short-term scientific mission meetings (Years 2-4);
- Final conference (start of year 5).

Throughout this time, the network will pursue its collaborative projects, publishing all its findings, innovations and applications on the Website. The latter will give the Action a high profile, making it more dynamic and optimising dissemination to experts, professionals, politicians, public-funding authorities and citizens. Password protection will allow COST Action members and partners to share confidential data, while there will be unrestricted public access to more general information.
The Website will be launched at the start of the Action, with regular updates. Its popularity with researchers and the general public will be measured in terms of the hit rates for each page. If necessary, the Website's structure will be modified to enhance usability and it will be registered with appropriate portals in order to increase traffic flow from other relevant Websites.
The purpose of the unrestricted access section will be to give the project maximum visibility and reach as wide an audience as possible (foreign researchers, laypeople). It will feature regularly-updated information, documents and deliverables in a variety of media, plus links to other relevant networks, sites and programmes and a mailing list of participants. Uses may include informing visitors about the publication of position papers for education and the workplace, providing information about European education and training programmes, and discussing digital writing tools.
In the password-protected section, there will be a collaboration platform (mailing network, chat rooms and blogs), giving WG members an interactive space where they can:
- create an online multilingual database for researchers across Europe – a crucial feature of the COST Action;
- communicate within and between WGs, and respond rapidly to invitations to tender or calls for papers;
- keep track of the Action's progress;
- publicise useful information (e.g. calendar of events);
- publish progress reports, minutes of meetings, reports by STSM researchers, guidelines, proceedings, manuals, etc.;
- publish researchers' CVs and pre-publication research.
The Website Manager, assisted by the Scientific Secretary, will update the Website and coordinate its content (after validation and in accordance with the editorial line decided by the MC).

E.2 Working Groups

The Action's scientific work will be organised by 4 Working Groups (WGs), each focusing on one key area of European writing research.

WG1: Early acquisition of writing skills (education)
WG2: Improvements in written communication (education and workplace)
WG3: Design of written documents (workplace)
WG4: Technological advances in writing tools (cross-disciplinary)

Each WG will be managed by a Leader and Deputy Leader (both SG members). The WGs will pave the way for the Workshops and their scientific advances will be utilised by the Summer Schools and by researchers undertaking STSMs (in laboratories and at WG meetings). The WG meetings will be an opportunity to present research findings and plan for the future. Between meetings, the Website, and more particularly the collaboration platform (restricted access), will be used. After each meeting, the Website's open-access section will be updated, publishing the WGs' scientific findings and practical recommendations.

The structures of the Working Group will be as flexible as possible, in order to enable other countries to join the Action. Researchers can belong to two WGs (one WG must have priority).

E.3 Liaison and interaction with other research programmes

Every effort will be made to find partners for the Action's events. For example, a Summer School could be jointly organised with EARLI (European Association for Research in Learning and Instruction) which recently launched an invitation to tender for a European Summer School. This type of partnership would afford access to a wider audience, including participants from countries which are not COST members. At a scientific level, this would enable research on writing to broaden its scope of investigation (e.g. literacy, education in Europe, etc.). Similarly, COST conferences could be organised in collaboration with the ESF programme, with an international call for papers allowing COST Action partners to exchange ideas with colleagues from all over the world. These concerted actions and partnerships, furthering an open-door policy, would enhance the COST Action's standing and, in the longer term, lay the foundations of a project eligible for FP7 and thus contribute to the building of the European Research Space. The partnership with the Canadian Network for Interdisciplinary Research on Rhetoric and Writing will raise the European network's international status.

E.4 Gender balance and involvement of early-stage researchers

"This COST Action will respect an appropriate gender balance in all its activities and the Management Committee will place this as a standard item on all its MC agendas. The Action will also be committed to considerably involve early-stage researchers. This item will also be placed as a standard item on all MC agendas."

Gender balance and the involvement of early-stage researchers will be respected at all levels. The positions of Chair, Deputy Chair, Leaders, Deputy Leaders and Steering Manager will be divided equally between men and women (full & deputy responsibilities and/or the different WGs). Concerning recruitment, constant efforts will be made to achieve gender balance (39% of the people

who have applied for COST membership are women). The Action will encourage the involvement of young scientists (undergraduates, PhD and postdoctoral students), systematically reserving at least 60% of places for them in summer schools, 30% in workshops and 30% in conferences. To enhance their training, all 3-month STSMs will be reserved for them, with experienced researchers benefiting from the one-month STSMs. In all, two-thirds of STSMs will be dedicated to junior scientists, while the STSM meetings will be open to PhD and postdoctoral students who have not necessarily benefited from STSMs. Gender balance will be the ultimate criterion for accepting STSM applications.
Concerning responsibilities, the WG Deputy Leaders will be elected among the young scientists, so that they can learn management skills under the supervision of a senior colleague.

F. TIMESCALE - Maximum 1⁄2 page – up to 500 words

The Action will take place over four years. The calendar of events and meetings will be as follows:

YEARS	Year 1				Year 2				Year 3				Year 4				
Months	1-3	3-6	6-9	9-12	1-3	3-6	6-9	9-12	1-3	3-6	6-9	9-12	1-3	3-6	6-9	9-12	1-3
Founding conference	X																
MC meeting			X				X				X				X		
SG meeting			X				X				X				X		
WG meeting			X				X				X				X		
Workshop				X								X					
STSM				X		X		X		X		X		X		X	
STSM meeting							X								X		
Summer school							X								X		
Report				X				X				X				X	
Assessment				X				X				X				X	
Dissemination	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Website	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Closing conference																	X

Table 1 : Calendar of events

The Action will begin and end with a conference. For logistical reasons, events attended mainly by same researchers will be geographically and chronologically close (e.g. the Management Committee meetings, the Steering Group meetings and the Working Group meetings). In Year 1, we will spend the 6 to 9-month period taking stock of the first six months of operation, and will also use this time to plan the workshop and the STSM meeting that will be held in the following quarter. This pattern will be repeated each year, in order to ensure that the network remains a vibrant and dynamic structure. As the STSM meetings and the Summer Schools will share a training dimension they, too, will be held close together. We have chosen to work on a two-year cycle in order to ensure that these events are fully sustained by the network's activities. The drafting of the reports and assessments has deliberately been programmed to coincide with the Workshops and STSMs, in order to take full advantage of the appraisals performed in the wake of these two events. These reports and assessments will cover the operation of the Working Groups and, if relevant, the Summer School and STSM meeting held that year). The results of the research undertaken by the network will be disseminated on a continuous basis, overseen by the Steering Group's Dissemination Manager. The Website will come online at the very start of the Action and will be regularly updated throughout the Action's duration.

G. ECONOMIC DIMENSION - Maximum 1⁄2 page – up to 500 words

The following COST countries have actively participated in the preparation of the Action or otherwise indicated their interest: Belgium, Finland, France, Germany, Greece, Hungary, Iceland, Italy, The Netherlands, Norway, Portugal, Romania, Spain, Sweden, Switzerland, Turkey, United Kingdom, Israël.
On the basis of national estimates, the economic dimension of the activities to be carried out under the Action has been estimated at 20 Millions € for the total duration of the Action.
This estimate is valid under the assumption that all the countries mentioned above but no other countries will participate in the Action. Any departure from this will change the total cost accordingly."

Nota : Two non-COST countries, with participating Institutions, are Canada (3 experts) and USA (16 experts).

Details :

Researchers : 18 countries (including Israel as cooperating state) x 10 persons-year per countries (average) x 100 000 = 18 millions €
Equipment : Apparatus (eyetracking systems, digitazing tablets, computers of experimentation, video recorders), Softwares (digital tools : InputLog, Eye and Pen, ScriptLog ; statistical software, database software), Infrastructure (laboratories charges) = 2 millions €

Estimated total : 20 millions €

H. DISSEMINATION PLAN - Maximum 2 pages – up to 1500 words

H.1 Who?

Five major target audiences will be kept informed of the Action's progress:

1) Scientific communities (findings)
Researchers studying written communication in particular, and education, psychology, linguistics, sociology and literature in general, will regularly be kept informed of the Action's findings, as will their respective scientific associations, including EARLI (European Association for Learning and Instruction, www.earli.org), ESCOP (European Society for Cognitive Psychology, www.escop.org), APA (American Psychological Association, www.apa.org), ASL (Association des Sciences du Langage, www.assoc-asl.net), SFP (Société Française de Psychologie, www.sfpsy.org/), ESC (European Science Communication network - FP6, www.esconet.org), BAAL (British Association for Applied Linguistics, www.baal.org.uk) and BCLA (British Comparative Literature Association, www.bcla.org/index.htm).

2) Teachers, educators and applied scientists (findings and recommendations)
The main findings and recommendations will be communicated to:
- primary and secondary school teachers throughout Europe;
- local schools inspectorates in every country;
- universities worldwide, notably teaching training departments;
- Writing Centres worldwide (for Website links: http://writingcenters.org);
- writing teachers (EATAW: European Association for the Teaching of Academic Writing; www.eataw.org; AIRDF: International Association for Reseach in French Didactics (www.mercure.fltr.ucl.ac.be/airdf/),
- teachers' associations (e.g. Association of Teachers of Technical Writing, cms.english.ttu.edu/attw; International Association of Teachers of English as a Foreign Language, www.iatefl.org);
- associations for applied psychology (International Association for Applied Psychology, www.iaapsy.org) and ergonomics (International Ergonomists' Association, www.iea.cc);
- associations of speech therapists and logopedists (Standing Liaison Committee of Speech and Language Therapists / Logopedists in the European Union, www.cplol.org), *etc.*

3) Professional writers (recommendations)
A great many businesses and consultancies are involved in technical or corporate communication. The following is a non-exhaustive list:
AFCI (Association Française de Communication Interne, www.afci.asso.fr/);
CRT (Conseil des Rédacteurs Techniques, www.chez.com/crt/);
TCEurope (Technical Communication Europe, www.tceurope.org);
IABC (International Association of Business Communicators, www.iabc.com);
STC (Society for Technical Communication, www.stc.org/; www.stcfrance.org);
ISWA (International Science Writers' Association, www.internationalsciencewriters.org); IEEE (Professional Communication Society, www.ieeepcs.org).
Additional links can be found on the following sites:
<http://www.chez.com/crt/ressources/liens_asso_fr.htm>
<http://www.synergistech.com/comms-orgs.shtml>
<http://www.prc.dk/user-friendly-manuals/ufm/twr-org.htm>
<http://www.klariti.com/writing-organisation-society/Professional-Writing-Organisations-

International-Organizations.shtml>, *etc*.

4) Institutions and Society (recommendations)
Administrations (especially the writers of government forms), policymakers, decisionmakers (at regional, national and European level, school curricula), European policies in education (ordinary/disabled students) and training (occupational), the European Commission, the European Council, notably the European Centre for Modern Languages (www.ecml.at), governments, politicians and public funding authorities, *etc*.

5) European citizens (recommendations)
Parents, GPs, workers, job seekers, professionals undergoing vocational retraining.

H.2 What?

The dissemination of information, findings and recommendations produced by the COST Action will be tailored to each of these 5 audience categories. General information will be posted on the Website, while more specific information will be targeted at individual groups.

1) For scientific communities
- articles in peer-reviewed scientific and technical journals,
- mailing list (summaries of the Action's main findings, scientific events), i.e. via their laboratories and/or respective associations,
- subscriptions to a newsletter via the Website (detailed presentations of findings, scientific events),
- password-protected section of the Website (state-of-the art reports, interim reports, case studies, proceedings, guidelines, manuals, final reports and technical information mainly concerning the digital writing tools used and developed during the Action – user manuals, tutorials, etc.) and access to the multilingual database,
- scientific events: workshops, seminars and conferences organised by the MC, and participation in other national and international conferences and symposia,
- publication of scientific works summarizing the Action's findings in each of the four areas,
- posting of the final assessment reports.

2) For teachers, educators and applied scientists, 3) For professional writers, and 4) For institutions and society
- flyers and brochures explaining the Action and its potential applications,
- distribution of free CD-ROMs and DVDs featuring documents and other resources emanating from each of the four research areas (manuals, videos, texts, demo versions of the digital writing tools),
- invitations via mailing lists and e-mail networks to summer schools, workshops and conferences,
- access on the Website to non-technical publications and recommendations,
- documents for downloading which explain the practical uses of digital writing tools, give examples of adapted teaching sequences and list recommendations stemming directly from the Action's research (how to enhance the acquisition and use of writing skills),
- practical guidebooks based on research in each of the four areas,
- posting of the final assessment reports.

5) For European citizens
- Television, radio and newspaper interviews,
- posters in public places (e.g. town halls, post offices and hospitals) highlighting the importance of writing skills in today's society,
- press releases and news items posted on popular Websites,

- publications in the European research magazine RTD Info (Years 3 and 4 of the Action) and a range of other media, such as CORDIS Wire, AthenaWeb and Research TV.
- discussion forums and FAQs in the public-access section of the COST Action's Website.

H.3 How?

Information relating to the COST Action will be continuously disseminated throughout the 4-year duration. The nature of this information will, of course, change as the research projects near completion and will keep step with the calendar of events. The reports on all the Action's different activities will be systematically posted on the COST network, thereby ensuring a high level of visibility. The advances reported at the scientific meetings, conferences and summer schools will give rise to proceedings-style joint publications. The results of the workshops will primarily give rise to articles in peer-reviewed journals. The volume of recommendations aimed at professionals will increase as the COST Action's work advances, while information will be regularly provided to the general public, thereby helping to raise awareness of the importance of writing effectively and the amount of research that is currently being undertaken in this field in Europe. The dissemination plan will be updated after each evaluation and in line with the MC's recommendations, especially at the end of Year 3, in order to optimise the dissemination of information. All publications and documents will be archived in an appropriate e-print repository of the COST office.

HISTORY OF THE PROPOSAL

Project history

This COST Action marks the culmination of a drive to structure multidisciplinary research on written production that was initiated a decade ago by the CNRS and Poitiers University (France). This process has consistently received the backing of researchers in other European countries, members of EARLI's special interest group SIG Writing, and scientists worldwide.

1985: Launch of research on written production at Poitiers University, in the CNRS-affiliated LMDC (Language, Memory & Cognitive Development) laboratory.

1998: Involvement at European level in the coordination of SIG Writing (via Eric Espéret), with the hosting of SIG Writing's biennial symposium at Poitiers University.

2001: Poitiers University's European positioning on this research topic is reaffirmed by the staging of a CNRS summer school in July 2001, entitled "Text Production and Revision Processes: Real-time Methods and Analyses" (Scientific directors: D. Alamargot, P. Coirier and J. Pynte). By bringing together junior and senior researchers from 7 different countries (including 5 European ones) working in a variety of disciplines (linguistics, literature, psychology, language sciences, IT), this school stimulates the exchange of ideas and provides opportunities for engaging in interdisciplinary partnerships.

2003: In the wake of the summer school, a National Research Group (GDR-CNRS 2657) is set up (Director: Denis Alamargot, hosted at the LMDC-CNRS laboratory – Poitiers University). With its own budget, the GDR brings together more than 40 French researchers studying written word production, offering them opportunities to work together within a clearly-defined structure and encouraging interdisciplinary exchanges and productions. The GDR meets several times a year (plenary sessions or constituent teams only).

2004: A research team focusing specifically on the issue of written production from a cognitive standpoint is set up within the LMDC-CNRS laboratory (Head of team: Thierry Olive).

2005: The GDR stages a CNRS summer school in July 2005, on the theme of "Multidisciplinary Analyses of Writing - Convergences and Debates" (Scientific directors: Denis Alamargot and Sylvie Plane), once again bringing together European and international partners. The possibility of associating the GDR with a European and international community is discussed with the leading European researchers in the field. It soon becomes obvious that the COST Action would be the ideal solution for constructing a European network.

2006: The GDR enters into a partnership with a network being set up in Canada to study professional writing (Director: Céline Beaudet).

2006-2007: The GDR's successful national assessment in 2007 results in its renewal for a further 4 years (2007-2011). Poitiers University grants the GDR a bursary to help prepare its COST Action application. These monies allow members from the COST project's founding countries to meet and work on the preliminary and final proposals.

October 2007: The founding meeting of the COST project, organised by the GDR, is held in Paris, on October 25-26th, 2006.

Representing many different countries, the researchers who attended this momentous event (David

Galbraith: Staffordshire University – United Kingdom; Luuk Van Waes and Marielle Leitjen: Antwerp University – Belgium; Joachim Grabowski: Heidelberg University – Germany; G. Rijlaarsdam: Amsterdam University - The Netherlands; Sven Stromkvist: Lund University – Sweden; Céline Beaudet and Pamela Grant: Sherbrooke University - Canada (potential partner of the European COST Action); Denis Alamargot, Michel Fayol, Franck Ganier, Jean-Louis Lebrave and Sylvie Plane: GDR-CNRS "Research Group on Written Production" – France; Marie-Françoise Crété, Khaled Hirech: Poitiers University - France (for technical and logistical support) defined the project's broad outline, its objectives and its expectations. Contacts were then established with other European and international colleagues, with a view to extending the network on the basis of the newly-defined scientific programme.

The COST Action will carry on the process of structuring research on written verbal production that was initiated in France via the GDR. It is the tightly-structured nature of this group that explains its members' high level of commitment and activity, spurred on by constant backing from scientists in other European countries. As such, the Action will benefit directly from the GDR's know-how in organising and operating a network and from the European spirit which is shared and sustained at the SIG Writing conferences.

C. PRELIMINARY WORK PROGRAMME

D. RECENT PUBLICATIONS

Denis Alamargot : selected articles, book, edited books, chapters, APP copyright

Alamargot, D., Lambert, E., Thebault, C., & Dansac, C. (2007). Text composition by deaf and hearing middle school students: Effects of working memory. *Reading and Writing, 20*(4), 330-360.

Alamargot, D., Chesnet, D., Dansac, C. & Ros, C. (2006). Eye and Pen: a new device to study reading during writing. *Behavior Research Methods, Instruments and Computers,* 38 (2), 287-299.

Alamargot, D. (2005). Le rôle de la lecture au cours de l'écriture : ce que nous indiquent les mouvements oculaires du rédacteur. *Rééducation Orthophonique, 223*, 189-201.

Alamargot, D., Lambert, E. & Chanquoy, L. (2005). La production écrite et ses relations avec la mémoire. *Approche Neuropsychologique des Acquisitions de l'Enfant. 17. 41-46.*

Alamargot, D., Chanquoy, L. & Chuy, M. (2005). L'élaboration du contenu du texte : de la mémoire à long terme à l'environnement de la tâche. *Psychologie Française*. 50 (3). 287-304

Chesnet, D., & Alamargot, D. (2005). Analyse en temps réel des activités oculaires et grapho-motrices du scripteur. Intérêt du dispositif 'Eye and pen'. *L'année psychologique*. 105 (3), 477-520.

Caporossi, G., Alamargot, D. & Chesnet, D. (2004). Using the computer to study the dynamics of handwriting processes. *Lecture Notes in Computer Science*. 3245, 242-254.

Chanquoy, L. & Alamargot, D. (2003). Mise en place et développement des traitements rédactionnels : le rôle de la mémoire de travail. *Le langage et l'homme*. 38 (2), 171-190.

Chanquoy, L. & Alamargot, D. (2002). Mémoire de travail et production écrite : quelques modèles récents et bilan des premiers travaux. *L'année psychologique. 102,* 363-398.

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