Project no. FP6-028038

Palette

Pedagogically sustained Adaptive LEarning Through the exploitation of Tacit and Explicit knowledge

Instrument: Integrated Project

Thematic Priority: Technology-enhanced learning

D. EVA. 03. Report on the first evaluation of the PALETTE project

Due date of deliverable: 31 July 2007
Actual submission date: 14 September 2007

Start date of project: 1 February 2006   Duration: 36 months

Organisation name of lead contractor for this deliverable: CSET

Project co-funded by the European Commission within the Sixth Framework Programme	
Dissemination Level	
Nature : PU	Public	**Dissemination : PU**

MODIFICATION CONTROL			
Version	Date	Status	Modifications made by
1	13-07-2007	Draft	Murray Saunders
2	16-07-2007	Draft	Bernadette Charlier
3	18-07-2007	Draft	Murray Saunders
4	19-07-2007	Draft	Bernadette Charlier
5	23-07-2007	Draft	Murray Saunders
6	24-07-2007	Draft	Bernadette Charlier
7	31-08-2007	Reviewed	Alain Giboin and Luc Vandenabeele
8	5-09-2007	Reviewed SC	Bernadette Charlier and Nikos Karacapilidis
9	13-09-2007	Final	Bernadette Charlier

Deliverable manager
- Bernadette Charlier, UNIFR.

List of Contributors
- Murray Saunders, CSET
- Bernadette Charlier, UNIFR

List of Evaluators
- Luc Vandenabeel, CRP Henri Rudor
- Alain Giboin, INRIA

Summary

This deliverable brings together the evaluations of the experience of the PALETTE project as a way of working using the broad evaluation methodology developed in D.EVA.01. It builds on the trials of instruments and methods (developed in Task 1) based on agreements on the administration protocols with project work packages. It uses data (on-line questionnaires, interviews) procured in three sweeps of data collection since the beginning of the project by constructing 'provisionally stable' scenarios and experiences. Through providing a formative feedback on the project, the deliverable provides resources for training sessions based on the scenarios and experiences identified.

We have expressed how the evaluation regulates the overall work carried out in the project and shown how the evaluation results have informed the management of the project as well as the training issues.

1   Introduction

1.1   Structure and content of the report

This report brings together the output from the formative evaluation of the PALETTE project which focuses on the project methodology. It is based on three data gathering sweeps designed to chart the evolution of the project from the project participant's points of view. The report outlines the nature and purposes of the evaluation, identifies the framework used to undertake the evaluative work (described in D.EVA.01.) and describes the methodology for data gathering used in each sweep (section 2). It will offer some reflections on this process as a methodology of 'embedded evaluation'. It will also describe the data sets on which the observations of PALETTE method are based (section 3). Section 4 analyses the evolution of the project from the project participants' points of view and section 5 draws out broad learning points from the evaluation and gives guidelines for internal training.

1.2   Audience

The audience for this report is as follows:

- Palette Project participants
- CoP members
- EU officers
- Wider learning community in Europe
- International researchers and developers interested in supporting learning through practices

1.3   Connection with other reports

This report brings together three reports circulated within the Palette project:

- Visions of the Palette Project (February 2006)

- Emerging issues in the implementation of the Palette project (October 2006)

- The evolution of the Palette project (June 2007)

These reports were not formal deliverables but had the function of internal learning resources for the project participants' use. They are integrated here as a formal deliverable.

1.4   Purpose

The purpose of this report is fourfold:

- It formally presents the outcomes of the evaluative activity of the Palette workpackage WP6
- It provides an analytical narrative of the way Palette participants have experienced the methodology of the Palette project
- It is intended as a formative resource for project members
- It provides a basis on which aspects of the project might be adjusted and developed

2 Evaluation framework and approach

2.1 The PALETTE evaluation approach

The PALETTE evaluation approach has been presented in the D.EVA.01. In this section, we summarize the main dimensions applied in this first report. The evaluation depicts, analyse and evaluate the way in which the project participants experience the methodology of the Palette project. The approach is formative in that results are used during the project lifetime to help develop the project successfully. This report gives a precise account on three main steps lived during the first 18 months of the project during which data collection, analyses, feedback and regulation occurred However, it should be noted that this evaluative process is not part of the management of the project but is designed as a resource for all project participants. In this sense, the approach is *an evaluation for development* (a formative evaluation of the project) but it can also be understood as *an 'evaluation for knowledge'* as Eleanor Chelimsky (1997, p100) suggests would have it. This means that the evaluative dimension of the project is built into the design and can be justified as evaluative research in which the evaluation was primarily undertaken to obtain 'a deeper understanding in some specific area or policy field'. In this report the various understanding of the participatory design methodology illustrates this dimension. The final dimension of this integrated approach is to consider the evaluation as a provider of *provisional stabilities* , i.e, of "all kinds of data (statistics, captured rehearsals, examples, metaphors, typologies, vignettes, cases, accounts and platforms, ways of working, principles of procedures, routines) that can be used as resources for innovators in networked project to increase understanding of the change process in which they had been a part and support the project" (Saunders, Charlier and Bonamy 2005). The experience of evaluation in this model sees evaluation as a tool that might support the project (development). We suggest that instead of trying to reduce complexity by searching for common solutions or systematised approaches, with the aim of creating a stable framework that tries to harness change, we prefer an evaluation framework that helps participants within a developmental process to create situated provisional stabilities. An example of this in this deliverable is the presentation of the different partner's visions of the Palette project that would help to build a shared vision of this project. In this way, the design of evaluation processes and practices will provide resources for 'sense making'. Formative evaluations can provide the resources for such reflections. It will not act as a policeman of the WPs but as a resource for all. The focus is on the Palette project as a whole not on individual WPs. To that extent it has a particular interest to project co-ordination.

2.2 The evaluation foci

As stated in D.EVA.01., the main evaluation foci are :

1. Participatory design (which can also be understood as symmetric involvement of users and developers: involving users {CoPs} in designing tools and services)

2. The development of a participative/inclusive approach

3. The iterative or evolving nature of the project and reflexive processes and non-sequential/parallel development

4. The open source culture (ways of doing things and understanding)

5. The processes of mediation and integration between project participants

6. Alignment between aspirations (project theory) and practices in the project and with participants professional development

7. Professional development of Palette partners

Associated to these foci are indicators, i.e. areas or aspects of the project on which data and evidence are collected (mode 1 indicator). It is essentially using a series of descriptive categories. Furthermore, each descriptive category or indicator is specified according to the timing of the evaluating activity in line with whether it is enabling, process or outcomes.

Thus our framework does have a 'temporal' dimension in that enabling indicators are likely to be the focus at the 'front-end' of a project, the process indicators are usually used in the middle stages and the outcome indicators are left to the latter stages or after the project ends. These foci therefore do have a logic that depends on when it is sensible or feasible to look for different types of project characteristics.

2.3   The evaluation methodology

In Figure 1 below, we describe the foci of interest during this first part of the project. They cover enabling and process.

Figure 1: Evaluation steps and foci of interest used

Enabling	Process
1. Visions of the Palette project - *The iterative nature of the project* - *Alignment between aspirations and practices*	2. Emerging issues in the implementation of the PALETTE project : - *The iterative nature of the project* - *The process of mediation and integration between project participants* - *Alignment between aspirations and practices* - *Professional development of PALETTE partners* 3. The evolution of the PALETTE project - *The iterative nature of the project* - *The participatory design* - *The process of mediation and integration between project participant* - *Alignment between aspirations and practices* - *The open source culture* - *Professional development of PALETTE partners*

In the section 3, we give details about the corresponding indicators as well as on the data set.

2.4   Reflections on the evaluation process

In the D.EVA.01 we described the evaluation as an inclusive one in which representative of each WP will be involved to agree on the evaluation framework and precise the indicators. We described the following principles as a guide for our actions:

1. *"Involving project team members in identifying and using key questions, indicators or issues (concern with participatory approaches); outlined graphically in empowerment evaluation at a 'strong' end of the participatory evaluation continuum (see Fetterman et al 1996 and its critique by Patton 97)*

2. *Being part of an ethically justifiable process (a concern with evaluation ethics)*

3. *Making sure their experience is faithfully reported even under political pressure (a concern with declamatory platforms)*

4. *Evaluation products entry into a public debate (a concern with evaluation as part of a democratic process and as a way of promoting democratic participation) (Saunders 2006)"*

To be more effective and use better the resource of the project, following the decision of Palette Steering Committee (SC) January 2007 decision, grounded on our evaluation report, we have limited the participants in WP6 to its core team (CSET, UNIFR and GATE-CNRS). However we have tried to apply our principle by: involving SC in the discussion of the evaluation process and results, giving a complete and precise account of the evaluation results during all the plenary events or meeting (Fribourg, June 2006, Nice, December 2006 and Lausanne June 2007) and publishing all the evaluation intermediary reports on the BSCW.

3   Data collection

3.1. Visions of the PALETTE project – February 2006 (on-line questionnaire)

This first stage of evaluation of Palette project had three main goals:

-   To depict the preliminary vision of all participants at the beginning of the project
-   To encourage project reflection and creativity by the various Palette participants
-   To facilitate valuable insight into increased knowledge of the Palette project

It was focused on the main foci: iterative nature of the project and alignment between aspirations of different project members.

Our main purpose was to provide a formative evaluation to the project at the beginning stage of his development and after the first 6 months. The information is used to demonstrate how the project is beginning, what it has achieved in his early stage and what his problematic aspects are.

Our aim was that formative evaluation will contribute to strengthening the project overall. We have had some experience in both researching evaluation practice as well as undertaking evaluations and it is clear that in a complex project like Palette, people participate for many different reasons, have a different 'vision' for the project and give priority to different things. This is quite normal and it would be a mistake to try and see things through the same lens! What is really useful though is to start a

dialogue about these differences. It is what we have done by presenting and discussing the results of this first evaluation during the internal training organised on Fribourg in June 2006.

Because of the distributed nature of the project, the bulk of the information was collected using email. The strategy was kept relatively simple. Two weeks before the official beginning of Palette project, we designed some questions we would like all Palette partners to consider, very briefly. We synthesized the responses and fed them back at the March 2006 meeting. After the Palette kick-off meeting, we asked all participants that had not sent their responses during the first consultation now to do so. Our aim was to stabilize a project vision by mobilising opinions of a higher number of participants. Finally 25 participants (out of 40) sent their responses. Mainly they were individual responses; however we received 3 teams' answers.

The questions of the beginning of the project are focused cohesion factors and challenges and the overall goal of Palette project as participants' point of view. Moreover, one question asks to participants to themselves into the project and to estimate their understanding about it (see Table 1).

Focus	Question
Globally starting point description	*At this early stage, do you have a sense of the research and development approach of Palette?*
The principal Palette issue	*What do you understand to be the vision of Palette, what is its core purpose?*
Cohesion factors	*What is the most important or exciting dimension of the project for you?*
Challenges	*What is the most problematic part of the project for you at the moment (could be lack of clarity, uncertainty over your role, practical issues etc)?*

Table 1: Questions related to the Palette project at the beginning of the work

Six months after the beginning of Palette project, we made another survey by sending to all participants one question related to their general perceptions about the project evolution (see Table 2). Our aim was to heighten awareness about Palette evolution. We received 15 responses (by phone or by email).

Focus	Question
Project evolution	*Do you think the Palette project has evolved/changed for you since its inception/beginning? If so, how?*

Table 2: Question address to Palette participants six month after the beginning of the project

3.2. Emerging issues in the implementation of the PALETTE project (phone interviews – October 2006)

This second stage of the evaluation of the Palette project had three main goals:

- To depict the evolution of the projects of all participants ;
- To describe and encourage reflection on partners working practice ;

- To provide data to regulate the project process.

It was focused on the following foci : the iterative nature of the project ; the process of mediation and integration between project participant ; alignment between aspiration and professional development of PALETTE partners.

We decided to get precise and rich representations of the project from participants by using telephone interviews.

The interview schedule was used for interviews that lasted on average half an hour. The schedule used by researchers was based on the following prompts. In total 37 project participants responded to the telephone interviews. The following items form the basis for the telephone discussions with project members. The prompts were to be used in the discussion if relevant and to help, not to be covered routinely.

---

1. **Emerging work practices in the WPs**

Prompts

- What do you see as your main WP responsibility?
- How is work distributed?
- How do people communicate?
- What are your responsibilities?
- Are you enjoying the process?
- What are any emerging problems?
- What are you tending to do routinely as part of the project?

2. **Alignment with expectations and project objectives**

Prompts

- Is the project process what you thought it would be?
- Is it how things should be in your experience?
- Do you think what is happening in the project will lead to positive outcomes?
- Are there any mismatches with what you think should be happening to lead to the end points of the project?

3. **Cross project or 'horizontal' working**

Prompts

- Have you participated in cross project activity?
- What has been your connection with other WPs?
- Do you have a sense of what other WPs are doing?
- Do you have a sense of what other project partners are doing?

4. **Project support and management**

Prompts

- How do you think communication across the project is working in general?
- Do you use the WEB space?
- Do you have a sense of the management of the project?
- Do you know what the steering group does?

- Do you feel there is a Palette 'culture', if so, what is it?

5. Professional learning within Palette

Prompts

- Have you participated in any of the workshops?
- What would you say you need most to learn to participate within the project?
- What would you say has been the most interesting thing you have learnt so far?
- Do you think there is a distinction between non-formal and formal learning within the project?
- What more do you think could be done in this respect?

6. **Are there any other issues you would like to discuss in relation to project process?**

Results of this evaluation step were presented and discussed with the partners during the plenary meeting of December 2006 in Nice and guided important regulations embedded in the IP2 (second "Implementation Plan" or workplan of the project).

3.3. The evolution of the PALETTE project (on-line questionnaire) – June 2007

This third stage of evaluation of Palette project had similar goals of the previous one - to depict the evolution of the vision and experience of the project from the points of view of all participants; to describe and encourage reflection on partners working practice and to provide data to regulate the project process. But it broadened the foci to also take into account important foci related with the R and D research process: the participatory design methodology and the open source culture.

An on-line questionnaire was used to elicit formative feedback via a series of email prompts. The style of the prompts is by way of a dialogic interview. Respondents were asked to respond to these prompts and return the email. In total 26 project members responded to the email prompts.

1. There were some divergences in what PALETTE participants thought the project was all about, do you now have a better idea about the purposes and priorities of the project?

2. What are you spending most of your time doing on the project? Do you think this use of your time is about right? Please say a little about how you think your effort is being spent.

3. Are there aspects of the project that you are finding difficult, irritating or frustrating? Please tell us a little about how this is affecting you with examples.

4. Are there aspects of the project that you are finding particularly rewarding, helpful or interesting? Please say a little more about this with examples.

5. How are you finding the present arrangements that link the developers with the CoPs? Please give some details of how they work.

6. What does the idea of participatory design mean to you in practice?

7. Do you think the communication within the project works well or badly? Please give examples.

8. Do you have sense of how the whole project is progressing or do you have a narrow sense of your own work?

9. Do you have any observations to make about the internal training that has been undertaken in PALETTE (strengths, weaknesses, new or emerging needs)?

9. Are there any aspects of the organisation or management of the project that might be improved? Please give examples.

10. An important dimension of PALETTE was its open source nature. What does this mean to you and how might it affect your work (e.g. methods of dissemination of resources/tools and services created by Palette, levels of restriction on public access, levels of external project use and knowledge, processes and mechanisms for sharing experience and resources, use and appropriation of Palette products by the CoPs)

4 Findings addressing key evaluation foci from the evaluation framework: evolution of PALETTE characteristics

We have included in this section reports from each of the main sweeps of evaluative activity. The points made in them are enlivened by quotes from the data to illustrate analytical points.

4.1 Headlines and benchmarks from the first formative sweep on "visions" of the project[1] (February 2006)

This section presents descriptive findings regarding from categorical analysis of the questions addressed at the beginning of Palette project. Thereby, the aim of this part of document was to help project partners better understand common factors and specific challenges of Palette.

4.1.1 Starting point description

The question"*At this early stage, do you have a sense of the research and development approach of Palette?*" asking to depict the starting point representation about Palette approach received three main kinds of responses.

Firstly, we find project partners which **do not still have a clear representation** about the evolution of this project. So, their responses are *"not really"* or "*I am unsure of this question.*"

Secondly, we observed the responses from Palette partners which **understand deeply the project and his evolution**. In this second category, a part of comments make reference to the various stages of the work to be made *("the observation of the CoPs, the modelling of the observations, the validation of the models, the development and the application of tools")* whereas the others put rather in evidence the nature of the work which is to supply (the development and the research approach of Palette are *"iterative at all level, pedagogical to technical (design, development, deployment and validation)"*).

Thirdly, at middle-road between the two opinions above, we find the comments that try to **limit the field of appreciation**: « *for pedagogy part, yes, I think a little bit ; for the technology part, no, not really ; for the collaborative work between both, not at all… »*).

---

[1] This report has been written by A.Gorga, UNIFR.

4.1.2   The participants' perception of the principal Palette issue

Palette main purposes at the beginning of the project

At the beginning stage of project development, the answers from all the participants cohere with main Palette purposes: knowledge building and design services to better support CoPs activities.

However, some answers consider the core issue of Palette project is rather to develop a **better understanding of CoPs working process** by following the purpose, either to transform, or to improve their performances. On the other hand, many answers have a more concrete perspective of what Palette was about. For them, the fundamental approach is **to design and develop services useful, acceptable and adaptable for CoPs**. We found these opinions either separately, as specific core message, or overlapping in the same response.

Knowledge building dimension

Some participants in the Palette project were mostly concerned by the knowledge building dimension. Firstly, they are interested by the development of the reflection about CoPs, about their working process and needs.

> "*The purpose seems to me to transform knowledge about CoPs and their IT support…*"

> "*to develop a better understanding of how particular communities of practice operate and brains in Europe into a testable device with innovative scenarios.*"

Services building dimension

On the other hand, we can note the participants that seem to be more concerned by the services building dimension of Palette project. For them,

> "*the purpose of Palette is to develop interoperable services to support life cycles of various types of communities of practice*"

> "*to support the exchange and the reinforcement of knowledge within CoPs (Learning by Interacting), as well as the consolidation of the CoP themselves (Succeeding by clustering people & competences)*"

> "*to create an environment both soft and technical to facilitate the effective knowledge transfer and management with in a CoP;*

> "*to integrate (web)services dedicated to CoPs*".

Palette tools features

From a methodological point of view, the responses are convergent. Thereby, the suggestion is that the tools which will be develop in Palette project will be set up in a systematic study of communities of practice:

> "*PALETTE will study around 10 various CoPs (how they work, what they need). These tools will be build collaboratively with CoPs*"

> *"It is question to supply to different kinds of CoPs (by acting in a close collaboration with them) the tools (technical and conceptual) that respond better to their needs and to build together using scenario for these tools in order to support and increase their efficiency."*

Outcomes

By introducing Palette tools in the day life of CoPs, the participants expect the following main outcomes:

> *"to improve their efficiency"*

> *"to improve their performance », « to facilitate learning in CoPs with the help of innovative services and tools"*

Moreover, these tools and services must evaluate according to CoPs needs.

4.1.3   Cohesion' factors

Cohesion is a key issue for effective collaborative work. The concept of cohesion is related to the appreciation and interaction of all Palette members particularly on the basis of shared values. The cohesion of the Palette team enhances the appreciation of each of its members of others' points of view.

The more participants appreciate each other, the more they have shared values, the more they will interact. Interaction being a glue factor, it tends to reinforce cohesion.

The answers in the beginning of project give an insight of shared values within all members of Palette. These comments suggest three main levels of assertion of the shared values:

- project research object
- project team characteristics
- project design

Some Palette partners asserted their interest in research dimension of CoPs. Thereby the most exiting dimension of the project was to discover

> *"communities of practice, how they are built, how they work, how they evolve"*;

> *"to develop a critical approach to interpreting communities of practice"* and to make *"a deep study of the CoPs phenomena"* that is facilitate by *"the variety of CoPs (sector and size)"*.

It is also important that CoPs are perceived as a "hot research topics" so a lot of people will be interested in the future.

The composition of the project team, its capital of varied and multidisciplinary experience and its international dimension are crucial factors for the participants to support this project. Therefore, the most important characteristics of Palette team are :

> *"the interdisciplinary and international dimensions"*

> *"the multicultural team" and "the quality of participants"*.

The diversity and the multidisciplinarity nature of the team are also appreciated and their work together it's an important challenge:

"making computer science specialists and human / social science specialists effectively collaborate "

In the Palette project, the most attractive dimensions are the follows:

duration of the project -

"*enough time to construct collaboratively, not only reusing existing things*"

pragmatism –

"we merge Learning and Knowledge Management, and we move from the virtual world (...) to the real- world (...)"

collaborative work –

"*the most important dimension of this project to us is the comprehension of collaborative work and the development of all the means necessary to carry out this work successfully by practicing the methods and tools proposed by this project* "

management and the coordination of the project-

"*The most important dimension concern the organization by who represent clients' interests, of the communication with the architects, the builders, the suppliers and the equipment builders. It is in question the support of CoPs learning and the help to develop tools really useful for them. These tools could integrate the most interesting technological progress brought the last years by bringing also the pedagogues opinions. The purpose of this "challenge" is the coordination and the real team work together with all partners enrols (more or less close) in this project: the informatics team, the users, the software, the interfaces, the pedagogues and the pragmatics.*"

4.1.4   Challenges

By their motivation for the creative work, challenges are important ingredients of an activity. As in most projects lifecycles, the Palette project can be deconstructed as several phases of practice as follows:

- Phase 1: initiation design practice
- Phase 2: planning practices
- Phase 3: regulatory practice
- Phase 4: implementation practices

Phase 1: Initiation design phase

The most important question about this stage concerns the CoPs chosen for participation in the Palette Project:

"have the chosen CoPs really the characteristics traditionally assign to the CoPs? *Do the CoPs really exist as the manager speeches depicted them, or we have to doubt it? By bringing tools to communities, the objective of Palette project is to bring together CoPs, to support them, either maybe both? The CoPs seems to be disparate. While some seem to be just emergent (ex: Form@HETICE), the others already have years of practice behind them. The variety of the CoPs at all the levels and the notion of tools must be clarified so that the partners can understand it.*"

Phase 2: Planning phase

The most important question link to planning phase is related to the **complexity of project design**:

> "*Many people to similar things and should coordinate themselves at different levels: team, institutions, task and different work packages. There is a risk that intensive and may be important work is done and not well known, acknowledged or used at all these levels*."

Phase 3: Regulation phase

This phase was a challenge for most participants, illustrated by comments like:

> "*it would be in question to not missing the coordination of the work and the numerous partners of the project. As coordinator of the WP1, we shall have to watch that the concepts and the procedures are clear and the tasks are well distributed. It is the work which must be made as soon as possible. The links to be made between the various WPs are indeed essential (…).Some tasks are supposed to have already begun, while it would have been preferable that they are guided by the approval of the WP1 and the others. There is a not unimportant risk that this project is transformed into a group of small projects, each follow its own management and its own interests. It is necessary to pay attention to this danger. Who is going to coordinate all this and how? Is the light going to arise from the chaos?* "

Thus it is very important to form, "*complementary goals between the Palette specialists*" because "*this project requires a lot of interactions between the partners and they must learn to work together (first time we work together and maybe we have different cultural context and project vision.)*"

Phase 4: Implementation phase

The largest number of comments was related to the execution phase of the project. All the participants are mostly interested in concrete aspects of Palette realization:

> "*The most problematic aspect to me would be if we are forced into an uncritical acceptance of the notion of communities of practice*"

> "*as for all European projects: to transform words and promises (with implicit agendas) to reality with explicit deliverables; to transform the Consortium into a living and inspiring community of practice, with shared language and goals.*"

On of the most complex factor in Palette execution phase seems to be the communication because of different language communication ("the overruling of French speakers") and of the different team specialties ("I also feel that the integration of pedagogic requirements to that of the technical understanding."). The multicultural composition of the project team was both an important resource and a crucial challenge.

Interoperability of tools or, more common, technologies integration were important questions addressed in many comments:

> "*The most mysterious aspect, if not a problematic part - as I have no representation of the way this can be done - is the way the interoperability of tools will be maintained, and the way*
>
> "*intelligent agents" will interact.*"

4.1.5   The evolution of Palette project representations after six months

This section summarizes the opinions of the Palette participants about the evolution of the Palette project after six months.

A clearer vision about project

Six months after the beginning of the Palette project, all participants to our inquiry declared that their global vision has not radically changed:

> "*My personal vision does not change a lot. Firstly, I was impressed by the project, and then I learn about both the CoPs and tools developed within the project. It doesn't change but evolve through each step.*"

The most notable dimension to evolve concerns their concrete apprehension about their own tasks and the WP role and functions:

> "*now I can see more clearly the project, we can see what we must to do and how we must acting*"

> "*what is really changed is the ambiance in the Palette project: now we can observe a lot of WP interacting and the partners work more together*"; "*Now I can see what each partner is supposed to work in this project and where the difficulties can occur.*"

The explanation mostly given for this evolution concerned the organization of Palette Summer School in Fribourg, during the last week of June:

> "*My vision of the project has evolved slightly owing to the content of the Summer School activities*"

> "*Summer School was the cement of the work together in the project.*"

With regard to other projects they have experience, when a joint activity is organized mostly after one year; the Summer School Palette took place at the appropriate and earlier moment:

> "*it was a very good time to organize this Summer School and to permit to Palette people to meet together: it was not a long period of individually work, so the partners have not time to develop something individually. By coming to the Summer School, they can meet and confront their opinions and strengthen the collaboration and the interaction within the project.*"

Key issues

Despite the fact that a lot of participants were optimistic regarding Palette evolution, they were also concerned by the manner in which the project will evolve in the future. The concrete implementation of the participatory design seems to be the most important worry:

> "*While knowing that the people can not be forced to participate, how we are going to implement concretely the participatory design?*"

> "*In Palette project we find many different interests. Do we manage to harmonize all of them?*"

Another question connects with the integration of different Palette tools. Some responses stressed the importance of this problem in project evolution:

"*What definition for tools integration? Who must formulate it? When we will put the tools and services integration as a priority in our project?*"

The way this report was used for the formative planning for Palette

Grounded on these observations, the main adjustments decided by the coordination team in collaboration with the Steering Committee has been to:

- Adopt the participatory design methodology suggested by WP1 ;
- Try to operationalise it by setting up three teams (A,B.C) in which "P" and "T" could collaborate with CoPs ;
- Use these teams to better align the visions of the project between P and T;
- Deepening the research on learning in CoPs by realising a transversal analysis of the data already collected by WP1.

4.2 Analysis and benchmarks from the 2nd formative sweep on experience of the project (October 2006)

As part of the formative evaluation of PALETTE, this report is a synthesis of thirty seven interviews of PALETTE project participants during October and November 2006[2]. The report is the second stage of discussions with PALETTE project members concerning their experiences of the project so far. It will build on aspects covered in the earlier work on 'visions'. The focus of these interviews is rather different. The discussions were by telephone interview and face to face, lasting about half hour. The discussions were informal and confidential and covered the following topics:

1. How project members are beginning to work within the WPs, WP practices and responsibilities
2. Issues to do with alignment-is what is happening what they thought would happen, is it leading to the end points they anticipated?
3. Issues to do with cross WP activity and involvement (e.g. teams A-C)
4. Issues about support within the project (communication, WEB space, steering group etc)
5. Also we would be interested in the professional learning dimension (both formal and non formal) in the project.

Interviewees answered to questions inspired by the prompts listed in section 3.2.
As we already mentionned, this report is attempting to create 'provisional stability' and suggest ways in which the project might be strengthened or improved based on the experience of its membership. The following report is a synthesis that identifies the variety of views expressed and some common themes and is analysed under the items in the interview questions. The interview guidelines were used as an 'agenda' and all the interviews were tape-recorded (with the interviewee's permission). The interviews were later written up and analysed. Verbatim quotes are included here in italics.

4.2.1 Emerging work practices in the Work Packages

This was the section of the interview on which interviewees were most vocal! Interviewees were asked to comment on a range of issues relating to work practices within the work

---

[2] The interviews have been carried out by Joan Machell (Lancaster University), Fabienne Pironet (University of Liege), Frédéric Vermeulin (CNRS), and Christian Maissen (University of Fribourg). They were carried out at very short notice and the WP6 team would like to thank the interview team for their great efforts and all those who agreed to be interviewed.

packages (WPs). First they were asked for their views on the ways in which work was distributed. Some interviewees gave a factual breakdown of 'who does what' within the WPs in which they were involved. For the most part, there appears to be a general satisfaction with the distribution of labour - at least within respondents' own WPs. However, there were some comments that this aspect of the project was rather unclear and not very well-defined: *'there are no set guidelines on the way the work contribution of each* (WP) *should be distributed'.* There had been, it was felt, *'no real work breakdown structure of the work to be done'.* This was now beginning to happen, but, according to at least one respondent, this distribution of tasks should have been made much clearer from the start of the project. Another of those interviewed acknowledged that the distribution of work was not as well-defined as some partners would have liked but felt that this 'fuzziness' was inevitable as, at the time the project proposal was written, it was very difficult to estimate how much time or 'manpower' to allocate to the range of tasks to be covered within the project.

Methods of communication appear to be similar across the WPs - with the majority relying on email to exchange information. In general, this is regarded as an efficient means of communication - although the quantity of emails being generated was criticised by a number of those interviewed (*'the huge level of generic emailing that's going on is ridiculous').* Face-to-face meetings were mentioned by a number of those interviewed. Where a number of project participants worked within the same organisation, these often took the form of informal and frequent conversations. The point was raised by more than one interviewee that, in order to be effective, when formal meetings are held it is essential that these are well-planned in advance - and this, according to some of the partners, is not always the case. Other methods of communication include virtual meetings, use of on-line fora and telephone conversations. Reference is made to the DOW as a way of distributing work and responsibilities, but it was rather 'optimistic', although 'more structure' was suggested by many.

In terms of enjoyment of the project, reassuringly, the vast majority of those interviewed say that they *are* enjoying the project - some, in fact, were *very* enthusiastic. Many said that they found the project very 'interesting' and close, in certain aspects, to their particular area/s of professional interest.

Few could identify anything that they were doing routinely as part of the project - perhaps because very few were working on the project full-time. The only routine task that was mentioned was reading through (or filing away for later attention) the vast numbers of email messages generated by the project.

In spite of the fairly positive responses to the questions above, when asked if they could identify any emerging problems, a number of issues were raised by those interviewed.

The main issues raised were the following (in no order of importance):

- Overload of email communications: because of the volume of emails being sent, some people were not bothering to read any that they did not consider to be important to them. Consequently, there is a risk of overlooking some information which *is* important. The use of emails were also referred to as a source of misunderstanding because of it's form. Messages can be curt or abrupt making them seem rude or unsympathetic.

- Autonomy: the relative autonomy of the WPs was a 'difficulty' rather than a problem - as yet. One interviewee acknowledged that, because of the complex nature of the project, co-ordinating and integrating the work of the different WPs is very difficult. Variously described as 'fragmented' or WPs have to begin to work in parallel but there are also obvious dependencies between them. Experience of the project can be depicted as a series of concentric circles. The inner circles consisting of participants

steeped in the day to day activities of PALETTE, working more or less full time. The outer circles, consisting of varying degrees of engagement and knowledge of the project. At the moment, it was felt, there is a tendency for each WP to proceed irrespective of what is going on in other WPs. Another interviewee summed up this issue: *'too many people are working, everyone is doing a very good job…but sometimes I think we are not aware of what the rest of the teams are doing'*. This raised an interesting issue concerning differences between co-operation and collaboration in working practices.

- Tight deadlines: the often very tight deadlines that partners are expected to meet were causing some concern within some of the WPs. This was identified as 'emergency or crisis working'. One interviewee felt that *'this culture of ridiculously short deadlines'* was hampering the quality of what is coming out of the project. There was, he felt, far too much *'fire-fighting going on without people really thinking of the best way to do things'*.

- Language problems: another concern was that many of the partners are French-speaking partners and, as one interviewee put it: *'they can think in French but not English*! *The fact that they have to express themselves in English takes away some of the value of what they have to say'*. Whilst most of those interviewed had a very good understanding and command of English (in spite of their protestations to the contrary), there was a concern expressed that some of the finer detail of their contributions to discussions etc. may be being 'lost in translation'.

- Inadequately planned meetings: there were a number of references made to this concern. As important decisions tend to be made at face-to-face meetings, it was felt to be essential that the meetings were planned to make the most efficient and effective use of the available time. Some interviewees were concerned that this was not always happening. There were, it was said, too many occasions when meetings appeared to have no specific agenda. One interviewee said that he knew of *'cases where we sent people and other partners sent people to a meeting and the only thing we knew about the meeting was just the time of the meeting'*. There were also claimed to be instances when the issues that were meant to be discussed at a meeting were not, in fact, discussed at all.

- Tensions between pedagogues and technical experts: some interviewees referred to difficulties (certainly in the first stages of the project) of the *'technical people and pedagogues'* working together in the light of the *'two different languages and cultures'* within these groups. However, in spite of these reservations, there was optimism that much would be learned in terms of how the two groups could work effectively together in order to meet the project's objectives. There was a view that the logic of working from how the CoPs worked first, in order to have a specification for the kinds of tools that may help had been lost a little.

4.2.2   Alignment with expectations and project objectives

In terms of the extent to which the project process is meeting participants' expectations, opinions were split between those who felt that the project was more or less as they had expected and those who felt that it was working out very differently. One interviewee had had no prior expectations as this was the first pan-European project in which he had been involved. Some argued that they came to the project after key design decisions had been made.

Those who said that the project *was* more or less meeting their expectations had had, in general, fairly low initial expectations. They had generally been involved in previous European

projects and so felt they had a 'realistic' view of what could be expected. One such interviewee described (defended?) this as a *'very robust view'* - as his expectations were low, he was *'usually pleasantly surprised that something decent comes out of it'*. No one (even the project 'enthusiasts') said that the project process, so far, was exceeding their expectations. Such a group knew it would be 'messy' and negotiated most of the time. An interesting view emerged that saw the DoW being interpreted on the one hand quite freely and on the other hand rather literally. These differences can create tensions in the approach to work and to expectations. Many thought there had been surprises (like the lack of structure) but that was normal and most of the time the surprises were creative and interesting.

Those who said that the project process was *not* meeting their expectations cited various reasons for this. Some comments concerned the management of the project. One interviewee said that he had expected that the 'complexity' of the project would be managed differently; another said that he would have expected the project to be managed more 'commercially' in that it would have had a project manager *'who was in charge of all the project - the tasks - and make sure that somebody at the top is driving - maybe a chief executive type of a person'*. Another of those interviewed felt that the rhetoric and practice of the project were very different (for example, there was little sense of participatory design happening with regard to the tools for the CoPs). The participatory dimension did not seem that well understood by participants and that a general 'feel' of the whole project was difficult to obtain.

When asked if they felt that what was happening in the project would lead to positive outcomes, most of those interviewed thought that *some* outcomes would be achieved but perhaps not all the original intended outcomes and perhaps not the outcomes that were originally envisaged: *'They will maybe produce new tools but even if they don't produce good new tools then they will at least understand more about how the CoPs use existing tools and help them to use them in different ways'*.

Many of those interviewed were more confident that positive outcomes would emerge: one felt that this was '*definitely'* the case but the other two were more cautious in their optimism. One felt that there *would* be positive outcomes but felt that these might not be delivered on time. The other interviewee felt that some critical problems ('*mis-communication', 'co-operation issues')* needed to be addressed if there were to be positive outcomes.

The remaining interviewees were unsure, at this stage, that there would be positive outcomes. One of these felt that he was not being pessimistic but, rather, had a '*rationalistic view'* of project development - particularly in the context of European projects. This informant felt that it was a mistake to see it as a failure if the objectives of the original proposal were not met. He felt that there would be some resources developed through the project but his experience of Research and Development projects within Europe had not been particularly positive: *'good things are produced but they are not always taken up and used'*. In terms of Palette, he was not really sure what was going to happen. He felt that the project would succeed in terms of delivery *'but whether in the long term it's going to make huge contribution to European working life, or anything like that, I'd be a bit sceptical'*.

The main issues raised were the following (in no order of importance):

- There were diverse views on the extent to which the project was proceeding as expected. This seemed to be dependent on the extent to which the participant was experienced in European projects or not. Those with a lot of experience seemed less surprised at some of the 'messiness'' of the process.

- The complexity of the project had been a surprise for many. Some suggested that the management of 'structure' had not really developed adequately to take account of this complexity.

- There was a gap between the rhetoric of the project and the reality. In particular the 'participatory design' dimension was unclear for many.

- Despite these caveats, while the value of the final outputs of PALETTE was difficult to predict in some ways, most were optimistic that there would be some positive outcomes.

4.2.3 Cross Project or Horizontal Working

In terms of connections with other WPs, perceptions of the extent of these connections varied considerably. Some thought that (so far, at least) they had very little connection. But many felt they had a pretty good idea of what was going on in other WPs and had many opportunities to work together. Only one of those interviewed said that '*most partners are involved in many WPs'*. While the formation of three 'horizontal' teams In WP1was considered a good idea by most, a minority view was that as Palette is already a very complex project, it was adding complexity and co-ordinating the teams raises more problems.

There is a lot of information about what the WP do, but the way the information circulates in the project is problematic. There may be two reasons for this.

The first one concerns the internal tools, one participant described them as "too much scattered". The information is in several different places. There would be thus a lack of integrated tools, and of a real collaborative working environment. The second reason concerns the structuralization, and the sorting of the information (no priorities). It would be necessary, for example, to be able to propose two levels of reading: A short summary, and the possibility to know more about it if we wish it. Each one could, so, find the information which they need, without being submerged by an excess of information, which is really not clear. These two points merge. PALETTE is a sort of CoP, the work of which is necessary to improve.

A related issue raised by some concerned the varying language and semantics used by project members. *"we don't always understand each other because we don't share a common vocabulary"*. Note was also made of the decision making process which can slip and slide between meetings leaving those who were not party to the changes rather confused

Most of the interviewees had some idea of what WPs other than their own were doing (one view was that the goals of WP6 were unclear to him). Some commented that they felt that they knew as much as they needed to know - and had no particular wish, or need, to find out more. Only one interviewee 'confessed' to knowing very little.

The main issues raised were the following (in no order of importance):

- There was some ambiguity about the extent to which participants knew or were familiar with the work of other work packages but many felt that because they worked in more than one WP, they understood what was going on well.

- Face to face meetings were considered important for cross WP working and it was noted that when partners were unable to make the meeting, this lessened their effective participation.

- The use of 'specific vocabularies' across WPs can be varied which causes some confusion. The discourse of the technical designers for example is very different to the pedagogues. The lack of a shared vocabulary, then, does hinder cross WP working.

- The project has many layers or segments of work going on at the same time. This means inevitably that a degree of fragmentation characterises knowledge as it circulates through the project.

4.2.4 Project Support and Management

Those interviewed were asked about how they felt communication across the project was working. The general feeling was that communication within individual WPs was effective but was less so at the level of the overall project. BSCW provoked a mixed response. Some project participants used it for 'archive' purposes, others not. The observation was made that it was difficult to know the status and whereabouts of documents.

The management is sometimes perceived as distant and insufficiently explained, notably by those who ask for more structuralization. But other partners consider that there is a good balance between coordination and local initiatives, that it is necessary to protect this relative freedom, which is creative. In terms of a sense of the management of the project, interviewees made the observation that they felt that there was insufficient central direction and leadership: '*sometimes if you leave everybody to take the decisions, nobody does'*. Another comment was that the project seemed to be 'managed' to meet accountability demands rather than in terms of managing the people involved.

The volume of emails was again criticised here: one interviewee said that, for him, '*there's a tension between wanting to know but not wanting to know'*. The tendency was for emails to be ignored, or stored for future attention, and this raised the possibility of information that really needed to be acted upon being overlooked (as may have been the case with our requests for evaluation interviews). Another interviewee felt that the problem was that, in terms of the issues that people *need* to communicate and discuss - for instance when decisions need to be made - there is not *enough* communication and: '*in terms of things which are actually quite unimportant, there's far too much discussion'*. Against this, was the view that the project required this kind of interchange and uncertainty. It was a continuously evolving and complex environment in which it was impossible to retain a rationalistic view of project management by clear objectives.

Few could define a Palette culture at this stage of the project. Although they felt that a Palette culture might emerge, they thought that it was too soon to define what this culture might 'feel' like. Some felt that the project was too big and complex in structure for an overall Palette culture to emerge but suggested that some of the WPs might be developing their own particular cultures. Using a more dynamic approach to the WEB site might be a way of defining the emerging PALETTE culture and developing a common language. At the moment, the WEB site was not considered a key feature of the project.

The main issues raised were the following (in no order of importance):

- Overall, communication is operating at two levels. Within WPs communication, management and decision making is considered to be working reasonably well. Although the timing and content of meetings and actions were not always managed well. Inevitably in a complex and large project like PALETTE, overall project management and support is experienced more diversely. Project management overall was experienced in a slightly distant way, a need to distinguish between scientific or substantive leadership on the one hand and administration on the other has emerged. The administrative dimension is considered positively by most, but there is less certainty about 'substantive' leadership or, put another way 'structuration'.

- Many identified the volume of emails as an issue. A minority were happy with this mode of communication. This is interesting because there was a view that there had been confusion between 'volume' and 'quality'. To be safe, project participants have tended to produce a large amount of indiscriminate 'traffic' on relatively trivial or highly specialised issues. There was a suggestion that emails could be sent in a more discerning way.

- The two platforms of the WEB site and BSCW were also experienced diversely. BSCW was a good resource for the project for most people although some felt it could be a little easier to find and assess documents. The WEB site bordered on the irrelevant as it now stands, the view was that it should be more 'dynamic' and provide a *'window on the project to the outside'*.

- There was little evidence from the interviews that a PALETTE culture had emerged, although most felt this was a possible development in the future.

4.2.5 Professional learning within Palette

Interviewees were asked about their learning, both formal and informal, within the project: what they felt they had learnt, or were learning, and where learning was taking place.

In terms of what interviewees felt that they needed most to learn to participate in the project, a number of references were made to learning how to communicate and work with people with different professional cultures (i.e. pedagogues and technical experts). One respondent felt that he needed to learn much more about the objectives and *'tasks within tasks'*. In some cases he felt that there were *'hidden objectives'* - agendas that have not been made explicit. It may be difficult to make this explicit but it probably refers to individual and institutional research agendas that have not always been made explicit. This meant that he felt that he did not have a clear understanding of what each partner wants to achieve. One interviewee said that what he most needed to learn was *'to be more and more patient with people!'*

When asked what was the most interesting thing that they had learnt so far, responses, not surprisingly, varied from individual to individual. The following were provided:

- *'How pedagogues and technical experts can work together'*
- *'In cross-national projects the scope of what you can do with ideas is more focussed around trying to develop common understandings of things rather than focused on the cutting edge of developing ideas'.*
- *'Issues associated with complex project design and how to start thinking about the horizontal and vertical communication and integration - things like that'.*
- *'I learned to use tools for communication in PALETTE'*
- *'In order to participate in PALETTE, I have learned a lot about the idea of a CoP, their development and evolution'*
- *'What was most important to me at the Fribourg meeting was the non-official meetings and discussions I had with other people from other WPs'*
- *'I have discovered more about other tools, for example MOT and Amaya*

Thus we can suggest that Palette partners have learnt interdisciplinary work and new technological services. Others mentioned learning more about CoPs and about theories of collaboration.

Many of those interviewed said that they had taken part in a workshop (or workshops) that contributed to learning outside these more 'formal' situations. They could identify a clear

distinction between formal and non-formal learning within the project and were more inclined to think that, for them, there had been more opportunities (so far) for non-formal learning. In fact, few could identify any gains in formal learning. One said that there was *'a big potential'* for this but, as yet, this was certainly not happening for him. It was suggested that there should have been more attention paid at the beginning of the project to establishing the training/learning needs of the partners.

An important point made by more than one of those interviewed was that the project had missed a valuable opportunity in not making use of the opportunity to use the project itself as a CoP. According to one of those interviewed, the partners could have: *'started as a community of interest, then moved into a community of purpose and then made it a community of practice. The community of purpose would be the Palette project: the purpose being Palette & deliverables'.* It was felt that: *'instead of relying on external CoPs which have been there, we would have learned a lot of things from ourselves'.*

The main issues raised were the following (in no order of importance):

- Professional learning within the project has been identified in a very positive way within the project and has included both informal and more formal modes

- The formal modes within workshops and the Summer School have been experienced positively overall, although the 'pitch' (level of difficulty) and design of the content needs to be carefully assessed. New tools and approaches and the way learning within CoPs takes place were identified specifically.

- Informal learning through the interaction between individuals within the project was positively identified by many participants. The focus for this learning includes interactional skills, different ways of doing things, different discourses between social science and technical expertise and project processes.

- PALETTE could have been more self conscious about itself as a CoP and worked on that basis.

4.2.6   Summary of main issues

Work practices

- Overload of email communications: more care might be taken in the volume and nature of emails to make sure they are fit for purpose

- Autonomy: the relative autonomy of the WPs was a 'difficulty' rather than a problem. We might think of the interconnections between different types of project membership and understand the differences between 'inner and outer circles'. We need also to consider the logic of the project that produces dependencies and connections between different actions.

- Tight deadlines: the often very tight deadlines that partners are expected to meet were causing some concern within some of the WPs. This was identified as 'emergency or crisis working'. More care should be taken over timing issues and thinking ahead about tasks and responsibilities

- Language issues: having to report and discuss often in English presents problems and should be acknowledged

- Tensions between pedagogues and technical experts: there was a view that the logic of working from how the CoPs worked first, in order to have a specification for the kinds of tools that may help had been lost a little.

Alignment with expectations and project objectives

- Project complexity and process 'messiness': Acknowledging and accepting the fact that this is a complex project and we should accept the 'messiness'' of the process.

- The complexity of the project had been a surprise for many. Some suggested that the management of 'structure' had not really developed adequately to take account of this complexity.

- There was a gap between the rhetoric of the project and the reality. In particular the 'participatory design' dimension was unclear for many.

- Despite these caveats, while the value of the final outputs of PALETTE was difficult to predict in some ways, most were optimistic that there would be some positive outcomes.

Cross Project or Horizontal Working

- There was some ambiguity about the extent to which participants knew or were familiar with the work of other work packages but many felt that because they worked in more than one WP, they understood what was going on well.

- Face to face meetings were considered important for cross WP working and it was noted that when partners were unable to make the meeting, this lessened their effective participation.

- The use of 'specific vocabularies' across WPs can be varied which causes some confusions. The discourse of the technical designers for example is very different to the pedagogues. The lack of a shared vocabulary, then, does hinder cross WP working.

- The project has many layers or segments of work going on at the same time. This means inevitably that a degree of fragmentation characterises knowledge as it circulates through the project.

Project Support and Management

- Overall, communication is operating at two levels. Within WPs communication, management and decision making is considered to be working reasonably well. Project management overall was experienced in a slightly distant way, a need to distinguish between scientific or substantive leadership on the one hand and administration on the other has emerged. The administrative dimension is considered positively by most, but there is less certainty about 'substantive' leadership or, put another way 'structuration'.

- The two platforms of the WEB site and BSCW were also experienced diversely. BSCW was a good resource for the project for most people although some felt it could

be a little easier to find and assess documents. The WEB site bordered on the irrelevant as it now stands; the view was that it should be more 'dynamic' and provide a *'window on the project to the outside'*.

Professional learning within Palette

- Professional learning within the project has been identified in a very positive way within the project and has included both informal and more formal modes

- The formal modes within workshops and the Summer School have been experienced positively overall, although the 'pitch' (level of difficulty) and design of the content needs to carefully assessed. New tools and approaches and the way learning within CoPs takes place were identified specifically.

- Informal learning through the interaction between individuals within the project was positively identified by many participants. The focus for this learning includes interactional skills, different ways of doing things, different discourses between social science and technical expertise and project processes.

- PALETTE could have been more self conscious about itself as a CoP and worked on that basis.

The way this report was used for the formative planning for Palette

This report was communicated to and discussed with all PALETTE partners during the plenary meeting of December 2006 in Nice. This gave the opportunity to the SC to decide important adjustments to orient the next IP :

- Change in the organisation of Work by showing better the role of WP5 and facilitating the collaboration between WP
- Clarify the roles and responsibilities by diminishing the number of partners per Wp and reinforce the role of the scientific coordination team
- Facilitating the communication by setting up communication rules and revising the mailing lists
- Restructuring the website and establishing an editorial board
- Reinforcing the representatively of the SC by involving also the board of directors in the main discussions
- Use the calendar function of the BSCW
- Underline the role of the teams
- Introduce in IP2 (WP1) a task on the documentation and improvement of the PDM (Participatory Design Methodology)
- Enhance and adapt the glossary.

4.3 Detailed analysis of the 3rd formative sweep on the experience of the projects (June 2007)

We have included the detailed analysis of the 3rd formative sweep in this section because it demonstrates clearly the way in which the concerns, understanding and focus of project participants' have evolved. The section is organised on the basis of the questions asked in the on-line interview with members of the project.

4.3.1 Understanding of the purposes and priorities of the project

The overwhelming response to this question is that mutual understanding of the objectives; working processes and vision of the project have all improved as Palette has evolved. This has been brought about by several mechanisms:

Involvement and development of the collaborative teams A, B and C
Involvement of more project members in the development of the IP2
Involvement of some project members in the review process

The following quotes are illustrative of the way these mechanisms were experienced by respondents

> *"Although I am not in the project since its beginning, I certainly do have a better idea about it now - after a year in it - than I had, say, six months ago. My understanding of the project comes from interaction with other partners, with CoP members, from external remarks (e.g. the April review) - I'd say I understand (my part of) the project because I work on it"*

> *"At the beginning of the project, I had not a clear vision on Palette objectives and on Palette partners' roles. But, when the teams ABC were created, these two points were lighted! That's the reason why I particularly appreciate the IP2 graphical representation of work packages, with WP5 in the centre, teams around, then other WPs: the ideal representation in my opinion, which makes the purposes and priorities of the project very clear"*

4.3.2 How participants are spending their time on the project

Depending on the position taken up by the respondents, roles were quite disparate. It might be important to distinguish quite carefully how the position and role in the project shapes the way the project is experienced and perceived. As the project evolves, it can be described as an evolution staircase. These roles are not mutually exclusive and are often occupied by the same person but can be captured in the following figure:

Fig 2: practices of Palette members

Coordinator (framing, justifying, reporting, contacting project members, liaising with EU)

    WP leader (organising meetings, communication, reporting, justifying)

        Pedagogic (working with the CoPs and modelling CoPs activities)

        Technical developer (meetings, writing deliverables, designing)

        Mediator (preparing resources, working with the COP, reporting)

Overall, there was a sense in which respondents saw project administrative tasks (described by one person as 'palette machinery') took up too much time in comparison with 'real tasks' or scientific tasks (identified as designing, working with CoPs on understanding learning processes, research and 'deep discussions'.

"As new WP leader, my tasks have been changed. I am now spending a lot of time organizing meetings, taking into account the wishes of each one, coordinating tasks, etc. The elaboration of IP2 between February and May was very time consuming. So I spend less time on active research or production. However I remain mediator. This is my direct connection with the field and it's important I keep it."

"I am coordinating the work of the resources working on the project, at a partner level. This implies to understand their tasks and to make links between these, if they "forget" to do so. I spend most of my time reading mails coming from the different partners and using these to coordinate the work inside"

"Writing deliverables, attending meetings and justifying the work being done. I think that too much time is spent on these tasks (especially the 2 first) which doesn't leave enough time to properly realize the "real" work"

4.3.3   Difficulties and challenges

This evoked the fullest responses with rich analysis and descriptions. Below are the main frustrations or difficulties identified. We repeat, it is important to understand this list in terms of the roles undertaken in the project. There are some interesting differences in expectation between users or potential users of tools and developers. This area of work might still be better integrated with CoP depictions and their possible requirements being subject to 'forced mergers' with the developers existing interests. On the other hand, developers may say that the CoPs are still unclear about what they want to use and do not have a 'generous' enough attitude to the exploratory nature of some of the tools. This issue is at the heart of 'participatory design' as an idea.

- Dealing with partners who do not stick to agreements or participate fully
- Ill defined meetings with no clear outcomes
- CoPs needs being unclear
- Misunderstandings of an exploratory project (need for perfection rather than a degree of instability
- Tensions between the work styles and cultures of T and P and CoP project members
- Language use
- Communication style deemed inappropriate or rude
- Using the BSCW and finding what is required
- Tensions between aspirations and the tools that are made available
- Communication and timing (e.g. lack of notice of important meetings e.g. steering group)
- Lack of use of communication tools to replace FtF meetings
- Lack of leadership to resolve problems between partners
- Project members not preparing properly for meetings (reading documents etc)
- Partners not responding to requests for information

"(1) dealing with the partners who do not respect their engagements in terms of the work to be done and the pm agreed upon; (2) trying to realize a good work in spite of (1) (3) attending some meetings which purpose is to make decisions, and which finally result in endless discussions about terminology, remaining disagreements and no decision. (4) misunderstandings with some CoPs which do not formulate their needs, are not really involved and nevertheless expect to have "perfect" tools (mostly in terms of "look" than in

terms of functionalities). These CoPs are not in a "spirit" of participating to an exploratory project but act as if they were dealing with industries (SSII)."

"*The slow emergence of the common vision is rich and interesting but also time and energy consuming. In addition, the "show us what you have, and we take as is what interests us" apparent attitude of CoP (as a consumer) is a little bit frustrating when compared to the initial assumption: "let's discuss about your need and build the tools together". This may end up in a market where each tries to sell its stuff and develop its own things according to its own agenda. This may lead to unconcerned individual tool and service developments and lack of interoperability and openness of the global system, endangering the chances of sustainability after the project. The syndrome of disconnected tools reaching disconnected CoP's for functions disconnected from learning is still a risk. At the stage, I remain however quite optimistic"*

4.3.4   Rewarding and interesting dimensions of the project

Again there were many rich and insightful responses to this prompt providing a useful antidote to the sense of frustration that emerges from the previous quote. It is interesting that the aspects of the project respondents find rewarding are often those that are identifies as frustrating!

- Collaboratively working on IP2
- The re-emergence of the research agenda
- Collaboration between P &Ts
- Cross cultural collaborations (national)
- Excitement of working with the idea of a CoP
- The social interactional dimension is rewarding
- Developing a shared language with partners
- Participative design and its challenges
- Face to face meetings
- Heterogeneous nature of the project partners is exciting (real working groups{CoPs}, developers, teachers, different research groups and traditions)
- Interactions between partners
- Diversity of the research problems

"To learn how to work collaboratively with partners from different countries, each of them with their specific methods is a great issue. For me, it is the most interesting issue of a European project. 2-The aim of the Palette project itself is a great issue too. Ideally, Palette results will really improve collaboration in CoPs and that's important. 3-And, finally, I improve my personal knowledge every day about CoPs and tools in working for Palette, and that's exciting"

"I find that the heterogeneous nature of Palette is very interesting - encountering P's, T's, CoPs is very helpful and rewarding. I always appreciate the meetings I attend because they show me the project is going on and make me feel part of it."

4.3.5   Links between developers and mediators

According to respondents, the team approach has been at the same time rewarding, difficult but solving problems of collaboration i.e. direct contact between members of different WPs has aided

collaborative work. It is a platform by which the project can integrate teaching, learning and development possibilities.

Some of the issues appear to reside with the way in which the CoP is understood and depicted within each team and the variations between the modus operandi and understanding between the teams. An interesting view is expressed in the following comment where the work of integration and development of tools has somehow 'outgrown' the team framework

> *"I think that the teams maybe should "disappear", because they have been established according to some static criteria (the tools to be used by which kind of CoP) that have changed. For instance, some tools not considered in one team have finally been integrated in the scenario of a CoP of this team. Some others considered in the team have not been used in scenarios. This is normal since it depends on the identified needs of the CoPs, but I wonder about the relevance of the "teams" now that the contacts between the partners (T, P and CoPs) are well established."*

The variation in timing of availability of tools and services between the teams has produced some difficulties and is illustrated by the following:

> *"Needs time and must involve also the CoP members. The main difficulty comes, according to me, from the long time before the first software prototypes. There is there a miss of a "boundary object" that would really help in the communication between CoP members, mediators and developers. But this is also the challenge of the Palette Project, not to come in CoPs with a software solution that was previously realised without an analysis of their needs."*

4.3.6   Participatory design

The idea of participatory design is central to the vision of the Palette project. This item provides a useful guide on the extent to which project members have an active and evolving understanding of the idea. Responses varied from the succinct………

> *"It means asking people who developed something 'do you think you did a good job'"*

To the more complex…………

> *"I work "main dans la main" with CoP members and Palette researchers (P inside WP1-1, T inside WP5-4, the validating researcher...) to build a scenario for my CoP: that's participatory design, according to the ANT theory, I think, with the scenario as a boundary object between human actors."*

And

> *"It's the interaction between T, P and CoPs to design tools and services with functionalities that meet the needs of the CoPs and are of interest for the researchers to work on"*

Both these conceptions however refer to the need for cross partner working and understanding. It implies an open feedback mechanism but more than that, a collaborative joint ownership of development. In other words, it is not simply a matter of checking whether or not requirements have been met. However, there were other depictions that we could understand as a more limited notion of participatory design. It is more or less a model that all good development would employ i.e. as long as end users are 'consulted', then participatory design is talking place. It raises issues concerning the

direct and indirect participation of different stakeholders within this project. This perspective is captured in the following:

> *"Implication of the end users in the process, and importance of the opinions and needs of the end users"*

And

> *"From a development point of view, it means that we take into account user comments at every stages of the development. From a deployment point of view, it means that users should evaluate preliminary versions continuously and adapt their work practices to benefit from the acceptable and useful additions"*

As well as the 'positioning' of the different stakeholders in the process, as we describe above, participatory design also had a set of **values** concerning collaboration associated with it for some members:

> *"Collaboration with people from various backgrounds. Efforts to understand new vocabulary and concepts. Negotiation. Adaptation. New ways of doing things"*

Additionally, there were some observations that brought some caution to bear. They make the point that what has occurred so far in the project concerning participatory design has been limited

> *"This is a little unclear still but this project has attempted to develop a participatory approach to project process. I doubt that there is much participation on the part of the CoPs in the actual design of the tools although the developers have procured a lot of information from the CoPs.I hope it has informed the design process"*

> *"I have described the contribution of the Ts to the collaboration with the CoPs. However, I have difficulties to see how this collaboration is fruitful for them. What are they learning?"*

This data raises the possibility of developing some interesting distinctions between participation, consultation, collaboration and 'taking into account' when project members are attempting to conceptualise participatory design. Developers, for example, seem more likely to see participatory design as 'taking into account' users' needs. The teachers and researchers on the other hand, have a more collaborative understanding of the term. The mediations of CoPs practice through scenarios and depictions constructed by mediators and researchers are certainly forms of 'indirect' participation by the CoPs themselves. The authenticities of this kind of involvement will depend on the extent to which the depictions reflect the complexities of the CoPs working practices. Mediations in these cases produce 'boundary objects' which are intended to support the development of tools and services.

4.3.7   Communications

The overall consensus from the respondents is that the communication processes within the project has improved as the project has evolved with the steering group and management of the project heeding the feedback from the evaluation in November:

"C'est un grand projet avec un grand nombre d'acteurs et d'actions. Il est probablement difficile d'être au courant de tout ce qui se passe à tous les niveaux mais si on a besoin de le savoir, il y a les rapports réguliers. Ce qui me semble manquer c'est plutôt l'aspect de communication "informelle" qui permet notamment de s'échanger des infos sur la vie du projet (les personnes malades, les départs, les arrivées, etc."

"I think that there is a lot of information circulating. It seems to work well"

"It's really better than at the beginning. But there are always too many emails (too much information kills information"

"The communication was not so good at the beginning of the project but now it's OK. The way to improve communication: to organize a lot of meetings (and for partners to attend theses meetings"

"Communication works well. Sometimes we experience information overflow, but nethertheless, with a sustained and constant attention, it is possible to follow the progress. This takes a lot of time however. On the less positive side, the task leadership is not a well- understood concept and the coordination and organisation role of a sub-team that corresponds to this function is not always exerted. Regular communication from task leaders to the participants to the task outside its own institution should be reinforced"

For one respondent, the communication only became effective when a deliverable creates the pressure. This said, there were some useful observations about how communication might still be improved:

- Too little (palette web site) or too much (BSCW)
- Using lists for squabbles
- Using lists for responses relevant for just one person
- Good within WP not so good between

4.3.8 Whole project in comparison with individual horizons

This question also gave a view of the project that was progressing. While some had a narrow sense of the project confined to their particular role or WP:

"I do not have a global view. But I see my task and its results progressing."

"I have a narrow sense of the work I'm involved in, the WPs I'm involved in."

"I have a vague idea of how the project is progressing but in a project of this size, it is inevitable that you tend to focus on your own areas"

"I would say I have a narrow sense of the tasks I'm involved in"

"J'ai une certaine idée de l'ensemble du projet même si je m'intéresse plus spécifiquement à ce qui se passe dans les WP dans lesquels je suis impliquée ».

"Meetings give me a general view of the project progress, but most of the time I see only my WP"

This understandably narrow sense of the project (given its size) is offset by a sense in which the project as a whole was a growing frame of reference for project participants. This growing awareness was a product of:

- Working across WPs in teams
- Attending meetings
- Working together on IP2

4.3.9 Training dimension of the project

There was consensus that training was needed to be able to use tools. It is interesting that most respondents who gave their view associated training with becoming familiar with tools.

> *"It seems that P partners are expecting a lot from T partners regarding the training. However, T partners should stick on development. P partners should try to appropriate the tools and then take care of the training (the resources have been allocated to do so)."*

> *"We need internal training: - About the tools and services developed (but the development is in progress, and we already had many explanations, so, it's for later). - About some useful technical issues (for the non technicians) like xml, for example."*

However, there were several respondents who gave rather tepid warm or ambivalent response, in other words, while training was a 'good', it had not featured highly on their radar

- *"J'attends avec intérêt un internal training sur les services Palette*

- *"No"*

- *"No observations. I have learnt a lot of things in these trainings, I am happy with that."*

- *"No opinion yet"*

- *"Not really"*

More worrying is that while all understood training as important, there were few concrete suggestions for a new training focus.

4.3.10 Managing and coordinating issues

Most respondents were supportive and positive about the organisation and management of the project. Among specific remarks were the following observations concerning the importance of the task leader:

> *"As already mentioned the role of task leader seems to me really crucial. It is the most important glue component oft he project, he should be the animator, the motivator, and the organisation of its task. He should have a clear vision of the achievement that is required, and must communication this vision to the task contributors together with ensuring that they participated effectively. This check and encouragement to participate should be continuous. It is the driving force of the collaboration. The task leader should also be able to provide requirement about the deliverable content, structure and rendering"*

And concerning meetings (including steering group meetings which are decided too late for some participants)

> *"The discussions regarding the financial impact for IP2 have been conducted really too late. We should see what is available for each partner (based on actual efforts), then define available funding and only at the end refine the tasks that can be completed with such a funding. The efficiency of phone and face-to-face meeting can still be improved"*

4.3.11 Open sourcing issues

There was an overwhelming support for this basic idea from respondents put succinctly here:

> *"For me, there is no other way to produce tools and services than the open source way! I am the mediator of a CoP very sensitive on this question and I am sure that the things go well*
with *this CoP thanks to the open source dimension of Palette"*

> *"I am 100% convinced this is the good way to do it. As a service of the University of xxx, we have also this philosophy and ethic attitude. If we want to develop public services, they have to be based on public tools. This has a limit for sure. For example, every PC is now delivered with an installed Microsoft operating system. On one side, it is making us directly clients of this company. On the other side, not everybody is able to install and manage an operating system like Linux. With this consideration, I like much the web 2.0 philosophy where online public software services do not require any installation, are immediately shared, accessible from any PC, etc. But private big business is also there behind... Will I always be the owner of my own productions? Is confidentiality always respected?"*

It appears the 'values' concerning open sourcing are well internalised by the respondents, but there were some observations that pointed to potential issues in the longer term. In summary these were:

- There may be copyright and licensing issues

- May be that open sourcing gives the wrong messages concerning the potential amateurish nature of the product
- There are issues concerning documentation

- There are issues concerning longer term after care and support

- Issues of interoperability

4.3.12   Overview

This report has suggested that the Palette project is moving in a positive trajectory. It is a reflexive project where project members have attempted to come to terms with its complexities and size. It is self-adjusting and is becoming a 'learning organisation'. Issues to emerge in broad brush are:

- Project members have a better understanding of what the project as a whole means and is trying to do

- Project members appreciate that there are divergent emphases in the project and that this is not necessarily a 'bad thing'.

- Some difficulties remain with collaboration, communication, professional concerns and sticking to agreements

- Rewards centre on learning, cross cultural collaboration and heterogeneity

- Participatory design is understood variously (see. Section 5.2) which might give rise to differences in expectation and practice

- Communication in the project has improved

- Training processes are supported but not endorsed so much in practice, they tend to focus on how to use type issues rather than theoretical or conceptual issues

- Open sourcing is supported in principle but there are several detailed issues to address

What is interesting about Palette method and the formation of a Palette CoP is the way in which routine practices have become less problematic as 'practice clusters' begin to emerge. Issues associated with implementation begin to move to 'backstage' as expectations and collaborative working practices become more embedded. The development of A,B,C, teams, the consolidation of the WP practices, the build up of social networks have all contributed to this.

This means that issues of a complex nature, like participatory design, move to the centre stage. For project participants' preoccupations, it is no longer a matter of implementation but on more profound considerations concerning the way in which different stakeholders might work together to create services and tools for learning. This final report in the sequence shows clearly how once routine practices become embedded, attention can then turn to more complex issues of designing development processes.

5. Lessons learned

After these three sweeps of evaluation, we are able to describe main uses of evaluation results of the project. It's important to underline that these uses could be focused either on project development (regulations), on knowledge building about the project methodology and on learning needs that could guide training initiatives and training resources production.

5.1 Project development

As we have already mentioned at the end of each evaluation sweeps data analysis, efforts have been made to use evaluation results as soon as possible. However, the reader might also notice that the effects of some adjustments take some time to be observed – no important changes in some answers during the second sweep and more important one during the third. One can also identify a minority of partners who do not change their view from the beginning of the project: i.e. a request for more planning and more control. We don't think that this representation will change over time even if important adjustments are realized. This discrepancy seems to be more profound and related with the confusion between a Research and Development project and a Development project and perhaps also by the impression given by the EU project management which imposes a lot of guidelines while, in reality, allowing important space for creativity and engagement from partners. In the following sections, we summarize the main adjustments realised.

5.1.1 Changes in coordination and communication (team leaders working closely with members, task orientation now emphasised collaboration)

The impressions of being overloaded by the number of emails and of a certain complexity of the project originates in a deliberate choice by the coordination when the proposal was written and negotiated. To facilitate collaboration between educational sciences specialists (Ps) and computer scientists (Ts), each category of partner were represented in each WP and the responsibility of WP was shared between a leader and a deputy who represented each, one speciality. To diminish this complexity and facilitate the communication, decisions were made in preparation of the IP2: the number of partners was more limited in each WP and the responsibilities made more precise. However, the interest of the collaboration between Ps and Ts was maintained namely through the teams and the co-responsibility (leader and deputy) of some important WPs and of the scientific coordination (Steering Committee coordinator and deputy directors).

5.1.2 Changes in the structure of work (WPs, Teams etc, developers and researchers)

The design of the work organisation presented in the DOW suggests that WP1 would lead the project. A quote from the first sweep could be interpreted as such:

> *"it would be in question to not missing the coordination of the work and the numerous partners of the project. As coordinator of the WP1, we shall have to watch that the concepts and the procedures are clear and the tasks are well distributed. It is the work which must be made as soon as possible. The links to be made between the various WPs are indeed essential (…).Some tasks are supposed to have already begun, while it would have been preferable that they are guided **by the approval of the WP1** and the others. There is a not unimportant risk that this project is transformed into a group of small projects, each follow its own management and its own interests. It is necessary to pay attention to this danger. Who is going to coordinate all this and how? Is the light going to arise from the chaos? "*

Such a representation led to changes in leadership and adaptation of the design of the work organisation that represented a better fit with the responsibility of each WP and shows how WP5 coordinates the collaboration between the partners and the Cops through the teams created in September 2006 after the first sweep of evaluation.

5.1.3 Adjustments in management (meetings, timing, discussion spaces etc)

This point is perhaps more difficult to adjust as it is related to day to day practices of some partners. However some actions have been taken : the addition of a common agenda on the BSCW, the adaptation of the monthly report template including a section for the presentation of the next events and meeting for each WP and the establishment of an annual planning for the period M19-M30 adopted during the steering committee of June. In addition, the SC coordinator will provide a service to support the management of the communication in the project (management of mailing lists, communication of the profile of each partner,) which will be useful also for other projects.

5.1.4 Consolidating participatory design approaches (evolving clarity, sharing understanding, typology of participatory design from participants` perspectives)

The section 5.2.1 and 5.2.2 will be devoted to participatory design. However, the reader will notice that the analysis has also oriented the management of the project.

5.1.5 Lessons for adopting open source approaches and dissemination (active engagement, value of OS)

The Open Source nature of the services provided had not been a focus of enough attention during the first part of the project. It's the reason why a special task force has been created for IP2.

5.2 Using evaluation for knowledge building

In this section we summarise the evaluation data focusing particularly on the Participatory Design Metholgy (PDM). This WP6 contribution is also presented as a part of the report on PDM as well as in D.PAR.03 .due to M18. This use of our results is another illustration of the embedded nature of the evaluation work in the PALETTE project.

The main evaluation results about PDM are related with (1) the collaborative building of the PDM and (2) the first experiences of its implementation. It is the reason why we evoke not only the results directly related with this focus but also the one related with it: the iterative or evolving nature of the project and reflexive processes and non-sequential/parallel development; the processes of mediation and integration between project participants and the alignment between aspirations (project theory) and practices in the project. We conclude by raising (3) the main issues that the project has to address now and the future strategies suggested.

5.2.1 The building of a PALETTE partners vision of the PDM: it's iterative, interdisciplinary and collaborative nature

It is surprising that data first gathered about the partners' visions of the PALETTE project, just before the kick-off meeting in March 2006, didn't include any account about the PDM. At this time the PDM was not built and the partners were more focused on the intended results of the project, either: development on the research on Cops learning for the Pedagogical partners or the development of the services for the Technological partners.

Six months after the beginning of the Palette project, the vision of the objectives of the project as well as the role and tasks of the partners seemed more integrated and shared. The explanation mostly given for this evolution concerned the organization of Palette Summer School in Fribourg, during the last week of June: "*My vision of the project has evolved slightly owing to the content of the Summer School activities;" "Summer School was the cement of the work together in the project.*" With regard to other projects they had experienced, when a joint activity is organized mostly after one year, the Summer School Palette took place earlier at the appropriate moment: "*it was a very good time to organize this Summer School and to permit to Palette people to meet together: it was not a long period of individually work, so the partners have not time to develop something individually. By coming to the Summer School, they can meet and confront their opinions and strengthen the collaboration and the interaction within the project.*" If we go beyond this quote, we can also remind the fact that Fribourg Summer school has been the first occasion given for partners from different disciplines to learn from one another - P about PALETTE tools and standards and T about the MOT language and ANT- and to realise common choices about methodological instruments to use in PDM : ANT and the MOT language. This important phase has been directly followed by the proposal of a twelve steps methodology which was the first version of the PALETTE PDM and it's implementation through the organisation of three interdisciplinary working group collaboratively with the partners on September 2006 the 12. The evaluation data gathered about six months later showed how this initiative has been important for the first steps of implementation methodology.

> "*At the beginning of the project, I had not a clear vision on Palette objectives and on Palette partners' roles. But, when the teams ABC were created, these two points were lighted! That's the reason why I particularly appreciate the IP2 graphical representation of work packages, with WP5 in the center, teams around, then other WPs: the ideal representation in my opinion, which makes the purposes and priorities of the project very clear*"

Despite the fact that a lot of participants were optimistic regarding the Palette evolution, they were also concerned by the manner in which the project will evolve. The concrete implementation of the participatory design seemed to be the most important worry:

> "*While knowing that the people can not be forced to participate, how we are going to implement concretely the participatory design?*"

> "*In Palette project we find many different interests. Do we manage to harmonize all of them?*"

To address this issue different initiatives have been set up by the scientific Coordinators and the WP leaders of WP1 and 5 : frequent virtual meetings with the animators of the teams, suggestions of templates for the scenarios and functional specification writing and the invitation of Cops representatives at the plenary meeting of Nice on the 2 of December. Eventually, one important step which had been missed at the beginning of the project had been realised through the elaboration of an engagement contract for Cop to serve as a discussion basis and a support for the involvement of Cops in the PDM process.

5.2.2 The first experiences of PDM implementation

The first accounts of the experiences of PDM implementation are presented in the section 4.3 of this deliverable as results of the third sweep of data collection organised by WP6 in May 2007. They offer a diagnosis of the collaboration between developers and mediators in the teams and on the diverse representation of PDM among the partners.

5.2.3 Main issues for PALETTE implementation and future strategies

Living an European project with its own precise and planned management rules (DOW, objectives, deliverables, milestones, ..) adopting a methodology which by nature implies iteration, evolution and collaboration imply important efforts towards alignment of interests between all the actors. After 18 months a core vision of the project and its organisation is shared among the involved partners.

However, the following main issues are still pertinent:

- For the mediators : to adopt PALETTE services as instruments and to involve themselves in their own professional development ;
- For the developers : to manage better their time and efforts towards the development of interoperable technological services (ITS);
- For the coordination and WPleaders: to adapt the team work on the development of ITS embedded in generic scenarios.
- For all partners: to discuss and enhance the PDM and proposals for next phases as they are suggested in this report.

The next step of PDM will be the finalisation of the "design for use" phase. That means the identification of generic scenarios and the precisions of guidelines for development of ITS. D-IMP.03 and D.PAR.03 produced by WP5 and WP1 have paved the way. WPleaders of WP5 and WP1, and their WP members, will have to work collaboratively to present these results and suggest new organisation of teams. This will be the agenda for the next face-to-face meeting in September. Afterwards first trialling with CoPs will begin. This will not only mean test of prototype but building of new practices by CoP members. This phase will involve more PALETTE partners in the collaboration with CoPs: to give them support (technological and learning ones) and to document the PDM process lived.

5.3 Learning needs

When evaluators request for specific inputs on partners learning needs they receive few precise answers. However in PALETTE, the informal learning seems to be very rewarding. We think that this direction could be reinforced and could be one of the added values of the project.

Let us consider the conditions for learning "*when the answer doesn't exist*" as stated by G. Fischer in his introductory keynote to the CSCL conference in July 2007: conceptual collisions, epistemological pluralism, distributed intelligence, shared concerns and boundary objects. All these conditions appear to be present in PALETTE and identified in the evaluation results either as a positive or a negative. In these conclusions, we will try to suggest how these conditions could be used to enhance learning and provide ideas for training actions or training resources.

5.3.1 Conceptual collisions

 PALETTE partners represent different disciplines: computer scientists specialised in document, knowledge management and computer supported collaboration learning, educational researchers and educational practitioners specialising in educational technology or in evaluation or in pedagogical

design. This diversity presented often by characterising partners as P and T hides an even broader diversity. Thus differences in vocabulary and concept definition are the rule and are sometimes identified as a default. However, a lot of efforts have been made to build a common glossary, to write the DOW but also afterwards to precise necessary terms useful for the development of the project. The building of the glossary could be considered as an occasion to learn. But this evolving glossary could also be considered as a learning product available on the PALETTE public website.

5.3.2 Epistemological pluralism

This is perhaps a concern that doesn't appear directly in the answers given to the evaluators questions. However, a different view on knowledge building could be an important basis to understand some collaboration difficulties and, particularly, different approaches of PDM. This pluralism, is not only a difficulty, it could also be viewed as a source of learning if: partners are request to express their own conception, to listen to the others conceptions and to try to build a new one. The discussion of the revised PDM (grounded on the report on PDM) methodology that will take place in September 2007 would be such an occasion.

5.3.3 Distributed intelligence

In PALETTE, partners must learn to collaborate at a distance in interdisciplinary research team. This is also an important condition to learn. This learning could be scaffold by:

- a better management of resources. For example the deliverables could be annotated to identify the most important content regarding the research process and the role of the partners for the benefit of partners or other potential users ;

- a use of the PALETTE services to support collaboration : for example CoPe-IT is used inside WP4 and the Sweetwiki will be used to support the documentation of the PDM methodology by the mediators teams . These uses could be facilitated through tutorials realised by WP8 as awareness training (see. D.TRA.02).

5.3.4 Shared concerns

Another important strength of the project is the enthusiasm of partners which has also been noticed by the reviewers. This enthusiasm is expressed but how could we use it as a source of learning? Cases or story telling could be elicited to express better this enthusiasm and some success stories. One could find illustrations of this in the PALETTE newsletter.

5.3.5 Boundary objects

PALETTE partners build a rich array of boundary objects throughout the project life cycle. These boundary objects (templates, grid analysis, scenarios and models) could be considered as a learning product shared by the PALETTE partners but could also be reused by other potential users. A presentation of these boundary objects as well as their conditions of creation and use could be also a very helpful learning resource. A first list of these boundary objects could be found in the report of the PDM revision.

6. References

Chelimsky, E (1997) Thoughts for a new Evaluation Society in *Evaluation* 3, 1,pp 97-109.

D.EVA.01 A framework plan for the evaluation and depiction of PALETTE processes and outcomes (16/08/2006).

Fischer, G. (2007) Designing Socio-Technical Environments in Support of Meta-Design and Social Creativity, keynote at the Computer Supported Collaborative Learning (CSCL) 2007: Rutgers, The State University of New Jersey.

Saunders, M. Charlier, B. and Bonamy, J. (2005). Using evaluation to create 'provisional stabilities': bridging innovation in Higher Education change processes in Evaluation: the international journal of theory, research and practice.