

MHeL

Millennium Hospital / E-Learning

***Deliverable / R15
Report***

Guidelines incorporating the set of quality standards and elements of the framework used, as well as the results of the experimentation performed and the recommendations for Italian training providers using the model transferred to the courses offered

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Executive Summary

The beneficiaries of the MHeL Consortium consider it strategic to provide public and private organizations that offer medical training courses in Italy with a summary of the results of the tests performed. This summary includes guidelines that can help them successfully transfer the training method based on the MHeL technology and methodology.

This choice is motivated by the willingness to consider the results achieved through the MHeL project as a common asset, in light of synergistic relationships aimed at improving the courses offered in the healthcare sector, including those provided using innovative methodologies.

The document includes recommendations for operators based on **(a)** the analyses performed within the project and summarized in other results (R9 and R14) and **(b)** the evaluation by training operators who were directly involved. In this regard, the learning results acquired directly by the consortium operators (physicians) who created the training model and programs is a relevant experience in the training system, since there is a chance to explore its limits and potential.

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1 Guidelines incorporate the set of quality standards and elements of the framework used, as well as the results of the experimentation performed

1.1 Introduction

The guidelines below summarize the quality standards and elements of the framework used by MHeL in order to transfer the main recommendations to the Italian training providers for using the MHeL model within the courses offered, in compliance with the standards set by the Continuing Medical Education Authorities.

The effort was to take on management staff and not to comply with the formal requirements that must be met in any medical training methodology.

In addition to the contribution in terms of system and dialogue between the institutional parties, the MHeL project allowed us to consolidate a valuable technical know-how that is a resource for all the players involved in the innovation sector.

1.2 Description of the 1st and 2nd Transfer pilot Please enter text

In summary, we can say that the observations from the 2nd Pilot transfer were almost identical to what was already reported about the 1st Pilot transfer. They gave evidence of the following:

1. The gamification mechanism assures benefits comparing to the traditional training solutions. This was confirmed by a large majority of the users (**88%**);
2. The self-evaluations (reflection tests) helped the users to support reflection and knowledge acquisition (82%);
3. The users (82%) The e-learning program was useful in relation to the users' needs (reported from the 82% of users);
4. Almost all (92%) of the users improved their competences thanks to this virtual training solution.
5. Considering the impact, 93% of users believed that this training tool is transferable to other medical sectors.

The above conclusions confirm the assumption of the MHeL project that the blending of “game based learning” combined with “reflective e-learning” results in a sustainable solution that can be effectively used in the medical sector. This was also confirmed by receiving both accreditations.

Especially the combination of using small learning units in the e-learning lessons combined with “mini games”, a documentation library and reflection questions proved to be very successful.

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The MHeL learning approach can be seamlessly adapted to other medical sectors, because we strived to develop a platform that can be adapted for learning solutions in other sectors.

However with this large group of users, it became even more evident that all contents were considered very valuable and that the distance learning, as well as the use of games has helped the motivation of the participants during the learning, contributing to improve their skills.

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2 Recommendations for Italian training providers using the model transferred to the courses offered

2.1 Description of the main aspects of the model that can be transferred to CME programs

The Millennium Hospital e-Learning project has shown to have characteristics for which it can become a tool for CME Providers to deliver training courses in Italy in compliance with the regulatory requirements described in the State-Regions Agreement dated April 19, 2012. The platform was, in fact, implemented as required by law in Italy and Europe, allowing to manage (a) user registration and identification, (b) training program tracking, (c) completion of the assessment questionnaires on the program learning results and evaluation, (d) download of the certificate showing the CME credits earned, and (e) retrieval of data that must be sent to the Authorities responsible for the final accreditation of CME credits.

2.1.1 Compliance of the MHeL model with the CME regulations

First of all, the project allows to fulfill the obligation imposed by the CME regulations to "trace" the learner's path and, therefore, allows the Provider to assign CME credits exclusively to participants who actually meet the requirements, in compliance with the ministerial requirements as well.

This initial aspect, which is obvious but not insignificant, offers the provider the security of performing operations in compliance with the CME regulations. This element should not be overlooked because it is absolutely one of the primary needs expressed directly by the testimonies collected by the CME Providers (see report R16, "*Analysis of the potential impact on training of other medical specialties. Study of the potential transferability of the training model to other specializations*").

CME providers perform operations according to the CME accreditation as a public acknowledgement, which allows them to allocate the credits for and on behalf of the Ministry of Health. Therefore, it is strategic for a Provider that the e-learning platform is designed to deliver a "*CME training course*" and not just a "*training course*".

With reference to the Guidelines for the accreditation manuals of national and regional/autonomous province Providers, Annex I, State-Regions Agreement dated April 19,

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2012, "*The accreditation of a CME Provider is the recognition by a public institution that a subject is active and qualified in the continuing medical education field and, therefore, is qualified to perform training activities suitable for CME by identifying and allocating credits to the participants directly*".

Generic e-learning platforms are, in fact, available on the market. They can be adapted to any training area; however, they require CME customization with minor or major interventions: the MHeL platform, instead, was already designed and conceived to fully respond to the rationales and strategies that have inspired the National CME Commission in the implementation of the Continuing Medical Education system.

The experimental phase has made it possible to successfully test how the MHeL platform can support Providers to correctly complete all the steps required by the CME regulations, and specifically:

- participant registration (including data required for the preparation of the final accountability report);
- tracking of the actual participation in the training program (including the use of teaching materials);
- successfully passing the learning assessment with a questionnaire that involves double randomization and a limit of 5 attempts (including evidence of having passed the threshold of 75% of correct answers);
- filling out the event assessment form (compliant with the five-item form specifically requested by the CME Commission), which also entails widening the fields to support the completion of feedback on the needs analyses, mandatory for Providers;
- use of the certificate of CME credits earned (compliant with the form available on the Ministry's portal).

In addition, the way data can be exported, even after the event, makes it possible to retain the reports for 5 years, as required by the regulations in order to maintain objective evidence in the case of inspections, audits, or other requests, such as resending the certificate of CME credits earned if a learner loses it.

2.1.2. The possibility of carrying out a monitoring audit of to assess the compliance of the platform and training event

During the experimental phase, a monitoring audit was conducted to assess the compliance of the platform, and more generally the training event, with the CME requirements, using the

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checklist specifically designed by the National Observatory for Quality of the National CME Commission.

This audit, conducted by an external inspector as defined by the technical standard ISO 19011 "Guidelines for auditing management systems" showed no deviations or critical issues, thus confirming the compliance of the CME event with the requirements of the National CME Commission.

2.1.3. The interactive model

The interactive nature of the training tool is another quality aspect of the model that can be transferred to future CME programs. The assessment showed that this valuable aspect definitely enriches the distance learning (DL) method, which in the past was often seen as a "*neutral*" method that did not make it possible to have an active involvement of the learner.

As shown by the figures reported directly by the National CME Commission in the table below, this limit was only one of the reasons why spreading the DL methodology within the training courses offered by the National CME was not easy:

| Source: website www.ape.agenas.it | Year 2012 | Year 2013 | Year 2014 |
|---------------------------------------------------------------------------------|------------------|------------------|------------------|
| CME RES Courses (Residential) | 31,721 | 32,099 | 32,388 |
| CME DL Courses (Distance Learning) | 606 | 773 | 1,600 |
| CME FS Courses (Field Studies) | 698 | 741 | 798 |

Therefore, we expect that applying the training model proposed by MHeL will help bridge this gap and properly spread the much desired distance education.

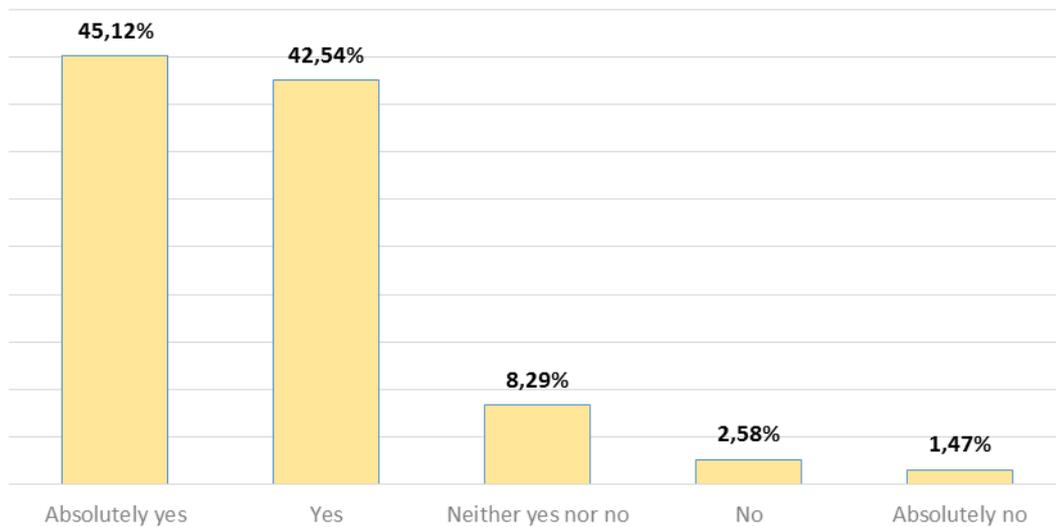
The "*interactivity*" requirement is, in fact, increasingly invoked as a qualifying factor for CME courses by the National CME Commission. The "*CME Quality Manual - November 24, 2014 (3rd edition) - Summary table of the quality standards for a CME Provider*" issued by the National Observatory for Continuing Medical Education (ONFoCS) in chapter 9 "*Report of the activities performed*" defines the following quality standards for a CME Provider:

- "*item 6. The Learners show active participation in the event (questions, comments, etc.)*"
- "*item 7. The exercises are discussed and related to the professional background of the participants*".

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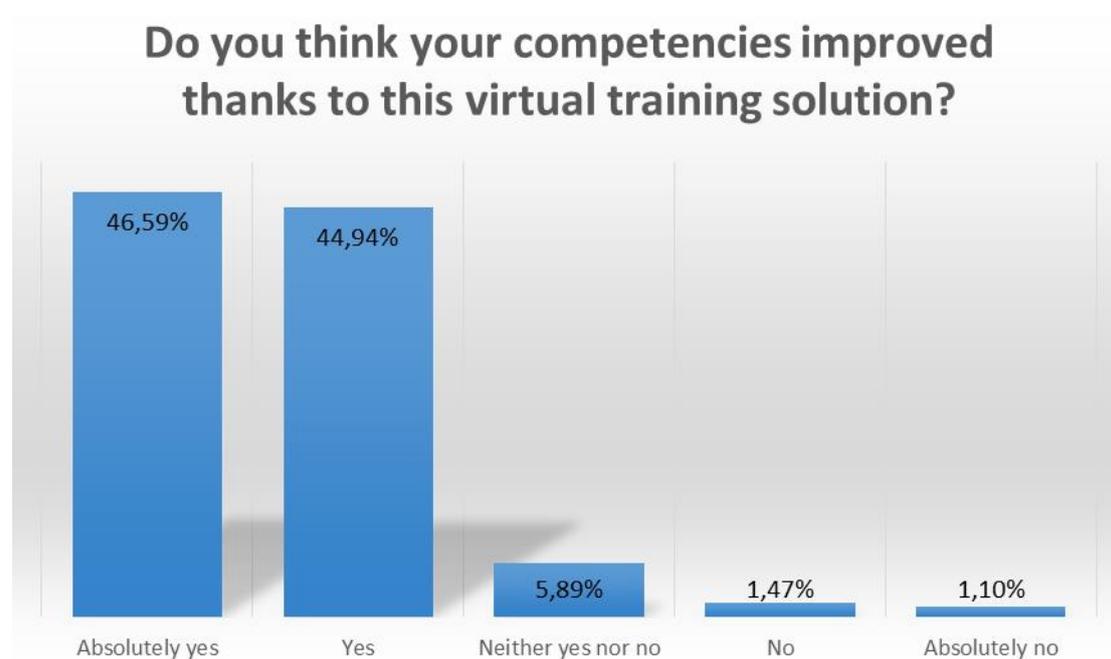
This interactivity aspect was actually highly appreciated by the Learners who participated in the MHeL course and by the Opinion Leaders involved in this training program. Evidence is given by the customer satisfaction questionnaires and also objectively in the analysis of data related to question No. 16, "*Does the gamification mechanism ensure benefits compared to the traditional training solutions?*": 476 (87.66%) users believe that the gamification mechanism ensures benefits compared to the traditional training solutions. 45 (29.8%) users remained neutral in their answer and 22 (4.5%) remained focused on traditional training solutions.

Does the gamification mechanism assure benefits, comparing to the traditional training solutions?



2.1.4. Effectiveness of the training model

Another very important aspect that emerged from the model experimentation is given by the effectiveness of the proposed training method, as reported directly by the participants in the answers to question No. 17, "*Do you think your competencies improved thanks to this virtual training solution?*". 497 (91.53%) users improved their skills thanks to this virtual training solution.



2.1.5. Flexibility of the MHeL model

Specifically, the experimentation analysis showed how the MHeL platform also allows to modulate the degree of interactivity according to the learning objectives and duration defined by the Scientific Director of the event.

The presence of various, specific virtual environments ("*teaching materials section*", "*video/slide section*", "*awards/reflection test/mini games section*", "*library/bibliography section*") offers the designer a wide range of training opportunities, which make the platform a highly flexible instrument that can be used for different types of CME training events.

This aspect can be used by the CME Provider to build up individual single-topic courses with a limited duration, rather than creating long-lasting modular masters.

Some Providers are, in fact, addressing their training courses to single-topic events aimed at examining an individual, specific disease, which often originates from needs directly expressed by the national healthcare system (see, for example, the notice by the National CME Commission dated October 21, 2014, "*Events related to the Ebola virus*") and, therefore, require the creation of a restricted, specialized event.

Other Providers, however, offer longer and more articulated training programs to the CME training market. These training programs consist of consequential modules based on the progress from "basic" to more advanced and specialized concepts. In this case, the platform makes it possible to structure the programs using shared evolutionary methods, by retaining

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the "*teacher/student*" relationship and providing for the creation of "*training schools*" among learners who share common programs.

This last aspect is strongly connected to the "continuing" component of the "*Continuing Medical Education*" concept, which indicates that health professionals have the ethical obligation to keep themselves updated during all their "*professional life*".

2.1.6. The opportunity to build "blended" training courses

The experimentation revealed another highly innovative element in the training scenario: the MHeL method lends itself well to be an ideal element in building blended "*residential/DL*" training programs. Since November 24, 2014, the National CME Commission has made this type of training creditable, looking forward to its dissemination. Therefore, these training courses can promote the implementation of new modern training proposals by CME Providers.

In a blended program, the DL module that is based on the MHeL model, in fact, makes it possible to manage technical and scientific insights, as well as practical exercises and simulations on the topics covered in the teacher-led classes, typical of the residential module. Therefore, the virtual spaces of the platform allow to implement what is learned at a theoretical level, also developing the opportunities for "teacher/student" discussion that the synchronous temporality of residential courses not always offers.

For the benefit of Providers who plan "*blended*" events, we have reported item 4 of paragraph 1 included in the aforementioned "*CME Quality Manual - November 24, 2014 (3rd edition) - Summary table of the quality standards for a CME Provider*" which reads as follows "*The Provider's offer includes training projects that put together different types of training (DL, RES, and FS)*"

The approach adopted by the National CME Commission is to encourage Providers to create more and more "*blended*" events. This methodology meets the andragogic need for learners to consider training courses as an active, engaging search-for-knowledge process based on outputs (as for the European standards), not merely reading contents, which is based on inputs (as for the current Italian process).

2.1.7. The model and analysis of training needs

Another element of the MHeL project that can definitely activate the practical interest of a CME Provider is the ability, which lies in the interactive nature of the platform itself, to conduct effective *training needs analyses*.

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The ECM Provider, in fact, is required by law to constantly provide evidence that the courses it offers are based on real needs of healthcare professionals, so that this type of training will effectively contribute to improving the regional and national healthcare service.

Therefore, the training needs analysis "*diagnoses*" the real needs that require continuing education training of healthcare professionals and must be conducted using effective social research tools.

This element, too, is objectively identified by the National Observatory of Continuing Medical Education as a quality standard for a CME Provider (see "*CME Quality Manual - November 24, 2014 (3rd edition) - Summary table of the quality standards for a CME Provider*", Requirement 3 "*Detection and analysis of training needs*", item 2 "*The training needs analysis is planned using quantitative and qualitative instruments of social research - questionnaires, interviews, focus groups, etc.*").

The Millennium platform offers the possibility to stimulate the learner to indicate directly the topics on which they can focus their training, both expressing their training needs first-hand and expressing the appreciation via the monitoring and confirmation of the learner's participation in the course, which expresses individual demands and needs clearly.

The training interactivity and "*friendly*" environment encourage the learner to point out directly their "gaps", so that the CME Provider can initiate training courses based on the real need of healthcare professionals. The outcome measured by participation in reflection tests and games highlights these aspects significantly.

For this reason, the presence of an active tutoring service interacting with the participants allows to collect actual, stimulating interviews, which can complement more traditional methods, such as the needs analysis questionnaire.

2.1.8. The virtual community implied in the MHeL model

Not least, an important element that a CME Provider can acquire from the MHeL model is the ability to create virtual communities of learners that can stay in touch even after finishing their training programs.

In the residential course, the "*Provider-student-teacher*" interaction generally ends at the end of the training day, because no recall spaces are planned for participants: the platform instead allows a learner, even at the end of the training, to remain active in the community and continue to interact with the tutor, re-analyze the durable material on the platform, and further explore parts of the course they are interested in and which remain available in the specific areas that are accessed with the personal credentials.

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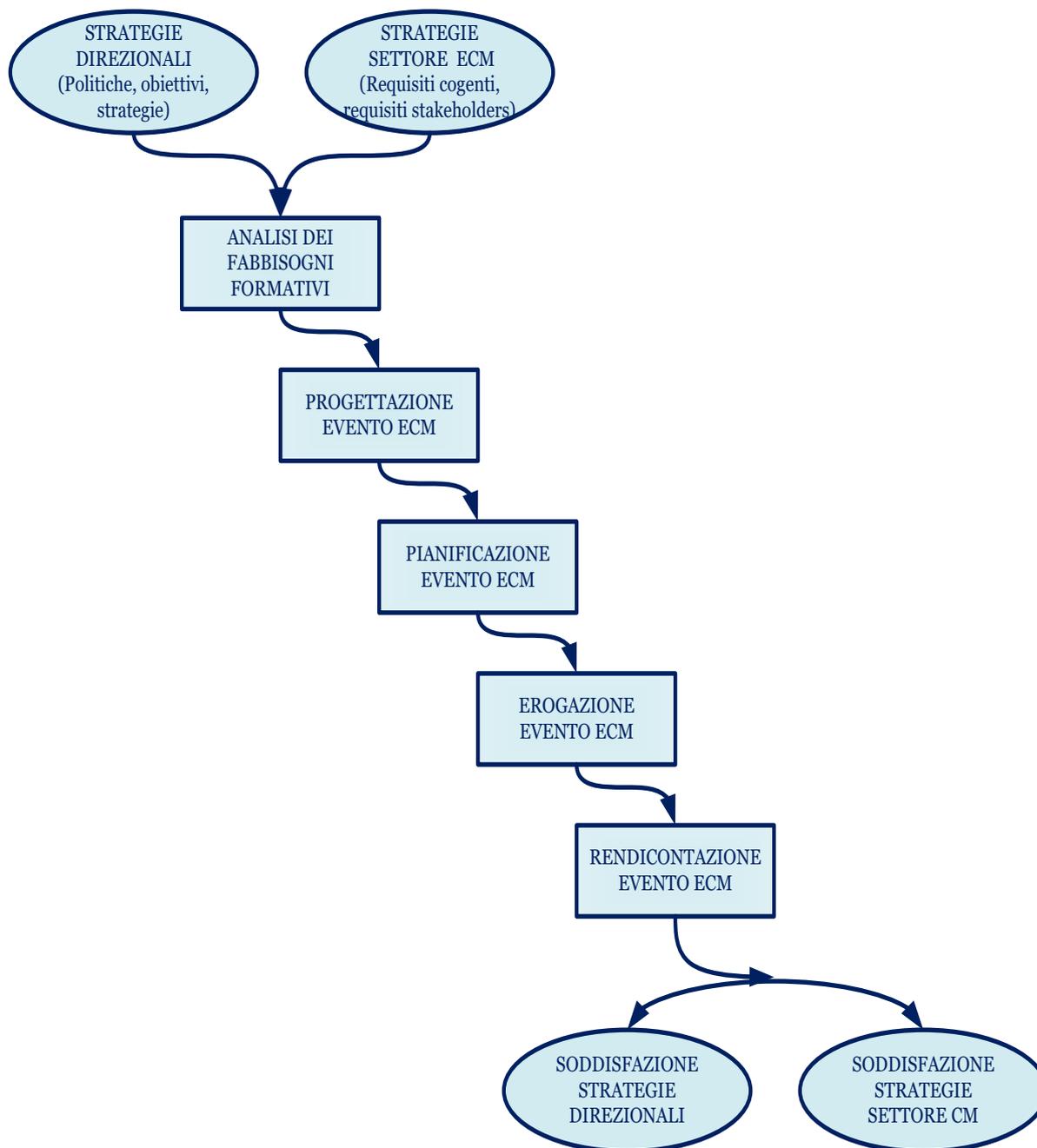
According to the National Observatory, this is another aspect considered as a quality standard for a CME Provider, Requirement 6 "*Design*", item 3 "*Training support (contact with the teachers, interactive forum, etc.) is available for participants even after the conclusion of the events*".

Through communication instruments (either synchronous and asynchronous) involved in the platform creation process, virtual communities can be activated to discuss and interact with other members of the network. These communities can lead to sharing processes and cooperative build-up of knowledge, in a collaborative medical learning environment.

Collaborative learning is facilitated by the fact that the evolution of technology allows individuals to communicate with colleagues and experts and, thanks to the virtual community, share knowledge sources that can be consistently used to solve professional issues.

2.2 Recommendations for using the model: guidelines

The following guidelines are originated from the need to support CME Providers to effectively use the MHeL model, so that they can take full advantage of its innovations and added value in their CME training, according to the pattern shown below:



DIRECTIONAL STRATEGIES (policies, objective, strategies)

CME STRATEGIES (binding requirements, stakeholder requirements)

TRAINING NEEDS ANALYSIS

CME EVENT DESIGN

CME EVENT PLANNING

CME EVENT DELIVERY

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CME EVENT ACCOUNTABILITY

DIRECTIONAL STRATEGY SATISFACTION

CME STRATEGY SATISFACTION

2.2.1. Training strategies for CME Providers: how to apply them using the MHeL model

2.2.1.1. Direct training needs analysis in the learners

Attention to learners and their needs is the starting point of the training project and always requires more:

1. proper understanding and respect of training needs;
2. careful monitoring of the level of satisfaction, as well as understanding any signs of dissatisfaction and complaints.

In the first case, within the virtual interactive platform training of the MHeL model, this point means not just detecting the topics for which doctors require an update, but using the discussion with learners to co-design the training space. The needs analysis should also explore potential resources (in terms of theoretical references, virtual structures, potential networks, experts, etc.) that the physicians indicate as necessary or useful for their training.

The competency-based approach (experienced in the project) should also contribute to the needs analysis, where it is necessary to move towards the diagnosis of skills, integrated with situations in which doctors are actually operating (also according to the programs addressed by the CME Commission, see below). The needs analysis should not overlook the computer system aspect, that is to detect the needs and potential difficulties regarding the use of virtual training spaces and reflexive learning tools that we have seen offer more effective, durable learning.

In the second case, in the online MHeL training process this point involves constant interaction between students and tutors, as a support for both the use of the instruments and the parallel collection of signs of improvement.

With regard to the strategies of the CME sector, the attention to the needs of learners should be exclusively evaluated in relation to what is defined directly by the National Healthcare Service through the National CME Commission, as well as by the healthcare training market. The strategies of the National Commission for Continuing Education are reported directly in the planning documents of the CME system, such as:

- *“Implementation rules for objective criteria according to the State-Regions Agreement of November 5, 2009 and for the accreditation approved by the National*

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Commission for Continuing Education on January 13, 2010", and subsequent "Guidelines for the accreditation manuals of national and regional/autonomous province Providers, Annex I, State-Regions Agreement of 19 April 2012"

- *"CME Quality Manual - November 24, 2014 (3rd edition) - Summary table of the quality standards for a CME Provider"*
- *"ISO 9001 Standard - Requirements for Quality Management Systems"*, because the National CME Commission requires that a Provider must implement an internal organizational model based on management systems rationales proposed by the ISO standards

Those documents show how the National Commission for Continuing Education considers improving the quality of healthcare as a whole, and not only having the individual healthcare professional participate in the training courses, as the primary purpose of CME. As a result, CME should be directed not so much to merely improving the knowledge of physicians, which over time will become obsolete, but to provide technical skills (knowing how to do things), communication skills (knowing how to let others do things) and relational skills (knowing how to be).

This concept, defined as "lifelong learning", was already introduced by Directive Frattini dated December 13, 2001, which formalizes the assessment and human resource development needs within the National Healthcare System.

The MHeL model plays an essential role in supporting CME Providers to transform the current professional updating of physicians in an effective and efficient lifelong learning system. This system is based on a participation training model as part of the "learn by doing" method with the additional perspective of promoting the mobility of participants in a broader setting than the Italian one. This integration is possible because the MHeL training model puts together technology solutions and methodological standards with European resources, structured by set of skills and learning outcomes and recognized by the Italian and European CME.

2.2.1.2. Indicators for monitoring the training activities

Providers should then set their own specific strategies (preferably measurable) that they are willing to achieve with the training. They should define appropriate indicators to monitor the progress of their objectives and training activities, in order to compare the values achieved with the planned ones and identify opportunities for improvement with respect to their professional capabilities and internal organization.

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When defining their strategies, Providers should first share the added value (strengths and opportunities) that the distance learning now offers, because:

- it offers asynchronous training and can be reached at any time if the need arises, also allowing to integrate the training time with (personal and professional) needs of the individual healthcare professional;
- it offers the possibility of training a very large number of health professionals through the same training event, optimizing organizational and ministerial costs.
- offers the possibility to create virtual communities that interact on training and organizational aspects, with pathways aimed at both individual medical professionals and the healthcare team, including the opportunity to evaluate learning "outcomes" at the end of training event

The MHeL model perfectly fits this scenario, promoting all the above-mentioned indicators and allowing to integrate the training time with personal needs, with significant cost savings for both the learner and the event organizers. The achievement of a high number of participants and the interaction measured by instruments such as the reflection test and serious games help evaluate the outcome-based learning system.

2.2.1.3. Involvement of institutional parties and scientific representatives

Even when planning the courses offered, which provide for the adoption of the MHeL model, the Scientific Committee must play a key role. This committee is the technical advisory body that supports Providers in the definition of strategic guidelines and in the evaluation of training projects to be implemented.

The Scientific Committee is an entity made of experts of proven ability and experience in the clinical and scientific training area. The Committee is representative of different healthcare professions and guarantees their andragogical, clinical care, scientific, and technical skills in the specific areas for which CME is provided.

The courses offered by the Provider must originate as a result of the training needs and also according to the indications of the Scientific Committee, which defines the training proposals to be included in the training plan, based on the analysis of the following inputs.

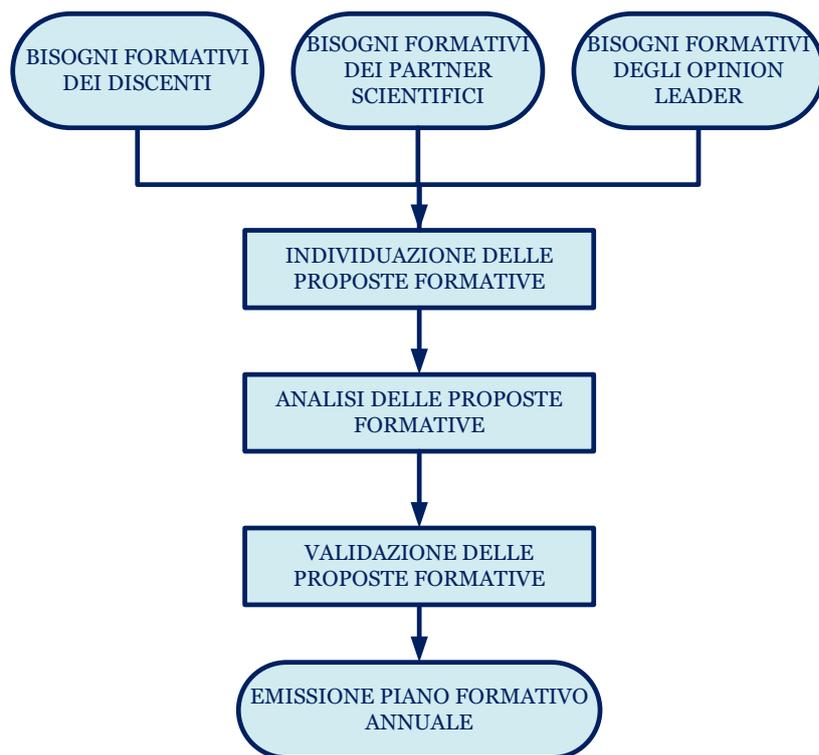
- Training needs of the learners (the Provider promotes training events that make contact with learners who are the recipients of CME events; they can therefore express their own training needs directly).

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- Scientific Partner indications: (Providers should perform operations in contact with the healthcare system associations or institutional bodies, which can provide useful and authoritative considerations on learning needs to be met).
- Opinion Leader indications (Providers should continuously examine the national scientific scenario, assessing the training needs identified by healthcare Opinion Leaders and included in scientific publications).

It is essential that CME Providers encourage individuals who provide information on the training needs to express themselves not only on the training topics, but also on the type of courses available in the market (residential, field studies, distance learning) and their correct implementation.

Below is a flow chart representing the activities performed by the Scientific Committee prior to the Training Plan validation.



TRAINING NEEDS OF THE LEARNERS

TRAINING NEEDS OF THE SCIENTIFIC PARTNERS

TRAINING NEEDS OF THE OPINION LEADERS

IDENTIFICATION OF THE TRAINING PROPOSALS

ANALYSIS OF THE TRAINING PROPOSALS

VALIDATION OF THE TRAINING PROPOSALS

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RELEASE OF THE ANNUAL TRAINING PLAN

2.2.2. CME course design and MHeL model

The system that is based on building up a virtual platform interacts with the serious game methodology and requires a complex design process. A planning group made up of individuals with different and specific tasks must be identified: the incorrect analysis of a specific factor in the design phase can lead to the failure of the entire project and must therefore be performed by experienced professionals in each field.

The design team that the Provider should identify for an optimal management of a DL CME training event using the MHeL model is made up of the following parties:

- Scientific Manager
- Technical Manager
- Organization Manager

The scientific design of contents should be entrusted to a dedicated Scientific Manager, who acts as a "guarantor" of the training event contents and has the primary role to evaluate the course with regard to meeting the training needs of healthcare professionals it is addressed to.

The technical design of the MHeL platform is, instead, entrusted to a Technical Manager, who should guarantee that the IT tool works properly with respect to the training methods considered suitable by the Scientific Manager to achieve the objectives of the course and in line with the procedures required by CME regulations in force.

The Provider should also identify an Organizational Manager, who should be responsible for coordinating the implementation and completion of all planned activities related to the design phase (both from a scientific and technological point of view). He/she must ensure that audits, reviews, and validations are performed, using an appropriate project plan, an element that allows to check and monitor the progress of the various projects.

The reviews and audits are related to the architecture, contents, teaching and andragogic model of the project. These activities ensure that the results of the design process are consistent with the input requirements, specifically that as the elements are developed they are capable of meeting the training needs of the learners.

The "documentary" validation of the project includes the following items related to the individual training event designed:

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- definition of the training objectives, which as indicated in Report 16 are divided into **a)** technical and professional objectives (aimed at acquiring expertise on the specific health profession exercised in accordance with the guidelines established by the Scientific Societies and technological and scientific evolution), **b)** process objectives (aimed at acquiring interpersonal and communication skills with patients and more generally with the stakeholders in the healthcare sector), and **c)** system objectives (aimed at acquiring concepts regarding the work environment, the code of ethics, the knowledge of general rules and organizational system in terms of patient safety, appropriateness and quality of services and care, rational allocation of resources);
- definition of the target audience, recalling how a CME event can be directed at a single medical discipline or be multidisciplinary compared with the healthcare team, reaching potentially and being valid for all healthcare professionals;
- methods to supply and promote the event, in order to effectively propose the event to market of CME courses;
- teaching model and andragogical techniques, assessing the degree deliberately more or less structured of the learning methods and, consequently, the balance of the sections that make up the MHeL model ("*teaching material section*", "*video/slide section*", "*awards/reflection test /mini games section*", "*library/bibliography section*");
- type of content and program of the course, with consequent allocation of CME credits, based on the optimal training program that the learner needs to complete to achieve the objective of the course; the content must be consistent with the mEducator metadata structure (as detailed in document R10), in order to ensure the widest recognition and usability of the courses also offered in the European training system;
- delivery times and duration of the online course, in order to guide the participant in understanding and organizing the time resources they will have to use to perform and complete the training;
- assessment methods, which must necessarily be related to the proposed activities, also specifying if they are mandatory, and their possible impact on the final assessment;
- human and material resources required to manage the project. If possible, a reason must be provided for the choices and any advantages/disadvantages if present/absent.

Below is a diagram showing the design process:

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PROPOSAL OF THE TRAINING EVENT

PLANNING OF THE DESIGN PHASES

IMPLEMENTATION OF THE DESIGN PHASES (including reviews and audits)

VALIDATION OF THE CME PROJECT

REGISTRATION TO THE CME EVENT

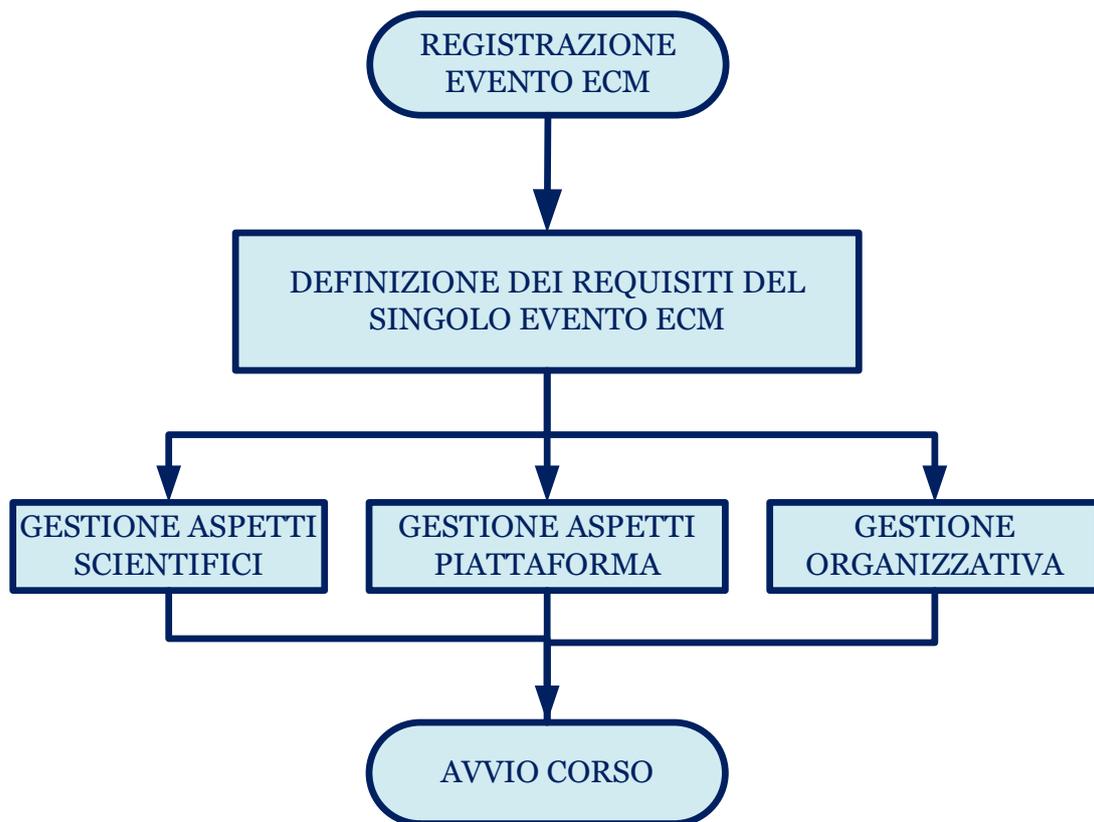
The "operational" validation of the project is performed after the event is delivered, based on feedback from the learners and the Scientific Manager at the end of the event.

The participants will directly provide useful elements of "operational" validation of the event, specifically regarding the usability and functionality of the multimedia platform: this feedback will make it possible to take the appropriate improvement actions.

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2.2.3. Planning the CME training event

After planning the event, the Provider should also manage the planning phase, aimed at ensuring the implementation of the requirements that are specific to the planned event. This activity is performed the Design Group Managers, each one within their individual areas of competence, as shown below.



REGISTRATION OF THE CME EVENT

DEFINITION OF THE REQUIREMENTS FOR THE SINGLE CME EVENT

MANAGEMENT OF THE SCIENTIFIC ASPECTS

MANAGEMENT OF THE PLATFORM ASPECTS

ORGANIZATIONAL MANAGEMENT

START OF COURSE

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| Function | Aspects | Main activities |
|------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Scientific Manager | Scientific aspects | Development of the scientific program and of the learning evidence, ensuring that the training is free from commercial influence. Management of the scientific report with the teachers (CVs, abstracts, self-certifications regarding any conflicts of interest, teaching material) |
| Technical Manager | Platform aspects | Management of the operating platform activities in compliance with the designed training and online uploading of the content. Implementation of specific testing to ensure a proper multimedia service for users |
| Organizational Manager | Organizational aspects | Promotion of the event with the preparation of promotional material, preparation of documentary forms, management of ECM activities, and insertion of the designed course on the AGENAS [National Agency for Regional Healthcare Services] portal. |

2.2.4. Delivery of the event using the MHeL model

The Provider must also ensure that the training events activated in a controlled manner, in compliance with the CME regulations, also through the presence of a tutoring service, which also has the task of receiving and recording any signs of dissatisfaction experienced by the learners, ensuring the management of the technical elements of the MHeL platform, and answering investigation questions posed by the learner.

The MHeL model includes, in fact, the possibility to use a tutor with different roles:

- technical tutoring, whose end is to ensure that access to the DL course materials takes place without problems.
- social tutoring, whose end is to facilitate the interaction and participation among the learners, by promoting and encouraging the learners to work actively.
- scientific tutoring, which instead aims to provide participants with required in-depth training.
- organizational tutoring, mainly addressed to handling any signs of dissatisfaction of the participants on the organizational aspects of the course, especially if the student

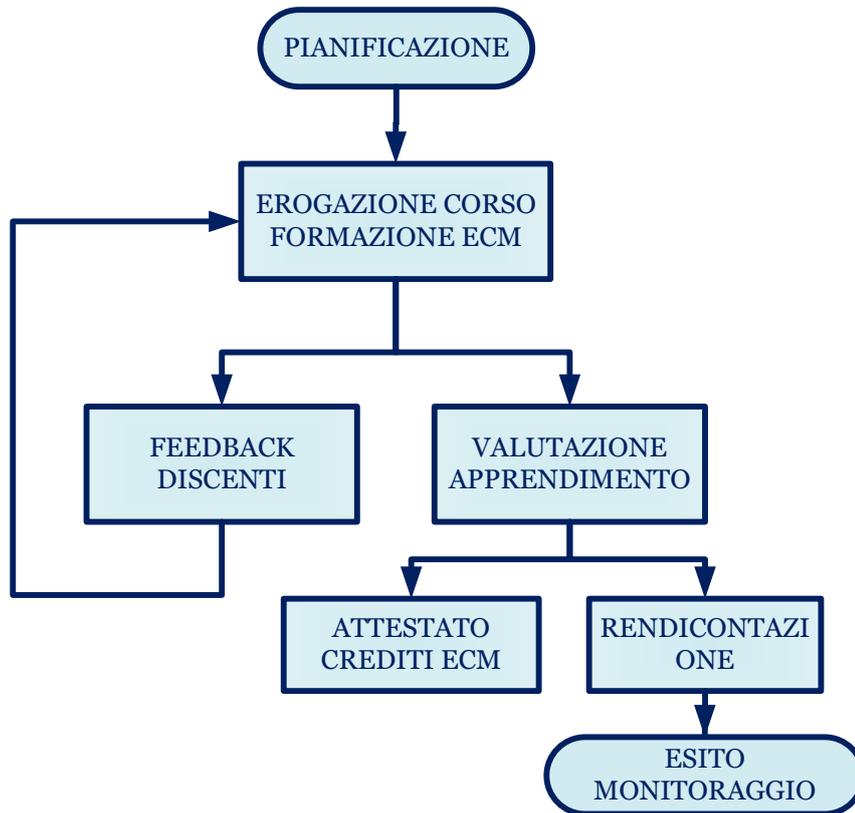
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expresses discomfort with the fact that the course does not meet his/her original expectations.

The MHeL platform - in full compliance with the CME regulations - guarantees the delivery of CME credits only if the participant has:

- recorded all his/her data;
- participated in the entire training program;
- passed the learning test (credits are allocated if at least 75% of the training objectives are acquired);
- duly completed the assessment form on perceived quality.

Below is a diagram showing the above activities and monitoring systems.



PLANNING

DELIVERY OF CME TRAINING COURSE

FEEDBACK BY THE LEARNERS

LEARNING EVALUATION

CME CREDIT CERTIFICATE

ACCOUNTABILITY

MONITORING RESULTS

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2.2.5. The MHeL model in the CME event accountability

The information resulting from the monitoring and control activities performed during the delivery of the event through reports recorded directly in the platform allow to perform an analysis of the results achieved by the CME course, thanks to the support of the Project Manager (mainly for organizational and multimedia platform aspects), the Scientific Manager (mainly for scientific aspects), and the Technical Manager (mainly for the functionality of the platform).

In this report, we have evaluated if the activated event has met the objectives set at the design stage, analyzing the causes of any negative discrepancies and looking for any suggestions for improvement, as shown below.



FEEDBACK ON THE EVENT
ANALYSIS OF THE RESULTS ACHIEVED
REVIEW OF THE CRITICAL ISSUES
SEARCH FOR IMPROVEMENT ACTIONS
RECORD ARCHIVING FOR 5 YEARS

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Afterwards, within 90 days of the end of the course, the platform allows the Provider to retrieve data required to send the XML path, which includes the data of the participants who will be receiving the CME credits.

All records relating to the completed training event must be retained for at least 5 years and must be produced in case of inspection by the relevant Authorities.

2.3 Potential improvements both in terms of training platform review and training design

In addition to the constant technological upgrading, required by the natural evolution of the technological equipment used by the learners, there is another aspect that should be considered, that is the possibility of structuring the MHeL platform even when the outcomes and results achieved are managed, with the possibility of recontacting the professionals who participated in the course. The purpose is to make professionals go back to the platform and bring their testimony on how their job changed thanks to what they learned and experienced in the MHeL course. This option would also encourage a constant cultural and professional exchange between participants and maintaining an active community.

In a working group that hopefully will be in connection with the institutions, the integration of the MHeL platform with the computer systems of the CME data inspecting authority in Italy (AGENAS) will also be examined.

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