Universidade do Porto
Faculdade de Engenharia
FEUP

IQTOOL

Innovative eLearning Tool for Quality Training Material in VET

Project Nr.: 2007 - 1967 / 001-001

Leonardo da Vinci – Multilateral Project – Development of Innovation

External Evaluation

Final Report

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A. Evaluating the IQTOOL Project

a) Introduction

Alfredo Soeiro working for University of Porto - Faculty of Engineering (FEUP) has been sub-contracted by Szamalk Education and Information Technology (IQTOOL project coordinator) to act as the external evaluator for the IQTOOL project to provide feedback and to give an expert opinion about the quality of DAETE outputs and quality of project organization and management. The agreement between the IQTOOL Project and FEUP was finalized in March 2009.

Alfredo Soeiro, as external evaluator, is part of the formative evaluation and focuses on the quality of project organization and management. The practical approach was based on communicative evaluation, where the evaluation process was supposed to be embedded in the production of the final products and dissemination. The evaluation procedure for IQTOOL was designed to provide direct feedback to the acting parties through its coordinator. The evaluator was included in the final part of the project in the email distribution list. The evaluator participated in the final meeting of the project in November 2009 where it was delivered and discussed an external evaluation report.

This is the third external evaluation report to be presented to IQTOOL partners and to the European Commission. This final report was produced after receiving most of the internal reports from the partners and after acknowledging the latest changes made to the three project platforms. The report includes the examination of the critical aspects of intermediate reports and is completed by the analysis of the outputs. The criteria for these analyses are presented in the next chapter.

b) Focus of the Evaluation

FEUP was asked to give external feedback about quality of project organization, implementation and management processes of the IQTOOL project.

The IQTOOL project aimed at producing the following outcomes:

✓ Elaborate an eLearning quality tool which can be applied at European level and which enables the teaching of quality management,
✓ Provide the management and quality assurance of vocational training with an effective tool.

Evaluation activities of FEUP were based on:

✓ Targets set as criteria for EU Lifelong Learning Program 2007-2013 projects, especially for the Leonardo da Vinci Multilateral Projects

✓ Goals and objectives of the IQTOOL project (as described at the IQTOOL website http://www.iqtool.eu/)
✓ Results of the Project including internal and public reports, analysis of platforms, minutes of meetings

EU criteria include:

✓ Community support is intended for the production of tangible materials, products, methods and approaches in the field of <u>vocational training</u> and <u>guidance</u>, and not for training activities as such
✓ Proposals must put the innovative dimension of the project in context and in relation to the needs of the target groups or the problem to be solved
✓ The development of innovation may apply equally to institutional contexts and to formal, informal or non-formal practices, as well to initiatives promoted at the local, regional or sectoral level
✓ Maximum benefit must be drawn at European level from the results by making use of the expertise and experience of the various European bodies and/or other qualified organizations active in this field
✓ In order to make best use of the results and obtain feedback enabling the product, material, approach or method to be adapted and transferred, valorization (= <u>dissemination and exploitation of results</u>) must be an integral part of the project's work program
✓ In disseminating and exploiting the results of projects, the <u>European dimension</u> must be enhanced by making vocational training and guidance materials, products, methods and approaches available, where possible, in the languages of all partners

IQTOOL targets and objectives are (see: IQTOOL project Website - http://www.iqtool.eu/):

✓ Develop an open source software tool integrated in LMS(s)
✓ Assess the teaching quality management of eLearning training programs and training materials
✓ Promote the establishment and development of quality culture
✓ Testing of software
✓ Pilot training of the training material

c) Evaluation Methodology

Evaluation of documentation:

FEUP has accompanied the project progress by collecting and evaluating available information produced in IQTOOL including documents and website, e.g.:

- ✓ Project proposal
- ✓ Project budget
- ✓ Reports from meetings (Munich, Chania, Lisbon, Munich, Budapest and audioconference)
- ✓ WP reports
- ✓ Final report – public part (draft)
- ✓ Final report – confidential part (draft)
- ✓ Project websites (public and private areas): www.iqtool.eu, www.iqtool.org and elearning.sztaki.hu/ilias3106m.

Two written reports were agreed during the evaluation procedure. First, a report evaluating the processes, activities and achievement of outcomes and indicators at the date of the start of this report will be produced. Second, a follow-up report, near the end of the project, about the feedback and impact of the project will be presented to the partners. In the end a third report was decided and is a consequence of the two previous reports. It also represents the final considerations about the project closure. The second report made in November 2009 and discussed with partners in the project meeting is presented as an annex of this report. It was intended that the external evaluator would try to attend the project meetings, discuss the contents of the reports and the progress of the project. The current report analyzes the period of the project ending in Feb10. It was done in accordance with the project coordinator recommendations and his continuous support in providing the necessary documents.

B. Analyzing the Evolution of Project

a) Products/Outputs of the Project

Appreciation of the results of work-packages

The project proposal has eight work-packages. The evaluation is made at this date comparing what has been presented to the evaluator or found in the IQTOOL websites and reports. Each work package output is summarized in this report with title, short description, due date and users. The analysis of the compliance of the partnership was made using the materials available.

WP1 Project Management
Title of output: Project reports
Short description of output: Minutes about the project workshops. Interim and final reports to Brussels.
Due date: 10/09

Users: Project partners, public area about the proceedings

Appreciation:
The project has been managed with adequate methods and documental provision. There were four face to face meetings for all partners. These were held in Lisboa, Portugal (Jan08), Chania, Greece (Jun08), Munich, Germany (Nov08) and Budapest, Hungary (Nov09). There was also an audio-conference (Apr08) with minutes. The minutes of the meetings held were analyzed. They are written in a descriptive method and are complete. The text of the minutes is clear and it reflects, in a storytelling mode, the project information, discussions and debates. Conclusions and decisions are presented in that recording of the meetings. The possible analysis of the reporting leads to the conclusion that the financial rules and practices have been properly implemented by the project management and by the partners. The use of manpower, or staff, in terms of the tasks performed is in accordance with the planned proposal. The project adopted a centralized management that tried to lead the partnership towards the project goals. There were delays in the production of the WPs due to the difficulty in obtaining the survey results, difficulty in applying the software specifications to the implementation of the platforms and to difficulty in testing the products. The periods to obtain the responses, to test the materials and to implement the software were underestimated. That led to a request to extend the project end date by three months that was accepted by the European Commission. The correspondent increase of human resources utilization due to the extension of the project was accommodated by the available resources.

WP2 Research
Title of output: Study about the quality issues of management of eLearning in VET
Short description of output: Research report, study about the results of the surveys concerning the open source platforms, and quality management in VET
Due date: 05/08
Users: Project members of the development team

Appreciation:
In this WP there three reports produced. The topics were Open Source LMS Research, IQTool Evaluation Component Requirements and Quality Assurance Research. Authorship would be appropriate to ensure future access for complimentary explanations, references and direct debates. The dates would allow a reference in terms of time of each document or of its parts. The summary of the conclusions would help to determine the main recommendations that may influence the rest of the research in the project. Those conclusions are present in one of the reports but not on the executive summary.

The report on Open Source LMS Research has 86 pages. It has seven parts: Executive summary; Introduction; Identification of related projects, surveys and open source LMS; Criteria system and evaluation methodology; Evaluation

results; suggestions for selection of an appropriate open source LMS to be used in IQTool; References. The report was produced with four tasks according to the executive summary: Research plan; Work out criteria system; Research: open source platforms; Evaluation of results. Some characteristics and recommendations were made in the Interim Report. Some remarks are significant like the choice of just one LMS to test the tool may be insufficient. The report is well structured, with good information and represents a useful tool to use to progress towards the project goals. It is a good reference to represent the basis of the project and may be useful for future related projects.

The report on IQTool Evaluation Component Requirements has 65 pages. It has five parts: Executive summary; Introduction; Overall picture of the functionality of the IQTool software tool for the evaluation of training materials; Detailed description of the use cases; References. The executive summary has a good report on the goals of the report, methods used and conclusions. Some remarks were made in the Interim Report. It is a report well done and organized to provide information and framework for the software development phase. The packages are analyzed in a thorough manner with structured presentation.

The report on Quality Assurance Research has 51 pages. It has seven parts: Executive summary; Introduction; Identification of Related projects, surveys, analysis, reports, quality assurance policies/methodologies/systems in VET and Elearning; Evaluation methodology and questionnaire survey results; Results of the evaluation of quality assurance policies/methodologies/systems in VET and Elearning. The executive summary describes the goals of the report as identifying quality assurance systems and as verifying their applicability to the project. This report is a good result of the survey performed allowing a characterization of the responses in terms of the project research related aspects. The decision was to adopt a system (pp. 47) described in the document "Criteria System for evaluation of Quality Management of Elearning in VET". This report is very useful to understand the project goals and its context.

WP3 Software Development
Title of output: Training material Quality management evaluation software and user guide
Short description of output: An open source software to evaluate eLearning training materials
Due date: 09/08 (12/08)
Users: Developers and teachers in vocational schools, training centers and universities

Appreciation:
The final products encompassed a web tool to manage a set of questions and questionnaires and a interface between the IQTOOL and a LMS to allow the use of these questions in the LMS. There were delays, created by the ending date of WP2, that were responsible for the postponing of the related work packages and

of the project. The web application was developed to allow the management of questions and questionnaires. Since there was the adoption of the Ilias LMS the plug-in was created to permit the interface. This is considered by the partnership as the main output of the project. The comments made in the internal evaluation report reflect the need to refine the guidelines to use this tool regarding the user model of the system and the installation of the plug-in. The products satisfy the requirements made in the proposal and adopted during the project implementation.

WP4 Educational content development
Title of output: eLearning training materials
Short description of output: eLearning training materials with interactive multimedia elements. It will be divided 2 main parts: basic quality management in electronic education, and how to apply the eTool software. The summary of the materials will be translated to the partners national languages.
Due date: 02/09
Users: eLearning developers, managers, teachers, quality managers in VET

Appreciation:
The work done had some delays. This was due to the delays of other work packages. The goals and objectives were obtained with the production of the two scheduled modules. The solution adopted was valued by all partners and users. The modules are well presented and easy to follow. The two modules are translated in several languages allowing a wide spread use. This makes easy for a user, which is not familiar with the project, to benefit from the project outcomes.

WP5 Testing and pilot training
Title of output: Descriptions of testing process of the software tool and pilot training process for the developed training material. Description of the assessment process of testing and pilot training. Summary of results and a guidance for improvement both the software tool and the training material. Improved software tool and the training materials on national languages.
Short description of output: Descriptions and guidance of testing and piloting process. Summary of results and proposals for improvement. Improved products: open-source software to evaluate eLearning training materials and eLearning training material for using the software.
Due date: 09/09
Users: Developers and teachers in vocational schools, training centers and universities

Appreciation:
The testing of the outputs of WP3 by each partner and the description of the test environment were performed to increase the quality of the software

development. The learning packages of WP4 were also tested. There was a delay of about two months due to technical issues. These tests revealed, in a first phase, that the development of the envisaged products revealed that these were in a early stage. Corrective measures were taken to improve usability and functionality.

WP6 Quality and evaluation
Title of output: Quality and evaluation reports
Short description of output: Quality assurance for the project process. Evaluation of the outcomes. Feedback to the project members. Reports for the project management
Due date: 10/09 (02/10)
Users: Project partners

Appreciation:
There is a written internal quality evaluation reports available for the external evaluator. It is a report of the quality assessments in terms of evaluation of the tasks performed and of the products produced. It is a complete and thorough examination of what happened and of the opinions and comments from all partners about the work packages. Three internal questionnaires produced the information about the internal quality evaluation. A careful analysis of the results was performed to evaluate the reliability of the answers. It was a useful tool to reflect about the progress of the project.

WP7 Dissemination
Title of output: Dissemination materials
Short description of output: Leaflets, CDs about the summary of the project results.
Conference papers
Due date: 10/09 (02/10)
Users: Vocational institutions, teachers, developers, managers, students, quality experts, eLearning developers, decision makers.

Appreciation:
The leaflet is available on the website for downloading. It was planned in six languages but there is only the English version. The public part mentions that the website provides information about target groups, added European value and main goals. There is some information about meetings, about products developed and outputs. Although some other documents were planned for public dissemination some reports are missing like the learning modules, presentations of the project, translation of summary in several languages and others proposed in the description of the WP7. The registration of interested users on the website, for further possible contacts, is not available on the website. The webuser guide (WP4) is not yet available on the public part.

WP8 Exploitation
Title of output: Free project products
Short description of output: Quality software, eLearning content for free access
for the target groups
Due date: 10/09 (02/10)
Users: Vocational institutions, teachers, developers, managers, students, quality
experts, eLearning developers, decision makers.

Appreciation:
The project does not have an implemented exploitation plan. There are some
initiatives to use the materials but without a defined strategy. This is an area
that could be more developed since it is fundamental for the global benefit of
the tools developed.

b) Project Operational Methods

This part of the evaluation deals with the reflection about the type of operations
related with the project. The main processes chosen by the partnership to
operate during the project implementation were partner cooperation, decision
making procedures, project reporting, financial execution, resources
administration and project external visibility.

Partner cooperation

It is concluded from the project proposal and minutes that the cooperation
among partnership is essentially based on respect for the division of tasks and the
correspondent partner responsibility. There were collective debates in the face
to face meetings. It appears that there was a cooperation implicitly translated in
the fulfillment of the tasks with concern with quality and timeliness.

Decision making procedures

The decisions about the change and adaptation of the tasks to schedule, content
and responsibilities were taken on the partnership meetings. This use of
meetings, virtual or face to face, was also an efficient procedure to clarify and
solidify tasks, scope, responsibilities, schedule and leadership. From the records
there were no major decisions without the face to face discussions. It seems that
decisions processes were not taken among the scheduled meetings.

Project reporting

The written reports and minutes gave the impression that the project changes
and adaptations were reported explicitly with updated project definitions. It

seemed also that partners only reported what was performed when they were present in meetings.

Financial execution

According to the data analyzed the financial execution seemed to be in accordance to the plan. The final financial report was not available and the analysis was based on drafts. There is no information of the deviations, surplus or deficits, to the budgeted values.

Resources administration

The final involvement of staff is not available at the time of this final report. However the recommendations made in the interim report had no objection about the administration of the project resources. According to the data provided the administration of staff was in accordance with the demands of the work packages.

Project external visibility

There was a work package on dissemination of results. However, some of the measures were not taken and it is an objective that was partially attained. The major issue is the exploitation of the project website with relevant dissemination materials. Some recommendations of the interim report were not considered like the involvement of the partnership in social networks that are related with the project topics and the registration of the project in several quality assurance registers like EQAR (European Quality Assurance Register) or EFQEL (European Foundation of Quality in Elearning).

C. Final Evaluation Conclusions

The conslusions are organised in a typical SWOT structure with relevance to the aspects that are considered significant in terms of the external and independent evaluation taken in the conditions described.

a) Strengh
There was, in the interim report and in the second report of the external evaluation, a recommendation to take some extra work to explain why some important steps were taken without clear reasons. One of these steps was the adoption of a quality system without researching the existing quality models of e-learning in VET and in LLL. Currently the research was performed and the choice is justified. The project was very ambitious in terms of outcomes. Partners made extended efforts to comply with the plan. However, the development of software, testing and reviewing is a cycle that takes time in such

a difficult project. It is remarkable the effort made to achieve the difficult objectives and the quality of the outcomes.

b) Weakness
One step that probably could have been undertaken was the decision to develop interfaces with common LMSs like Moodle. A second aspect related with the dissemination was the lack of research about possible users of the tools like a list of VET producers and providers. It is probably the absence of the results arising from a proper exploitation plan that is the setback from this project.

c) Opportunity
Some components were not totally achieved during the project development and needed further work. It is desirable that the project results are available for public use based on easy and simple procedures. This need for exploitation of the results may be a good opportunity for a dissemination project proposal by the partnership. It is a valuable development of the IQTOOL project to benefit the e-learning and the VET communities.

d) Threat
The apparent lack of easy and clear access to a practitioner that is not involved in the project may bring this project to oblivion. It is a pity if there are not enough users of the tool developed due to lack of sufficient dissemination. Another possible threat is the possibility that users of common LMS may not be willing to use the tools due to the lack of proper interfaces with the tools developed.

Annex – Intermediate Report

Report IQTOOL

Intermediate according to documents provided for meeting 9-10 November 2009

Alfredo Soeiro - FEUP

1. Overview of External Evaluation

The evaluator, from FEUP, was asked to give external feedback about quality of project organisation and management processes of the IQTOOL project. The initial conditions for the evaluation were:

a) IQTOOL project aimed at producing the following outcomes:

> - to elaborate an eLearning quality tool which can be applied at European level and which enables the teaching of quality management,

> - to provide the management and quality assurance of vocational training with an effective tool.

The evaluation activities were based on:

> - targets set as criteria for EU LifeLong Learning Programme 2007-2013 projects, especially for the Leonardo da Vinci Multilateral Projects;

> - goals and objectives of the IQTOOL project (as described at the IQTOOL website http://www.iqtool.eu/).

The IQTOOL targets and objectives are:

> - develop an open source software tool integrated in LMS(s)

> - assess the teaching quality management of eLearning training programs and training materials

> - promote the establishment and development of quality culture

> - testing of software

> - pilot training of the training material

2. Main Comments

Minutes of meetings - it is important for partners and for the project records to have the minutes on the project site (either public or private). Also the presentations made during the meetings represent important material for the success of the project.

Quality evaluation - the questionnaire made by the partners about the project seems an excellent tool to monitor and improve the project. The overall view is that the project is seen by partners as a positive initiative.

External evaluation -documents and outputs should be provided asap so the external evaluator is allowed for a prompt analysis and a possible formative assessment of the project.

Testing and piloting - it is a phase that requires proper preparation and follow-up by the partnership. It is the crucial part of this type of projects that attempt to create a new tool. If the extension time is allowed there should a proper validation of the tool and ensure time allotment for adaptations.

Dissemination - Additional international dissemination, besides the November workshop, can be the publication of article(s) in conferences or journals related with the themes of the project and direct contacts with organizations and networks that deal with the project related subjects.

Exploitation - A business plan could be defined including targeted users, product definition, product valorization, marketing, administration and user services and support. It is a specialized area that may need knowledge and resources specific for these objectives like the maintenance of the website.

3. Other Remarks

Plan B - If the EC does not allow an extension then it should be devised a quick alternative to the project completion within a realistic approach for the timeframe until end of November. Maybe a concentration on the questionnaire improvement and dissemination could be the main objectives.

Quality criteria - it should be explained what type of criteria were used to define

the questionnaire to make the acceptance of the method easier.

New courses - the instructions on how to use the IQTOOL for a new user and/or for a new course could be elaborated and accessible for other users.

Compatibility with other LMSs - a probable important improvement of the tool would be to create the add-ins necessary to use it in other LMSs especially Moodle.

16Nov09, External Evaluator