Good Practice Examples and Blended Learning Concepts in Teachers´ CPD in Portugal – Intellectual Output I

BleTeach Project

Blended Learning in Teachers´ Professional development – Developing a Blended Learning Course in Content Area Literacy for Secondary Teachers

Erasmus+

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1. Introduction

This report is produced within the project BleTeach – Blended Learning in Teachers´ Professional Development whose main goal is to modernize structures of teacher education by developing a model of a blended learning course in Content Area Literacy to be included into the regular course programme of around 40 European Teacher Training Centres.

Thus, in order to provide the first Intellectual Output of the project - national reports on good practice examples and concepts in blended learning in teachers´ CPD in Belgium, Germany, Hungary, Portugal, Romania (and Russia), two main goals have been defined:

i. identifying the perceptions of continuous professional development (CPD) providers about what counts as good practice in blended learning; and

ii. making recommendations concerning the essential features of effective blended learning in CPD that will be transferred to the results of the BleTeach project,

The ultimate purpose was then to know the perception of CPD training providers about good practice in blended learning, more specifically:

a. What are some highly effective combinations of face-to-face and e-learning components within a CPD for learners´ (i.e. teachers´) motivation, interaction and learning outcomes?

b. What are the instructional design patterns (learning/teaching scenarios) are used in blended learning courses?

c. What are the major success factors in implementing blended learning within CPD?

d. What are the major obstacles/ threats and ways of overcoming them in implementing blended learning within CPD?

e. In courses that are considered good practice (in terms of blended learning CPD) what kind of evaluation was used?

This report respects the Portuguese research and it presents the procedures for data collection and the main findings regarding good practice examples and blended learning concepts in teachers' continuous professional development.

2. Methodology for data collection

The research was conducted by online means, consulting websites of training centres and universities, which provide continuous CPD teacher training in Portugal. A document collection was also carried out using scholarly or scientific articles as well as research reports and Master/Ph.D. thesis.

The online and document research allowed the identification of several CPD blended learning courses providers, namely:

- Secondary school of Vila Nova de Gaia;
- Faculty of Sciences of University of Porto;
- Training Centre of Lisbon;
- Training centre of Education School of Bragança;
- Training Centre EDUFOR from Viseu;
- Training of Continuous Training, Research and Surveys of Fernando Pessoa University; and
- Training Centre from Aveiro.

Some blended learning courses provided by the above instituituions were the following:

- "The Physics and Chemistry teacher in research-action";
- "The inclusion of ICT in learning contexts";
- "Web 2.0 tools (in teaching practice)";
- "A new perspective of thinking and teaching Economy";
- "To make a profitable use of the inclusion of management and learning platforms in teaching and learning contexts, in basic and secondary education";
- "Development of educational and digital activities for students with especial needs";
- "Leadership factors in the integration of ICT in school"; and
- "Development of educational materials by using internet to be applied in English subject".

The training centres have been contacted by e-mail and telephone, but only two of them demonstrated interest to cooperate with this research: Faculty of Sciences of University of Porto and Training Centre EDUFOR from Viseu.

Therefore, two tape-recorded interviews were carried with representatives of the two training centres. The interview with the representative person of Faculty of Sciences of University of Porto was about the three editions of the course "The Physics and Chemistry teacher in research-action", which was developed within the European project PROFILES. The other interviewee (the representative of Training Centre EDUFOR from Viseu) talked about some examples of blended learning courses provided by his institution, among which the course "A new perspective of thinking and teaching Economy".

Since the consulted scientific articles (5) and Master/Ph.D. thesis (3) focused the impact of blended learning in teacher training courses, a content analysis was carried out with the purpose of identifying some important features of the researched courses which could be added to this research. The identified Master and Ph.D. studies and articles conducted surveys and case studies involving a total of 130 teachers, aiming at knowing their opinion about their own experience as blended learning courses participants. Namely the teachers were asked about content organization, access to content and information, available resources and support materials, trainer promptness in clarifying questions and doubts, definition of the goals of the course, tasks and time allocation, mastery of the technological devices, interaction with each other and with trainer.

Considering the interviews and the scientific studies, the sample for the Portuguese research, was constituted by five blended learning courses in Teachers´ Professional development provided by five different training centres, such as specified in the following figure:

Course	Provider
1. "To make a profitable use of the inclusion of management and learning platforms in teaching and learning contexts, in basic and secondary education"	> Secondary school of Vila Nova de Gaia
2. "Web 2.0 tools (in teaching practice)"	> Training Centre of Lisbon
3. "The inclusion of ICT in learning contexts"	> Training Centre of Education School of Bragança
4. "The Physics and Chemistry teacher in research-action"	> Faculty of Sciences of University of Porto
5. "A new perspective of thinking and teaching Economy"	> Training Centre EDUFOR from Viseu

Figure 1: Research Sample.

2.1.   Description of the studied courses and participants

All blended learning courses of the sample had a workload of fifty to sixty hours, and were credited as CPD training, and some of them were also promoted by the Ministry. Among their main goals there were, for instance:

- to produce materials to be used in classroom (e.g. Physics and Chemistry or Mathematics teaching, in an inquiry-based science education approach), and
- to learn how to teach with resources of Web 2.0 or how to use Learning Management Systems (LMS).

In general, these courses were attended by around twenty to thirty teachers of different disciplines, aged thirty to fifty years, with several years of professional experience and basic knowledge of information and communication technologies.

It is also important to note that, albeit with their own financial means, these teachers have participated voluntarily in the courses.

3. Findings

3.1. Highly effective combinations of face-to-face and e-learning components within a CPD for learners´ motivation, interaction and learning outcomes

The effectiveness of the combinations of face-to-face and online depends, according the analysis, on the goals of the course rather than the topic. For instance, in accordance with one interviewee, if the goal is laboratory work, then it requires more face-to-face time than others; but if the goal is to develop, to construct and/or to apply materials, the effective combination seems to be around forty percent in face-to-face sessions and around sixty percent in online sessions with the following sequence:
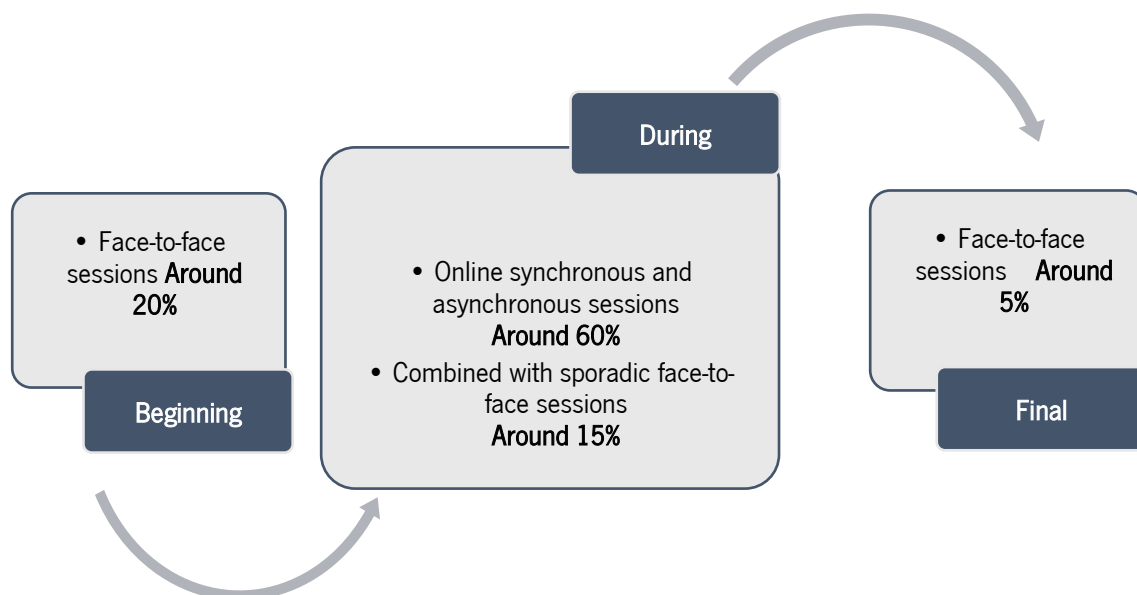

During

- Face-to-face sessions **Around 20%**

Beginning

- Online synchronous and asynchronous sessions **Around 60%**
- Combined with sporadic face-to-face sessions **Around 15%**

- Face-to-face sessions **Around 5%**

Final

Figure 2: Example of the most frequent training sessions' distribution in the studied courses.

Also, at least one of the studied b-courses seems to value approximately half of the time online, and half of the time face-to-face in a continuous rotation of session, such as illustrated in the following figure: at least one of the studied courses seems to value approximately half of the time online, and half of the time face-to-face in a continuous rotation of session, such as illustrated in the following figure:

May 2011 First session (f2f) → Online session → Second session (f2f) → Online session → ... → July 2011 Last session (f2f)

Figure 3: Training sessions' distribution adopted by one of the studied courses (Santos & Carvalho, 2014, p. 1005).

Both interviewees and research studies mentioned that as teachers became more familiar and comfortable with the adopted resources and with each other, they have also became more interactive and highly motivated, not only in face-to-face sessions, but especially in online modality.

3.2. Instructional design patterns

Both interviewees have referred that at the beginning there were more face-to-face meetings aiming mainly at presenting platform and technological devices used throughout the course, but also introducing theory, content and concepts. During the course, face-to-face sessions have occurred sporadically with the purpose of reflecting on teacher practice, on procedures and tasks and on its application in real work context. Between face-to-face sessions, the participants were followed and accompanied by the trainer, through online means.

All over the course, the trainer assigns several tasks to the participants, such as reading, practical exercises, reflections. The participants had to submit their tasks and doubts by online means to receive feedback of the trainer and colleagues. There were synchronous sessions in small groups, and asynchronous communications for discussion and reflection, such as forum discussion and skype calls among participants or between participants and teachers.

Therefore, the predominant instructional design pattern is the following:

Beginning	During	Final
Face-to-face	**Online**	**Face-to-face**
– To present platform and technological devices and resources used throughout the course. – To introduce content and concepts.	– To carry out a task and to apply it in real work context. – To describe how tasks were solved and submit documentation for the feedback of trainer and colleagues. – To discuss and act according the feedback received from trainer and colleagues. – To reflect on participants' learning.	– To present a final assignment. – To assess.
	Face-to-face	
	– To clarify content and concepts. – To present and discuss developed work or/and doubts.	

Figure 4: Example of the most frequent instructional design pattern in the studied courses.

It is important to highlight that the second interviewee stated that, in some courses, online sessions were not combined with face-to-face meetings. Therefore, in some cases face-to-face only occurred at the beginning and at the end of the course with the purposes mentioned in the above figure (see Figure 4).

3.3. Success factors

According to both interviewees and consulted research studies, the most appreciated feature of a successful blended learning course appears to be the **constant and individualized support and feedback** (from teachers and peers) provided during the courses. In addition, due to the fact that those courses were based on collaborative work method, the **closer relationship between peers and between trainees and trainer** as well as the **support from more experienced peers** were also identified as features that have contributed to its success. Indeed, It was highlighted that such characteristics had impact on the trainees' motivation and engagement. As pointed out in one of the consulted articles, "the peer coaching process has many benefits such as fostering collaborative work and improving teaching performance, promoting a better understanding of best practices and a deeper sense of efficiency" (Santos & Carvalho, 2013, p. 139).

The **diversity of the resources used** and the **authenticity of the required tasks or assignments** together with a more **contextualized teaching** (see, for instance, Annex 2) were also acknowledged as important features. In fact, this seems to have enabled the development of the participants' knowledge and experiences not only about technological devices. The diversity, authenticity and contextualization also had effects upon teachers' daily lives, both professionally and personally, enhancing their teaching practices.

As some teachers had some difficulties in dealing with platforms and with some technological devices, the provision of **initial face-to-face sessions oriented towards building familiarity with online tools and technologies** was also a success factor of the courses. For instance, in Meirinhos (2007), it was stressed that due to significant gaps among participants in mastering information and communication technologies, a first exploration of the tools used during the course in initial face-to-face meetings enabled homogenising teachers' knowledge on those communication tools. It was surely needed for the proper functioning of the course (2007, p.296).

Considering that teachers were overloaded by schoolwork, it was needed to take into account a greater **flexibility of online communication** between face-to-face meetings and also **in the time allocation to online tasks fulfilment**. In fact, it was highlighted by the first interviewee that trainees have appreciated having ample time not only to carry out their authentic tasks but also to share and discuss their ideas and experiences with peers (see Annex 3). Furthermore, as outlined by Santos & Carvalho (2014) "Trainees need time to reflect on teaching practices with other professionals and thus share their experiences to develop new insights and new ways for teaching" (p. 1007).

Last but not least, considering that online work exposes participants to a greater physical isolation, one has to have always in mind that to keep teachers permanently motivated, it is required a **clear definition of procedures for online sessions**, in order to better orient the virtual tasks assignments and meetings. Thus, the inclusion of this aspect in drawing up the work programme of the courses not only allowed its good functioning and a better fulfilment of tasks, but also had impact on the participants' engagement in the activities (see Annex 2 and Annex 3).

3.4. Major obstacles

As it has already been pointed out the major obstacle was undoubtedly **learners' resistance to work with online tools**. This obstacle gives puts a great challenge in order to **reduce their efforts in the using of technological devices**.

Another obstacle highlighted by both interviewees and the scientific studies was the **production of authentic materials for authentic application**. In the words of the first interviewee: "materials need to be prepared in different way. (...) The materials need to be almost self-sufficient, to overcome the physical distance, for instance" (Interview 1, see Annex 2).

Largely due to the physical barriers, trainees have to meticulously manage their working time and keep themselves always motivated and engaged. It were also emphasised that it was very difficult **to create conditions for continuous motivation and rhythm of work** and **to overcome learners' isolation.**

Considering that at least a half of the course occurred by online means, another obstacle seems to be **the control of learning and of authorship**. The second interviewee addressed emphatically this issue of authorship. He was particularly worried with the possibility that tasks may not be performed or developed by the learners (see Annex 2).

3.5. Evaluation

Regarding to evaluation, it was mostly valued **the formative assessment**, using **different elements** such as materials produced, oral presentations, critical reports, logs and SWOT analysis.

Teachers who have participated in the studied courses have valued the inclusion of the development of **tasks to implement in real contexts** as well as **group and collaborative work** as assessment elements. **The detailed and constructive feedback** from the trainer was also important to achieve the expected results.

In spite of this, the interviewees have strongly emphasised the importance of **face-to-face summative assessment**. They say that this aspect not only allowed the learners to share and reflect on learning but also enabled the trainers to control tasks' authenticity and validity.

4. Conclusions and recommendations

To summarize, the best combination of time allocation to face-to-face and online sessions depends on the topic of the course. In drawing the instructional model it is important to create conditions to share, discuss and reflect on participants' learnings with trainers and peers.

As success factors of the blended leaning courses, it is possible to highlight: the constant and individualized support and feedback; the initial face-to-face sessions oriented towards building familiarity with online tools and technologies; the authenticity of the required tasks or assignments and the flexibility of online communication between face-to-face meetings; also the time allocation to online tasks fulfilment. Indeed, both interviewees and research studies repeatedly outlined these aspects.

Concerning the major obstacles, it was emphasised learners' difficulties in mastering technological tools and their physical isolation as well as the establishing of conditions for keeping participants motivation and rhythm of work.

The evaluation process needs to comprise formative assessment through diverse elements and different tasks based on participants' real working context and on collaborative work. Concerning the summative assessment it should occur especially in face-to-face sessions.

In addition to the above findings, it is also important to take into account the following recommendations:

- to enhance social interaction and trainees' motivation and self-confidence;
- to keep a continuous and individualized support and feedback (from teachers and peers);
- to accommodate different learning styles;
- to ensure a rigorous work planning and organization;
- to introduce new concepts in face-to-face sessions;
- to provide some final face-to-face meetings for the trainees' assessment;
- to be flexible in the time allocation for tasks fulfilment, but deadlines should be handled firmly;
- to ensure trainers' promptness;
- to take into consideration that not all trainers have appropriate traits/characteristics to be a blended learning trainers;
- to ensure prompt technical support;
- to ensure the mastery of the technological devices and resources in the first face-to-face sessions;
- to provide more easy to use settings.

Considering the data presented in this report, it is possible to conclude, that, apparently, there aren't any specific conceptual prototype of blended learning courses in teachers´ professional

development in Portuguese context. Indeed, as presented above, b-courses are organized and implemented differently, depending topics, goals, as well as participants.

Nevertheless, there are some common success factors and useful approaches that may guide the design of a blended Learning courses in Teachers´ Professional Development.

5. References

Meirinhos, M. (2007). *Desenvolvimento profissional docente em ambientes colaborativos de aprendizagem a distância: estudo de caso no âmbito da formação contínua*. Tese de Doutoramento em Tecnologias de Informação e Comunicação, não publicada. Universidade do Minho, Braga, Portugal.

Oliveira, C. (2013). *Aprendizagem em ambientes de Blended-learning – uma abordagem na formação contínua de professores.* Dissertação de mestrado em Tecnologias e Metodologias em E-Learning, não publicada. Universidade de Lisboa, Lisboa, Portugal.

Santos, I. & Carvalho, A. A. (2013). A two-stage Model of Teachers' Training in Learning Management Systems. In *X World Conference on Computers in Education* (Vol.1, pp. 131-141). Torun, Poland.

Santos, I., & Carvalho, A. A. (2014). Teachers' training course in blended-learning: A Two-Stage Training model. In G. L. Miranda, M. E. Monteiro, & P. T. Brás (Eds.), *Aprendizagem Online: Atas do III Congresso Internacional das TIC na Educação* (pp. 1003-1008). Lisboa: Instituto da Educação da Universidade de Lisboa.

6. Annexes

6.1. Annex 1

Title of the Course	Who recommends it	Provider	Contact person	Contact details
"O Professor de Físico-Química em investigação-ação" "The Physics and Chemistry teacher in research-action"	Researchers	University of Porto, within the European project PROFILES	Carla Morais João Paiva José Barros	cmorais@fc.up.pt jcpaiva@fc.up.pt josebarros@ptdeveloper.net
"A integração das TIC em contextos de aprendizagem" "The inclusion of ICT in learning contexts"	Researchers	Training center of School of Education, Bragança (ESE)	Manuel Meirinhos	meirinhos@ipb.pt
"Ferramentas web 2.0 (na prática letiva)" "Web 2.0 tools (in teaching practice)"	Researchers	Training Centre of Loures (Centro de Formação de Associação de Escolas da Zona Oriental do Concelho de Loures)	Ana Cristina Sampaio	cflouresoriental@gmail.com Ana Cristina Sampaio 966117081
"Uma nova perspectiva de pensar e ensinar Economia" "A new perspective of thinking and teaching Economy"	Educational authority Ministry of education & Prof2000 website	Training Centre EDUFOR	José Miguel Sousa	geral@edufor.pt 232618386 232618387 http://www.edufor.pt
"Rentabilizar a integração de plataformas de gestão de aprendizagem em contextos de ensino e aprendizagem, nos ensinos básico e secundário" "To make a profitable use of the inclusion of management and learning platforms in teaching and learning contexts, in basic and secondary education"	Researchers	Secondary School of Vila Nova de Gaia Faculty of Psychology and Educational Sciences, University of Coimbra	Idalina Santos Ana Amélia Carvalho	ilouridosantos@gmail.com anaameliac@fpce.uc.pt

6.2. Annex 2

Blended learning CPD course (title)	The Physics and Chemistry teacher in research-action (Three editions)
General information about the course provider	
Full name	Faculty of Sciences, University of Porto, Department of Chemistry and Biochemistry Science Teaching Unity (PORTUGAL)
Address	Rua Campo Alegre 687 4169-007 Porto
Web address	https://sigarra.up.pt/fcup/pt/uni_geral.unidade_view?pv_unidade=93
Interviewee	Carla Morais, Teacher, researcher
Email address/ phone number	E-mail: cmorais@fc.up.pt; Phone: 220402529 Room: FC2362
Detailed description of the blended learning CPD course	
Information about the trainees (e.g. subjects taught, familiarity with ICT, group size)	The trainees were Physics and Chemistry teachers. Some of the teachers were young (with few years of experience), but the large majority were teachers with many years of experience. Generally, they didn´t live near by the course provider, i.e., in the city of Porto. Their ICT skills were appropriate/good/ very good. The groups had around 25 participants in the 1st edition of the course; 20 in the 2nd edition and 18 on the 3rd edition.
Description of the course (topic, learning objectives, instructional design patterns, ratio face-to-face vs online, methods, etc.)	Teachers should develop and implement modules with their students, in classroom, considering the Inquiry-Based Science Education approach, in order "to increase the relevance and popularity of science teaching in the eyes of students, but at the same time guarantee solid student learning headed for enhancing scientific literacy." The main goal of the course was the professional development of teachers on 4 stages: - Teacher as a learner - teachers should search for the development of skills that allow observing their activity in a learning process dynamic - Teacher as a teacher - the teacher should see his/her activity exactly as a teacher. - Teacher as a reflective practitioner – a reflexive professional is a teacher willing to reflect about his/her intervention in the classroom and discuss it with other PROFILES teachers, in a collective reflection dynamic. - Teacher as a leader - the PROFILES teacher should see him/herself as a leader. At the beginning of the course there were face-to-face sessions aiming at introducing the content of the course, for the theoretical part and for clarifying concepts During the course the face-to-face sessions only occurred sporadically with the purpose of reflecting on teacher practice as well as on the procedures of the modules development and application. Between the face-to-face sessions, the participants were followed and accompanied by trainers by online means. There were synchronous sessions in small groups, and asynchronous communications, such as online discussion forum and skype calls between participants or between

	participants and teachers. Certain tasks should be assigned by trainees as reading, practical tasks, reflections, etc..
Trainees' motivation	At the beginning of the course the trainees were somewhat reluctant to attend a b-learning course, but as they became involved in the course they were highly motivated because the issues which were new and very important for their professional development and because they became more familiar and comfortable with the adopted resources.
Trainees' interaction (with the content, with their peers, with him/herself)	The trainees interacted with each other very well in the face-to-face sessions. In the online part, they had to have interventions, write them and upload them for feedback. As they became more comfortable with the technologies used (Skype, Moodle), they became more interactive not only with each other, but also with the trainers and in carrying out their tasks.
Learning outcomes (targeted and achieved)	The learning outcomes were achieved; it was a positive thing that the participants had plenty of time to cover the reading topics in their own time, and to try to apply what they learned in their daily work.
Evaluation of the participants' learning (methodology and results)	The participants were assessed by means of the different tasks that they were invited to carry out: developing and implementing modules on an Inquiry-Based Science Education approach; oral presentation on doubts, obstacles, solutions and ways of overcoming it; critical reports on the tasks carried out during the course. Some of the tasks were carried out by means of work group. At the end of the course, they were also invited to do an SWOT analysis on their tasks development.
Evaluation of the course (methodology and results)	The course achieved its objectives. The trainers were satisfied with the participants' learning/ progress. The participants found that their learning is very helpful for their professional work as Physics and Chemistry teachers. They highlighted the following benefits for professional development: - The emphasis on contextualized teaching, present in the modules. - The professional development inherent to the knowledge of these teaching strategies. - To know or improve Inquiry-Based Science Education techniques The participants were asked for feedback, and their evaluations were very good. They were satisfied with the blended learning approach, because it saved them time (they did not have to travel so much) and because they felt more supported and accompanied by trainers. Some of them begun to use more frequently the ICT not only in their professional practice, but also personal daily lives.
Success factors (perceived)	Highly motivated participants, who worked very well and progressed professionally. The participants used the technology confidently. They were pleased with the online feedback they received by the trainers and by their peers, which was detailed and constructive, highly relevant for the practical work of the participants. In conclusion, the blended learning modality allow better time management, more flexibility in the fulfilment of the tasks and overcome physical distance.
Obstacles/ challenges and ways of overcoming (if that is the case)	The process of accreditation was very difficult, because Blended learning modality still relatively uncommon in Portugal. There are a lot of issues (such as the number of the hours that should be provide in face-to-face and in online sessions) that are still not clear in the legislation.

	Also, at the beginning of the course, trainees had to deal with a certain trainees' reluctance to work by online means.
	Furthermore, it is important to take into consideration that materials need to be prepared in different way, they need to be almost self-sufficient, to overcome the physical distance. To prepare a blended learned course requires from the trainer much more work than in any other modality.

6.3. Annex 3

Blended learning CPD course (title)	Several courses provided courses in the last years (e.g. "A new perspective of thinking and teaching Economy")
General information about the course provider	
Full name	Training Centre EDUFOR
Address	Escola Secundária Felismina Alcântara Rua Aristides de Sousa Mendes 3534-003 Mangualde Viseu
Web address	http://www.edufor.pt/
Interviewee	José Miguel Sousa, Trainer and Coordinator
Email address/ phone number	geral@edufor.pt
Detailed description of the blended learning CPD course	
Information about the trainees (e.g. subjects taught, familiarity with ICT, group size)	The trainees were teachers of several disciplines. Some of them have some years of experience, but the large majority were teachers with many years of experience. Their ICT skills were at the beginning classified as appropriate, but they have some initial issues on working with the platform available or other tools to be used in the course.
Description of the course (topic, learning objectives, instructional design patterns, ratio face-to-face vs online, methods, etc.)	The main goal of the course "A new perspective of thinking and teaching Economy" were: to discuss content and methodology of the syllabus of the discipline of Economy; to produce documents, plans, materials and assessment tools; to disseminate on the internet. In this course, but also in many others provided by EDUFOR. The first sessions intended to present the platform and also to present the content of the course. The last sessions aim at presenting a final task for discussion and evaluation. Between the face-to-face meetings, the participants were followed and by trainers by online means. There were synchronous sessions in small groups, and asynchronous tasks, such as online discussion forum and skype calls between participants or between participants and teachers. Certain tasks should be assigned by trainees as reading, practical tasks, reflections, materials production, forum discussion, etc. The trainees should work in groups. There were sporadic presentations of the developed work during the course.
Trainees' motivation	As teachers became more confident with each other and with used technologies, they became more motivated participants.
Trainees' interaction (with the content, with their peers, with him/herself)	The trainees interacted with each other very well in the face-to-face sessions and also online. Working in small groups was one of the goals of the courses, not only in the course "A new perspective of thinking and teaching Economy", but also in several other courses provided by EDUFOR. In the online part, they had to have interventions, write them and upload them for feedback from colleagues and from trainer. They were invited to interact with each other many times and in different ways.
Learning outcomes (targeted and achieved)	The learning outcomes were achieved.
Evaluation of the participants' learning (methodology and results)	The participants were assessed through different tasks that they were invited to carry out: developing and implementing classroom materials; oral presentation on doubts, obstacles; work discussions and reflections;

	creating online pages, web quests, etc.. They also had to do a final work for evaluation in face-to-face sessions
Evaluation of the course (methodology and results)	The courses provided achieved its objectives. The participants were asked for feedback, and their evaluations were very good. At the beginning of the course, they were not comfortable with the technologies and somewhat reluctant with the fact of do not interact with each other such as in the face-to-face modality. However, during the course they became more comfortable with it and they have considered it a very good experience.
Success factors (perceived)	Highly motivated participants, who worked very well and progressed professionally. They were satisfied with that modality, because it saved them time (they did not have to travel so much) and because they felt more supported and accompanied by trainers. They were pleased with the online feedback they received by the trainers and by their peers, which was detailed and constructive, highly relevant for the practical work of the participants. The fact that all materials of the course are available on the platform, since the beginning to after the course, was also very important to achieve the expected learning outcomes of the course. The first face-to-face sessions allowed participants knowing each other and became more confident and comfortable.
Obstacles/ challenges and ways of overcoming (if that is the case)	The accreditation process is very difficult. At the beginning of the course, trainees had to deal with a certain trainees' difficulties to work by online means. Another challenge is the need to take into consideration that all materials need to be prepared in different way. Also the platform need to be easy to use. It is very difficult and hard to prepare quality blended learning or e-learning course rather than a face-to-face course. It is also necessary to pay careful attention on the participants, because as they are isolated they may to get lost or to fell demotivated. To figure out some strategies in order to control it is very important. Another challenge was the issue of authorship. It is possible that some participants may not submit their own and authentic tasks. So, one way used to overcoming it was to have face-to-face presentations of the developed work. Furthermore, in order to better guide the participants and the development of the course it is necessary to very well define whole course (from the objectives to the tasks) since the beginning, for instance to plan meticulously every session is needed. It is also necessary have all course materials available on the platform since the beginning to the end of the course.