Pan-European policy experimentations with tablets
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D5.2 INITIAL REPORT FROM AN INDEPENDENT EVALUATOR, V01

WP5

May 2014

GLPM

Evaluation and guidance services for projects in education

European Schoolnet

Lifelong Learning Programme

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INTRODUCTION

GLPM

GLPM is a consortium of experts working in the field of transnational cooperation in projects in education and training. It was established by Gareth Long when he left his position as Minerva Project Officer at the Socrates Leonardo and Youth Technical Assistance Office in Brussels at the end of 2005. In the period since, he and his colleagues have evaluated more than 30 projects from the Lifelong Learning Programme and other initiatives with EU funding.

GLPM adopts an innovative approach to the evaluation work undertaken in that it covers all areas of project work. This includes, but is not limited to, the outcomes achieved, the progress toward the outcomes, the transnational dynamics of that progress, the consistency of the project in addressing its initial aims, the extent and consistency of the involvement of the target group in ongoing project work, the mechanisms built-in to ensure sustainability, steps taken to embed innovative outcomes into mainstream provision, consideration of, and complementarity with, the state of the art, and instances of added value.

Gareth Long has worked in the field of ICT in learning since 1995 when he was Projects and ICT Development Manager at Stockport College of Further and Higher Education in the UK. He specialised in innovative ODL-based projects featuring extensive use of new technologies in learning, including the creation and delivery of teacher training programmes. He became Project Officer for the Minerva (ICT-based) action of the Socrates, Leonardo and Youth Programme in 2003 and fulfilled this role before becoming the E-learning research Co-ordinator at the Higher Education Academy in the UK. He became an independent consultant specialising in EU projects in 2006 and has since worked as an assessor for the Lifelong Learning Programme across numerous actions, particularly those associated with ICT in learning, including e-learning, Minerva, KA3, Erasmus Virtual Campus and Erasmus Multilateral actions. Of further relevance to the evaluation of the Creative Classrooms Lab project is the fact that he has been an assessor also for the KA1 and sister action, ECET, and so has extensive experience of the expectations connected to a KA1 initiative. He has also been the external evaluator of more than 30 LLP and related projects in the same period. With the onset of the Erasmus+ programme, he has been used as an assessor for Knowledge Alliance, Key Action 2 and Civil Society and Education assessment work also.

Andrina Granić holds a Doctorate degree in Computer Science from the University of Zagreb, Croatia. She has more than 20 years of experience from the Croatian educational system currently working as Full Professor teaching courses for the computer science curriculum and more than 10 years of experience of implementing and evaluating national and international projects. She has been an expert evaluator of projects for the Education, Audiovisual and Culture Executive Agency (EACEA) and the Research Executive Agency (REA). In addition to the Lifelong Learning Programme, she has worked in projects funded through the 6th and 7th Framework Programmes. Her main research interests are presently focused on Human-Computer Interaction (HCI) field and Technology-Enhanced Learning (TEL). She serves in Editorial Boards of a number of international journals as well as in Program Boards of considerable number of international conferences and workshops. She is Croatian representative in IFIP Technical Committee on Human-Computer Interaction (TC13), member of the Croatian Society for Communications, Computing, Electronics, Measurement and Control (KoREMA) and IEEE member.

EXTERNAL EVALUATION METHODOLOGY

General for a transnational project: The external evaluation strategy is based on an approach that addresses the needs of all key actors involved in project activity, including both internal personnel and the target groups and end-users.

THE METHOD WILL BE TO LOOK AT:

i. The progress made towards the contractual outcomes and respect of the contractual work-plan

ii. The manner in which the nine Ministries of Education / or organisations delegated to act on their behalf in Europe work closely with leading ICT vendors as associate partners as a transnational collaboration (cross-cultural understanding, sharing of activities, effectiveness of communication, meeting deadlines, etc.,)

iii. The consistency of the initiative's relevance to the KA1 ECETB action and to the identified objectives and priorities.

iv. The quality of the outcomes and products in their own right as well as in terms of their position within the state of the art

v. Monitoring the way in which the projects reacts to feedback:
    a. from the EACEA assessment processes
    b. from the pedagogical board
    c. from the stakeholders and policy-makers
    d. from other targets groups
    e. from its own internal processes, led by the BE coordinator (EUN) and the CZ partner (DZS)
    f. from the recommendations of the external evaluation

vi. The effectiveness and impact of dissemination activities and the extent to which the project has employed models of best practice from related projects

vii. The quality of the innovative, pedagogical and ICT elements of the project activities

viii. The extent to which a strategy for sustaining the project activities beyond the programme funding has been applied within the project

SPECIFIC FOR CCL IN YEAR ONE:

GLPM will examine the initial outcomes and processes, with specific reference to the ways and means by which the perspectives and collaboration of the project partnership have influenced the:

i. Developed protocol (T3.1) for experimentation on the pedagogical use of tablets in a controlled environment

ii. Literature Review (T2.1 months 1-2) and Development of Phase I tablet scenarios (T2.2 months 1-6), with a specific emphasis on how the project has achieved to develop "innovative teaching and learning scenarios, a major objective of the project.

iii. Webinars on Project Expectations (T.4.1 month 2) and Project Ideas-Early achievements and goals (month 6) together with the teacher feedback on each.

This will include a review of the:

iv.   Report (May 2014) of the interviews by telephone/Skype with MoE lead representatives from each partner to document the overview and planned course of activity for the project at the national level for each partner context.

v.   Feedback from the Pedagogical Board from month 2 of the project to the present time

vi.   Mainstreaming Workshop on National Policy Challenges (T7.1 month 2)

Next to the main project deliverables the evaluation will also monitor the involvement and contribution of associated partners during the first phase of the project. The methodological approach will be based upon an approach that reflects the intended levels of impact on the different target groups as the project progresses – in this instance, with particular focus on the partner perspective in phase 1. This will feature mainly an assessment of the way in which the MoEs have worked with the associate partners on the scenario development. This was initially going to be through survey work but will now start with the face-to-face contact between evaluators and partners at the forthcoming meetings and mainstreaming and scenario development workshops in May and June 2014.

Particular emphasis will be placed (again reinforcing the importance of the relevance of the project as a KA1 project) on how the Ministries select the schools to work with and how they, as well as EUN and lead teachers, support schools in the context of overall frameworks for effective pedagogical use of tablets in the classroom.

During this period, GLPM will review also all activities in all work packages in order to ensure that the project has mechanisms in place (reflected in internal monitoring procedures and risk management strategies) to address any negative implications associated with the quality and timely delivery of key outputs and deliverables and how this may impact on subsequent work packages.

NB – one of the subsequent sections of this report considers the way in which the project has responded to the feedback received from the application assessment in its first year. One of the positive responses has been the engagement of an external evaluation process (from the comments on cost-benefit ratio, where more efficient use of staff days could lead to reduced costs and therefore resultant savings "should be allocated towards the costs of an external evaluation of the overall project."). The project has followed this recommendation, but coinciding with a EUN adoption of a call for tender for a framework evaluation contract, it has resulted in the engagement of external evaluation towards the end of the first project year (approximately month 10 – January 2014). This has meant an adjustment of the standard approach by GLPM to project evaluation, but one which has benefited from extensive and beneficial discussion with the CCL project coordination team. This included a meeting between Anja Balanskat (EUN) and Gareth Long (GLPM) 01.04.2014 at the EUN offices in Brussels. The external evaluators would like to thank the EUN team for their patience and readiness to help GLPM "catch up" with the project activities of the first year.

PURPOSE OF THE DOCUMENT

The Initial report from an Independent Evaluator is a public report (deliverable D5.2) reviewing project operation, project reports and the first year deliverables with the aim of deciding whether project quality assurance processes have been effectively designed and applied.

The deliverable will particularly report on:

- the extent to which feedback and recommendations from independent experts in the Pedagogical Board and focus group teachers have impacted upon and influenced the scenario development process in WP2 and
- whether the protocols for running a controlled experimentation with classes in WP4 has been consistently applied by all MoE.

Additionally, the deliverable will report on the extent to which CCL project's overall activities address the priorities and objectives from the Call.

ABOUT THE CALL AND ITS OBJECTIVES

Call for proposals — EACEA/20/12 under the Lifelong Learning Programme 'Implementation of the European strategic objectives in education and training (ET 2020) (stakeholder cooperation, experimentation and innovation)'

GENERAL AND SPECIFIC OBJECTIVES

The **general objective** of the call is to promote the implementation of the four strategic objectives of the 'Strategic framework for European cooperation in education and training (ET 2020)':

- lifelong learning and mobility,
- quality and efficiency,
- equity, social cohesion and active citizenship,
- creativity and innovation

and the strategic priorities agreed for 2012-14 through activities improving institutional commitment, coordination and partnership with all relevant stakeholders at national/regional/local levels.

Since the Creative Classroom Lab (CCL) project is funded under part B of the call, the general objectives should be achieved by supporting trans-national co-operation (policy experimentation, joint policy development, exchange of good practice and innovation) in the development and implementation of innovative policy approaches in line with the priorities set out in Europe 2020 and ET 2020, with a focus on 'creative classrooms'.

Support to implementation of innovative learning environments using ICT (called 'creative class-rooms') in the frame of transnational cooperation in the development and implementation of transversal education and training policy issues linked to the priorities set out in Europe 2020 and ET 2020 should include following activities i.e. **specific objectives**:

- Policy experimentations by transnational partnerships, involving relevant authorities, stakeholders and research institutions. Actions will not address broad topics, but target concrete common policy concerns. Appropriate importance has to be given to developing a robust evidence base and involving reliable monitoring, evaluation and reporting procedures of the multiple experimentations of 'creative classroom' settings,
- Jointly designing and testing innovative tools and practices through experimentations involving a sufficiently high number of educational establishments to reach a representative critical mass,

- Actions aiming at analysing from a policy point of view the effectiveness, efficiency and conditions of generalisation of the experimentations, as well as transnational transfer of the lessons learned and good practice (peer learning) which may include analyses, conferences and seminars, aimed at directly supporting policy-making and implementation,
- Actions to ensure systematic dissemination at national and international level and foster transferability between different education and training systems and policies.

According to the Call, transnational cooperation may occur at national, regional or local level; it may cover different types (formal, non-formal, informal) and levels (pre-school, primary, secondary, tertiary, adult, initial and continuing vocational education and training) of learning and may include links to other sectors (e.g. employment and business).

THEME, PRIORITIES AND EXPECTED RESULTS

In the context of the Call, policy experimentations should comprise the following components:

- **Trans-national preparation**: education ministries from different LLP participating countries identify together a common European policy challenge concerning mainstreaming the use of ICT in educational practices and build a partnership which develops, with the support of scientific experts, a common concept for addressing this challenge;
- **National implementation**: the concept agreed upon by trans-national partnership is tested ('policy experimentation') at national level, in one or more of the partner countries, in a representative sample schools. Each ministry is in charge of the implementation in the territory under its responsibility;
- **National and trans-national evaluations**: the results of the experimentations around the use of ICT in education are evaluated first at country level and then collectively with the other partner countries, with the systematic involvement of scientific experts;
- **National and trans-national operational conclusions:** policy experimentations achieving successful results – according to scientific evidence and policy evaluation – will prompt responsible ministries to introduce changes in the education system/curricula and foster large-scale implementation.

The **priority** is on formal primary and secondary school education. Priority should be given to policy experimentations, carried out by national or regional ministries in charge of education and training and life-long learning policies, addressing innovative and open learning environments called 'Creative Classrooms', mainstreaming the use of ICT in school education practices, in such areas as for example:

- The use of 'one-laptop-pre-child' models enhancing innovative pedagogies and teaching approaches, personalized learning, collaboration, interactivity etc.,
- Didactical use of ICT in teacher education and professional development schemes,
- Use, re-use and co-creation of educational resources enhancing flexible and open learning practices.

The **expected results** i.e. operational objectives are listed in the following:

- Scalability through multiplying a number of significant real life pilots involving a large number of learners, educators and educational institutions addressing issues of common policy concern across Europe, to be performed on the basis of commonly agreed methodologies;

- Improve the knowledge of policy makers in the design and implementation of policies dealing with common education and training issues set out in the context of Europe 2020 and ET 2020, with a focus on the use of technologies for learning by building efficient brokerage mechanisms to the policy makers of the evidence gained through 'Creative Classroom' pilots;
- European added value through bringing together best practice with lessons on 'what works' and 'what does not work', on successful implementation strategies and critical success factors for policy makers and practitioners;
- Increased effectiveness of national, regional/local measures designed to tackle complex challenges in education and training, enabling reforms to produce a systemic impact on education and training systems through transferring the best practices and recommendations to other contexts.

LITERATURE REVIEW

PURPOSE AND OUTLINE OF LITERATURE REVIEW

The aim of Literature Review (T2.1) was to provide an overview of research evidence on use of tablets in schools. The report was to offer evidence of published 1:1 studies related to innovative pedagogical use of tablets for collaborative learning, personalisation, active learning, assessment and the like, along with indications of funding and incentive policies, teacher professional development activities, availability of learning resources/applications, as well as change management processes linked to tablet implementations together with policy challenges related to upscaling and mainstreaming tablet experimentations.

More specifically, according to the DoW, the literature review should include research evidence on:

- 1:1 computing initiatives involving innovative pedagogical use of tablets in and out of school;
- existing findings and recommendations related to change management processes linked to tablet implementations;
- policy challenges and roadblocks identified with upscaling and mainstreaming tablet pilots and experimentations.

A literature review report was an essential step in the work programme since its purpose was twofold: (i) to feed the first scenario development process in WP2 and (ii) to inform first mainstreaming capacity development workshop in WP7.

The first version of the literature review led to the recognition of related key themes and proprieties identified by policy makers in the beginning of the project. Additionally, the report provides evidence on how to make the best use of tablets and identifies other topics emerging from the literature. Its outline is presented in the following:

1. The Brief
2. The Research Base
3. Introduction to the Concepts of Innovation and Creativity
   a. Definitions
   b. Creative classrooms
   c. Role of technology
4. Evidence
   a. Exploring the best use of tablets
   b. Personalization
   c. Content creation
   d. Flipped classroom
   e. Collaborative work
   f. Assessment
   g. Other topics emerging from the literature
5. Sources

COMMENTS AND OBSERVATIONS

The first version of the literature review was somewhat delayed in terms of its realisation (to be in accordance with the work programme it should have been delivered by M2). However, since monitoring of studies will continue until the end of the project in M24 and a final version of literature review is foreseen for the close of the project, there are no significant negative implications in this context.

For such a review it is important that a balance be achieved in terms of finalising a draft version of an outcome so that other activities and outcomes leading from it can begin and ensuring that the draft version has enough depth and scope to be meaningful. From the external evaluation perspective, the draft version has met these requirements and so the remarks and suggestions are intended to help in the realisation of the final version.

Observations of the fundamental approach to, and design of, the review:

The outline and the structure of the document could be more systematic, for example:
1. Executive Summary / The Brief
2. Introduction
3. Definition of Terminology
4. The Research Base
5. Innovative Pedagogical Approaches
6. Other Topics Emerging from the Literature
7. Concluding Remarks
8. Literature / Sources

From the external perspective, it was not initially clear how the "core topics" were identified. Dialogue with the coordinator has conformed that some of the core topics did not emerge from the literature review, but were the themes policy makers wanted to explore as scenarios as the scenario process needed to be driven by their priorities.

If the process is one that began pre-project and was based upon ongoing discussion amongst the relevant Ministries and those bodies charged with representing them, then this is actually a strength and indicates thorough and systematic grounding of the initial analysis on thematic areas of topical interest to the policy makers. If this were the case then the references in the application such as "… published 1:1 studies related to innovative pedagogical use of tablets for collaborative learning, personalisation, active learning, engagement, assessment etc. …" (description of task T2.1 Literature Review) indicate an initial momentum based on policy research. The literature review in this instance should indicate that it was devised in this context – as a "follow-up" to policy emphases already decided upon. The literature review has added one theme – that of the "flipped classroom" to those already identified in the application. In this instance therefore, the review could have benefited from an alternative focus to include, for example, more consideration of the "tablet versus notebook" which could have both helped the focus of the review and made easier the process of gathering data from some of the partner countries – a challenge identified by the project itself as part of its approach to the review. However, the project was keen to point out that whilst acknowledging the comment made in the assessment of the application, the "tablet versus notebook" issue was deliberately not adopted as this was a different focus and it was difficult to compare evidence around the two type of devices The main focus of the CCL project is on tablets and their specific affordances.

With regard to additional possible focuses for the review, there are a number of other teaching approaches that fit the criteria for student-centred learning and fall into the concept of "active learning" (a concept that essentially refers to anything other than passively listening to a teacher): Inquiry-based Learning, Game-based Learning, Problem-based Learning, Team-based Learning, Creative Learning etc. As pedagogical approaches they may not be identifiably "innovative", but on the other hand the same comment could be made on "collaborative learning" as well. The observation is made therefore in the context of clarifying the scope of the literature review whilst also seeking to encourage more input from all partner countries into the content of the review, rather than mainly from the UK, USA, Australia, etc.

There is some variation in the way that the "core topics" are addressed. For "collaborative work", first the definition of collaborative learning is offered and then the related evidence provided (this would appear an appropriate approach). However, other topics do not follow the same approach; there is a "definition-demand-deployment" structure for personalization and one of "coding-multimedia-apps" for content creation for example.

The report is light on evidence of impact of 1:1 access to tablet computers in the classroom from the consortium partners. Aside from references to the UK, the report mainly provides evidence from the USA and Australia. Partners were asked to submit papers, but there was not much in the way of tangible evidence available at that time from those countries. Whilst it is envisaged that the final Review will include more data from the countries, the collection of national studies also would mean translation of the main findings, which would be a considerable effort by partners and an activity not foreseen in the original budget.

"2. The Research Base" is a little unclear as it stands. It is quite brief and more informative data is included anyway in the section of the report "Exploring the best use of tablets" under "4. Evidence".

Using ICT for "Innovation Communication Technology" (last paragraph of page 6), when it is already widely known as "Information and Communication Technologies" was likely to cause problems and this use of the acronym has since been stopped by the project.

POLICY SCENARIOS

With regard to a review of progress of the Policy Scenarios, it is worthwhile to include here comments from the assessment of the application on the criterion of Quality of Methodology.

> "The methodology proposes is generally sound and is grounded in previously undertaken studies (e.g. laptop 1:1 study), but it does not appear to build on specific pedagogical theories or paradigms.
>
> Teacher involvement is very well integrated. Evaluation is thoroughly described, covering the actual project implementation and the pilots, as well as focusing on the impact in the tablet experimentation on 1:1 computing strategies of the participating ministries.
>
> However, while it may be implicit in scenario development, the articulation of specific questions or hypotheses to be addressed in the course of experimentation should be considered. For example:
>
> - it seems surprising that questions such as "laptop/notebook versus tablet" (both 1:1 solutions) are not explicitly referenced, given the opportunity to build on previous work undertaken specifically on laptops/notebooks.
> - usability factors seem to have been overlooked. It is not clear if experimentation will look at age/stage related differences or at questions relating to wider conditions, e.g. school leadership or whole-school integration of devices."

The project has responded carefully to the issue of "tablets versus notebooks" as raised in the initial assessment. At the time of the application, it was felt that netbooks were in serious and perhaps terminal decline and the current reality proves this to be the case – see http://blog.laptopmag.com/netbook-death-2015. Furthermore, the market is moving so rapidly anyway that doing a controlled comparative experiment would be extremely difficult. The assessment comments are acknowledged, but it seems clear that the tablet focus is an appropriate one.

With regard to the comments on "usability factors", the experimentation was set up based on the selection of classrooms by policy makers according to criteria agreed upon and set out in the protocol. It was agreed to focus on secondary education, but not to define a specific age group and also to include primary education in some cases if wished by the partner. The aim was to establish as much as possible a homogeneous set of classrooms. It is to be seen if any valid conclusions based on the overall analysis of the observation visit can be made as regards differences between levels/grades based on a sample of 45 classrooms. To study these issues in detail, this would also require a different research approach.

The main aim and objective of the project as presented in the application was to "... provide a pan-European, controlled experimentation involving 45 classrooms in nine countries on the use of tablets in secondary schools to inform and help steer policy development related to the implementation of 1:1 pedagogical approaches. … There will be a particular focus on how practice is changed as a result of tablets being used for collaboration, personalisation and active learning, as well as on successful integration of tablets with classroom technologies already in mainstream use."

Concerning the development of teaching and learning scenarios, the project (as presented in the application) outlines two main specific objectives:

- "Develop innovative teaching/learning scenarios involving the use of tablets in and out of school by focusing on what is possible using 1:1 computing paradigms that have the potential to be mainstreamed during the project timeframe.
- Develop a number of 'leading-edge' scenarios that can be validated in a smaller number of classrooms as a 'proof of concept' of how tablets can be integrated with emerging technologies that may be a number of years away from widespread adoption in Europe's classrooms."

In the first year, the project has been focused on the first objective related to the development of scenarios that tackle the more immediate concerns regarding tablet integration and have the potential to be mainstreamed during the course of the project.

SCENARIO DEVELOPMENT PROCESS

According to the main objective of the project, scenario development and implementation plays a major role aiming to guide teachers in the innovative use of tablets in order to "support innovative 1:1 pedagogies and teaching approaches (involving personalized learning, collaboration, interactivity etc.) and be integrated in national ICT programmes" (as stated in the Project Rationale of the application). The project is divided in two piloting cycles, each including the development of Policy Maker Scenarios and Learning Stories (or pedagogical scenarios). Since the intention is to develop two sets of scenarios, each year the project follows the same scenario development process which involves project partners (policy makers), lead teachers and Pedagogical Board and associate partners.

Policy Maker Scenarios are developed based on a methodology developed in the iTEC project (http://iTEC.eun.org) where future classroom scenarios provide a vision for innovation and advanced pedagogical practice. Project partners use this approach to describe the types of learning and teaching activities and processes to be supported by the use of tablets during the national pilots. These scenarios serve as a reference framework for the Learning Stories (i.e. pedagogical scenarios) to be developed by the lead teachers and the policy makers of the project.

In the development of Policy Maker Scenarios a number of instruments are being utilised:

- **On-line questionnaire** which enabled project partners to provide information regarding
    - description of existing 1:1 tablet pilots in their country and
    - current priorities (low, medium, high) with 1:1 tablet initiatives;

The questionnaire is accessible only to partners on survey monkey via this link: https://www.surveymonkey.com/s/CQ6WK3M but it will also be added to D.7.1 "Report on first mainstreaming workshop."

- **Template for policy makers** to draft scenarios for the first round of pilots to run in October 2013 allowed project partners (until mid of May 2013):
    - to outline their current priorities regarding ICT and
    - to provide draft of a policy scenario according priority themes identified for their country;

- **Innovation Maturity Model**, developed in the context of iTEC project, enabled project partners (policy makers at the first Mainstreaming workshop in May 2013:

- o to identify stages of innovation in their school, from stage one "exchange" indicating localized use of ICT to stage five "empower" where teaching and learning processes are redefined and use of ICT is innovative;
  - o to place their schools into the respective level of the matrix and outline to which level they would like to move by implementing the tablet scenario; the stages of improvement aimed for is outlined in the beginning of each Policy Maker Scenario;

- Tentative **scenario template** enabled integration of the essential ideas of several national scenarios and challenges provided by policy makers into a group scenario, thus reflecting the ideas of several (two to three) countries; the template required (as outlined in the first Mainstreaming workshop in May 2013):
  - o description of the key challenges the scenario will respond to,
  - o scenario narrative planning addressing who is involved and what are their roles, the core purpose of the scenario, where and when does the scenario take place, what type of technology is used and/or other resources needed) as well as
  - o scenario narrative presented as a story style narrative or a "day in the life" style narrative.

The project partners (policy makers) developed four Policy Maker Scenarios on the topics Personalisation, Collaboration, Content Creation and Flipped Classroom (first Capacity Development workshop in May 2013). On the basis of the Policy Maker Scenarios, project partners and lead teachers developed learning stories including learning activities together during a Pedagogical Scenario Development workshop (June 2013). The learning stories were finalised, taking into account the feedback of the experts of the Pedagogical Board. Finally, teachers started an implementation of the pilots in the first cycle of the project by adapting developed Learning Stories to their own school context (November 2013).

The finalized Policy Maker Scenarios, Learning Stories and support documents for each of these topics are available on the CCL website http://creative.eun.org/scenarios.

FOUR POLICY MAKER SCENARIOS

The Policy Maker Scenarios, collaboratively designed during the first Capacity Development workshop, revolve around four topics agreed by the policy makers as national priorities: Personalisation, Collaboration, Content Creation and Flipped Classroom. Since the aforementioned topics identified as national priorities will be a focus of the first cycle of the project (May 2013 - April 2014), the following four scenarios are developed:

1. Policy Maker Scenario Personalisation,
2. Policy Maker Scenario Collaboration,
3. Policy Maker Scenario Content Creation and
4. Policy Maker Scenario Flipped Classroom.

Each Policy Maker Scenario follows the same consistent and well-defined format comprising three sections:

1. brief background information regarding the CCL project lifecycle in general and concise insight into the general process related to pilot implementations of scenarios,
2. clearly presented specifics related to the particular Policy Maker Scenario and

3. insight into iTEC Innovation Maturity Model along with specified stage of improvement aimed for in the specific scenario.

The second section of each Policy Maker Scenario addressed specifics of particular topic thus providing clear information regarding three important issues:

- challenges the scenario is responding to,
- scenario narrative planning including:
  - Who is involved in the scenario? What are their roles?
  - What technology is used in the scenario? How is it used?
  - What is the core purpose of the scenario?
  - Where does the scenario take place?
  - When does the scenario take place?
  - What happens?
- scenario narrative part (i.e. relevant example presents as a "story" or a "day in the life" style narrative)

In addition to the four Policy Maker Scenarios, very helpful associated summary documents (called Summary CCL Scenario 1st Cycle) are provided as well. Their goal is to concisely present an aim of each scenario, what is the scenario about, role of students and teachers, use of ICT, scenario final output as well as what would a good particular scenario looks like.

Additionally, each Policy Maker Scenario is accompanied with relevant and well written supporting material:

- CCL Scenario: Personalisation, What is the Personalisation model and how to use it?
- CCL Scenario: Collaboration, What is the Collaboration learning model and how to use it?
- CCL Scenario: Content Creation, What is the Content Creation scenario and how to use it?
- CCL Scenario: Flipped Classroom, What is the Flipped Classroom model and how to use it?

Support material, as also evident from the name itself, offers definitions and explanations of the key concepts and terminology related to the particular Policy Maker Scenario. Although research papers and publications are used as a source/reference for the document creation, the support material is written in "understandable", not purely scientific way, thus presenting a helpful source of supplementary information. Furthermore, since scenarios serve as the basis for Learning Stories/ Activities and lesson plans guiding the use of tablets on the specific topic, support material also provides valuable instruction regarding its usage. Specifically, some guidelines and ideas are proposed to develop specific learning activities in seven core activities of each Learning Story (dream, explore, map, make, ask, remake and show), also offering suggestions of suitable on-line tools which could be used.

RECOMMENDATIONS

No significant weakness can be identified when it comes to a consideration of the overall Policy Maker Scenarios development process.

PEDAGOGICAL APPROACHES AND THEORIES

The application clearly addressed the need for an employment of 1:1 pedagogical approaches but on a very general level. Under the Aims and Objectives section is stated that „The project will provide a pan-European, controlled experimentation involving 45 classrooms in nine countries (five per country) on the use of tablets in secondary schools to inform and help steer policy development related to the implementation of 1:1 pedagogical approaches." Additionally, in the Rationale of the project sub-section is observed that "While MoE in Europe and EUN industry partners have started to research the potential of 1:1 computing solutions in the last few years, it is important to recognize that we are only at the beginning of understanding 1:1 pedagogical approaches. Moreover, the 1:1 pedagogical paradigm is now changing extremely rapidly, particularly given the speed with which tablets from a wide range of different vendors are now flooding the consumer market and beginning to impact on the classroom."

Therefore, it is crucial that CCL project does not become a tablet project, but it remains an educational project since it has potential to speed up development of pedagogical models/approaches for 1:1 computing in education. The main recommendation with regard to development and implementation of 1:1 pedagogical approaches is a need to progressively move the focus away from the devices (tablets) to the students/learners and pedagogies, namely from 1:1 computing to "1:1 learning" (Bocconi, Kampylis & Punie, 2013). The project will realise this as it develops pedagogical scenarios to be implemented and tested to support teachers in their pedagogical practices with tablets

Since 1:1 computing refers to the idea of equipping every student with a personal computer (usually a laptop, handheld or tablet), it is not acceptable to identify/equalize 1:1 pedagogical approaches to 1:1 computing. Specifically, the deliverable D2.2 "Report on Phase I Scenario Development" in a brief description of the project on page 4 brings the following text: "The project … on the use of tablet computers in secondary schools to inform and help steer policy development related to the implementation of 1:1 pedagogical approaches (i.e. 1 tablet per student)."

According to the description, the deliverable D2.1 "Literature Review" should present "research evidence on 1:1 computing initiatives involving innovative pedagogical use of tablets in and out of school …; a report will be published in M2 to feed the first scenario development and first mainstreaming workshops". Therefore it is rather confusing and inconsistent when, on the other hand, in the D7.1 "Report on First Mainstreaming Workshop: National Policy Challenges" is claimed that the first version of the literature review focuses on "priority themes identified by the policy makers, e.g. collaborative learning and personalization" (page 12).

Additionally, in view of the fact that the literature review report should feed the first scenario development process, identification of personalisation, collaboration, content creation, flipped classroom and assessment as "core" topics is not sufficiently clearly and convincingly addressed. From the Literature Review report it is not evident how those core topics emerged from the conducted review of published studies. Specifically, the majority of identified topics (except flipped classroom) were already mentioned in the application itself, for example:

- "Rationale of the project" section brings text " … in order to develop coherent strategies for how whole class implementation of tablets can support innovative 1:1 pedagogies and teaching approaches (involving personalized learning, collaboration, interactivity etc.) and be integrated in national ICT programmes";

- "Aims and objectives" section states "There will be a particular focus on how practice is changed as a result of tablets being used for collaboration, personalisation and active learning …."
- Description of task T2.1 "Literature Review" includes following description " … published 1:1 studies related to innovative pedagogical use of tablets for collaborative learning, personalisation, active learning, engagement, assessment etc. …".

In the light of the aforementioned considerations and acknowledging the fact that personalisation, collaboration, content creation and flipped classroom are in the focus of the first cycle of the project, another recommendation could be considered. Since monitoring of studies related to 1:1 initiatives and related innovative pedagogical approaches will continue during the course of the project and a second round of scenario development is foreseen for the project second year, there is space for improvement in the second cycle of the project.

Innovative forms of pedagogical practice with technology encourage student-centred approaches, group work and participative learning and promote active learning such as problem solving and creativity. Some practical ideas for supporting active teaching and learning models that fit the criteria for student-centred learning and fall into active learning include: Inquiry-based Learning, Game-based Learning, Learning-by-doing, Problem-based Learning, Team-based Learning, Creative Learning and Experiential Learning (Dawson, Cavanaugh & Ritzhaupt, 2008; Redecker, Ala-Mutka, Bacigalupo, Ferrari, & Punie, 2009).

Existing and emerging technologies allow teachers to create pedagogically effective learning activities that support experimental and experience-based learning, promoting and improving motivation and learner involvement. However, it is important to point out that technology is just a means towards pedagogical change (Bocconi, Kampylis & Punie, 2012). Moreover, because effective pedagogical strategies are context-dependent, one solution might not work equally well in a different context, especially when considering large pan-European community of nine countries. As an alternative for generic pedagogical solutions, a best practices in 1:1 learning could be considered.

The University of Minho was sub-contracted not only to provide support material for the scenarios, but also to analyse the alignment between each Policy Maker Scenario and the corresponding Learning Story, listing any differences and omissions. In their "Analysis of the alignment between Policy Maker Scenarios (PMSc) and Lead Teacher Learning Stories + Activities (LS)" presented in Annex 5 of D2.2 their comments which specifically addressed tablets are the following:

- Flipped Classroom: Tablets as such are not mentioned in the LS and therefore their potential for education is not explored;
- Collaborative: The use of tablets is not extensively explored;
- Personalization: The use of tablets is not mentioned;
- Content creation: ICT in general and tablets in particular are infrequently mentioned in the LS.

Although it was concluded that the overall feedback was "useful, mainly to confirm that the alignment was indeed good, and to enable EUN to make some changes to strengthen the connection" (D2.2 page 16), it is not clear how remarks specifically targeting the usage of tablets in Learning Stories are addressed. The way in which different outcomes and activities of the project influence and inform the content of each other could be presented with a higher profile in the CCL project; a lot of good work is taking place "behind the scenes" and it

is important that each activity and outcome is presented clearly to help reinforce the legitimacy of the ultimate recommendations.

EVALUATION AND USABILITY ISSUES

The application clearly confirmed that the project will employ adapted validation methodology "that has been successfully used in previous 1:1 computing action research projects including the EUN/Acer netbook and tablet pilots (see project rationale)." Concerning validation instruments and observation methodology application foresees telephone/Skype interviews with MoE lead representatives from each country in M3 and M22 (Task T.4.2 Interviews) and two day link research visit (Task T4.3 Link Research Visits), which include observations of classroom practice and interviews with leading teachers, head-teachers and support staff.

The assessment process revealed concern regarding envisioned evaluation methodology and usability factors what has been to some extent already taken into account. Namely, telephone/Skype interviews and proposed national focus groups during link observation visits are enhanced with additional validation instrument, specifically on-line evaluation questionnaires for teachers (April 2014 and December/January 2015). On-line questionnaires are aiming for gathering quantitative data regarding student information (e.g. age range), subject application, type of tablets used and infrastructure information among a number of other issues related to 1:1 learning environment.

Nevertheless, although an additional evaluation instrument, the on-line questionnaire, will be indeed helpful while acquiring relevant information from all participating teachers, the project would benefit from an employment of rather simple, but efficient usability testing. In general, research studies involving different kinds of applications/technology, different user groups and evaluation techniques have been conducted and the need for combining the methods is well understood in the usability field; see e.g. (Sears & Jacko, 2008). However, despite the undertaken research and efforts, the field of technology enhanced learning (TEL) in general and 1:1 learning in particular still lacks a widespread culture of usability. Approaches that address both the traditional usability and the pedagogical aspects of TEL systems in the context of use are still a research issue (Granić & Ćukušić, 2011). Moreover, there is a growing need for thorough usability studies whose results would have an impact on "real" TEL design and development.

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THE PEDAGOGICAL BOARD AND ITS IMPACT

Please see also comments in the following section on "Progress against work packages" under wp5 Quality Assurance.

The role of the pedagogical board is a very important one for the project. It has a responsibility to act as a conduit between the policy makers and the more direct interface at the creative classroom level. This is an especially important aspect in the context of the project as an ECET B initiative. The external evaluators have experience in acting as assessors for KA1, ECET A and ECET B applications, progress and final reports and that experience has indicated that there is a real issue in projects establishing and maintaining their relevance to the demands of the actions which are quite unlike other transnational cooperation projects. Therefore in the review process, the role of the board is a key measure of the sustained relevance of the project to the ECET B aims. That being said, one of the challenges is assessing the impact of the Board and its feedback when essentially this process is one that largely takes place "behind the scenes" in that there is no discrete report from the Board and instead the feedback is on an individual basis. It is acknowledged that a summary of the Board's feedback appears as annex to D.2.2, but the recommendation is to give it higher profile than this.

The Board and its role was made clear in the early stages of the project, the coordinating personnel from Schoolnet informing the partners of the progress towards identifying the members during the first meeting and online meetings. The nominations were made and agreed and the constitution of the Board was both diverse in terms of nationality and complementary in terms of the competences of the personnel present; "a good mix of people from research, pedagogy and people with 1:1 experience".

The minutes from the October 2013 meeting outlined the way in which over the summer, the members of the CCL Pedagogical Board provided their feedback on the Learning Stories. It is clear that Roger Blamire had a key role in presenting the feedback in a manner which respected both the initial scenario ideas and the practical means by which they could be realised in the creative classroom environment. The finalised scenarios resulting from the feedback process were immediately made available on the project web-site. The success of the process indicates that the terms of reference agreed for the selection and role of the Board were appropriate.

Further evidence of the impact of the Board is provided in the presentations made to the lead teachers and teachers during the scenario development processes; these provide insight into the dual nature of the role in terms of acknowledgment of the requirements and preferences of the teachers involved in the creative classroom interface whilst also ensuring relevance to the initial policy priorities. The following is an extract from one of the presentations:

> "Take away messages
> 1. Each Learning Story/Activity should be used as a basis for teachers to create lesson plans
> 2. The Learning Story/Activity contains elements to be adapted to reality and practicalities in each country and school, as well as the curriculum subject
> 3. Lesson plans should maintain some of the main elements that make this scenario a creative and innovative learning experience.
> A checklist will be provided."

It was also positive that the teachers involved were fully informed of the Pedagogical Board and its role. The Teachers Guide created in November 2013 referred to the input of the Board and provided their contact information as annex one to the Guide.

It is likely that in the second year of the project the input of the Pedagogical Board will continue and actually increase as it now appears to have settled into a more clarified role matching the evolution of the project generally. Some initial difficulties in terms of other commitments, regularity of contact and communication and timing of feedback have been overcome and it is recommended that the momentum now enjoyed by the Board and the project generally is continued and exploited to the full in the remaining period. Again, whilst not suggesting additional work or tasks, it is recommended to consider giving a higher profile more publicly to the role and impact of the Board, notwithstanding any issues of confidentiality. The CCL outcomes and their value would be enhanced with a higher profile given to the input and commitment of those involved in the feedback processes associated with their usability and relevance – such recognition adds to the transparency of the legitimacy of results.

PROGRESS AGAINST WORK PACKAGES

With some minor delays and variations, the project has successfully implemented the planned activities of the first year. The progress and achievements associated with each work package of the contractual work programme will be assessed in the following pages, with particular emphasis on the main outcomes, the way in which these are accessible to the wider audience and the means by which the project and partnership collectively have responded to the recommendations made in the feedback to the application. To start this section, it is important to present again the specific objectives of the project as presented in the application:

"The specific objectives of the CCL project are to:

1. Develop innovative teaching/learning scenarios involving the use of tablets in and out of school by focusing on what is possible using 1:1 computing paradigms that have the potential to be mainstreamed during the project timeframe.
2. Develop a number of 'leading-edge' scenarios that can be validated in a smaller number of classrooms as a 'proof of concept' of how tablets can be integrated with emerging technologies that may be a number of years away from widespread adoption in Europe's classrooms.
3. Design and run a number of classroom pilots in a controlled environment as "policy experimentations" based on these scenarios with a representative sample of teachers and pupils drawn from 45 classrooms in nine countries.
4. Observe, document and report on innovative use of tablets by teachers and pupils involved in these policy experimentations, with a particular focus on how tablets support collaboration, personalisation and active learning in creative classrooms.
5. Draw lessons from these policy experimentations in order:

   5.1 To provide guidelines, examples of good practice and a course for schools wishing to include tablets as part of their ICT strategy.
   5.2 To support capacity building within MoE and encourage them to introduce changes in their education systems in order to mainstream and foster large-scale implementation of the innovative practice identified in the project's creative classrooms."

WP1 MANAGEMENT (MONTHS 1-24)

EUN is in a strong position for transnational project management as at a fundamental level its constitution is based upon cooperation across national borders and implementing change at a strategic level resulting from innovative work in the field of education. The application presented a strong, diverse and experienced team of personnel for the coordination role, combining experience of project management with expertise and significant knowledge in the thematic fields of the project. It is positive that the main coordinators have been published in the field of e-learning as well as being able to provide evidence of extensive experience of collaborative work and project management. There is often a challenge in such projects in this respect, as the main lead personnel find themselves drawn more into the coordination role at the expense of providing input based on their own skills and competences, but an effective balance has apparently been reached in CCL.

No significant weaknesses can be identified when it comes to a consideration of the overall performance of project management in the first year. Minor delays have occurred in the start or completion dates of some activities but these have been justified in terms of being either in the best interests of the project (for example, the relatively late engagement of an external evaluation process, but this process itself being a response to the specific recommendation of the application assessment from the EACEA) or unavoidable (some shifting of planned dates for meetings / workshops to ensure maximum levels of participation and therefore being again in the best interests of the project).

One aspect that has been noted during the evaluation process is the one associated with internal monitoring and its relationship with Quality Assurance. There are of course, discrete work packages for Management and Quality Assurance, but looking back from the approximate mid-point of the project, there appears to be some gap between the two when it comes to progress monitoring in particular. For example, the application describes clearly the utilisation by EUN of a Project Management and Accounting Package using Microsoft Dynamics NAV. However, whilst it features management and accounting, the emphasis in the application appears more on the accounting, which whilst not a weakness in itself, means that the QA plans should "overlap" to ensure progress monitoring also. Outcomes associated with the monitoring package planned for WP1 are not featured in the application and whilst the application was "approved" the assessor of either progress or final report could justifiably express the need for monitoring outcomes to be visible within WP1. The recommendation is therefore that such management outcomes are a feature of the details presented in the progress report. For clarification purposes, WP5 (QA) features a Quality Plan including the realisation of the Pedagogical Board as well as outcomes associated with the external evaluation process, but does not feature internal monitoring procedures on project progress as planned deliverables. Further recommendations will be included in the comments of WP5. Please note – the recommendations in the context of internal monitoring are meant to ensure visibility of the effectiveness of project management, not to suggest any weaknesses.

An additional aspect of the project management that the evaluators feel is important to emphasise is to ensure a consistent appreciation by all project participants of the fact that CCL is a KA1 ECETB-funded project and therefore has responsibility to show clearly how it is operating in a manner that is relevant to the 2012 ECETB objectives and priorities. The application scored very highly in its relevance, in fact receiving a score of 30/30 and so the expectation in this respect will be high. The issue of relevance in KA1 and ECETA and ECETB project applications over the years has been a key one; it is the criterion on which the majority of applications have been judged weak and so CCL has the potential to be an outstanding example of effective and consistent relevance. Given the absolute emphasis on policy in the aims and the consortium consisting of MoE or organisations charged with representing MoEs, then the project should not have significant problems in maintaining this relevance. Even so, the issue is highlighted here to ensure that the reporting processes at the progress and final stages give a high profile and transparency to this ECETB relevance by clear reference to how the project has consistently addressed the priorities and objectives from the 2013 Call in its activities.

The management of the meetings and workshops to-date has been effective. The kick-off meeting (April 2013), the conference calls (April and May 2013), the scenario development workshop (May 2013) and the second project meeting (October 2013) have all been realised well and with clear benefit for all participants. There are several reasons for this which again reflects positively on the overall management. The first is the clear and thorough preparation – distribution of documents, clarification of roles and expectations, realistic planning and appropriate scheduling. The second is the very positive recoding of the events in terms of the minutes and

action points and deadlines for future activities. The third is the "overview" approach which makes clear how each meeting or event is part of the overall communication and development of the project; the fact that the planned meetings and workshops in the second period reflect those of the first is a strength in terms of clarity and emphasising for example, the first and second pilot processes. From the perspective of the external evaluators, the clarity of the meeting planning and scheduling has been of benefit in terms of planning their own involvement in the project. It is also a reflection of the clear awareness on the part of EUN that with MoE being the partners, long-term planning for meetings is vital.

One final recommendation with regard to management, and a process which may already be underway in preparation for the progress report, is to ensure coherence between the referencing and identification systems used in the application for deliverables, etc and those used to record the outcomes, processes and results. The folders for ongoing and completed work accessible to the evaluators are logical in terms of names, but not always clear in terms of reflecting clearly each identifiable process and outcomes of the application. For example, following up T4.1 (webinars) and T4.2 (interviews) are not straightforward to identify. It is acknowledged that they are not tangible deliverables in the way that other outcomes are – and the Dropbox folder makes clear the folder containing the deliverables – but they are nevertheless important aspects of the project and the processes behind them should be visible, even if only on a restricted sense to the project team, evaluators and EACEA assessors.

WP2 PEDAGOGICAL SCENARIO DEVELOPMENT (MONTHS 1-24)

The aim of this WP was to create pedagogical scenarios and learning activities on the use of tablets that can support innovative approaches to teaching and learning in and out of school. The scenarios were to be co-developed by MoE National Pedagogical Coordinators working with the associate partners and a focus group of teachers that would help to coordinate the pilots in each country. The draft scenarios were essentially ready in accordance with the work programme (by month 4) and the phase I pilots began with only a small delay of 1 or 2 months. Again, the relatively minor delay can be justified for valid reasons; the initial discussions and workshops resulted in exchanges of views that indicated some links between the draft scenarios in the partner countries (e.g. between the UK, PT and LT) which meant there was some additional benefit in cross-referencing the planning processes and aiming to create scenarios that were theme and country-specific but which could also be compared and contrasted in the more transnational context with a view to a greater likelihood of further exploitation and transfer – which is a positive outcome especially in the context of sustainability.

The activities led to the collaboratively created scenario documents published on the CCL web-site: "Policy maker scenario collaboration", "policy maker scenario content creation", "policy maker scenario flipped classroom" and "policy maker scenario personalisation". These are effective public outcomes representing the collaboration that took place in WP2; there is a common and very clear format which emphasises usability in a very practical way:

- "Who is involved in the scenario? What are their roles?"
- "What technology is used in the scenario? How is it used?"
- "What is the core purpose of your scenario?"
- "Where does the scenario take place"
- "When does the scenario take place"
- "What happens?"

This is augmented in each case by a clear introduction of the context of the initiative at the start of each and a concluding explanation of the initial methodology adopted, based on the iTEC innovation maturity model. In this context it is important to emphasise that the iTEC methodology is acknowledged and valued in the CCL proceedings, but that the activities and outcomes of the CCL project are separate and discrete to iTEC. There is no duplication of work, which was a potential issue highlighted in the assessment comments of the application (under "Relevance)".

The learning materials to support the scenarios have also been realised effectively, in initial draft versions and then in final versions in again, a very practical and coherent way across the four scenarios. There are subtle but important differences between draft and final versions which provide insight into the contribution of the pedagogical board, for example, the "learning environment" develops from anywhere with wi-fi to make more specific the "non-traditional" environments possible to exploit outside of the classroom or even the home (e.g. café).

An additional positive aspect is the summary of each of the scenarios; the initial versions themselves are not excessive in length or guilty of jargon or confusing references, but it is still an effective approach to include final brief summaries of each which read like information cards providing the key information only with immediate clarity.

In addition to the phase 1 tablet scenarios (T2.2) the work package outcomes included the Literature Review (T2.1) (considered separately) which was somewhat delayed in terms of its realisation in first form but given that a final version is foreseen for the close of the project and that updates to it will take place throughout the project, there are no significant implications in this context.

The main recommendation with regard to WP2 is to ensure recognition of the associate partners in the processes (the application stated "DGE, partners and Associate Partners will work with a small focus group of lead teachers (including in a scenario development workshop in M3) to develop an initial set of tablet pedagogical scenarios by M6 that can be validated in a first round of classroom pilots organised by WP3 that start in M8/9."). This recognition can be in the public outcomes, including the web-site and / or in the progress and final report to the EACEA. This is not important only in the context of recognition, but also to reinforce the transparency of relevance to the identified ET2020 objective 4 ("a fully functioning knowledge triangle of education-research-innovation"). There is the potential again for the success of collaboration in this manner in CCL being a potential model for use by others.

WP3 Organisation and Support of School Pilots (months 2-24) and WP4 Observation/Documentation of Innovative Practice (months 1-24)

These WPs are considered together as there are clear links between the support processes and the results of the observations of the pilots at each of the school sites.

The aim of WP3 was to define a protocol of experimentation for the pilots including criteria for the selection of teachers, mechanisms for how they will be supported / trained at national level and how the teachers will be supported via an online community, webinars, and two peer exchange workshops using the facilities at EUN's Future Classroom Lab. As with WP2, the work has progressed well with only minor variations to time and schedule. The described protocol (T3.1) is accessible as a specific tangible project outcome. It is a detailed but clear and informative document with clear potential for wider use. Live links are provided for

each of the scenarios to access additional information. The version submitted is indicated as version iii and the final version, although the text refers to an update taking place in year 2, so it is positive that it is both completed but with the flexibility to be enhanced through the further lessons learnt from the second round of pilots and other year 2 experiences. The supporting annexes provide additional specific information and it is appropriate that clear contacts for more information and support are included throughout. One minor criticism is that the header text of "D3.1 Protocol of experimentation for policy experimentations" is a little clumsy when compared to the usual EUN titling and descriptions. Also, there is reference to the fact that the protocol is based upon an existing model and specifying which this is would be useful in the progress and final reports; if it draws from, for example, the CPDLab project (http://cpdlab.eun.org), or Living Schools Lab project (http://lsl.eun.org) or iTEC project (http://itec.eun.org) then this should be acknowledged and clarified to ensure there is no concern of duplication along the lines referred to in the application feedback on Relevance.

The application stated that the "MoE will identify and include schools from their networks that have already begun experimenting with tablets and work with ICT companies in order to include teachers that are participating in existing vendor trials." Again, it is hoped that this process (both successes and any challenges) are included for consideration in the progress and final reports. The application feedback under the criterion of "Quality of the Methodology" referred to the fact that consideration of the "laptop versus tablet" solution had not been included which was "surprising" given that the potential lessons learnt element of laptop and notebook-based initiatives from previous years which also featured collaborative classroom paradigms and learning environments based on the home and / or social setting were not being embraced. Description of the way in which schools were selected based upon their existing experimentation may respond to this comment. Furthermore, the methodology behind the organisation and support of the school pilots also needs to address the issue of objectivity and how it was ensured in the context of the associate partners involvement in WPs 2 and 3 and the potential for commercial rivalry. The external evaluators have seen reference to both these issues (criteria for selection, pedagogical objectivity) in the numerous documents resulting from CCL but it is important that they feature in the public reporting outcomes to at least some extent to help ensure meaningful potential for further transfer and exploitation of the project's successful models.

T3.2 "Supporting the classroom pilots" is progressing well in CCL. EUN has worked closely with the MoEs to understand the training and teacher support requirements. The effectiveness of this support and preparation and the performance of the schools in their utilisation of it and their overall approach will also be evidenced by the findings of the observation visits taking place in WP4. The period leading up to and also after the deadline for the progress report is one which sees this support particularly active, as the pilots are being visited "face-to-face" by an expert (Diana Bannister) from the leader of WP4, the University of Wolverhampton (UK). One of the aims of the external evaluation after the first report is to have extensive discussion with Diana Bannister on her impressions of the progress of the pilots and the impact of the project as a whole as evidenced through the piloting process.

The months May-June 2014 are important ones for the project generally and for these two WPs specifically, as several key meetings and events will take place (all in Brussels), each of which will be attended by one or both of the external evaluators:

- 22 May 3rd project meeting (Andrina Granić and Gareth Long)
- 23rd May 2nd mainstreaming workshop (Andrina Granić and Gareth Long)
- 16-17 June, 2nd scenario development workshop (Gareth Long)

There will also be the 2nd pedagogical board meeting online sometime later in May so that it can address aspects arising from the project meeting and mainstreaming workshop. The feedback from the observation visits will be important to all of these forthcoming project events and it will be important for the different elements to come together clearly for subsequent review and comment by the pedagogical board for their second major contribution in terms of recommendations to the partnership based on ensuring continued relevance to the policy aims balanced with the practical aspects of realisation in the collaborative classroom environment.

The Animation of Teacher Community (T3.3, months 5-24) is going well, the lead teachers from the WP2 scenario development focus group have contributed to the teachers' blog on the CCL web-site where numerous (and up-to-date) contributions have been made. These follow a flexible but important template to try and encourage comparison between the schools pilot experiences across borders. The contributions are open, honest, consider carefully the challenges and provide also evaluative information as well as indications for future expansion. The blog is a success in its own right and certainly so when compared to other online forums where project target groups or stakeholders have been traditionally reluctant to make repeat contributions. It is important that this is maintained (and further enhanced through the production of more videos) in the second year; as indicated in the application this is valuable in terms of the exchange of information but also a potentially very effective tool for dissemination and sustainability.

T4.1 WEBINARS

Three webinars have taken place to-date being largely in accordance with the aims and scheduling of the application (the fourth is due at approximately the same time as the progress report). They also reflect to-date the indicative themes presented in the application. They are well-envisaged and clear and they also inform part of the internal monitoring process (reminders to attend webinars, contribute to blogs, etc) and it is repeated that the internal monitoring mechanisms can be diverse and feature elements of the project in work packages outside of management and quality assurance. It is apparent that the webinars are prompting effectively the blog participation levels and themes for discussion and comparison.

T4.2 INTERVIEWS

It is hard to locate or identify the impact of the interviews (T4.2) between the University of Wolverhampton and the MoE lead representatives but they will feature in the report due in May 2014. First insights have been shared by Diana Bannister, University of Wolverhampton, with partners during the October partner meeting and initial findings from the observation visits will also be shared during the May partner meeting. The process of involving the schools and the ongoing pilots, together with the inclusion of national policy considerations in the scenario planning provides some evidence of the effectiveness of the interview process. Therefore, as with the recommendation concerning internal monitoring and its profile made in the comments on management, the emphasis here is not on any apparent weakness but more a need to give a higher profile for a project activity so that it is recognised and due credit given.

T4.3 LINK RESEARCH VISITS

These are ongoing at the time of this report and are again, largely in accordance with the foreseen timescale of the application with only a minor delay in the start – clearly they could not be realised until the pilots themselves were in full swing. Given this delay, it appears unlikely and impractical that the D4.2 deliverable "Report from Year 1 observation and documentation of practice" will be realised in time for the progress report, originally being scheduled anyway for month 14 – which in the application is stated as being in April 2014 but if the project began in April 2013, would in fact be May 2014.

WP5 QUALITY ASSURANCE (MONTHS 1-24)

T5.1 DEVELOPMENT OF QUALITY ASSURANCE PLAN, T5.2 FEEDBACK FROM PEDAGOGICAL BOARD AND T5.3 INDEPENDENT PROJECT EVALUATION

This was an area of the project in the first year where there was less clarity than in the other work packages. Again however, it must be stressed that QA procedures were in place and were being utilised, but an overall strategy linking the various elements (internal monitoring, stakeholder feedback, the role of the pedagogical board, the role of the external evaluation process) was less evident. Again to be stressed in positive terms is the response to the feedback of the application assessment, under "Quality of the plan of action" where it stated: "The project Quality Plan is adequate, but an independent evaluation should be considered in the context of the overall project evaluation." The project leadership has engaged an external evaluation process and has addressed the need to refine and deepen the scope of the overall approach to QA. The latest version seen as preparation for the Progress Report is very good and thorough and links effectively the aforementioned QA elements, both internal and external. There has been effective management by EUN in terms of processes and by the pedagogical board in terms of linking the policy recommendations with the requirements of the teachers and the learners in the collaborative classroom environment. It is hoped that the role of GLPM as the external evaluators will add an objective, effective third level to the process. The extensive discussion that took place between GLPM and EUN at the contracting stage of the evaluation was very useful for both parties as each could make clear their views and expectations and each realised that the other could provide new insight into the process.

Therefore T5.1 (QA plan) is now effectively in place, this report is the first outcome of T5.3 (the independent project evaluation and T5.2 the feedback from the pedagogical board has been utilized to inform the content and structure of the scenarios prior to their application in the partner countries. The challenge with regard to the pedagogical board feedback is that whilst it is clear from informal discussions with project members and at least one member of the board that rigorous, detailed and objective feedback took place, there is no clearly identifiable outcome linked to this process outside of the refinements and adaptations made to the scenarios themselves. The process was undertaken and it was clear that each individual member of the board was actively engaged, but no draft or informal report or collation of the main recommendations and proposals results from T5.2. It is acknowledged that there are sensitivity and confidentiality issues, but as has been identified previously and on more than one occasion in this report, the processes behind the outcomes can be as important as the outcomes themselves – especially in the context of transnational collaboration and especially so in a KA1 ECETB initiative where the background aim throughout is an outcome or series of outcomes designed for further use and exploitation across the sector via engagement with policy makers.

One area of emphasis for the external evaluators in the second year is likely to be therefore, some in-depth discussion with the members of the pedagogical board to help realize some kind of outcome designed to meet this purpose. The aim of the external evaluation process is not to create additional work for the partnership and so this instead will become an aspect to be specifically addressed as part of the external evaluation outcomes.

WP6 DISSEMINATION (MONTHS 1-24)

T6.1 CCL WEB SITE AND BROCHURE AND T6.3 CCL NEWSLETTERS AND VIDEOS

The project web-site was established early and is very well and clearly organised and presented. The site will allow the project to disseminate the main project deliverables beyond the end of the project, as well as storing readily accessible dissemination tools such as brochures reports, papers, presentations and videos of classroom experimentations. As indicated in the application, it also includes a private area exclusively for "project partners to enhance knowledge, resource and information sharing between project members and will include training possibilities as well as internal project deliverables and various user-management and decision-making tools." These have been realised in the form of the community links on the site with teachers' blogs, links to the schools participating in the pilots and links also to videos and webinars. The required logo, reference to funding source and disclaimers are all present and the site is clearly very appropriate for its purpose; it is an excellent support tool and promoter of the project.

The site is up to date, with contributions to blogs and news items being made within two weeks prior to the timing of this report. Project newsletters are featured (six so far, covering the period from November 2012 to the present). It is positive that the newsletters feature a period prior to the project start as this reflects the fact that they address more than one project – related initiatives are also included and positive synergies established.

Another positive aspect of the site is the cross-referencing to other projects, not just in the newsletters, but also in terms of links; accessing additional information is very straightforward in the CCL site whether it is for supporting information on the scenario developments themselves or on more general information on Schoolnet activities.

The site also reinforces successfully the ECETB status of the project whilst ensuring it remains attractive and usable by the interested visitor. An extremely useful "resources" section is presented and explained:

> "1:1 resources
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> The resources section aims to give teachers, policy makers, industry partners and anyone else interested an overview on **relevant readings** related to **the innovative use of tablets** and **showcase** other **tablet pilots.**
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> On topics such as **motivation**, **assessment** and **flipped classroom**, it highlights:
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> - Studies
> - Case Studies
> - Literature Reviews
> - Reports
> - Articles
> - Guidelines

- Videos
- Blogs
- Apps
- Websites"

T6.2. DISSEMINATION PLAN

A very detailed and thorough (17 page) dissemination plan has been realised. It is very well organised and differs from the generic approach adopted by many transnational projects in that it identified specific elements of the target groups and key stakeholders (again reflecting well the project's awareness of its status as an ECETB initiative) and how the different elements of the project will be promoted to these groups at key stages of the project. Numerous means are featured and have been employed in the first year and particularly positive is the way in which specific emphasis is given to synergies with other projects and the way in which the dissemination work package is linked to other work packages of the overall programme. The overall approach is further strengthened by the timeline for activities, the specific roles of partners and associate partners and the likely geographical impact of the dissemination strategy and its implementation. From the external evaluation perspective, the dissemination plan is a model of very good practice. One comment – the application refers to the plan as T6.2 but the document is actually named T6.3.

WP7 addresses mainstreaming and capacity development. This is a well-conceived work package that again manages to very effectively avoid the more generic approaches to exploitation adopted by some projects. It is supported with the realisation of capacity development workshops (one already taken place, one at approximately the time of this report and one at the end of the project) that specifically identify and address the main challenges foreseen / experienced. The application made clear that this identification process will be followed by processes to encourage the MoEs to change and adapt their education systems to foster more widespread utilization of innovative educational practices. Attention is also paid to ensuring this is mirrored by a bottom-up approach through the use of a course on collaborative classrooms for teachers.

D7.1 Report on First Mainstreaming Workshop: National Policy Challenges has been successfully realised. As with the dissemination plan it is very thorough, project-specific and likely to achieve positive results both in the context of the project itself but also more generally as an ECET B initiative. Four key challenges to "mainstreaming" were identified: continuous professional development, content, assessment and evidence. For each, initial solutions were proposed that can be enhanced through the lifetime of the project and beyond and the means by which these challenges will be re-visited at the mid- and end-points of the project in indicative of a very thorough approach to ensuring a tangible and measurable approach to achieving exploitation.

CONCLUSIONS AND RECOMMENDATIONS

The CCL project is clearly and very well-conceived set of ideas underscored with sound planning to realise them. The feedback received from the application was extremely positive and reinforced the high scores for individual criteria and overall (88%). The importance of the feedback is emphasised here in the conclusion to this report as a reminder of the importance of relevance to ECETB / KA1 Lifelong Learning Projects. The majority of applications to the KA1 action had real problems in establishing consistent relevance to the objectives and priorities of the requirements of the programme – often the approach was a standard one for transnational projects with perhaps a final aim to prepare a paper to submit to policy makers, or to seek to include policy makers in some project activities. The tendency was a failure to appreciate the necessity of direct and consistent engagement of policy makers in the ongoing project activities. The fact that the application scored a maximum 30/30 for relevance was clearly very positive, but with that acknowledgement of high levels of achievement comes the responsibility to ensure that the potential for such significant relevance is maintained. Where the feedback text states: "The proposal addresses the objectives of the call and demonstrates a good understanding of the priorities, by focusing on the challenges posed by a rapidly changing reality, as well as on capacity building among policy makers." the onus is on the partnership as a whole to ensure that it maintains this adherence to the defined priorities. The evidence to-date is that the project is doing exactly that.

In addition to maintaining its initial relevance, the project has also done well to ensure responsiveness to some of the comments and recommendations made in the assessment feedback. There is no overlap of activities with the iTEC project but instead a synergy based on the utilisation of a methodology from iTEC, but in a different environment and with different aims and outcomes. The relatively minor concern of a "Brussels-centric" emphasis on activities was essentially clarified during the assessment process itself, but the meetings and workshops that have taken place at the EUN offices (as well as those virtually) have clearly been a success and it is the case that when seeking to influence and adapt policy at the European level, then a focus on Brussels does have clear legitimacy. It is also important to note in this context the diversity employed in other aspects, for example, in terms of the constitution of the Pedagogical Board, which clearly reflects the national diversity of the partnership as a whole.

The project has also made a clear and direct response to the recommendation linked to both the plans for action and cost effectiveness, by engaging an external quality control process.

The identification of the potential "missed opportunity" of a comparison between tablets and notebooks made in the feedback has been addressed and explained by the project, based on the rapid obsolescence of notebooks and the challenges anyway of such a comparative study in such a dynamically changing market.

In the comments on the quality of the consortium, reference was made to the potential for "bias" in relation to the collaboration with the associate partners. There is no indication that such a problem has been experienced, but given the collaboration with the commercial suppliers, there is a responsibility on the partnership to make transparent the benefits of the use of the tablets as part of the "scenario package", including in the Guide for Teachers, for example.

From the external evaluation perspective, the concern expressed over the relative lack of justification for the sub-contracting cost for P3 in WP2 is more than answered by the scope and quality of the materials produced as a result of this contract.

With regard to Impact and European Added Value, the proposal again scored very highly, with 20/20 and the comments made indicate the high expectations: "The proposers have a unique level of access to all EU ministries of Education as well as to teacher communities all over Europe, and the proposal has clear and detailed plans for reaching all relevant target groups. The oversight of a Pedagogical Board ensures buy-in from the outset at the policy level. Peer-learning opportunities ensure that the involvement of teachers is intrinsically motivating. Situating the outcomes (regarding 1:1 tablet scenarios) in the broader context of the installed base of other classroom technologies is also of importance, as is the intention to the formal-informal learning continuum and the wider "creative classroom" concept." This is emphasised again here to ensure that the role of the Pedagogical Board and its impact is given as high a profile as possible.

Related to the comments made on the relevance of the application, a recommendation is for all partners to re-visit the specific priorities and objectives identified in the application and ensure that these influence the way in which they report to the coordinator – there is a clear opportunity for the initiative to achieve considerable success at the policy level and the more that can be expressed as being clear responses to the identified specific ECET B targets, the more credit the project will receive for its activities.

Given the challenges of the review process identified by the project itself (an imbalance of available data from the other partner countries compared to that available in the UK and also in the USA and Australia), a minor alteration of focus would not require a formal amendment but may help realise more input at the pan-European level – especially if the other recommendation regarding the broadening of the pedagogical review to other approaches associated with "active learning" are also followed. However, it is also acknowledged that it is a significant challenge to review research in different languages and that an English review in any case can inform transnationally as all the policy makers involved in the project speak English.

The policy maker scenarios have clearly been detailed and thorough processes, presenting some challenges (especially gaining effective balance between initial policy planning and realisation of these aims in the practical creative classroom context) but pursued with commitment and attention to detail and benefiting from the input of the key stakeholders. The next stages of the project will be vitally important in terms of reporting on the pilots so far and further enhancing the scenarios based on the feedback of the participants and the further response to these by the stakeholders at the policy level. Whilst some delays were experienced in the first year, it is likely that the careful planning and construction of the scenarios will justify the delays as their ultimate implementation will carry more impact and more likelihood of longer-term mainstreaming. It is also worth repeating that these strengths of the project – the relevance and attention to detail with regard to specific project activities – are being very well supported by the excellent dissemination and exploitation strategies and outcomes to-date. It is extremely positive to see such project-specific rather than general planning for both strategies and with the inclusion of measurable indicators.

Linked to the observations made on the profile and impact of the Pedagogical Board, similar recommendations are made in regard to activities such as the interviews (T4.2) between the University of Wolverhampton and the MoE lead representatives. Such processes behind the project outcomes can be as informative as the outcomes themselves when it comes to the transferability and mainstreaming of the main results. Again, whilst acknowledging issues connected to confidentiality, there would be a benefit in giving such activities a

higher profile in order that a) the legitimacy of the outcomes are reinforced and b) the project receives the appropriate recognition for the way in which it engages consistently with all the relevant stakeholders.

Gareth Long and Andrina Granić, GLPM, May 2014