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LEAD

**Technology-enhanced learning and problem-solving discussions:
Networked learning environments *in* the classroom**

Instrument: STREP

Thematic Priority: Technology-enhanced Learning

Periodic activity report 6

Period covered: from 01-12-2007 to 31-05-2008

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Duration: 36 months

Project coordinator name: Dr. J. Andriessen

Project coordinator organisation name: Utrecht University



LEAD

problem solving through face to face networked interaction in the classroom

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MAIN OBJECTIVES

The goal of the LEAD project is to develop, implement and evaluate conceptual models, with associated practical scenarios and collaborative technologies, for effective face-to-face problem solving discussions in the classroom. The project calls into question the typical situation where a group of learners sit together to talk about a topic orally. The LEAD project assumes that with the appropriate networked-computing support, learners are better able to discuss a complex topic.

The LEAD project focuses on one specific type of "higher-level cognitive" learning activity, i.e. collaborative problem solving. Collaborative problem solving is an essential aspect of our day-to-day performance in society. In addition, when people solve problems they learn. It is therefore not surprising that *problem solving as a learning activity* has a long and fruitful tradition in educational practice.

Collaborative problem solving normally takes its shape as a *problem-solving discussion* within a small group of learners. During a problem solving discussion, learners interact to solve a difference in opinion and come to an understanding.

A problem-solving discussion is hard to describe and difficult to manage. Learners must achieve two tasks: they have to *solve the problem* and they must *collaborate* (Baker, 2002). In some cases, learners are also offered computer support so that they have to adopt new ways of communication.

With respect to first task of solving the problem, a first complicated factor is that the types of problems learners address are ill-defined and analytically complex. The cognitive processes which underlie the problem-solving activities are difficult to model. This can be contrasted with well-defined or formal problems, where the representations and processes that the learners use during their problem-solving activities, are much easier to describe. A second complicated factor related to collaboration relates to the interactions between learners.

Technology-enhanced learning during face-to-face problem-solving relates to three principal types of learning goals:

- *Domain-related goals*. This is learning relating to the problem that the learners are trying to solve.
- *Collaboration-related goals*. The goal is that the learners should genuinely “work together”, that they should learn how to do that more effectively, and that they should find this a personally rewarding and motivated experience.
- *Tool/media-related goals*. These goals relate to the extent that the learners master use of the tools, that they exploit their full potentialities.

The LEAD project teams adopt a *design research* approach that blends *theory-driven design* of learning environments with empirical *educational research*. It entails both ‘engineering’ particular forms of learning and systematically studying those forms of learning within the context defined by the means of supporting them (Cobb, Confrey, diSessa, Lehrer and Schauble, 2003). The ‘design research’ approach provides the LEAD team with the appropriate research context for the development of principles and hypothesis about technology-enhanced learning. The approach enables the LEAD team to understand when, how and why Lead’s educational innovations work in practice.

OVERVIEW OF WORK PERFORMED

The project was reviewed in January 2008, again resulting in a positive overall evaluation, with 4 recommendations. These involved the exploitation strategy, the foreseen evaluation of the technology, and a concrete plan for the text book that the project has planned to disseminate out pedagogical work. During the half year period that followed we produced a revised exploitation plan, a report about pedagogical research in year 2, a report on pedagogical scenarios, and finally, the Beta version of the Discussion Support System. In the final half year we produced the final conceptual models, the final research report, an edited book (mainly) for teachers about using the scenarios and CoFFEE, and the outcomes of dissemination efforts.

THE EXPLOITATION PLAN

The LEAD project has produced a software package named "CoFFEE" (The Discussion Support System, DSS) - that together with its supporting pedagogical scenarii forms the heart of the research carried out in the project. Besides this, an interaction trace analysis tool called Tatiana was developed.

The main focus of this exploitation plan is the future of CoFFEE. Several approaches have been followed to ensure that CoFFEE will be used in the future, either directly in schools or indirectly by organisations working in an educational setting. This plan begins by describing the product, and then compares it with similar products available commercially or within the relevant research community. This leads to some unique selling points that will feed into exploitation activities. In the chapter "Preparing CoFFEE for the future" we discuss activities such as the adoption of open source policies, branding and a special software-website that will support further exploitation.

The plan then describes the target markets in the various countries that were involved in the research and introduces three tracks of exploitation activities, addressing three different sets of potential users for CoFFEE as a product within (and possibly beyond) these markets: (1) Current users who already know CoFFEE: Continuation of use by our current growing; network; (2) Marketing to users searching for something like CoFFEE; (3) Active introduction to educational organisations (schools, universities, educational centres, the wider community) that have not yet considered a face to face discussion tool.

Finally it discusses plans for explorations outside of the educational setting, future research projects. The activities in this plan will be monitored and reported in an evaluation report of actions within the project and planned actions beyond the scope of the project.

At the end of November, another release of the software was produced, and was put on the download website coffee-soft.org, which now has received over 1000 downloads worldwide. LEAD's websites have been prepared for their post-LEAD existence, with community and other features. ICATT will continue to host the sites for at least two years, and is keeping an active interest in CoFEE and its future.

CONCEPTUAL MODELS

2ND YEAR PEDAGOGICAL RESEARCH

Deliverable 4.2, "Evaluation of Research Year 2" of the LEAD project describes the 2nd 12 months of research. In this way, it overlaps with the case studies described in (less detail) in Deliverable 4.1 (Research

Evaluation plan months 18-36) and describes the six month of the implemented research plan (months 18 to 36, June 2007 to November 2008). Consequently, it also implements the methods explored in Task 4.2 (Definition of the experimental methodology). The research presented has been conducted in a variety of educational contexts and has adopted a variety of methods and tools. However, all share a common objective of exploring the conditions under which networked environments can aid problem-solving discussions in face-to-face contexts. In this document we see how these models, contexts, methods and data requirements have come together in the research activities of the partners.

3RD YEAR PEDAGOGICAL RESEARCH

Deliverable 4.3, “Evaluation of Research Year 3” of the LEAD describes the results of the research plan that was outlined in D4.1 and specifically the D4.1 annex. Finally, it implements the methods explored in Task 4.2 (Definition of the experimental methodology) and describes the research that has underpinned the revisited conceptual models (D1.3). In contrast to the research reported earlier, all research this year has involved the use of the software developed in the Lead project called CoFFEE. Results presented address five key issues: a) The benefits of conducting face to face discussion in CoFFEE rather than orally; b) Appropriation of CoFFEE by teachers and students; c) The value of specific CoFFEE tools (representations) at different stages of debate or for different purposes; d) Those aspects of pedagogical scenarii that support debate; and e) The role of the teachers in networked face to face discussion. Concerning the results, the value of CoFFEE to improve the experience of educational debate can be stated as:

1. Flexibility: CoFFEE can be used in a wide variety of learning situations as it can be adapted to specific learning situation by means of pedagogical scenarios. The use of scenarios results in a networked learning environment that overcomes the known “not made here” problem by providing the opportunities for COFFEE enhanced lessons to be adapted exactly to the nature of the situation.
2. Parallelism: The opportunity to use CoFFEE to conduct parallel discussions provides significant opportunities for increased productivity and participation. Comparisons between oral and CoFFEE mediated discussions showed significantly greater contributions in the CoFFEE classroom. As students use CoFFEE to discuss their learning task, they can simultaneously put forward contributions in the shared workspace as they don’t have to wait for their turn. Students can work at their pace, they have enough time to think about an issue, and are they are given the time to formulate their ideas into words. Contributing to the discussion via an electronic medium is also perceived as less socially threatening than oral communication, where students have to speak in front of their peers. This allows for less dominant voices to emerge, thus enhancing not only the quantity of the discussion, but also its quality.
3. Productivity: CoFFEE’s permanent record of activity provides support for students to build and refine knowledge both during and after the session. It also allows staff to monitor parallel activities in order to better orchestrate and assess students’ work. Subjects where emphasis is on discussion of open ended questions are less likely to involve production of standard artefacts such as essays, summaries, tests, and other standard products aimed at revision or assessment purposes. Indeed, it is very rare for students to even take notes of the discussions taking place in face to face debates. CoFFEE resolves these problems as debates are now in persistent media not transient media (speech).
4. Anonymity: Oral communication in the classroom necessarily reveals the identity of those speaking. However, CoFFEE allows for students identity to be hidden from one another. Generally, anonymity in Computer Mediated Communication has been shown to reduce inequalities between group members leading to more equal participation and influence across group discussions.

PEDAGOGICAL SCENARIOS

The deliverable presents the outcomes of a complex design process. This started with discussion with teachers on the development of learning scenarios for technology-enhanced learning during face to face problem solving. A practical approach was then developed in relationship with the conceptual models (D1.2 Conceptual models) and the research results (D4.1 Research Evaluation plan months 18-36 and D4.2 Definition of the experimental methodology). D3.1 describes the most explanatory examples of scenarios implemented during the partners' specific research in different educational contexts within the four countries involved in LEAD (France, England, Italy and The Netherlands).

D3.1 presents firstly a brief overview of research on the concept of "scenario" in different approaches and a comparison of the practical outcomes of other scenario-based EU projects. The aim is to specify the theoretical framework within which scenarios are developed. The theoretical approach of LEAD's pedagogical scenarios is then described. The second chapter describes how each of LEAD's pedagogical partners instantiated LEAD's epistemological Research & Development approach in their own process of scenario design, and how this led to the creation of a template to support scenario design and sharing. The template is used in the next chapter to describe 6 examples of CoFFEE-supported pedagogical scenarios which were implemented and run in classrooms. Each partner describes the scenario overview in narrative form. The sequence of steps is then detailed in tabular form. Finally an evaluation of the scenario is discussed. The structure of the description is repeated for all examples and across partners. Finally, an appendix is included, providing the detailed CoFFEE configurations that each partner used in the scenarios.

D3.2 is a synthesis of our work on scenarios and tool development produced for teachers in a book written in a journalistic style. It provides an overview of the ideas behind collaboration, technology and face to face work which lie behind the development of CoFFEE, and gives a comprehensive overview of scenario's for using the software that have proven to be useful in practice, or for changing practice.

THE DISCUSSION SUPPORT SYSTEM

The software is delivered in the form of: (1) Executable installers of the software, one for each of the four nationalised versions; (2) User Guide and Manual (delivered within the installers and installed with the software) in English; (3) Source code of the software (zip file); and (4) Javadoc documentation for the source code (zip file) in HTML format.

NEW FEATURES IN THE TOOLS

GRAPHICAL TOOL

The graphical tool has been added a note (annotation) mechanism on each item and a preview of the whole diagram. It is also possible to place labels on the connectors and bend the connectors (both characteristics are configurable). It has been added the post-hoc notation, where the learner first places the contribution and then provide a categorisation. Also, about anonymity, now it can be switched on/off during the step by the teacher. The contributions can be edited and deleted, according to the configuration (by all, by the teacher, by the owner). The graphical tool has been also provided with two variants: the grid functionality (where the plane is divided in four regions) and the planning, where there are vertical bars to separate in columns (configurable in number). Moreover, the contributions can be filtered by thread (connections via connectors) or by user.

It is possible to link from items to link and it is possible to delete contributions with a (configurable) policy: not possible, only to the owner, to everybody.

THREADED DISCUSSION TOOL

The graphical tool has been added a private annotation mechanism so that each learner can add private (i.e. not visible to others) annotations on each item, and the malleability of anonymous contribution (now, anonymity can be switched on/off during the step by the teacher). It has been added the post-hoc notation, where the learner first places the contribution and then provide a categorisation. The contributions can be edited and deleted, according to the configuration (by all, by the teacher, by the owner).

REPOSITORY

This new tool allows to share documents, by passing from a private repository (one for each student), to the teacher (shared) one. It is also possible to add annotation to the files shared, as well as open them with double-click.

POSITIONOMETER

This new tool allows making votes on issues, expressing the position of each learner in a Likert-like scale. The position of each student can be configured as public or not, and the positions can be anonymous or not. It is possible to launch several votes during a step.

CHAT

Now, it is possible to have each user's contributions coloured with a different colour (configurable).

NEW FEATURES IN THE APPLICATIONS

SESSION PLAYER (NOW CALLED CONTROLLER)

It is now possible to move learners from a group to another. It is also possible to export the session in PDF, HTML and RTF. The screen space has been optimised allowing "collapse" buttons for the west and south windows. Very important is the new feature to save and reload the state of a session, so that the interrupted work (even for crashes of the machine) is resumed exactly at the same point. Also the clients are brought back to the same point. Now, there is a turn-taking mechanism that allows enabling only one client (Discussor) at the time. Notice that the chat can be configured as not freezable, so that there is no blocking effect on learners. There is also a quick communication service, teacher-to-student and vice versa that can be used for private communications. Now, it is also possible to import artefacts (configuring it in the session) from one step to another, in an automatic way, both for graphical and for threaded.

SESSION CLIENT (NOW CALLED DISCUSSOR)

The screen space has been optimised allowing "collapse" buttons for the west and south windows. Also, some graphical themes have improved the overall appearance and coherence of the graphical interface.

ROSTER EDITOR

It is possible to write roster files (class files) that can be used for authentication. Each student can also hold the default group, so that subdivision in groups is made quicker for the teacher at runtime.

SESSION EDITOR

First of all, it should be noticed that we are referring (in the Beta version) to the Session Editor, known in the previous 2.0 release as Lesson Planner. This tool is meant to be able to support an experienced user (researcher or motivated and expert teacher) in designing a session.

The current Session Editor is going to be complemented (in the final release) by a teacher-oriented *Lesson Planner* that will include more pedagogical oriented instructions and guides.

The Lesson planner has undergone several changes:

- Architecture: now the Session Editor is generic: it can be used to assemble sessions based also on future new tools. In this way, now the Session Editor is as scalable as the Controller and the Discusser, meaning that new tools can be added to the CoFFEE platform and will be controlled, used for the discussion and (now) also configured by using the Session Editor.
- Usability:
 - We included in the new design several comments in the two documents:
 - “Teacher User Experience” by Noam Knoller, 30/08/2007.
 - “Teacher-friendly Session Designer” 08/03/2008especially for the language issues, configurability, clear indication of the process of defining a session (new step, new group, add tool).
 - Copy and paste is available for tool and group configurations
 - Verifier mechanism was added that detects errors and proposes changes.
 - Layout preview for facilitating the configuration of a step

THE REPLAYER

A new component has been added: the Replayer. This component, added in preliminary version, allows to replay a trace of a session, by allowing with a simple console, play/pause/stop, fast-forward, step forward and backward operations. In its current version it fully displays the events and plays them for all the tools (see below for an exception). It is also generic and scalable, since it will be able to replay events for new tools developed after the end of the project. The same Replayer will be interfaced with Tatiana.

The specifications for the Replayer were originally discussed in the PMBs meeting (Salerno 2007 and successive).

The development of the Replayer is going to continue until the end of the project and will consider tackling the stability of the application (with the feedback provided by the users, being its first release) and some known bugs listed below:

- The repository tool is not replayed, yet.
- The Control Panel does not shows blocked/unblocked students, moving a student from one group to another and in some cases (with latecomers) does not correctly shows the entry/exits of students.

FINAL WORDS

Explaining the concept behind the LEAD project wasn't an easy task, especially at the beginning of the project when the concept wasn't fully developed. The concept was often associated with online learning. Most people could easily understand the usefulness of the internet as a means to connect a student with a variety of learning resources. Bringing this kind of technology to the classroom wasn't that obvious for them. The idea of LEAD seemed so difficult to grasp, that it even appeared odd to use network technology in face-to-face settings, as a cartoon that was recently published in a Dutch newspaper implies. This view has been challenged by the LEAD project team. We can conclude that CoFFEE does change the communication in a fundamental way, and, with the appropriate scenario may enhance collaboration and learning in the classroom.

Project Team

- Utrecht University, Research Centre Learning in Interaction / Centre for the development of educational appliances (CLU)
- Centre Nationale de la Recherche Scientifique, Sciences de l'homme et de la société
- Ecole Nationale Supérieure des Mines, Association pour la Recherche et le Développement des Méthodes et Processus Industriels
- University of Salerno, Dipartimento di Scienze dell'Educazione
- University of Salerno, Dipartimento di Informatica e Applicazioni
- University of Nottingham, Learning Sciences Research Institute
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SECTION 1: PROJECT OBJECTIVES AND MAJOR ACHIEVEMENTS DURING THE REPORTING PERIOD

The project has formulated the following objectives in the Annex:

1. To develop conceptual models of technology-enhanced learning during face-to-face problem-solving discussions
2. To develop a Discussion Support System for face-to-face problem-solving discussions
3. To develop pedagogical scenarios for effective networked-computer supported problem-solving discussions in semi-experimental or actual classroom settings
4. To develop and implement a method for assessing technology-enhanced problem-solving in the laboratory or actual classroom settings
5. To develop a method for defining information requirements for active support

In the reporting period (month 24-32) the project had to produce three deliverables two of which were delivered with a short delay:

Table 1: Deliverables List

Del. No.	Deliverable name	WP	LEAD-contractor	Planned date	Due
D. 1.3	Conceptuel Models	1	UU	30-11-2008	24-11-2008
D.2.3	Beta version of the Discussion Support System	2	DIA	31-05-2008	30-05-2008
D.3.1	Pedagogical Scenarios	3	DSE	31-05-2008	16-06-2008
D. 3.2	Text book	3	DSE	30-11-2008	18-12-2008
D.4.2	Evaluation of research Year 2	4	ICATT	31-01-2008	26-03-2008
D. 4.3	Evaluation of research Year 3	4	ICATT	30-11-2008	30-11-2008
D. 5.5	Dissemination report	5	ICATT	30-11-2008	29-11-2008

Table 2: Milestones List

Milestone no.	Milestone name	WP	Date due	Actual/Forecast delivery date	Lead contractor
1.3	Conceptual models	1	30-11-2008	24-11-2008	UU
2.3	Beta version of the Discussion Support System	2	31-05-2008	30-05-2008	DIA
3.1	Pedagogical Scenarios	3	31-05-2008	16-06-2008	DSE
4.2	Evaluation report year 2	4	31-01-2008	26-03-2008	LSRI
4.3	Evaluation report Year 3	4	30-11-2008	30-11-2008	LSRI

REVIEW RECOMMENDATIONS

The LEAD project had its second yearly evaluation in Paris, on January 29th. 2007. Overall, the project was evaluated positively, but the review commission had the following recommendations:

Recommendation 1: The consortium shall focus on the exploitation strategy in order to fully use the potential of the outcomes of the LEAD project.

Recommendation 2: The requested Annex to the D4.1 needs to design very clearly and concretely the evaluation strategy in detail for the Beta tests in year 3. In the end, the D4.3 will need to report against the evaluation strategy as devised in this Annex to D4.1. A reporting strategy stating a list of functions of Coffee to test during year 3 as well as the test results and follow up should be part of a possible approach.

Recommendation 3: Improve quality on documentation with regard to editing and versioning. More thorough spell and language checks are recommended.

Recommendation 4: As you are preparing for internal checks 6 monthly reports, we recommend to include a chapter clarifying the Text Book issue (D3.2), this chapter should contain more concrete information about the status of the D3.2 as well as clear plans for its publication: format, content, scope etc.

As a response to recommendation 1, a revised version of the exploitation plan was submitted on April 14th, 2008.

As a reply to recommendation 2, a supplement to Deliverable 4.1, was sent on the 10th of April. This document is an appendix to Deliverable D4.1, "RESEARCH EVALUATION PLAN" of the LEAD project: it must be read in conjunction with that document.

Additional information is presented therein on the precise plan of the LEAD consortium during year 3 of the project, for evaluating the CoFFEE educational software, implemented within the project. The plan has the goal of ensuring that the set of CoFFEE tools are usable, in interface terms, by the target population (secondary school students and teachers) and educationally relevant (i.e. they can be used, appropriated, by teachers and students to achieve learning tasks that are prescribed in education systems). For each pedagogical partner, objectives and methods of evaluation studies are described, together with details (schools, dates, teaching level and domain) and CoFFEE tools that are evaluated, in a unified format. Plans for individual studies are assembled as an overall plan in the penultimate section of this appendix; the tools evaluated in each study are also shown in a summary table that reveals complete coverage of the system. Each partner carries out two types of studies: (1) in-house (laboratory) CoFFEE usability studies, (2) educational studies.

In-house usability studies aim to ensure that problems and deficiencies of use, for realistic problems, are detected and corrected. They use a variety of methods for obtaining fast information on interface usability, including: heuristic evaluation, cognitive walkthrough, expert evaluation and constructive interaction method.

These methods are described within each partner's presentation of studies.

Educational studies have the principal aim of educational relevance — ensuring that tools are accepted to be used for tasks and scenarios that are prescribed within national curricula — but also, within LEAD's overall strategy, of providing data on the basis of which conceptual models of networked face-to-face collaborative problem solving can be iteratively refined. This means an emphasis on qualitative analysis of the processes of collaborative problem-solving and learning with CoFFEE embedded in appropriate educational settings. A

number of related qualitative methods are used, including case studies, longitudinal studies, pedagogical design experiments, ethnographic studies and field experiments.

Educational studies focus on a number of key issues, including: analysis of the processes of appropriation of tools, analysis of the evolution of collaboration, validating educational scenarii, the impact of CoFFEE on social interaction, study of the role of anonymity in computer-mediated interactions and influence of the voting device on the future direction of students' discussions.

The results of these evaluation studies have implications for several aspects of LEAD work. Firstly, they enable us to elaborate and validate educational scenarii. Secondly, they enable conceptual models to be refined. Thirdly, they provide recommendations for redesign and implementation of the CoFFEE tools. A specific strategy is adopted with respect to the latter. Each study, once data has been analysed (see tables below) will give rise to a short CoFFEE recommendations report, to be published on the project website as an internal document, and also sent to CoFFEE software developers. In addition, during studies themselves, as interface problems are identified, they are immediately sent to DIA (as well as to the Rapid Response Team): reports concerning fixing of problems are provided on that institution's website, for each version (see, e.g. <http://lead.dia.unisa.it/lead/wiki/Release2.1>).

With respect to recommendation 3, language and other quality checks are now more thorough. The delay for D3.1 is also due to increased quality control.

Concerning recommendation 4, we add the planning for the book in section 4 of this report.

SECTION 2: WORKPACKAGES PROGRESS OF THE PERIOD

WP 1: PROBLEM ANALYSIS AND THEORY FORMULATION

Workpackage Objectives:	Starting point of work
<ul style="list-style-type: none"> To develop a common ground for the research and technological development activities. 	Month 3
<ul style="list-style-type: none"> To define success criteria and a baseline state-of-the-art for the project against which progress can be measured. 	Month 1
<ul style="list-style-type: none"> To developed descriptive conceptual models about key issues that pertain to the interplay between problem-solving, collaboration, cognition, learning and networked-computing technologies. 	Month 1
<ul style="list-style-type: none"> To develop prescriptive conceptual models that represent an elaborated set of principles ad hypothesis about technology-enhanced learning processes during face-to-face problem-solving discussions. 	Month 13

TASK 1.4 USER INVOLVEMENT	
Planned actions	Involve potential users to reflect on the conceptual basis of the design.
Realised actions	<p>An educational professional from outside the project has evaluated the concept behind the Session designer. This has resulted in an internal deliverable: van der Puil & van Diggelen (2008), <i>A teacher friendly session designer. Suggestions for the design and improvement of the session designer</i>. This document proposes improvements for the existing design.</p> <p>The pedagogical partners have discussed the concepts behind the LEAD project with teachers. These concepts relate to the introduction of networked learning in the classroom.</p>
Deviations	None

TASK 1.6 PROBLEM ANALYSIS AND THEORY FORMULATION YEAR 3	
Planned actions	Partners should reflect on their research activities with the COFFEE system as a preparatory activity for deliverable D1.3 ‘Conceptual models that is scheduled for month 36.
Realised actions	<p>The Diamond ring model has been further defined and served as a guideline for WP3 and WP4 activities.</p> <p>The pedagogical partners reflected on the outcomes of the research activities during the project team meeting that took place at the beginning of year 3.</p> <p>The pedagogical partners have developed or refined their conceptual models with</p>

	<p>regard to networked learning in the classroom. The pedagogical partners have published their conceptual models in various conference proceedings and scientific journals.</p>
Deviations	None

TASK 1.7 INTEGRATION	
Planned actions	Integrate partners' theoretical positions into a unified conceptual framework that should guide the design of the technical system.
Realised actions	<p>Integration has been addressed during the last project meeting where the pedagogical partners have shared their understanding with regard to networked learning in the classroom.</p> <p>Several initiatives have been carried out to integrate research activities on a conceptual level:</p> <ul style="list-style-type: none"> - UU (Partner 1) and CNRS (Partner 2) with regard to the appropriation of the LEAD tools in a classroom context (paper that will be presented at the ICLS 2008 conference). - A researcher from UU has visited CNRS for a period of 3 months. - UU (Partner 1), ARMINES (Partner 3) and ICAR (affiliated partner) with regard to a conceptual model for analysing traces (paper that will be presented at the ICLS 2008). - UU (Partner 1) and DIA (partner 5) with regard to the CoFFEE system (paper that will be presented at the EC-TEL2008 conference). <p>The pedagogical partners have written Deliverable D1.3 that presents that various conceptual models that were developed and refined during the past three years. At the end of December deliverable D1.3 was submitted to the EU.</p>
Deviations	None

WP 2 : DESIGN AND SPECIFICATION OF THE TECHNOLOGY

Workpackage Objectives:	Starting point of work
<p>The main objective of this work package is to develop a Discussion Support System that provides networked-computing support during face-to-face problem-solving discussions. The main objective can be divided into six related objectives:</p>	
○ To design a text-based conferencing tool	Month 3
○ To design a graphical shared-workspace tool.	Month 3

Workpackage Objectives:	Starting point of work
○ To develop a (data) architecture that integrates the two tools.	Month 7
○ To design and specify an user interface.	Month 3
○ To develop a method for defining information requirements for active support.	Planned: Month 13 Actual: Month 9
○ To develop a prototype for active support.	Planned: Month 19 Actual: Month 4

TASK 2.1 THE DESIGN OF THE CONFERENCING TOOL

Planned actions	(DIA) Follow the feedback from pedagogical partners on experiments with CoFFEE (ICATT) See task 2.3
Realised actions	(DIA) Deletion policy by role (“no”, “only to owner”, “everybody”) (ICATT) See task 2.3
Deviations	none

TASK 2.2 THE DESIGN OF A GRAPHICAL SHARED-WORKSPACE SYSTEM

Planned actions	(DIA) Follow the feedback from pedagogical partners on experiments with CoFFEE (ICATT) See task 2.3
Realised actions	(DIA) Changed the behavior on anonymity: contributions stay anonymous after the teacher switches back to non anonymous mode. (DIA) possible to copy items/sub graphs from the private to public version of the tool (even from previous steps) (DIA) Added the possibility to link from a contribution toward a link. (DIA) Configurable deletions of items pointed by other items (DIA) Deletion policy by role (“no”, “only to owner”, “everybody”) (ICATT) See task 2.3
Deviations	none

TASK 2.3 USER-INTERFACE DESIGN

Planned actions	<p>(ICATT) Create user interface designs for the Teachers' planning tools, provide feedback on user-interface designs for other tools.</p> <p>(DIA) Follow the feedback from pedagogical partners and ICATT on experiments with CoFFEE.</p>
Realized actions	<p>(DIA) Now the applications can have graphical themes: the installation allows to choose between two themes but more can be added. The splash screens have been customised by application and specific icons are used for each application</p> <p>(DIA/ICATT) According to ICATT input, the contributions to the graphical now follow the "click-place-write" sequence of actions</p> <p>(DIA) Changed anonymity behaviour: now it is only among peers (Students). The teacher see everybody's contribution with full information about the contributor.</p> <p>(ICATT) Created a central requirements and user experience design document for lesson planning, preparation and evaluation. This was a reference point for the development and integration of the teacher's preparation tools: Lesson Planner, Session Editor and Class Editor.</p> <p>(ICATT) Provided regular feedback, from a UX perspective, on new versions.</p> <p>(DIA) Design and realization of a Lesson Planner that guides the teachers in using templates to get a specific session. The Lesson Planner allows flexibility (possible to add templates by the user) and exchange of templates (possible to export and import templates)</p>
Deviations	none

TASK 2.4 SYSTEM INTEGRATION

Planned actions	<p>(DIA) Follow the feedback from pedagogical partners about new features/tool after experiments in classes with and without CoFFEE</p>
Realized actions	<p>(DIA) A Quick Communication service has been implemented for Student-to-Teacher and Teacher-to-Student private communication</p> <p>(DIA) Added a new tool, Positionometer, that allows a user can express his position on some argument, in any (configurable) discrete scale.</p> <p>(DIA) It is allowed for the two tools (Threaded and graphical) to import artefacts from the previous steps</p> <p>(DIA) The default group for student can be placed in the Class Editor so that the student</p> <p>(DIA) Now, it is possible to configurably show the artefacts of other groups or not, at the end of a group step</p> <p>(DIA) Added an improved version of the authoring system (Session Editor) that now is scalable (allows adding the configuration of new tools) and more usable, with a preview of the layout.</p> <p>(ARMINES) Collection of new versions of Coffee traces and tests with the analysis tool</p> <p>(ARMINES) Specification of information that should be put in the traces to make</p>

later analyses easier
(ARMINES / DIA) Finalisation of the Coffee trace format

Deviations none

TASK 2.5 DESIGN OF PROTOTYPE FOR ACTIVE SUPPORT

Planned actions (DIA) Replayer for the CoFFEE 3.0 traces

Realised actions (DIA) New replayer, also delivered in CoFFEE, that is able to replay CoFFEE 3.0 (DL 2.3) traces
(ARMINES) Released Tatiana alpha version for the European Review (January)
(ARMINES) Released Tatiana beta version (May)
(ARMINES) Redesigned the Tatiana platform to be built on the Eclipse platform (just like Coffee) for better extensibility.
(ARMINES) Writing of technical documentation, and user manual
(ARMINES) Changed installation package/procedure, to have the same as Coffee's installation
(ARMINES) Changed video playback method: now using Quicktime inside the Tatiana application.
(ARMINES) Added multiple video playback
(ARMINES) Made Analyses and Corpuses exportable. Users can now exchange and share their research & findings.
(ARMINES) Modified filter handling to enable filter to support parameterisation
(ARMINES) Development of more filters to help researchers better visualize the information they need for analysing LEAD situations.
(ARMINES) Updated previous filters to be able to handle new Coffee trace format
(ARMINES) Visited Paris (June), Utrecht (July), Salerno (November). Gathered new requirements, observed usage of Tatiana in the field.
(ARMINES) Improved remote control to allow selection of time periods
(ARMINES) Allowed manual creation of events, deletion and re-ordering of events
(ARMINES) Development of automated graphical visualisations of CoFFEE (and other) traces
(ARMINES) Development of an editor for filter workflows
(ARMINES) Development of filters to perform statistical analysis of trace data
(ARMINES) Improved usability of Tatiana
(DIA) New replayer, delivered in CoFFEE 4.0, that is able to replay CoFFEE 4.0 traces

Deviations none

TASK 2.6 SUPPORT

Planned actions	(ICATT) Software Tutorials (postponed from period 5)
Realized actions	(ICATT) Placed the LEAD overview video made in year 2 online, on the LEAD website and on YouTube. (ICATT) Produced two interactive videos and placed them online on http://www.coffee-soft.org/product/tutorials.aspx . These videos are primarily directed at teachers as users. The first tutorial presents an overview of CoFFEE's unique offering as a face to face CSCL environment. The second tutorial focuses on the teacher's user experience, presenting in more detail the various applications and tools as well as additional services that complement the experience, such as the websites and the book, thus (hopefully) strengthening the coherence of the teachers' conceptual model of CoFFEE. (ARMINES) Tatiana demonstration video (DIA) Porting of the project on the Sourceforge open source repository. (DIA) Management of a coffee-soft.it website as teacher community for Italian teachers
Deviations	

WP 3: DESIGN AND SPECIFICATION OF THE PEDAGOGICAL SCENARIOS

Workpackage Objectives:	Starting point of work
Task 3.1: To develop pedagogical scenarios that guides effective networked supported problem-solving discussions in the classroom.	Month 25
Task 3.2: Embedding the pedagogical scenarios in actual school activities	Month 25

TASK 3.1 DESIGN OF PEDAGOGICAL SCENARIOS

Planned actions	UU Definition of scenario template Contribution to Deliverable 3.1 Revised version of the "planning problem" scenario Design of the diagnostic reasoning scenario Revised version of the design of the "diagnostic reasoning" scenario CNRS Design of a canonical pedagogical scenario (see D3.1) based on a sequence of three discursive activities (introductory activity, central activity, synthesising activity) using the same CoFFEE tools. This sequence is based on the results of studies carried out during a previous European project (SCALE, 2001-2004). Revised version of the pedagogical scenario on "nuclear plant". DSE Design of the pedagogical scenarios' template in collaboration with other pedagogical
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partners during virtual meetings.
Elaboration of the deliverable D3.1 “Pedagogical scenarios”.
Revised version of pedagogical scenarios
Language revision of d3.1

LSRI

Virtual meetings to help define the Pedagogical Scenario template.
Contribution to Deliverable 3.1: planned to contribute one Pedagogical Scenario description to D3.1
Revised version of the pedagogical scenario “nature/nurture”

Tilburg

One scenario for secondary school to share knowledge within groups on the same information.
One scenario for secondary school to share knowledge between groups with different information.
One scenario for Tilburg University students to analyse different types of collaborative learning with computers.

Realised actions

UU

UU developed two scenarios which aim to improve an existing learning task, i.e. a planning task and diagnostic reasoning task. Both learning tasks had already been frequently carried out in a traditional classroom context, where students carried out the task without any collaborative technology.

CNRS

The CNRS partner presents a generic pedagogical scenario, which permits on-the-fly variations that adapt to the students’ advancement, for *debating* during *history* and *geography* lessons – mainly on the topic of sustainable development - at college/secondary school level. It is based on previous research on collaborative argumentation-based learning and has been negotiated with teachers and adapted to use COFFEE tools in a specific order.

DSE

The DSE partner designed two pedagogical scenarios for CoFFEE-enhanced collaborative problem-solving activities in lower secondary school classrooms. These scenarios were specially designed in collaboration with teachers to test argumentative discussion as a basic feature of science learning. The two scenarios aimed to reproduce the “researchers” way of working embedded in a classroom context.

LSRI

The pedagogical scenario proposed by LSRI can be summarised as a sequence of steps where students are asked to reflect on whether they think a number of specific human traits can be considered to be inherited or acquired. The students are asked to express their individual position through a vote, defend them in a whole class debate, and then vote again on the same set of traits.

Tilburg

All three scenarios were developed

Deviations none

TASK 3.2 EMBEDDING THE SCENARIOS IN SCHOOL PRACTICE

Planned actions	UU Contribution to deliverable 3.2. Governing sustained application of the planning problem scenario at Minkema College (Woerden). Implementing the diagnostic reasoning scenario at Mondriaan College (The Hague)
	CNRS Contribution to deliverable 3.2. Planning of three experiments based on the canonical pedagogical scenario (see D3.1) in a history-geography class, about three different debate topics, in accordance to the students timetable (two twice weekly hours).
Realised actions	DSE Elaborating the methodology of co-designing scenarios with teachers. Providing suggestions about the new Session Editor and facilitating the process of scenario design for the teachers. Planned to design and iterate pedagogical scenarios with teachers in schools. Starting the elaboration of D3.2 and the selection of the publisher.
	LSRI Contribution to deliverable 3.2. Planned to design and iterate pedagogical scenarios with teachers in Bilborough College for studies ES-3.1. Planned to adapt Nature/Nurture pedagogical scenario that had already been successfully run in Bilborough College to incorporate CoFFEE mediation, for ES-3.4. Planned to adapt Binge Drinking pedagogical scenario that had already been successfully run in Rawlins College to incorporate CoFFEE mediation, for ES-3.3.
	Tilburg Plan to use two scenario in secondary school. Plan to use scenario at Tilburg University.
	UU Chapter 3 of d3.2 Negotiation of sustained application of the planning problem scenario at Minkema College (Woerden). Meeting with involved teachers and school board member to discuss sustained application of the scenario.

Expansion of implementation of planning problem scenario to include students from year four.

CNRS

chapter 1 of d3.2

Successful execution of the three experiments.

DSE

Elaboration of the deliverable D3.2 “textbook”
chapter 4 of D3.2

Pedagogical scenarios were designed with teachers in schools of Avellino, Rome and Noci.

An pedagogical scenario for the in-house test has been designed and implemented within WP4 activities.

A provisional index of deliverable D3.2, the text book on pedagogical scenarios, has been created. Contacts with publisher have been established and the selection is in progress.

LSRI

Chapter 2 for Deliverable 3.2

Pedagogical scenarios were designed and iterated with teachers in Bilborough College for study ES-3.1.

Nature/Nurture scenario that was previously run in Bilborough College was successfully adapted to incorporate CoFFEE mediation.

Binge Drinking scenario that was previously run in Rawlins Community College was successfully adapted to incorporate CoFFEE mediation.

Tilburg

One scenario in secondary school was used, one scenario at TU was used
Scenarios worked well.

Deviations

Tilburg: One scenario in secondary school was not used

Corrective actions
taken/suggested

Nature and reason for
problem

The scenario was not the reason for not carrying out the second scenario at the secondary school, the reasons were problems with CoFFEE and timing.

Workpackage Objectives:	Starting point of work
1. To develop a method for assessing technology-enhanced problem solving	Month 4
2. To implement the Discussion Support System and the pedagogical scenarios in semi-experimental and real-life classroom settings	Month 4
3. To evaluate the effects of the Discussion Support System and the pedagogical scenarios in semi-experimental and real-life classroom settings	Month 4

TASK 4.2 DEFINITION OF THE EXPERIMENTAL METHODOLOGY

Planned actions

UU

- Develop a method for analysing computer-mediated and face-to-face interactions in the classroom.
- Develop a conceptual and analytical model to analyse tool appropriation in the classroom (in collaboration with CNRS).
- Design a study to compare the regular way of planning in the classroom with the tool-mediated planning (Minkema College study, UU-ES-3.1).
- Develop an analytical model to evaluate ‘graphical discussions’ (in collaboration with TU).

CNRS

- Develop method to compare arguments in different representations
- Further develop models of tool appropriation

DSE

- DSE will carry out classroom observations for the experiments with CoFFEE (DSE-ES-3.5, DSE-ES-3.6) using an ethnographic approach, consequently a coding scheme for analysing video-observations together with CoFFEE traces and field notes will be developed. Results will be used to implement pedagogical scenarios.
- Extend ethnographic case study method from VLES to COFFEE

LSRI

- Planned to define experimental methodology for comparative study LSRI-ES-3.1
- Planned to define experimental methodology and review anonymity literature for study LSRI-ES-3.4.
- For study LSRI-ES-3.2 it was planned to conduct an in-house heuristic

evaluation of CoFFEE version B- with two expert users.

- Planned to define experimental methodology for LSRI-ES-3.3 due to be carried out in June. In addition a literature review on the role of anonymity in discussion was to be written in preparation for this study.
- Develop an analysis method to compare the impact of anonymity on debates as well as votes

Realised actions

UU

- Development of a method for analysing computer-mediated and face-to-face interactions in the classroom.
- Development a conceptual and analytical model to analyse tool appropriation in the classroom: the SKIT model (in collaboration with CNRS).
- Design of a study to compare the regular way of working with the tool-mediated activity (Minkema College study, UU-ES-3.1).
- Develop an analytical model to evaluate 'graphical discussions'. Model involves integration of previous work on 'organisation principles' and 'secondary notation' (in collaboration with TU).

CNRS

- Designed an interaction analysis model (reported in D4.2)
- Designed a method to compare representations
- Developed a model of tool appropriation

DSE

- Different pedagogical scenarios have been designed in collaboration with teachers for the experiments in Noci, Avellino and Rome (DSE-ES-3.3, DSE-ES-3.5, and DSE-ES-3.6).
- Conducted studies with such an approach

LSRI

- Experimental methodology for comparative study LSRI-ES-3.1 was successfully planned.
- Experimental methodology for study LSRI-ES-3.4 was successfully planned and teacher has agreed to implement it.
- Experimental methodology successfully planned for study LSRI-ES-3.2, spreadsheet s created to act as templates for experts.
- Defined experimental methodology for study LSRI-ES-3.3, and literature review written.
- Developed an analysis method to compare the impact of anonymity on debates as well as votes

Deviations

TASK 4.3 USER INVOLVEMENT

Planned actions	UU	<ul style="list-style-type: none">• Sustaining contact with board and teachers at Minkema College (Woerden)• Renegotiating arrangement with Mondriaan College to run further sessions• Revisiting Dr. Knippenberg College (Helmond)
	CNRS	<ul style="list-style-type: none">• Meeting with a teacher in a Senior secondary school “Lycée Raspail” (students aged from 15 to 18) in Paris (history-geography class) for planning work (studies CNRS-ES-3.1 to 3.3).• In “Lycée Raspail”, to plan and organise collaborative work (schedule and pedagogical plan) with the class over next 6 months. (from November 2007 to May 2008)• Meeting with several teachers in a Senior secondary school in Paris’ suburb “Lycée Eugène Delacroix” (Drancy) for presenting and using CoFFEE (studies CNRS-ES-3.5 to 3.6).• In “Lycée Eugène Delacroix”, to plan and organise collaborative work (schedule and pedagogical plan) in May 2008.• Arranging study with staff and students at new school St. Soupplets
	DSE	<ul style="list-style-type: none">• The DSE user involvement strategy includes meetings with teachers in preparation of the experiments to design scenarios and train teachers with COFFEE (DSE-ES-3.5, DSE-ES-3.6). Seminars with new teacher to disseminate LEAD and to raise the interest in using COFFEE in classrooms will be organised.• Arranging access to new school “Istituto Sereini” in Rome• Involved training teachers
	LSRI	<ul style="list-style-type: none">• Planned to contribute to Exploitation plan.• Planned to involve one more General Studies teacher in our work in school, for LSRI-ES-3.1.• Arranging access to school and teachers (Rawlins School)• Conduct interviews with teachers and users from COFFEE and non COFFEE classes to reflect upon experience of debates (networked/non networked)
	Realised actions	UU
CNRS		<ul style="list-style-type: none">• Lesson plan and schedule (for 3 sequences) in Senior secondary school

(“Lycée Raspail”), between November 2007 and May 2008. (See in D4.1 annex, studies CNRS-ES-3.1 to 3.3).

- Ran study at St Soupplets

DSE

- Contacts with teachers and schools involved in experiments have been made (DSE-ES-3.4, DSE-ES-3.5).
- Ran “Istituto Sereini
- Ran a study with training teachers

LSRI

- Contributed to Exploitation plan by identifying potential UK routes to market
- General Studies teacher was involved for LSRI-ES-3.1.
- Did not run study in Rawlins, but ran a study in Long Eaton School
- Focus group interviews with participants

UU

Deviations

The collaboration with Dr. Knippenberg College was ended, mainly due to reasons of geographical distance between Helmond and Utrecht.

CNRS

The meeting with teachers in “Lycée Eugène Delacroix” in Paris’ suburb (Drancy) was cancelled (due to technical reasons). Studies planned with this school (studies CNRS-ES-3.5 to 3.6) were not carried out.

DSE

- Did not run study DSE-ES-3.5.
- Did not run study in original school/topic

LSRI

Rawlins school became unavailable when teacher resigned

UU

Corrective actions taken/suggested

- A new collaboration was initiated in place of Dr. Knippenberg College, namely that with the Mondriaan College (The Hague)

CNRS

- A new collaboration was initiated with a Junior secondary school in Paris’ suburb “Collège Nicolas Tronchon” (Saint Soupplets) with students aged from 11 to 15.

DSE

- Ran studies in “Istituto Sereini” and on different topic (dracula)
- Ran a study with training teachers instead on another study with children (DS-ES-3.7r)

LSRI

- Initiated contact with new school (Long Eaton) and ran study with them instead.

Nature and reason for problem

UU

Original college was too far from researchers' base.

CNRS

Computers in the school were not adapted (OS issue)

DSE

- School became unavailable

LSRI

- School became unavailable

TASK 4.4 PREPARATION OF EXPERIMENTS

- Planned actions
- UU**
- Fine-tuning of research plan and scenario for planning problem (UU-ES-3.1; UU-ES-3.8).
 - Developing new research plan for diagnostic reasoning scenario (UU-ES-3.4)
 - Installation of CoFFEE software in schools (UU-ES-3.4)
 - Developing new research plan for new study (UU-ES-3.9r)
 - Installation of CoFFEE software in college (UU-ES-3.9r)
- CNRS**
- Preparation of three sequences on three different debate's topics (secondary school in Paris, in history-geography class) :
 - Risks management in nuclear power (study CNRS-ES-3.1)
 - Science and religion (study CNRS-ES-3.2)
 - Urbanisation issue (study CNRS-ES-3.3)
 - To plan and organise pedagogical scenarios with teacher, to adapt CNRS-ES-3.1-3.3 to shorter period of time.
 - To prepare students with the use of CoFFEE - especially the graph functionalities -, and with debate activity specificities.
 - To install CoFFEE on students' computer in new school.
 - To carry out a laboratory usability study (study CNRS-ES-3.4).
- DSE**
- To work with teachers to develop a shared approach to scenario development and execution.
 - DSE researchers will meet with teachers in order to share with them the rationale and objectives of scenarios and to embed as much as possible the collaborative problem solving activity into curricular lessons (DSE-ES-3.1, DSE-ES-3.2, DSE-ES-3.3, DSE-ES-3.4, DSE-ES-3.5).
 - Developing new research plan for new study (DSE-ES-3.7r)
 - Install CoFFEE in new school
- LSRI**
- Plan study LSRI-ES-3.4
 - Plan study LSRI-ES-3.3 in new school (new topic)
 - Installation of CoFFEE in new school
- TU**
- Preparation of studies in school with CoFFEE by discussing with teachers and testing CoFFEE (TU-DNS1 (ES-3.1) and TU-DNS2 (ES-3.2))

- preparation of CoFFEE testing with students TU (TU-3 digital collaboration, ES-3.3).
 - preparation of studies on what diagram should look like.
- UU**
- Fine-tuning of research plan and scenario for planning problem (UU-ES-3.1; UU-ES-3.8)
 - Developing new research plan for diagnostic reasoning scenario (UU-ES-3.4)
 - Installation of CoFFEE software at Mondriaan College (The Hague) (UU-ES-3.4)
 - Developed new research plan for new study (UU-ES-3.9r)
- CNRS**
- CoFFEE installed without difficulties (studies CNRS-ES-3.1 to 3.3).
 - Lesson plan and schedule created (studies CNRS-ES-3.1 to 3.3).
 - Lesson plan and schedule created (studies CNRS-ES-3.6).
- DSE**
- Meetings with teacher to design pedagogical scenario led to the following result:
 - The teacher prepared an introduction to the topic and the materials to be distributed during the lesson and shared it with the researchers in order to define the set of resources to be included into the scenario.
 - Then the scenario was refined by using the template to detail each single step.
 - The final result was the scenario that, once actually run in the classroom, was evaluated post-hoc by the teacher and the researcher and, in case, improved.
 - It was further decided that all the experiments (DSE-ES-3.1, DSE-ES-3.2, DSE-ES-3.3, DSE-ES-3.4, DSE-ES-3.5) will be preceded by a warm up session designed to familiarize student with the tools.
 - Developed new research plan for new study (DSE-ES-3.7r)
 - CoFFEE installed
- LSRI**
- Prepared study LSRI-ES-3.1 (all planned action points: realized)
 - Prepared study LSRI-ES-3.4 (all planned action points: realized)
 - Prepared study LSRI-ES-3.2 (all planned action points: realized)
 - Prepared study LSRI-ES-3.3 (all planned action points: realized)
 - Long Eaton school successfully replaced Rawlins College

	TU	<ul style="list-style-type: none"> • lesson plans and permission for audio and video taping (DNS1 and DNS2; ES-3.1 and ES-3.2) • lesson plan for TU, CoFFEE working on network of laptops instead of TU network (due to firewall problems), (TU-3 digital collaboration, ES-3.3) • questionnaires developed for studies on diagrams
Deviations	CNRS	<ul style="list-style-type: none"> • CNRS-ES3.4 could not be carried out in the Spring
Corrective actions taken/suggested	CNRS	<ul style="list-style-type: none"> • CNRS-ES3.4 now to be conducted in November
Nature and reason for problem	CNRS	<ul style="list-style-type: none"> • It was not possible to gain access to teachers

TASK 4.5 EXECUTION OF EXPERIMENTS

Planned actions	UU	<ul style="list-style-type: none"> • Execution of fourth round of classroom studies with planning scenario at Minkema College (Woerden) (UU-ES-3.1; UU-ES-3.8) • Execution of classroom study about argumentative activity at Dr. Kinppenberg College (Helmond) (UU-ES-3.7) • Usability evaluation of CoFFEE beta (UU-ES-3.2; UU-ES-3.3; UU-ES-3.5; UU-ES-3.6) • Execution of UU-ES-3.9r
	CNRS	<ul style="list-style-type: none"> • Execution of three sequences of activities (studies CNRS-ES-3.1 to 3.3) on three different debate topics (secondary school in Paris, in history-geography class). • To get data (video recording and CoFFEE traces). • Execution of CNRS-ES-3.6
	DSE	<p>The following experiments have been planned:</p> <ul style="list-style-type: none"> • One in-house testing with DIA to test Session Editor (DSE-ES-3.4). • One warm up session and one experiment in junior secondary classrooms in Noci (DSE-ES-3.3). • One warm up session and one experiment in junior secondary classrooms in Rome for June 2008. • One warm up session and one experiment in junior secondary classrooms in Avellino from May to September/October 2008 (DSE-ES-3.5, DSE-ES-3.6). • Execution of DSE-ES-3.7r

	<p>LSRI</p> <ul style="list-style-type: none"> • Planned to carry out study LSRI-ES-3.1. • LSRI-ES-3.2 was to be carried out in the computer room in the School of Psychology. Two expert users were to take part, as well as two researchers from LSRI. The session was to take place over the course of two hours in which the experts would use and evaluate CoFFEE ver. B-, which they would write in a pre-designed excel evaluation sheet. • Execution of LSRI-ES-3.3 and 3.4
	<p>TU</p> <ul style="list-style-type: none"> • Carrying out two studies (TU_DNS1 (ES-3.1) and TU_DNS2 (ES-3.2)) at secondary school on division of communication in computer and face-to-face communication, secondary notation, and comparison with class that only used face-to-face communication. • Carrying out two studies at TU (TU_3 digital collaboration; ES-3.3) • Carrying out two studies on diagrams
Realised actions	<p>UU</p> <ul style="list-style-type: none"> • Three classroom case-studies with planning scenario involving students from the third and fourth year (carried out at Minkema College, Woerden) (UU-ES-3.1; UU-ES-3.8) <ul style="list-style-type: none"> ○ Study 1 collected data about the regular way of working in the classroom (without computer support) ○ Study 2 introduced the graphical tool to a new group of students. ○ Study 3 CoFFEE was introduced – for the first time – to a group of students from year four (Previously we had worked only with year three students). In this study we also introduced the threaded discussion tool to the classroom. • A longitudinal study of CoFFEE-mediated in a course on diagnostic reasoning. This study was carried out at a ‘new’ school, within the context of secondary vocational healthcare education (carried out at Mondriaan College, The Hague) (UU-ES-3.4) • Usability evaluation of CoFFEE 2.0 (UU-ES-3.2; UU-ES-3.3; UU-ES-3.5 UU-ES-3.6) • Successful Execution of UU-ES-3.9r
	<p>CNRS</p> <ul style="list-style-type: none"> • Three data collections : video recording and CoFFEE traces (studies CNRS-ES-3.1 to 3.3) • Successful Execution of CNRS-ES-3.6
	<p>DSE</p> <ul style="list-style-type: none"> • In-house testing has been carried out with DSE and DIA researchers (DSE-ES-3.4). • One warm up session and one experiment in junior secondary classrooms in Noci have been realised (DSE-ES-3.3).

- Successful Execution of DSE-ES-3.7r

LSRI

- LSRI-ES-3.1 was successfully carried out and data collected.
- LSRI-ES-3.2 was successfully carried out and data collected.
- LSRI-ES-3.3 and 3.4 was successfully carried out.
- LSRI-ES-3.5x was successfully carried out.

TU

- TU_DNS1 (ES-3.2) carried out at secondary school
- TU_3 Digital collaboration (ES-3.3) carried out at TU
- two studies on diagram are carried out at the moment

Deviations

UU

The classroom study about argumentative activity at Dr. Kinppenberg College (Helmond) (UU-ES-3.7) was not carried out.

CNRS

The early date had to be put forward, because of difficulties with availability of human subjects.

DSE

Experiments in Avellino (ES-DSE-3.5, ES-DSE-3.6) delayed because of frequent malfunctions in school computer labs.

TU

TU_DNS2 (ES-3.2) at secondary school dropped because of problems with CoFFEE at the school.

LSRI

Extra usability study SRI-ES3.5x ran to give feedback on under analysed tools

Corrective actions taken/suggested

UU

In stead of the classroom study about argumentative activity at Dr. Kinppenberg College (Helmond) (UU-ES-3.7), we prepared and carried out a longitudinal study on diagnostic reasoning at Mondriaan College (The Hague) (UU-ES-3.4).

CNRS

The laboratory usability study, planned for 28 April 2008, will be carried out on 4th July 2008.

DSE

Experiments (ES-DSE-3.5, ES-DSE-3.6) will be done in September/October at the beginning of the new 2008/2009 school year

TU

further need to get CoFFEE to work wireless

Nature and reason for problem

UU

Inconvenience of location caused a shift to a new location

DSE

The problems for ES-DSE-3.5 and ES-DSE-3.6 are not due to CoFFEE but to the state of PCs and LAN in the schools that often don't have maintenance.

TU

This secondary school works with laptops and wireless network, which was a problem at the time.

TASK 4.6 EVALUATION OF THE EXPERIMENTS

Planned actions

UU

- Data analysis Minkema studies (UU-ES-3.1; UU-ES-3.8)
- Reporting on Minkema studies at conferences (UU-ES-3.1; UU-ES-3.8)
- Data analysis Mondriaan studies (UU-ES-3.4)
- Reporting on experimental methodology 'design patterns'
- Final analysis of all year 3 studies

CNRS

- To analyse data collected in order to explore students interactions, according to analysis method (studies CNRS-ES-3.1 to 3.3)
- To interview teacher and students (studies CNRS-ES-3.1 to 3.3)
- Final analysis of all year 3 studies

DSE

- Data of experiments (ES-DSE-3.4, ES-DSE-3.5, ES-DSE-3.6) will be analysed with qualitative methods in order to test CoFFEE with different users and educational activities and to observe:
 - the CoFFEE supported communicative interaction between participants;
 - the relationship between teachers representations and practices about Collaborative Problem Solving (CPS) and CoFFEE supported classroom activities;
 - the impact of CoFFEE on argumentation, problem solving, attitudes, knowledge building;
 - the relationship between F2F and tool mediated classroom interactions are analysed in order to gather suggestions to evaluate pedagogical scenarios and to propose hints to CoFFEE tools and Session Editor.
- Final analysis of all year 3 studies

LSRI

- For study LSRI-ES-3.1 it was planned to analyse the transcripts of the students' and teacher's contributions to the discussion to explore how CoFFEE changed the pattern of face to face classroom debate.
- Conference paper at ICLS 2008 on LSRI-Extra (2007 study)
- For study LSRI-ES-3.2, the excel sheet containing the evaluations from the two expert users was to be combined along with the evaluative comments from the researchers of LSRI. The comments were to be classified according to severity of problem, and once all of this was done the document was to be sent to DIA.
- For study LSRI-ES-2.7 it was planned to analyze the transcripts from the student discussions on CoFFEE and Moodle both quantitatively and qualitatively in order to see the difference between the two technologies. For the latter analysis a suitable coding scheme was to be selected and used.
- Final analysis of all year 3 studies

TU

- TU_DS1 (ES-3.1): analysing face-to-face and computer-mediated communication, analysing created diagrams of secondary school students
- TU_3 digital collaboration (ES-3.3): analysing students' activities, evaluations and answers to questionnaire TU
- Analysing participants' answers to questionnaires on diagrams and post-test

Realised actions

UU

- Data analysis Minkema studies (UU-ES-3.1; UU-ES-3.8)
- Data analysis Mondriaan study (UU-ES-3.4)
- Conference paper at ICLS 2008
- Journal article on experimental methodology 'design patterns' (Computers in human behaviour)

CNRS

- As initially planned, data analysis is still in progress (analysis of interactions from videos and traces, with students' productions), and will be completed by the 10th of July 2008.

DSE

- Analysis and evaluation of experiments in junior secondary classroom in Noci (DSE-ES-3.3) and in-house testing with DIA (DSE-ES-3.4) are in progress.

LSRI

- Analysis and evaluation for study LSRI-ES-3.1 ongoing.
- Paper written, submitted and accepted
- Evaluation for study LSRI-ES-3.2 conducted and documents sent out to DIA. A number of problems mostly of minor severity were identified
- For study LSRI-ES-2.7, statistical analyses were carried out from the

quantitative data obtained for the transcripts showing significant differences between Moodle and coffee environments. Qualitative analysis using coding scheme ongoing.

TU

- TU students ideas about CoFFEE are very positive, structuring task is appreciated, in comparison with other systems CoFFEE is evaluated positively (TU_3 digital collaboration; TU-ES-3.3)
- analysing data of TU_DS 1 (TU-ES-3.1) is in process, because transcribing all audio data takes a very long time.
- studies on diagrams are carried out at the moment. First results are expected around September.

All analyses completed and written up in d4.3

Deviations

Corrective actions
taken/suggested

Nature and reason for
problem

Workpackage Objectives:	Starting point of work
○ To <u>make known</u> the objectives, the results and the outcomes of the project.	1.12.2005
○ To <u>inform and involve</u> both the scientific and non-scientific community in education	1.12.2005
○ To <u>innovate through publishing</u> both on-line and off-line, and	1.12.2005
○ To <u>engage focus-user groups</u> in development and evaluation of tools and methods.	1.12.2005

TASK 5.1 DISSEMINATION ACTIVITIES

Planned actions See Dissemination activities table in the annex on use and dissemination

Realised actions All actions were realised

Deviations None

TASK 5.2 EXPLOITATION

Planned actions See exploitation activities table in the annex on use and dissemination

Realised actions See exploitation activities table in the annex on use and dissemination

Deviations Some activities planned earlier in the reporting period were done later in the period, and/or replaced by other activities, as detailed in the table.

1. ICATT planned to contact many Dutch organisations already during the spring, but decided to postpone most of those meetings to the summer. As a result, UU's plan to join ICATT has also had to be changed.
2. LSRI's Meeting with VLE providers StudyWiz was cancelled.

Corrective actions taken/suggested Rescheduling. Alternative contacts.

1. Meetings will be organised during the summer and autumn
2. Tim Meek from Sherston was contacted instead and he has asked to keep in touch with developments

Nature and reason for problem 1. ICATT has assessed that contacting potential end users and developers will be more effective after the release of the beta version with its teacher user experience. Previous versions were too difficult to market to all but the most motivated teachers and educational developers.

2. LSRI's meeting was cancelled at StudyWiz' initiative

Positively: more effort was put into exploitation than planned as the quality of CoFFEE (the software) was higher than expected, making it possible to distribute the software on a larger scale and plan for future exploitation of the software itself.

TASK 5.3 DEMONSTRATION

Planned actions See tables

Realised actions All planned actions were realised

Deviations None

SECTION 3: CONSORTIUM MANAGEMENT

CONSORTIUM MANAGEMENT TASKS AND ACHIEVEMENTS

After the review, we undertook measures to meet the reviewers' recommendations; the fourth recommendation is discussed in the next section.

We had a three day PMB and project meeting at St. Etienne, in April, during which we worked with the (almost) beta version of our software at the laboratory of EMSE. We tried out and discussed pedagogical scenarios. Ultimate decisions with respect to the CoFFEE and Tatiana tools were made.

Tasks of the PMT have remained as stated in the last periodic activity report and the Management Plan. The WP-leaders are doing their jobs. We have ended the monthly reporting structure for WP3, which is replaced by tasks on D3.2, the Book. Considerable time was spent on revising the planned exploitation work.

Some main coordination tasks:

- **Work package co-ordination**
There are no problems here. The tasks of the WP-coordinators have been defined in the management plan.
- **Integration management**
The Integration manager was the main responsible for the revised Research Evaluation Plan, delivered end of April 2008. Maarten Overdijk from UU visited CNRS in Paris for two months during April and May 2008. Gregory Dyke from EMSE visited several partners to fine tune the use of Tatiana.
- **Research management**
The pedagogical research coordinator stopped the issued monthly reports, which will be replaced by reports based on the revised evaluation plan, to be sent in according to the schema provided in that document.
- **Technical management**
Technical development has been drawing to a close, with the focus shifting from the learner to the teacher, mostly as a result of a requirement from the exploitation managers, who have identified the teacher as the crucial user determining adoption in school. As a result of this new emphasis, the technical manager and ICATT suggested, and DIA have accepted, a new design documents for the lesson preparation processes that aims at lowering the entry barriers for teachers, allowing them to start preparing lessons by customising existing templates using a simplified Lesson Planner tool, in addition to the previously agreed upon Session Editor and Class Editor.
- **Quality management**
Quality control is taken seriously. The quality manager plays a central role in the PMB meetings to control the process between the teams and also checks issues regularly. Emphasis during the report period has been on the recommendations from the previous review. Measures have been put in place to improve the language quality in deliverable. The quality manager defined LEAD's requirements from the book (D3.2) in preparation for negotiations with publishers. Special attention was given to defining the

reciprocal QA processes of CoFFEE and TATIANA by partners ARMINES and DIA, each checking each other's code to make sure it meets open-source standards.

The final project meeting was held in Amsterdam, in October 2008, hosted by ICATT. We discussed the final Deliverables and paid close attention to their final quality.

Project status determination and reporting

The second project review was held in Paris, January 28th. The project is on track, although we will focus more on the planning of evaluation work, and on exploitation activities.

Co-operation with other projects

LEAD was represented at ICLS, where we presented a joint symposium with Argonaut. A joint meeting with Argonaut was held at ECTEL, in September. Plans for future collaboration are undertaken.

CONTRACTORS' CONTRIBUTIONS

Issues concerning the contributions of the contractors were the following:

DSE made a request for internal transfer of research budget to travel money. PMT only complied with that request in part, as we preferred most of that money be spent on research.

PROJECT TIMETABLE AND STATUS

The project is now finished, and claims having met its objectives, which remains to be confirmed by its final review.

Recommendation 4: As you are preparing for internal checks 6 monthly reports, we recommend to include a chapter clarifying the Text Book issue (D3.2), this chapter should contain more concrete information about the status of the D3.2 as well as clear plans for its publication: format, content, scope etc.

TALKING OVER THE COMPUTER: PEDAGOGICAL SCENARIOS TO BLEND COMPUTERS AND FACE TO FACE INTERACTION

Edited by : M. B. Ligorio, J. Andriessen, M. Baker, N. Knoller, M. Klønhammer

INDEX

Introduction: aim and content of the book (Ligorio)

Part I – Tools for enhancing face-to-face collaborative problem solving

Chapter 1: Collaborative Learning (Andriessen & Baker)

Chapter 2: Technology-enhancing face-to-face discussion (van Diggelen & Overdijk)

Chapter 3: Technology (Crook), 3-4pp

Chapter 4: Collaborative problem solving (Iannaccone & Tateo)

Part II – Applications

Chapter 5: Pedagogical scenario as a tool to blend face to face and computer (Ligorio & Tateo)

Six pedagogical scenarios in total will be described: 3 by DSE , 1 by CNRS, 1 by LSRI, 1 by UU

Part III - Utilities

This section of the book contains a set of resources for teachers in order to help them in running, designing and sharing scenarios: Templates, Glossary, Website to download CoFFEE

Estimated total number of pages: 100/150 in total

- around 5/6 pages the introduction
- around 7-10 pages for each Chapter of the first part
- around 40 pages for chapter 5
- around 7-10 pages for Part III

Timing

- Sept. 30th: first draft of the Pedagogical Scenarios to be included into chapter 5. Draft should be as much as possible complete
- Oct. 31st: send all chapters to the editors
- Nov. 30th: Editors review all the chapters
- Dec. 12th 2008: send the book to the publisher
- End of January 2009: e-book on-line

Publisher: Scriptaweb <http://www.scriptaweb.it/>

Other information about the publishing conditions

Advertisement of the book:

The book will be included into Google book search, mailings lists available by the publisher, eventually mailing list we like to suggest.

Will be able to provide us feedbacks about who clicked on the book-link.

Internationalization:

By January 2009 the website address will be <http://www.scriptaweb.eu/>.

the Menu will be in English.

New system of payment: will join the e-commerce system (all currencies managed).

International orders can be held and delivery can be done in a very short time.

Software/book:

Is not advisable to include into the print-on-demand copies.

A link to download Coffee can be included into the book.

A link to download Coffee can be included even into the mail advertising the book.

The text of the email advertising the book can be revised by us before sending it out

Templates and formats:

A Template will available by end of October.

Layout page: 14x20

Cover: We can select a cover among a list proposals.

Considering 150 normal pages (2000 characters spaces included – times 12 - double space) the e-book will develop about 220 digital pages.

Prices & Copyright

- Estimated price for e-book + draft print (sample copy) = more or less 20 - 22 Euros
- Estimated price for e-book + fancy print-on-demand copy = more or less 30 Euros
- Discount price possible for Lead members: it is up-to us to decide the quote of discount and we have to provide the list of names
- 15 free copies
- Royalties: 30% on e-book - 15% print on demand from the first copy. How to share the royalties among the authors is up to us.
- right to freely disseminate their respective contribution(s) on-line on their own websites only after 6 months of the advertisement of the book



LEAD

problem solving through face to face networked interaction in the classroom

ANNEX: USE AND DISSEMINATION (YEAR 3)

DISSEMINATION ACTIVITIES (ENTIRE PROJECT)

Planned / actual dates	Activity +Type	Type of audience	Size of audience	Countries addressed	Partners responsible / involved
February 2006	Project fact sheet ¹	General public	N/A	International	UU
27.02.2006	Project Website ²	General public	Thousands	International	ICATT
27.02.2006	Project extranet ³	LEAD partners and project officer	~40	UK, France, Italy, The Netherlands	ICATT
14.03.2006	Presentation ⁴ at Université de Nice-Sophia Antipolis	researchers and students in experimental psychology	25	France	UU
07.04.2006	Seminar ⁵	Educaion MA students	20	Italy	DSE
10.04.2006	Brochure ⁶	School teachers	10	France	CNRS
03.05.2006	Participation and presentation at Eclipse Workshop	University students and Professors	100-120	Italy	DIA
17-19.05.2006	Poster ⁷ at INCOM 2006 - industrial exhibition	Academics and Industrials	600	International	ICATT, ARMINES
May 2006	Dissertation assignments	university students in educational psychology + teachers	4	Italy	DSE
June 2006	Newsletter campaign	Researchers and industry	Hundreds	International	All
04.07.2006	Contribution to workshop ⁸	E-learning researchers	100	Italy	DSE
06-08.07.2006	JOCAIR' 2006 Conference paper ⁹	Researchers and students in Cognitive sciences, Communication Sciences and Computer Science	~150	International	CNRS
28.8-6.9-2006	Article publication ¹⁰	Researchers and PhD students	~70	International	DSE

¹ The fact sheet is available on the project website: <http://www.lead2learning.org/>

² <http://www.lead2learning.org/>

³ <https://extranet.lead2learning.org/>

⁴ Two presentations files are available on <http://extranet.lead2learning.org/leadextranet/pagina.asp?pagkey=66592>

⁵ Dept. of Education Sciences, University of Salerno, 8 hour lesson on "collaborative learning" at the II level master in "Evaluation of formative processes".

⁶ Brochure available on: <http://extranet.lead2learning.org/leadextranet/pagina.asp?pagkey=66812>

⁷ The LEAD posters are available here: <http://extranet.lead2learning.org/leadextranet/pagina.asp?pagkey=66643>

⁸ Poster available from: <http://extranet.lead2learning.org/leadextranet/pagina.asp?pagkey=66820>

⁹ Dumez-Féroc, I. & Baker, M. (2006, à paraître). Des dispositifs de communication multicanaux au service de l'apprentissage collaboratif en classe : le projet LEAD. Actes du colloque JOCAIR 2006 (Colloque international : Premières Journées Communication et Apprentissage Instrumentés en Réseau), Université d'Amiens (France), 6 - 8 July 2006

¹⁰ Tateo L., Ligorio M.B., Narrative representation and construction of 'collaboration' and 'teaching' among a group of Italian teachers", 6th International Lab Meeting – Summer Session 2006, 12th International Summer School on Social Representations and Communication "Social Representations In action and construction in Media and Society", Rome, 28th August - 6th September 2006.

Planned / actual dates	Activity +Type	Type of audience	Size of audience	Countries addressed	Partners responsible / involved
1.9.2006	4 End-user websites	teachers and pupils	Thousands	UK, France, Italy, The Netherlands	LSRI, ICATT
4.9.2006	Workshop in schools ¹¹	Teachers	10	Italy	DSE
11.09.2006	1st Newsletter ¹²	Researchers and industry	91	International	UU, ICATT
1.10.2006	Ec-Tel Conference Workshop, Proceedings	Researchers	15	EU member states	UU, DIA, ARMINES, DSE, CNRS, LSRI
1-2.10.2006	Poster presentation Project get together meeting at the Ec-Tel conference (http://www.ectel06.org/)	Researchers	30	EU member states	UU,
23.11.2006	Invited talk at I&I Conference 2006 (http://www.onderwijsictplatform.nl/)	School board members, Teachers, ICT coordinators	60	The Netherlands	UU
27-28.03.2007	Poster ¹³ at 1st national conference of the CKBG (http://www.ckbg.org/)	Researchers, university students	100	Italy	DSE
27-28.03.2007	Posters ¹⁴ at 1st national conference of the CKBG	Researchers, university students	100	Italy	DSE, DIA
23.04.2007	Workshop for teachers at school	Junior High school teachers	6	Italy	DSE
26.04.2007	Article in Univers - Tilburg University newspaper ¹⁵	University students, teachers and researchers	Thousands	The Netherlands	Tilburg
05.05.2007	Workshop for teachers at school	Junior High school teachers	6	Italy	DSE
29/30.05.2007	Seminar	Primary and Junior High school teachers	80	Italy	DSE
14.6.2007	Research seminar	Researchers	80	France	CNRS
14-15.6.2007	Invited lecturer at summer school on distance and networked learning ¹⁶ .	Teacher trainers, from University Teacher Training Institutes	Hundreds	France	CNRS
21.06.2007	2nd newsletter	Researchers and industry	123	International	ICATT, UU
08.07.2007	Tatiana Workshop at the Ecole Thématique EIAH2007 (http://eiah2007.imag.fr/) dedicated to traces	Academic and industry	80	France, Canada, UK	ARMINES, ICAR
08.07.2007	Research Seminar	Researchers	25	France	CNRS
18-21.07.2007	Presentation ¹⁷ at the CSCL 2007 conference	CSCL researchers	40	International	UU
18-21.07.2007	Poster Presentation at the CSCL 2007 conference	CSCL researchers	40	International	UU

¹¹ Presentation available here:

http://extranet.lead2learning.org/assets/leadextranet/archive/wp5/dissemination/tateo_ligorio2.ppt

¹² Archived here: <http://extranet.lead2learning.org/leadextranet/pagina.asp?pagkey=73201>

¹³ Poster available here :

http://extranet.lead2learning.org/assets/leadextranet/Archive/WP5/Dissemination/Publications/Ligorio%20et%20al.%20Cassino_abstract.doc

¹⁴ Presentation and abstract available from:

<http://extranet.lead2learning.org/leadextranet/pagina.asp?pagkey=75149>

¹⁵ Available online: <http://www.uvt.nl/univers/nieuws/0607/30/debaters.html>

¹⁶ Available from: http://assets/leadextranet/wp4_researchevaluationplan_v0.1_20070425_mva.doc

¹⁷ Available from:

http://www.lead2learning.org/assets/leadextranet/archive/wp5/dissemination/publications/403_diggelen%20et%20al_small-group%20f-to-f%20discussions%20in%20the%20classroom.pdf

Planned / actual dates	Activity +Type	Type of audience	Size of audience	Countries addressed	Partners responsible / involved
7-10.8.2007	Paper presentation at Summer Institute ¹⁸ 2007	Academia, teachers, pupils from 4 countries	100	International	DSE, DIA
28.08-01.09.2007	6 papers presented at EARLI	Academic	30-100	International	ARMINES, ICAR, DIA, DSE, LSRI, UU
30.08-01.09.2007	Presentation at the International Conference on Engineering Design (ICED)	Design researchers	800	International	ICAR
01.10.2007	Presentation ¹⁹ of LEAD, University Teacher Training Institute (Paris)	Students and trainers in history-geography	25	France	CNRS
04-05.10.2007	Paper presentation in National Conference, Eclipse-IT 2007 ²⁰	Academic and industrial researchers, students	60	Italy	DIA
17.10.2007	Presentation of LEAD at MoDyCo (CNRS-P2) lab, Paris X - Nanterre university	PhD Students in linguistics	16	France	CNRS
30.10.2007	Newsletter (print and online)	School practitioners and policy makers	5 (more planned)	UK	LSRI
01.11.2007	Research Seminar, University of Neufchatel	Students in psychology and education	25	Switzerland	CNRS
20.11.2007	Workshop organisation "Analyses de situations CSCL"	Research Community	12	France	ARMINES
12-15.11.2007	2 papers in conference proceedings, collaborateCom 2007 ²¹	Academic and industrial researchers	50	International	DIA
26.11.2007	Tatiana presentation at the Kaleidoscope symposium	Academic and industry	200	EU	ARMINES
17.01.2008	LEAD video on You Tube and project website	Academic and general	Thousands	International	ICATT, UU, DSE
25.01.2008	3rd Newsletter	General audience	130	International	ICATT
22-23.2.2008	Workshop contribution ²² dialogical approach	Research Community	20	International	DSE
Feb. 2008	Workshop contribution ²³ dialogical approach	Research Community	Hundreds	International	DSE
26.03.2008	4th Newsletter	General audience	132	International	ICATT
09.04.2008	Conference presentation at Research seminar, MoDyCo Lab, University Paris 10	Research community	40	France	CNRS
31.05.2008	Conference presentation at Research seminar, STEF Lab, Ecole Normale Supérieure de Cachan	Research community	20	France	CNRS
2008	Book chapter	Research Community, educational experts	Hundreds	Italy	DSE
2008	Book chapter	Research Community, educational experts	Hundreds	Italy	DSE
2008	Book chapter	Research Community, educational experts	Hundreds	Italy	DSE, DIA
In press	Article	Research Community, educational experts	Hundreds	France	DSE
In press	One submitted peer-reviewed conference paper	Research community	N/A	International	UU
In press	Two peer-reviewed journal publications	Research community	N/A	International	UU
In progress	Two peer-reviewed journal publications	Research community	N/A	International	UU

¹⁸ Available from: <http://extranet.lead2learning.org/leadextranet/pagina.asp?pagkey=76172>

¹⁹ Available from: <http://extranet.lead2learning.org/leadextranet/pagina.asp?pagkey=78617>

²⁰ See further details on: <http://extranet.lead2learning.org/leadextranet/pagina.asp?pagkey=78079>

²¹ See further details on: <http://extranet.lead2learning.org/leadextranet/pagina.asp?pagkey=78078>

²² See further details on: <http://extranet.lead2learning.org/leadextranet/pagina.asp?pagkey=100953>

²³ See further details on: <http://extranet.lead2learning.org/leadextranet/pagina.asp?pagkey=100953>

Planned / actual dates	Activity +Type	Type of audience	Size of audience	Countries addressed	Partners responsible / involved
May 2008	Master thesis in computer science: a plugin for CoFFEE for streaming video	Research community	1	Italy	DIA
June 2008	Symposium participation, panel discussion and TATIANA demonstration	Research community	~200	International	ARMINES/ICAR
June 2008	One peer-reviewed conference paper and one peer-reviewed conference symposium	Research community	~200	International	UU, CNRS
June 2008	1 poster and 1 paper.	Research community	~200	International	LSRI
22.6.2008	5th Newsletter	General audience	137	International	ICATT, UU
26-28.6.2008	2 days Coffee Demonstration at a Summer School ²⁴	End users (about 50 teachers and teacher students) + researchers	~100	Italy	DSE
7-10.2008	Teacher training ²⁵	End-users	10	Italy	DSE
20-26.7.2008	Paper presentation at icp2008 ²⁶	Research Community (psychologists)	Thousands	International	DSE
26-29.8.2008	Paper presentation at the ISDS conference ²⁷	Research Community	Thousands	International	DSE
3-5.9.2008	Paper presented at EARLI SG 7 and 6 ²⁸	Research Community	Thousands	International	DSE
9-13.9.2008	Conference paper presentation, ISCAR2008 ²⁹	Research Community	Thousands	International	DSE
18.9.2008	CoFFEE presentation at the university of Bergamo	End users	1	Italy	DIA
18.9.2008	Mailing to cabrinews	End users (math and physics high school teachers)	Hundreds	Italy	DIA
19.9.2008	Conference paper at Ectel 2008	Research Community	40	International	DIA
19.9.2008	CoFFEE demo at an Ectel 2008 symposium	Research Community	40	International	DIA, UU
3.10.2008	Presentation to KP-Lab (another European project) ³⁰	Researchers + Industry	30	Europe & International	ARMINES/ICAR, UU
3.10.2008	Workshop at University of Salerno	End-users (teachers)	20	Italy	DSE

²⁴ An English version of the programme is available from http://ckbg.altervista.org/WordPress/wp-content/uploads/2008/06/summer-school_engl.doc

²⁵ 100 hours of in-service teachers training, as part of a mandatory Master devoted to teachers with a special function in their school (project manager, student orientation, ICT), where Prof. Ligorio is teaching.

²⁶ Tateo, L. Mollo, M. Marsico, G. & Iannaccone, A. (2008) Understanding teacher professional identity in educational contexts. XXIX International Congress of Psychology ICP, Berlin 20th-26th July 2008, www.dialogicalscience.com

²⁷ Ligorio, M.B. & Tateo, L. (2008) Teachers' professional identity as a polyphony: "voices" and cultural background. Fifth International Conference on the Dialogical Self, University of Cambridge 26th-29th August, 2008

²⁸ Ligorio, M. B. (2008) Developing an educational model for Computer Supported Collaborative Problem Solving. EARLI SG 7 and 6: Beyond Knowledge: the legacy of competence meaningful computer-based learning environments, 3-5 September 2008

²⁹ Ligorio, M. B. (2008) Technology to Enhance collaborative Problem Solving, ISCAR, San Diego 9-13 September 2008

³⁰ Url: <http://www.kp-lab.org/> Tatiana has been used in this other European project and will be further used to analyse their data.

Planned / actual dates	Activity +Type	Type of audience	Size of audience	Countries addressed	Partners responsible / involved
17.10.2008	Presentation at ICAR	Researchers	15	Hong-Kong & France	ARMINES/ICAR, UU
Oct. 2008	Bachelor thesis in computer science: a virtual reality tool for CoFFEE	Research community	1	Italy	DIA
Oct. 2008	Bachelor thesis in computer science: a collaborative browser tool for CoFFEE	Research community	1	Italy	DIA
15-18.10.2008	Paper presentation at a Conference ³¹	Researchers	Thousands	International	DSE
Oct/Nov. 2008	3 seminars and demonstrations ³²	General Audience	40	Italy	DIA
7.11.2008	LSRI Launch event, demo + poster ³³	Pedagogical community	100+	International	LSRI
18.11.2008	Award winning demo at Eclipse IT	Research Community	100	Italy	DIA
21.11.2008	6 th and final newsletter	General audience	141	International	ICATT
28.11.2008	Talk and 2 posters during workshop at the University of Salerno ³⁴	Research community	40	Italy	DIA, DSE
Nov/Dec .2008	Linking to coffee-soft from Chest	End-users	300+	UK, international	LSRI, ICATT
Nov/Dec .2008	Presentation to people working on the Mulce (French project for creating shareable learning corpora)	Researchers	12	France	ARMINES/ICAR
Dec. 2008	Master thesis in computer science: a plug-in for CoFFEE for streaming video	Research community		Italy	DIA
6-7.2.2009	Conference Paper (submitted) ³⁵	Researchers	Thousands	Italy	DSE, DIA

³¹ Ligorio, M. B. (2008) Comparing the process of building concept maps online and face-to-face, 9.0 Conference of the Association of Internet Research, AIOR, Copenhagen, 15- 18 October, 2008

³² At least 3 seminars and demonstration with Computer Science students:

- “Streaming Tool” by Gerardo Lombardo
- “Development of a CoFFEE tool” by Ilaria Manno
- “Virtual tool in CoFFEE” by Marco Falcione

³³ The poster is available from the LEAD extranet:

<http://extranet.lead2learning.org/assets/leadextranet/Archive/WP5/Dissemination/LEAD%20poster%20for%20LSRI%20launch.ppt>

³⁴ Talk “Interdisciplinary Research: a success story” (V.Scarano) and two posters (Manno-DeChiara and Lombardo) during a workshop at the University of Salerno titled “Il computer a supporto del problem solving collaborativo” (The computer in support of problem solving)

³⁵ Ligorio, M. B., Maroni, B., Scarano, V., CoFFEE: un software a supporto della didattica per problem solving, III Convegno Nazione “Verso una nuova qualità dell’insegnamento e apprendimento della Psicologia”, Padova, 6-7 February 2009

EXPLOITATION ACTIVITIES – YEAR 3

CNRS

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS / COMMENTS
				PLANNED	REALISED	
2	France	Pedagogical community (other)	Identification of 2 websites to help market CoFFEE to the pedagogical community	<i>For Exploitation Plan</i>	<i>Yes</i>	-
3	ALL	Research community	Two submitted conference contribution (ICLS) One scientific journal publications of LEAD research	<i>Submitted</i>	<i>Yes</i>	
3	France	Research community	Conference presentation	<i>April 2008</i>	<i>April 2008</i>	Research seminar, MoDyCo Lab, University Paris 10 (9th April 2008)
3	France	Research community	Conference presentation	<i>May 2008</i>	<i>May 2008</i>	Research seminar, STEF Lab, Ecole Normale Supérieure de Cachan (31th May 2008)

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS / COMMENTS
				PLANNED	REALISED	
2	France	Policy makers	Contact with CLEMI	September 2008	September 2008	http://www.clemi.org/ Isabelle Bréda : i.breda@clemi.org , Evelyne Bevort : e.bevort@clemi.org o contacted in September 2008. As of the end of November we're still awaiting decision on precise date for meeting to present and disseminate CoFFEE.
2	France	Policy makers	Contact with CNDP (National Centre for Pedagogical Resources) http://www.cndp.fr/accueil.htm	September 2008	7 November 2008	Jean-Michel PERRON (jean-michel.perron@cndp.fr), of the Direction of Resources and Technologies at the Agency for Usages of Information and Communication Technology for Education of the CNDP (www.agence-usages-tice.education.fr) agreed to publish information about CoFFEE in the "research news" section of their website, and gave the address of another site, http://www.sialle.education.fr/accueil.php (see separate activity below).
2	France	Policy makers	Contacting Mme. Elisabeth Carrara from educnet	September 2008	September 2008	http://www.educnet.education.fr Mme Elisabeth CARRARA, elisabeth.carrara@ac-paris.fr o contacted in September 2008. As of the end of November we're still awaiting decision on precise date for meeting to present and disseminate COFFEE.
3	France	Pedagogical community (other)	Contact with Edustar	September 2008	No	http://www.edu4.com/edustar.html edu4@edu4.com o not yet contacted, As of the end of November we're still attempting to determine precise contact person.
2	France	Pedagogical community	Listing on SIALLE, a downloading platform	New	November 2008	A request to offer CoFFEE through this resource, a website, especially designed for the teachers' community and dedicated to free (and only free) educational software, is "being studied"

DIA

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
3	Italy	Educational content developers	Meeting with SpinVector New Media	September – November 2008	22/9/2008	They will consider using CoFFEE (or components) for virtual reality applications
3	Italy	Software developer	Meeting with Centro Sviluppo Materiali S.p.A	September – November 2008	24/9/2008	Will consider using CoFFEE in the future. They will test informally the software and report later to us.
3	Italy	Software developer	IBM Italy, E-learning section	Additional	26/09/2008	The software CoFFEE is included in one of their proposal for e-learning systems to be offered (deadline Oct 20 th 2008) to a national economical body and, if accepted, a collaboration with DIA will probably be spawning in 2009
3	Italy	Teachers	Mail to the mailing list of math and physics high school teachers, cabrinews (teachers interested to the software Cabri)	Additional	18/09/2008	

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
3	ALL	Researchers	Presentation of two papers at ECTEL 2008 about CoFFEE and the scripting flexibility, with dissemination of URLs, websites and informal discussions	Additional	September 19th 2008	
3	ALL	Software Developers	Open sourcing the project with major sites (e.g. sourceforge)	October 2008	22/9/2008	Until Nov. 30 th 2008, CoFFEE has been downloaded from Sourceforge 1044 times. The first public release, Version 3.3, had 451 downloads. The interim version 3.4 had 367 downloads, and the final version had 226 within a week of its release. The coffee tool wizard was downloaded 34 times and the source code 13 times. ³⁶
3	Italy	Teachers and teachers' trainers	Contacts with the University of Bergamo (Italy) for using CoFFEE into the labs for the Problem Solving course for teachers' training	Additional	September 18th 2008	The University of Bergamo will use CoFFEE for a teachers' training course, with the support of DIA (see below)
3	ALL	Software Developers	Continued hosting of the Trac system	Ongoing		

³⁶ Data from http://sourceforge.net/project/stats/detail.php?group_id=234505&ugn=coffee-soft&type=prdownload

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
3	ALL	Software Developers	A minimum of 6 months of support after project	Dec. 2008 - May 2009		
3	Italy	Computer science students	3 Theses on CoFFEE: 1 master in CS thesis on a plug-in for CoFFEE for streaming video; 2 bachelor theses (1 for a collaborative browser tool and 1 for a 3D virtual reality tool)	2008 (2 theses in Oct. and Dec.)	<ul style="list-style-type: none"> o May 2008 o Oct.2008 o Dec 2008-Jan 2009 (planned) 	<i>The plug-ins will be available from sourceforge as optional extra downloads, from December 2008.</i>
3	Italy	General audience	At least 3 seminars and demonstrations with Computer Science students	“Streaming Tool” by Gerardo Lombardo “Development of a CoFFEE tool” by Ilaria Manno	<ul style="list-style-type: none"> o “Virtual tool in CoFFEE” by Marco Falcione 	
3	Italy	Italian Teachers	Support site of the Italian Community of CoFFEE at www.coffee-soft.it	End of the project	October 2008	Italy’s already active CoFFEE user community is now using this site.

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
3	Italy	Researchers and students	Talk and two during a Workshop in Salerno University about “Il computer a supporto del problem solving collaborativo”	28/11/2008	On time	The talk “Interdisciplinary Research: a success story” (V.Scarano) and 2 posters (Manno-DeChiara and Lombardo) were delivered and streamed online, resulting in increased awareness of CoFFEE in relevant research community in Italy.
3	Italy	Teachers and teachers’ trainers	Support to the University of Bergamo (Italy) for using CoFFEE in the labs for the Problem Solving course for teachers’ training (MATHNET)	New, now planned for December 2008	November 2008	After the project period
	ALL	Research community	IBM Jazz award	New	November 2008	CoFFEE will be integrated into IBM’s JAZZ platform for design collaborations. DIA received a US\$25,000 grant for this.

DSE

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
1	Italy	End users and research community	National project concerning new technology in school contexts	Proposal submitted April 2008	Funds approved October 2008 – the project will formally start as soon as the Ministry will give it an official start	The title of the project is “New Education in School”. Project presented at the Innovation Department of the Ministry of Education (funds 70.000 Euro). A network of 7 schools was created. As a result, a large number of activities using new technology were implemented. CoFFEE is introduced as a software to sustain collaboration within the classroom.
3	Italy	Pedagogical community	Setting up on-line discussion forum within the CKBG -ww (Collaborative Knowledge Building Group) association	November 2008	No	The discussion will start December 2008, and will involve teachers, researchers and university students preparing dissertations on CoFFEE
3	Italy	Educational content developers	Meeting with Mediateca2000	July-November 2008	In progress	Contacts established, we are planning the date for a presentation of CoFFEE
1&2	Italy	End users	A seminar and demonstrations with teachers	October 2008	Yes	In order to invite teachers to the seminar, 44 schools and educational administration organisations have been contacted by fax and/or email. 19 teachers from 8 schools and organisations attended a presentation and demonstration of CoFFEE 3.3. Participants showed great interests and they asked a large number of questions about general aspects of the project and specific issues such as collaborative problem solving in

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
						<p>classrooms or technical characteristics of CoFFEE as for example the suite of the software. Teachers provided interesting comments about the various CoFFEE tools and participants said that the software interface was easy. 11 teachers remained for second part of the seminar, to discuss pedagogical scenarios in real classrooms. Participants proposed a few pedagogical scenarios. A lot of comments were suggested and different fields of application have been outlined. In particular participants highlighted the flexibility of the software and the possibility to use it in different contexts as in primary and secondary schools, in the field of research and in professional training courses.</p> <p>A long and interesting discussion took place in the second part of the seminar and two points of view about the use the software during a collaborative problem solving activity emerged. The first one came from teachers of primary and junior high schools: they underlined the importance of the psycho-pedagogical aspects of the didactical activity. The second one was held by teachers from secondary schools: they emphasised the possibility of using CoFFEE in order to stimulate students' motivation to participate in school activities.</p> <p>During the seminar, a questionnaire was given to all participants. The aim of the questionnaire was to know their opinions about CoFFEE and to find different didactical applications of the software. The questionnaire included 3 sections. The first section includes six scales (range 1-5) about opinions on each tool and on the suite of CoFFEE; the second one included an open-end question about applications; the last one included five open-end questions about suggestions and expectations.</p>

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
						<p>9 teachers answered to the questionnaire. Results from the first section of the questionnaire:</p> <ol style="list-style-type: none"> 1) CoFFEE interface: middle and high for all the teachers (CoFFEE is easy to be used); 2) didactical effectiveness: high for 6 teachers; low for 3 teachers; 3) Efficacy of the tools: high for all teachers for almost all the tools; low for positionometer and notes tool. <p>Results about the second section (how would you use CoFEE):</p> <ul style="list-style-type: none"> ○ to check students' prerequisites, ○ to write narrative text (with co-writer tool), ○ to analyse documents, ○ for interdisciplinary activities, ○ to prepare a lesson, ○ to assess the efficacy of the activity. <p>Results of the third section:</p> <ol style="list-style-type: none"> 1) those teachers that assumed the seminar was aimed at dissemination and training were very satisfied by the seminar. Instead, those teachers expecting time for discussion during the seminar were disappointed. 2) suggestions to improve the software: <ul style="list-style-type: none"> ○ more friendly interface especially in terms of having instruction in Italian. ○ A few clarification questions (for instance about the lesson planner). ○ it emerged that teachers' prerequisite to use CoFFEE is to be already familiar with collaborative learning practices, didactical planning and being interested on new technology.

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
1&2	Italy	End users and pedagogical community	A workshop and poster session with research community and teachers	November 2008	Yes	A meeting with researchers and teachers has been planned for the 28 th November 2008
3	Italy	Research community	Develop a list of journals and website and send in reviews of CoFFEE	Throughout 2008	In preparation (partial results reported)	List of Italian websites DSE will send reviews of LEAD 1. Educational software database run by the Institute for Educational Technology (ITD) under the auspices of Italy's Ministry of Education, University and Research (http://www.sd2.itd.cnr.it/BSIndex.php) 2. Italian national agency for the school autonomy (http://www.indire.it/) 3. AIF Italian association of trainers (http://www.aifonline.it/); 4. Quality in e-learning (http://www.quel.it/).
1&2	Italy	Pedagogical community (other)	Press release to QWERTY	Throughout 2008	Yes	In press
1&2	Italy	Pedagogical community (other)	Press release to TD Quarterly Journal of Educational Technologies	Throughout 2008	No	The press release's text is in progress
3	Italy	Pedagogical community (other)	Press release to the ISCAR mailing list	Throughout 2008	No	The press release's text is in progress
1&2	Italy	Pedagogical community (other)	Link to site of AIPASS	Throughout 2008	In progress	Contacts with webmaster and AIPASS coordinator are in progress

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
3	Italy	Teacher & researcher community	Dedicated Mailinglist	Throughout 2008	Yes	<p>Teacher- Researcher dedicated mailing list is an opportunity to establish contacts and to discuss for researcher community and teachers that are involved in the Lead project by actually using CoFFEE in their school activities.</p> <p>29 users subscribed at the moment and they used the mailing list in order to share classrooms experiences, aspects of the project and models of the pedagogical scenarios.</p> <p>101 messages was been written in one year of activity (October, 16th 2007- October 2008). It's possible to count about 10 contacts a week throughout busy periods and a reduction of frequencies throughout periods with empty activities of research and work (i.e. December, 16th-31st ; July, 16th- September,7th).</p> <p>The mailing list will be used also after the end of the project.</p>
	Italy	Teacher & researcher community	Summer School in Valle d' Aosta University	June, 26-27-28 2008	Yes	<p>A group was been created during this Summer School in order to introduce Lead and CoFFEE. Participants were 10 teachers of different school grades. Two main topics were discussed: the first one about differences on using CoFFEE at different schools grades; the second one about the theoretical background needed to use the CoFFEE tools correctly from a methodological point of view.</p>
	Italy	End users (teachers)	School Project funded by the Ministry of Education	Throughout 2008	Ongoing	<p>The title of the project is "From classroom to virtual classroom to WEB". It is a training course for teachers about using new technology at school. Participants are 16 teachers of a high school (I.T.C.G. "Leonardo Da Vinci" in Martina Franca).</p>
	Italy	End users (Teachers)	School Project funded by the Ministry of	Throughout 2008	Ongoing	<p>The title of the project is "Linguistic and literary education in multi-language point of view" and it is a training course for teachers about</p>

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
			Education			developmental competences. Participants are 60 teachers of Comprehensive Institute (Istituto Comprensivo “S. Agata De’ Goti” 2 in S. Agata De’ Goti - BN).
	Italy	End users (Teachers)	Familiarisation with CoFFEE and construction of a pedagogical scenario during a university master, called “Arianna”	Throughout 2008	Ongoing	The participants are teachers of several high schools. These teachers were attending a Master training on professional orientation, called Arianna. Teachers were required to collaboratively write a pedagogical scenario about students’ orientation as part of their apprenticeship for the Master. These teachers become very interested on CoFFEE because they could see the didactic applications of it beyond the Master. So far in total 10 teachers participated in at least one session. Maximum presence stood at 9 teachers during the fifth session. The sessions were carried out in the computer laboratories of the schools in which teachers work.

ICATT

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
3	The Netherlands	Pedagogical community (other)	Consultation meeting with Dr. Jan Lepeltak , expert advisor on the Dutch educational market	29.2.2008	Yes	Demo session of CoFFEE. Further contacts were identified - preparation of all steps below.
ALL	ALL	Educational content developers	Providing input to the design process of a new Lesson Planner	Feb-Sep 2008	August 2008	Several design documents, incorporating exploitation guidelines for user experience design, have been circulated internally, serving as basis for the design of the teacher’s preparatory activities with CoFFEE, embodied in the Lesson Planner and editors as well as in its integration with complementary online tools and services, starting with version 3.2 of COFFEE and the launching of www.coffee-soft.org in August.
ALL	ALL	End users (inside schools)	User-centred design process with emphasis on capturing domain-expertise for a pedagogically motivated CoFFEE Lesson Planner	Feb-Sep 2008	2008	This lead to the content of the Lesson Planner which makes it possible to open and change ready made templates instead of developing sessions from scratch (this is now included in download).

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
3	The Netherlands	Pedagogical community (other)	Contacts with at least 3 organisations in order to finalise a commercial service model for the Netherlands	March 2008	November 2008	<p>In general: ICATT has decided to also further develop and offer services around CoFFEE, mainly for the business and public sectors. Currently three live cases have been planned with future clients in 2009. ICATT will be supporting CoFFEE in a joint effort with DIA for a minimum of 2</p> <ol style="list-style-type: none"> 1. The Center for Learning Utrecht was contacted with a proposal for joint support of CoFFEE. Demo's were made and material was given. Ongoing. 2. Contact was initiated with de Waag society, an organisation in Amsterdam already active in developing and disseminating educational technology, and they were asked to provide advice on a possible service model that will help introduce CoFFEE into Dutch education. This is still ongoing. 3. Oog (Education and Young people) was approached and given the materials. After some contact they were not interested in a face-to-face situation (hardware too expensive).
2	The Netherlands	Pedagogical community (other)	Contact ICT op school	May-June 2008		Planned after launch of Dutch Website (December if on time, or after the Christmas holidays).
2	The Netherlands	Pedagogical community (other)	Contact Kennisnet	May-June 2008	Yes	Contact was made and agreed to send information in December and to plan a meeting.

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
2	The Netherlands	Pedagogical community (other)	Contact SURF	May-June 2008	Ongoing	Due to high costs of conference, this was not done as planned (presentation at conference for higher education). We will contact them through press release and e-mail when Dutch website is launched.
2	The Netherlands	Pedagogical community (other)	Contact COS	May-June 2008		Planned after launch of Dutch website in December.
2	The Netherlands	Pedagogical community (other)	Contact Itsacademy	May-June 2008		Planned after launch of Dutch website in December.
2	The Netherlands	Pedagogical community (other)	Contact KPC	May-June 2008		Planned after launch of Dutch website in December.
2	The Netherlands	Pedagogical community (other)	Contact Vives.nl	May-June 2008		Planned after launch of Dutch website in December.
3	The Netherlands	Educational content developers	Meeting with de Waag	May-June 2008	Yes	CoFFEE was presented to de Waag society during live session at miniConference. The conversation is ongoing.
3	The Netherlands	Educational content developers	Meeting with Citowoz	May-June 2008	No	Replaced by Center for Learning Utrecht (see above)

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
3	The Netherlands	Educational content developers	Meeting with ESS	May-June 2008	No	Reviewed but turned out to be more focussed on conference- Will receive press release but nothing further planned.
ALL	ALL	General Audience	At least two more e-mail newsletters	Jun. 2008, Oct. 2008	Yes	June 20 th mailing to the LEAD list, sent to 137 October 31 st , mailing to the coffee-soft list, sent to 46 November 21 st , mailing to the LEAD list, sent to 137 November 25 th , mailing to both lists, sent to 215
ALL	ALL	End users (inside schools)	2 Product demos development	June-October 2008	June-September 2008	Two interactive video tutorials were produced: http://www.coffee-soft.org/product/tutorials.aspx They were viewed hundreds of times, and mentioned on blogs as a source of information about CoFFEE.
ALL	ALL	End users (inside schools)	Advisory participation in textbook editorial board	Throughout 2008	Ongoing until January 2009	Guidelines were sent to editor, and a consistent effort is made to make the format of the online and offline versions of the book as accessible to teachers as possible. ICATT's graphic design team has been working directly with the publisher on reaching an effective design solution for their particular format.
ALL	ALL	Research community	WP5 coordination	Until Nov. 2008	Yes	New exploitation plan, exploitation perspective integrated into R&D and book production, internal communication infrastructure functioning.
ALL	ALL	Software developers	Management of licensing and quality management of distribution policy	Until Nov. 2008	Yes	Set criteria and processes for technical and user documentation. Extensive work was done both by DIA and ICATT to setup the download

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
ALL	ALL	Internal	Final IP-rights defined in a contract	November 2008	Yes	During PMB 2008, it was decided that a signed contract was not needed and would be very difficult to negotiate but a summary of IP-rights for CoFFEE, Tatiana and the Book would be placed on the extranet. See extranet.lead2learning.org (useful).
ALL	The Netherlands	-	Exploitation report including activities beyond the project period	November 2008	December 2008	This document - see below
2 & 3	ALL	End users (inside schools)	Distribution of software after project through product website	Dec. 2008 – Nov. 2010	7.8.2008	<p>The website coffee-soft.org was launched in October 2008 to replace the pages on www.lead2learning.org. Coffee-soft.org, Coffee-soft.com and Coffee-soft.nl (this last one will be a separate website). were claimed.</p> <p>Since launching and until the end of the project-period it registered 3600 visitors spending an average of 3:24 minutes on the website. As far as CoFFEE was downloaded through the measured downloads, more than 1000 downloads were recorded..</p>
2 & 3	ALL	General audience	A minimum of 2 years of hosting after project ends (not formal but intended) of project websites	Dec. 2008 – Nov. 2010	Ongoing	This will continue - funded by ICATT until 2011.
ALL	ALL	End users (inside	Facilitating distribution and	May 2008 – Nov. 2010	November 2008	An online repository for CoFFEE session templates and scenarii was setup to the coffee-soft.org website, in tandem with the launch of

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
		schools)	exchange of pedagogical scenarii through end-user websites			CoFFEE 4.0, which refers to it. The Italian coffee-soft maintained by the university of Salerno will do the same for the Italian community.
ALL	ALL	Research community	Continued hosting after project and availability of mailing lists for group communication	May 2008 – Nov. 2010	Ongoing	
1	ALL	General Audience	Google Ads campaign for coffee-soft.org	New	September 2008	This campaign drove the most traffic to the site (802 recorded visitors)
2	ALL	General Audience	http://en.wikipedia.org/wiki/CoFFEE	New	September 2008	This entry drove very targeted traffic to the site (252 visitors, 24 recorded downloads), with visitors spending an average of over 4 minutes on the site.
2	ALL	Pedagogical community (End users, Content developers, other)	Listing on a learning tools directory: http://c4lpt.co.uk/Directory/Tools/sociallearning.html	New	October 2008	CoFFEE has a permanent listing, driving steady targeted traffic. The entry also resulted in a number of blog reviews and references of CoFFEE, increasing its visibility in a very relevant target audience of technologically savvy teachers and educational designers.
ALL	ALL	End Users	Community features on coffee-soft.org	New	November 2008 - ongoing	A community forum has been developed and will be enabled once sufficient teacher activity around the site justifies it. Still ongoing in December and January - after this is will be supported by ICATT.
ALL	The Netherlands	General Audience	Dutch version of coffee-soft.org	New	November – December 2008	A translation of coffee-soft.org was nearly complete at the end of the project and will launch in December 2008

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
						www.coffee-soft.nl
1	The Netherlands	End Users	Demonstration to Amsterdam's Handshavings Academie	New	October 2008	<p>The Handhavings Academy is an organisation that organises training in the greater Amsterdam region.</p> <p>They will probably be using CoFFEE during a training day. ICATT will be moderating the discussion (including preparation of the session etc) as a test of the service model that is being developed (facilitation of discussions and explorations). Date not yet known.</p>
1	The Netherlands	End Users	Brochure	New	October - December.	<p>Contacts at Higher education were mailed with news of Dutch installer of CoFFEE. New brochure was sent.</p> <p>This group will receive info on Dutch site later.</p>
1	The Netherlands	End Users	MiniConference at ICATT	New	November 2008	8 representatives of educational organisations (2 higher education, 1 educational consultant, 1 program manager at education thinktank, 2 service designers) did a live CoFFEE session after a presentation.
1	The Netherlands	End Users	Demonstration to CLU	New	November 2008	A presentation and demo session was organised for Centre of Learning. Result: there will be an investigation into CoFFEE by CLU. It will be demonstrated at the conference "Three days of Education" (onderwijs driedaagse - for educational practitioners) together with ICATT.
1	The Netherlands	End Users	Nationaal instituut voor de Wetenschap en technologie	New	November 2008	This institute has expressed strong interest in using CoFFEE (business use) - demo session will follow in January

LSRI

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
	UK	Policy makers	Meeting with Becta project manager (Charles)	March 2008	Yes	They would be prepared to highlight CoFFEE in their circulars
	UK	Pedagogical community (other)	Meeting with VLE provider StudyWiz	May 2008	Amended Action	StudyWiz pulled out of scheduled visit to LSRI. Instead discussion with Tim Meek from Sherston took place and he has asked to keep in touch with developments
	UK	Pedagogical community (other)	One Conference presentations	Submission Oct 2008	Yes	Paper submitted to EARLI 2009.
	UK	Pedagogical community (other)	Demo and Poster at LSRI Launch event	7th November 2008	Planned	CoFFEE will be demoed to leading learning science researchers.
	UK	Pedagogical community (other)	Journal papers	Submission Winter 2008	In progress	Two journal papers in progress for Instructional Science and Computers and Education
	UK	End users (inside schools)	NAACE newsletter – Charles Crook to send item describing CoFFEE and its potential use	Autumn 2008	Yes	NAACE contacted and offered item for new letter

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
	UK	End users (inside schools) and Pedagogical community (other)	LSRI researchers will identify relevant educational download sites in England, indicate the most relevant and report on requirements (e.g. software status, costs)	Autumn 2008	Yes	Educational download sites in England have been identified. Contact made with Mirandanet
	UK	End users (inside schools) and Pedagogical community (other)	Meeting with U of Nottingham Information Services	Autumn 2008	Yes	Contacted E-learning group at University of Nottingham and briefed them about how CoFFEE could be used at University
	UK	General audience	Download link from LSRI website	November 2008	Yes	Now at http://www.lsri.nottingham.ac.uk/
	ALL	Research community	2 accepted publications	Throughout 2008	Yes	Gelmini Hornsby, G., Ainsworth, S. , Buda, M., Crook, C. & O'Malley, C. (2008). Making your views known: The importance of anonymity before and after classroom debates. <i>Proceedings of the International Conference of the Learning Sciences</i> , Utrecht, NL. Enriquez, Ainsworth, S. , Gelmini Hornsby, Buda, M., Crook, C. & O'Malley, C. (2008) Turn-taking and mode-switching in text-based communication in the classroom. <i>Proceedings of the International Conference of the Learning Sciences</i> , Utrecht, NL.
	UK	Pedagogical	Inclusion of CoFFEE	Autumn 2008	In progress	chesthelp@eduserv.org.uk will be contacted by ICATT once version 4.0 is

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
		community (other)	into Eduserv's Chest product showcase.			out (December)

UTRECHT UNIVERSITY

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
2	The Netherlands	Teacher community	Article in Dutch journal 'Onderwijsinnovatie' (Educational innovation)	In progress	Yes	Article will be written by the UU researchers and one of the teachers UU worked with.
3	ALL	Research community	One submitted peer-reviewed conference paper Two accepted peer-reviewed journal publications Two peer-reviewed journal publications in progress	In progress	Yes	All articles In Press (except articles in progress)
3	All	Research community	CoFFEE demonstrations at the ICLS2008 and the ectel2008 conferences as part of a symposium/workshop	June – September 2008	Yes	Demonstrated CoFFEE for ± 60 researchers.

TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
				PLANNED	REALISED	
2	The Netherlands	Educational content developers and Pedagogical community (other)	Assisting or joining ICATT in meetings with Dutch educational organisation	May-June 2008	No	
3	ALL	Research community	One peer-reviewed conference paper and one peer-reviewed conference symposium	June 2008	Yes	
2	The Netherlands	Pedagogical community (other)	Contact foundation De Digitale School	November 2008	No	
2	The Netherlands	Pedagogical community (other)	Contact Digit@le Did@ctiek foundation	November 2008	No	
3	The Netherlands	Pedagogical community (other)	Contact ICT op School foundation	November 2008	No	
3	The Netherlands	Pedagogical community (other)	Contact SURF foundation	November 2008	Ongoing	Contacted Surf but current approach is too commercial for LEAD - costs of presenting at conference were too high.

ARMINES

A new Tatiana website is available (<http://tatiana.emse.fr>). It will be the official website after the end of the LEAD project. Researchers can find the following on the website:

- Information on Tatiana
- Product download
- Documentation
- Tutorials
- Video overviews (also available on youtube.com)
- Help
- Contacts

An annex to this website (<http://code.google.com/p/tatiana>) enables developers to access Tatiana's open-source code. Documentation is available to extend Tatiana, and contact information is available if developers need help in extending Tatiana (building new filters for example).

FINAL REMARKS

In the tables above many activities extent into 2009.

CoFFEE and Tatiana - the software developed in this project will be actively supported and used for at least two years to come.

DIA has received a grant from IBM to continue developing CoFFEE and ICATT will be supporting the marketing efforts and will continue to run the cluster of websites and mailing lists at least until 2011.

Open forge is hosting the sources and the documentation of CoFFEE has made it possible for other developers - possibly supported by DIA and ICATT - to continue with Development of CoFFEE Tools.

After the end of the project period ICATT still has the launch of the Dutch website to go, and a national press campaign based on this.

At least three practical sessions of CoFFEE are planned by ICATT in a commercial setting (Onderwijsdagen, HandHavings Academi and demo (and hopefully services for)

EXPLOITATION ACTIVITIES – PERIOD 5

PARTNER	TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
					PLANNED	REALISED	
CNRS	2	France	Pedagogical community (other)	Identification of 2 websites to help market CoFFEE to the pedagogical community	April 2008	Yes	
CNRS	3	ALL	Research community	Two submitted conference contribution (ICLS) One scientific journal publications of LEAD research	Submitted	Yes	N/A
CNRS	3	France	Research community	Conference presentation	April	Yes	N/A
DIA	3	ALL	Software Developers	Continued hosting of the TRAC system	Ongoing		
DSE	1	Italy	End users (inside schools)	At least 1 training project submission including the use of CoFFEE and scenarii	Feb-Sept 2008	Yes	Project presented to Italian Ministry of Education, fund "New technologies and disabilities", Action 6: Innovative research projects. Project title: COLLODI. Collaborative Software to support learning of reading and integration of disabled students.
DSE	1	Italy	Policy makers	Contacting local educational administrations using informative materials	Throughout 2008	The contact material's text is in progress	

PARTNER	TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
					PLANNED	REALISED	
DSE	1 & 2	Italy	End users (inside schools)	At least 3 seminars and demonstrations with teachers	Throughout 2008	One meeting with teachers set for Oct. 3 rd 08	
DSE	3	Italy	Research community	Develop a list of journals and website and send in reviews of CoFFEE	Throughout 2008	Partly	A national list was created
DSE	1 & 2	Italy	Pedagogical community (other)	Press release to QWERTY	Throughout 2008	In progress	
DSE	1&2	Italy	Pedagogical community (other)	Press release to TD Quarterly Journal of Didactic technologies	Throughout 2008	In progress	
DSE	1&2	Italy	Pedagogical community (other)	Press release to the ISCAR mailing list	Throughout 2008	In progress	
DSE	1&2	Italy	Pedagogical community (other)	Press release to AIPASS	Throughout 2008	In progress	
ICATT	3	The Netherlands	Pedagogical community (other)	Consultation meeting with Dr. Jan Lepeltak , expert advisor on the Dutch educational market	29.2.2008	Yes	Further contacts were identified
ICATT	ALL	ALL	Educational content developers	Providing input to the design process of a new Lesson Planner	Feb-Sep 2008	In progress	Design document, incorporating "exploitation" requirements, has been circulated internally

PARTNER	TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
					PLANNED	REALISED	
ICATT	ALL	ALL	End users (inside schools)	User-centred design process with emphasis on capturing domain-expertise for a pedagogically motivated CoFFEE Lesson Planner	Feb-Sep 2008	Ongoing	
ICATT	3	The Netherlands	Pedagogical community (other)	Contacts with at least 3 organisations in order to finalise a commercial service model for the Netherlands	March 2008	Postponed to summer 2008	
ICATT	2	The Netherlands	Pedagogical community (other)	Contact ICT op school	May-June 2008	Postponed to summer 2008	
ICATT	2	The Netherlands	Pedagogical community (other)	Contact Kennisnet	May-June 2008	Postponed to summer 2008	
ICATT	2	The Netherlands	Pedagogical community (other)	Contact SURF	May-June 2008	Postponed to summer 2008	
ICATT	2	The Netherlands	Pedagogical community (other)	Contact COS	May-June 2008	Postponed to summer 2008	
ICATT	2	The Netherlands	Pedagogical community (other)	Contact Its academy	May-June 2008	Postponed to summer 2008	
ICATT	2	The Netherlands	Pedagogical community (other)	Contact KPC	May-June 2008	Postponed to summer 2008	

PARTNER	TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
					PLANNED	REALISED	
ICATT	2	The Netherlands	Pedagogical community (other)	Contact Vives.nl	May-June 2008	Postponed to summer 2008	
ICATT	3	The Netherlands	Educational content developers	Meeting with de Waag	May-June 2008	Postponed to summer 2008	
ICATT	3	The Netherlands	Educational content developers	Meeting with Citowoz	May-June 2008	Postponed to summer 2008	
ICATT	3	The Netherlands	Educational content developers	Meeting with ESS	May-June 2008	Postponed to summer 2008	
ICATT	ALL	ALL	End users (inside schools)	Advisory participation in textbook editorial board	Throughout 2008	Yes	Quality guidelines were sent to editor
ICATT	ALL	ALL	Research community	WP5 coordination	Until Nov. 2008	Ongoing	New exploitation plan, exploitation perspective integrated into R&D, internal communication infrastructure OK
ICATT	ALL	ALL	Software developers	Management of licensing and quality management of distribution policy	Until Nov. 2008	Ongoing	Set criteria and processes for technical and user documentation
ICATT	ALL	ALL	End users (inside schools)	Facilitating distribution and exchange of pedagogical scenarii through end-user websites	May 2008 – Nov. 2010	Initial planning underway	

PARTNER	TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
					PLANNED	REALISED	
ICATT	ALL	ALL	Research community	Continued hosting after project and availability of mailing lists for group communication	May 2008 – Nov. 2010	Ongoing	
LSRI	3	UK	Policy makers	Meeting with Becta project manager (Charles)	March 2008	Yes	They would be prepared to highlight CoFFEE in their circulars
LSRI	3	UK	Pedagogical community (other)	Meeting with VLE provider StudyWiz	May 2008	Amended Action	StudyWiz pulled out of scheduled visit to LSRI. Instead, discussion with Tim Meek from Sherston took place and he has asked to keep in touch with developments
LSRI	2	UK	Pedagogical community (other)	Two Conference presentations	Throughout 2008	Yes	1 poster and 1 paper on LSRI-EE2.3 and LSRI-EE-Extra accepted to ICLS2008.
LSRI	3	ALL	Research community	2 publications	Throughout 2008	Yes	2 papers accepted to ICLS2008 (see dissemination table for details)
UU	3	ALL	Research community	One submitted peer-reviewed conference paper Two accepted peer-reviewed journal publication Two peer-reviewed journal publications in progress	In progress	Fully	Three articles in press, two in progress
UU	2	The Netherlands	Educational content developers and Pedagogical community (other)	Assisting or joining ICATT in meetings with Dutch educational organisation	May-June 2008	Postponed to summer 2008	Requires more concrete planning

PARTNER	TRACK	COUNTRY	TARGET GROUP	PLANNED ACTIVITY	TIME FRAME		RESULTS
					PLANNED	REALISED	
UU	3	ALL	Research community	One peer-reviewed conference paper and one peer-reviewed conference symposium	June 2008	Yes	ICLS2008
ICAR-ARMINES	3	France	Research community	Internal seminar on Tatiana at the ICAR laboratory	May 2008	May 13, 2008	Successful
ICAR-ARMINES	3	France	Research community	Tatiana presentation during French regional group (PPF Apprentice) day-long seminar	May 2008	May 22, 2008	Successful
ARMINES-ICAR	3	France	Research community	Internal seminar on Tatiana and vicarious learning at the RIM Department	May 2008	May 26, 2008	Successful
ARMINES-ICAR	3	France	Research community	Tatiana presentation during French regional group (Personalized Human Learning Computer Environments) day-long seminar	May 2008	May 27, 2008	Successful
ICAR-ARMINES	3	France	Research community	Symposium presentation (ICLS)	June 2008		Accepted
ICAR-ARMINES	3	France	Research community	Discussant for ICLS Framework for Analysis Workshop : transformations theme	June 2008		Accepted
ARMINES-ICAR	2	France	Research community	TATIANA demonstration at ICLS	June 2008		Accepted

