Escuela Superior Politécnica del Litoral

The Continuous Teacher Training and Development Model of CISE as an adjunct to the Curricular Review Process of the Escuela Superior Politécnica del Litoral

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ABSTRACT

This document describes the experience gained at ESPOL (Escuela Superior Politécnica del Litoral, an Ecuadorian University), in the course of a major curricular review, arising out of implementing the Continuous Training Teacher Model (MFCDC) proposed by the ESPOL Research and Educational Services Center. 750 teachers since 2014 were required to prepare for the changes implicit in the review. Participants in this project are professionals in the areas of Science, Economics and Digital Communication, who have generally based their teaching on their scientific knowledge and expertise, in some cases leveraging their communication skills to facilitate effective classroom teaching. The majority, while holding postgraduate qualifications, are not formally accredited teachers. From June 2014 to December 2016, teachers followed the MFCDC, which applies the ADDIE Model in both in-person and blended learning. In this way systemic and systematic progress is being made in the institution's teaching culture.

 Keywords: Teacher training model, instructional design, continuous pedagogical support and follow- up.

INTRODUCTION

ESPOL – currently listed as a Class A University by CEACCES - has 10,000 students and 33 degree courses, mainly in engineering, all of which motivated the re-engineering that was applied in the Centro de Investigaciones y Servicios Educativos (CISE) in order to offer teachers the support needed to enable the institution to carry out the curricular changes necessitated by the review. The institutional pedagogical model is centered on maximizing reasoning skills in order to educate students who are able to think and communicate verbally and in writing and to internalize the outcomes of the institutional learning processes and degree courses that configure the human and professional profile of graduates.

The new, complex regulatory framework which lays down requirements of quality in Ecuadorian Higher Education (LOES, 2013); the Academic Regime Regulations (2016) that describe what is

expected in degree courses and from teaching staff; the structural process of curricular review in ESPOL (2014-2017) together with the process of national (CEACCES, 2015) and international (ABET, 2015-2016) accreditation, provided the framework in which to determine whether the ESPOL teacher should be educated or trained.

Teacher education is "the process of permanent acquisition, structuring and restructuring of knowledge, skills and values in the service of teaching performance" (Cáceres and others), that is to say, we are talking about a series of systemic and systematic training interventions designed to enable the teacher to replace the role of "practitioner" with that of educational professional, in general covering initial or basic stages up to and including specialization. The practitioner carries out activities often simply by observing what others do, while the professional seeks a basis for her practice, looks for problems, investigates and finds explanations individually or with others relating to those aspects which require improvement.

Training offers the professional opportunities to perfect or improve teaching skills at specific moments, opportunities which are not necessarily dependent on fulfilment of desired prerequisites. It is useful when the educated professional keeps constantly up to date in response to contemporary challenges.

Both teacher training and teacher education are situated in the field of informal education where certification is a possibility. The first is associated with updating learning, while the secondis associated with the sort of teacher professionalization already described. One component that will determine the quality of training or education is the structure within which it is planned, carried out and evaluated so as to guarantee the achievement of the educational goals sought. There is also a difference in time: teacher education is generally offered in medium to long term programs whilst training is short term and with specific learning outcomes that are needed in the here and now.

MANAGEMENT MODEL IN CONTINUOUS EDUCATION AND TRAINING

With the aforementioned conceptual framework the Model of Continuous Teacher Education and Training was developed, with the following characteristics:

- It considers teachers, from the time of their entry in the institution in preparatory courses, as facilitators, and accompanies them in each stage of development.

- It offers an institutional Induction Program to facilitate swift adaptation to the organizational culture, as well as giving general training to teachers in knowledge of the foundations, principles, values and structure of the organization and training them in handling immediate pedagogical requirements, especially knowledge of standardized instruments.

- It develops the basic training cycle with emphasis on the basic minimum knowledge and skills that a teacher who is not certified should have.

- It incorporates specialized training through formative research in order to establish the scientific method as a pedagogical strategy.

- It prepares teachers for administrative management in the case of deans, vice-deans and degree course coordinators.

- It accompanies teachers by means of various informal programs, especially workshops.

- It distributes a virtual magazine which analyzes relevant topics such as inclusive education and the innovations taking place in ESPOL.

- It offers Polytechnic discussion forums in order to involve teachers in training in humanities and arts as a a complement to their scientific training: there is a cinema forum, discussions, reading of plays, drama, music, dance, plastic arts, etc.

- It gives teachers a web page with relevant written pedagogical aids (technical notes, diagrams) and multimedia (tutorials on teaching skills and various other topics).

- It prepares students to be teaching assistants by means of pedagogical orientation sessions which prioritize the optimization of communicative competence and teamwork..

- It optimizes the quality of actions of disciplinary training in each School by offering technical and pedagogical approval with the appropriate accompaniment in terms of classroom observation.

- It shares experience with other higher education institutions through self-management.

- It gradually incorporates technologies in the modes of class learning, part-time learning or blended learning.

- It directs improvements in teaching performance providing theoretical discovery based on practice.

- It reinforces the systems of promotion by guaranteeing teacher education and training in harmony with the regulatory framework.

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MODELO DE FORMACIÓN Y CAPACITACIÓN DOCENTE CONTINUA
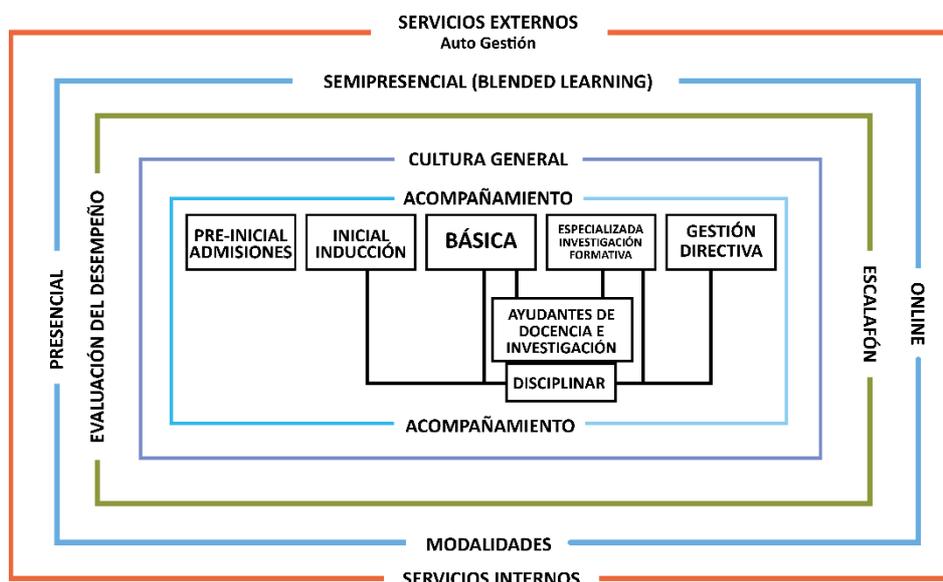
The actions generated by the model of teacher education and training of CISE-ESPOL are carried out with the application of course design which, according to Richey, Fields and Foson, 2001 (cited by Consuelo Belloch UTE-Universidad de Valencia) "presupposes a systematic lesson planning which includes needs analysis, development, evaluation, implementation and maintenance of materials and programs ".

Likewise, Belloch (2013) describes the chosen ADDIE model as "a process of interactive course design, where the results of the formative evaluation of each phase may lead the course designer to return to any of the previous phases. The final product of a phase is the product of the following phase. ADDIE is the basic model of course design since it contains all the essential phases".

CISE has a technical academic team with sufficient experience in course design responsible for the application of the model, with emphasis on scientific validation of the proposal for each module as well as the the careful selection of formative activities and the production of all the written, graphical and multimedia support both for the classroom and blended learning modes of delivery. The following diagram summarizes the model:

CISE
MODELO ADDIE
Steven J. McGriff. Institucional Systems, College of Education, Penn State, University 09/2000
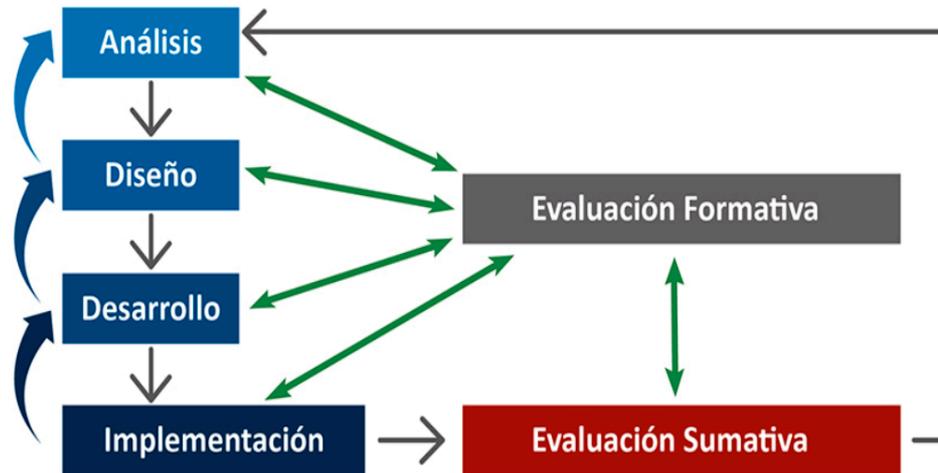
This study will describe the induction program for new teachers and the BASIC CYCLE OF TEACHER TRAINING (CBFD). The specialized training program of Training Research and that of Administrative Management are at the design stage and will be offered in the second semester of 2017.

Likewise, the project is firmly based on Bloom's taxonomy and its subsequent revisions (   ), on cognitive pedagogy expressed in the application of the thought process where basic and higher mental operations are identified, on the Institutional Learning Outcomes (RAIs), on a general approach to training based on competences as developed by Sergio Tobón, on tools for individual and collaborative work used by means of ICT and the use of rubrics specially described in their goals and forms by the international accreditators ABET.

DEVELOPMENT OF THE STAGES OF THE MODEL

Induction Program for new full and part-time teachers

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General goal

The **NEW TEACHERS** will be able to process the Mission and Vision statements of ESPOL while analyzing the importance of their teaching work and the need to be UP TO DATE in the disciplinary aspects of the subjects they teach, as well as TRAINED in technical-pedagogical management of their classes, enabling significant achievement in the education of students.

Basic guideline

In particular, it is expected that new teachers should be involved in the various initiatives of Curricular Review, which set out significant changes with the aim of strengthening the relevance of the curriculum as laid down in the LOES (Article 107) and the new Academic Regime.

Duration: 40 academic hours including conferences, pedagogical workshops, lab visits, library hours, a tour of the campus, work sessions in the academic unit where they are based, etc.

Specific objectives for new teachers talking part

To argue the aims of Ecuadorian higher education and those contained in the mission statement of ESPOL, providing a responsible foundation for their work.

To conceptualize the Ethics and Moral Code reflected in the ESPOL Code, identifying them as guidelines for educational work at all levels, with the aim of educating a person who is also a professional and a citizen.

To process information that is relevant to the new Academic Regime Regulations, accepting them as an institutional framework of rules.

To explain the principal initiatives of the Curricular Review in pursuit of the relevance as laid out in the LOES.

To evaluate the syllabus, the Analytic Program and Class Design as a planning tool that guides educational action.

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To generate a process of reflection about the practical application of the Institutional Learning Outcomes as a common thread running through all formal and informal pedagogical actions.

To ascribe value to the role of the TEACHER COUNSELOR as an effective accompaniment to students throughout their degree studies.

To encourage self-regulation of students through a process of learning evaluation, with emphasis on the use of rubrics that specify criteria, indicators and scales.

To explain the administrative and academic characteristics of their teaching work, identifying responsibilities in their various roles such as regulation by means of automated tools.

To process relevant information on the teacher evaluation process, becoming familiar with the policies and instruments used.

To become familiar with the geography of the campus, identifying the various departments that offer academic support, recreation and welfare.

To become familiar with the pedagogical tools proposed by the quality team, which are oriented towards the processes of national and international accreditation.

To build relationships within the academic units where they will work, getting to know the rules, procedures, instruments and policies that will ensure a smooth start.

Certification

A Certificate registering the successful completion of the Program is awarded, based on criteria of attendance and participation, reflected in the processing of the impact sheet as well as fulfilment of 80 % minimum attendance.

Program Evaluation

A daily opinion survey allows follow up and continuous improvement in the course of the program.

Final evaluation for the purpose of continuous improvement.

BASIC CYCLE OF TEACHER TRAINING (CBFD)

General Goal

Provide the Polytechnic teachers with the basic abilities to perform their teaching duties according to required standards, generating a convergence with the institutional learning outcomes as well as other guidelines from the curriculum revision.

Specific Objectives

Teacher participants will achieve the following

- Develop cognitive abilities with special emphasis on basic and higher intellectual operations in written communication.

- Recognize the mandatory nature of the requirement of relevance, identifying priorities in higher education.

- Argue for institutional ethics while specifying basic concepts and also emphasizing the person and human diversity as a central element in solving ethical dilemmas.

- Formulate useful objectives in educational planning, offering theoretical support and fulfilling criteria of quality in their expression.

- Design a syllabus and analytical programs, systematically setting out the constituent elements in a way that allows efficient and effective educational practice.

- Apply creative processes in determining the strategies and selection of pedagogical techniques that contribute to the quality and variety of the educational processes, generating innovative learning environments.

- Base teaching skills on communicative, psychological and pedagogical principles, recognizing their importance in the teaching process.

- Analyze evaluation as a process that uses the scientific method to obtain information by means of rubrics and other instruments, producing useful data on which to base pedagogical decisions and guide processes of improvement.

- Apply basic technological media as facilitators of the educational process that optimize the achievement of educational objectives.

- To argue that initiative is an added value in processes of continuous improvement in the training of the graduate professional.

Profile of relevant educational actions

- The use of reading with emphasis in completing reports on the text that stimulate critical comprehension as well as lexical enrichment.

- Strengthening writing skills through the various modes of written presentation of knowledge, identifying descriptors that promote self-regulation.

- Transference of the various techniques of learning to the teacher's own environments and processes, promoting individual work, co-operation, classroom and autonomous learning.

- Design of guides for autonomous learning developing oral and written communicate skills to express knowledge.

- Processing technical notes to facilitate completion of the training activities requested in the classroom or autonomous learning process.

- Contextualization of learning in current events both national, local, regional and global, applying reason and relating them to the requirement of relevance.

Program Offer

Teachers involved take the entire program, following its predefined structure and characteristics.

There are quotas for each academic unit but there is space for other interested participants from other units.

It is recommended that directors of academic units prioritize participation of teachers with problems in performance evaluation.

CISE does not impose participation as an obligation on teachers.

All teachers are invited to the Preparatory Session where the Program is advertised. Teachers who attend can have these hours administratively recognized.

Every month there is a new launching of Module 1, Thinking To Communicate., which is central to the Curricular Review.

There are "MINICYCLES" of 4 modules open to teachers; sometimes these may be contextualized for a particular group of teachers.

Teachers who do open courses can join later if they wish in order to continue the CBFD. The modules they already passed are duly accredited.

There are regular and intensive modes. The first is offered from 7:30am to 9:30am, and the second from 15:30 to 17:30. Intensive courses are on Fridays from 14:00 to 17:00 and on Saturdays from 8:30am to 12:30am

Preliminary Session

1. Presentation of the Program: academic and administrative aspects.

2. Conference 1: Challenges for higher education in the 21st century, in pursuit of relevance.

3. Conference 2: General Guidelines for the Curricular Review of ESPOL.

4. Conference 3: Institutional Learning Outcomes in ESPOL.

5. Training in the use of SidWeb.

Description of the Modules

Nº1 Thinking to Communicate

Participants in this module optimize their critical reading ability by identifying the thesis in a given text, as well as the underlying arguments which facilitate development of conclusions, within the structure of a discursive essay. Special emphasis on the study of the sentence, the paragraph and connectors serves to enable participants to develop properly supported academic texts

Nº2 Relevance in Higher Education

Higher education requires an up-to-date analysis of the context in its integral dimensions and in local, national, regional and global spaces, one that takes into account the need for relevance set forth in the LOES (Higher Education Law), which in turn dictates a specific rationalization of all kinds of resources, guaranteeing the practical utillity of learning in the process of personal and professional development that the country needs, through appropriate degree courses.

Nº2 Relevance of Higher Education

Higher education requires the updated analysis of the context in its integral dimensions and in local, national, regional and global spaces that allows the pertinence raised in the LOES and that determines the corresponding rationalization of resources of all types, guaranteeing the practical usefulness of the learning in the process of personal and professional development that the country needs, through the degrees.

Nº3 Institutional Ethics and Human Diversity

An approach to ethics and morality is made by deepening the understanding that "all reality is tinged with ethics" and supporting the educational actions of ESPOL through the Code of Ethics and the affirmative Declarations issued. It also guides the process to analyze professional-personal ethical dilemmas from reason and due contextualization, seeking the best and just

decisions. This module presents the human diversity in the classroom and the need to make curricular adaptations to achieve the required inclusion.

Nº4 Formulation of Objectives in Education

The study of the objectives in education focuses on developing the ability to articulate the elements that underlie them, from which their categories will be determined at different times of the educational planning. Formulating and not only writing objectives is a highly valued teaching competence, which allows clarifying the educational results sought and guiding the selection of contextualized strategies, the means to measure and evaluate as well as the rationalization of the required means.

Nº5 Design of Syllabus and Analytical Program

The syllabus allows outlining the description of the course especially in its objectives, contents, methodology, measurement of results constituting an obligatory and useful tool for the work of the teacher and the students.

From the syllabus, the analytical program is designed which describes the training actions in attention to the times provided in the course schedule.

Nº6 Didactic Processes

Rethinking the concept of CLASS understanding it as a LEARNING ENVIRONMENT will allow the teacher to carry out the pedagogical work as a logical, psychological and functional process, in relation to the learning objectives that are sought. The teacher designs learning situations centered on the student as the protagonist. The workshops will stimulate teachers' creative thinking by producing highly motivational instructional designs for students applying different methods and techniques.

Nº7 Teaching Abilities

The classes are scenarios where the performance of the teacher will be expressed in the use of skills at each moment of their development, all of them with a high propositional communicational component of great impact in obtaining the instructional objectives. The teacher will have the opportunity to observe these behaviors and even measure them with the rubrics created for the purpose.

Nº8 Measurement and Evaluation: Designing rubrics.

Simultaneously with the instructional design of the classes, the teacher needs to design the matrix with which they will measure the learning objectives. The use of the holistic or analytical rubric will allow you to obtain useful data for the assessment process and thus make the best decisions that optimize the learning process, within the framework of continuous improvement.

Nº9 Educational Technological Support

Teachers will develop basic technological applications with the aim of designing means that will invigorate the didactic processes, the clarity of the educational communication and even the adaptation to different styles of learning.

Nº10 Entrepreneurship

Recognizing the need and having the ability to undertake means that the students assume the entrepreneurship as an alternative of life, characterized by the search and granting the criterion of value in what they undertake, which promotes innovation, enhancing the development of communication skills and working with others.

Time distribution: Total 194 hs

Extracurricular hours: 10h to participate in the propaedeutic day the accompaniment of the classroom evaluation, after the module of teaching skills.

Curricular hours: 184 hours for previous autonomous work, face-to-face classes for processing, distance autonomous work, face-to-face classes for reinforcement, systematization and closing and final work.

Program Features

1. Propaedeutic day: Explanation of the program, methodology and evaluation; Development of 3 lectures with a forum and then laboratory to explain the use of SidWeb. Compulsory attendance.

2. Development of 10 modules.

3. Each module has an introductory video that is attached to the previous autonomous work, the day the guide for the work is sent and technical notes.

4. The modules consider the previous autonomous work and the processual work as well as the presence or remote final works.

5. The formative research is included in the module of didactic processes.

6. The Technological Support module can be homologated after practical exams in the computer laboratory. This will not prevent you from attending classes.

7. Accompaniment in the classroom once per participant throughout the program and after the module on Teaching Skills. In the module, a demonstration of micro-education will be made and familiarize with the rubric. The participants' classroom observation is done by means of peer evaluation. We work with footage for feedback. A schedule for these classes is prepared in advance.

8. The information of the classroom observation is of strictly pedagogical use and does not necessarily imply administrative decisions.

9. Teachers have at wwww.cise.espol.edu.ec support for their studies and teaching, such as audio-visual tutorials, technical notes, pedagogical booklets, idiomatic correction booklets, virtual magazine pedagogical networks, etc.

Passing the CBFD

75% Attendance / participation: This criterion was taken with the objective of assessing the attendance of teachers and their work in the classroom through their participation, recognizing it in 20% of the grade.

70% Academic Performance: It was estimated because in the national legislation is equivalent to a 7/10 that allows indicating a minimum passing grade for studies in the different levels of training.

Summative evaluation (according to modules and modality)

Attendance-participation, previous autonomous work, process autonomous work and final work (distance or face-to-face according to the module)

RESULTS OBTAINED FROM THE PERIOD June 2014-December 2016

The results allow us to anticipate that the curricular changes that take effect in this 2017 can be better assumed by the teachers trained in the Induction Program and in the Basic Cycle of Teacher Training for which it will also be necessary the accompaniment from their leaders in the academic units; those who did not take it, are also included, for which they have a sufficient technical and pedagogical provision through www.cise.espol.edu.ec which systematizes the production generated in these processes and which is useful for the necessary accompaniment.

Number of teachers who finished the CBFD

CBFD 2014	CBFD 2015	CBFD 2015-2016	CBFD 2016
84	43	51	123
301			

Number of teachers completing module I: Thinking to Communicate

No.	11 units and centers	Total
		370

General Averages in the CBFD

GENERAL AVERAGE CBFD I 2014-2015	
ATTENDANCE	PERFORMANCE
96%	82
GENERAL AVERAGE CBFD II 2015	
ATTENDANCE	PERFORMANCE
96%	89,22
GENERAL AVERAGE CBFD II 2015-2016	
ATTENDANCE	PERFORMANCE
96%	88.00
GENERAL AVERAGE CBFD III 2016-2017	
ATTENDANCE	PERFORMANCE
96%	85.45

General average obtained in module 1 THINK TO COMMUNICATE, core of curricular revision

PROGRAMS	ATTENDEES	PASSING	FAILED	INDEX OF TEACHERS NOT PASSING MODULE I	ACADEMIC PERFORMANCE AVERAGE PER PROGRAM
CBFD 2014	96	94	0	0.00%	88
CBFD 2015	59	53	6	10.17%	79.95

CBFD 2015-2016	84	77	7	8.33%	80.8
CBFD 2016-2017	158	142	16	10.13%	76.88
CALLS 2015	116	102	14	12.07%	77.07
CALLS 2016	77	61	16	20.78%	73.41
INDEX OF FAILURE AND GENERAL AVERAGE OF MODULE I				**10.25%**	**79.35**

Desertion of participating teachers

The present data are elaborated on the conceptualization of Vásquez (2003) cited by Montes et al. (2010):

1. "Premature Desertion: When a student leaves a program before beginning having been accepted.

2. Early Desertion: when dropping out of the program during the first four semesters.

3. Late Desertion: understood as abandonment from the fifth semester ".

Therefore, the information with the mentioned names and precisions from the author of this study is described:

1. Premature Desertion: This will include the fact that a participating teacher abandons the program for not knowing that they were enrolled from their academic unit. In some cases they knew but never answered CISE's request about their absence. It will also consider those registered on their own but deserted without informing CISE, in spite of having been questioned.

2. Early Desertion: If the program was abandoned during the first 5 modules due to several reasons.

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3. Late Desertion: If the program was abandoned from the 6th module without knowing the

    reasons.

Desertions chart per Cycle								
Version	CBFD I	%	CBFD II I Term	%	CBFD II II Term	%	CBFD III	%
Year	2014		2015		2015-2016		2016-2017	
Enrolled	119	100%	99	100%	94	100%	187	100%
Premature desertion	22	18.49%	30	30.30%	0	0.00%	31	16.58%
Early desertion (Other simultaneous studies, new academic load, health)	4	3.33%	11	11.11%	3	3.19%	19	10.16%
Late desertion (Other simultaneous studies, new academic load, health)	0	0.00%	2	2.02%	7	7.45%	6	3.21%
Total desertion	26	21.85%	43	43.43%	10	10.64%	56	29.95%

Participants' satisfaction level expressed in opinion polls executed during each module at the moment of a 50% of its duration.

Characteristics	CBFD I 2014-2015	CBFD II 2015	CBFD II 2015 – 2016	CBFD III 2016 – 2017
Punctuality	9.86	9.85	9.62	9.83
Knowledge on the topic of the course	9.65	9.70	9.58	9.56
Methodology used	9.44	9.54	9.28	9.03
Participation of attendees	9.73	9.46	9.35	9.37
Use of technological support	9.55	9.62	9.32	9.34
Learning achievements	9.46	9.53	9.30	9.16
Time management	9.55	9.68	9.43	9.37
Assessment of coordination	9.39	9.73	9.53	9.45
General Average	9.58	9.64	9.43	9.57

Level of participants' satisfaction expressed in the terminal summative assessment used for feedback in the redesign of the modules, Academic Coordination and administrative logistics.

At the end of the program it is applied an instrument measuring

| Characteristics	CBFD I 2014-2015	CBFDII 2015	CBFD II 2015 – 2016	CBFD III 2016 – 2017
Facilitator	9.55	9.59	9.32	9.38
Participant	9.74	9.67	9.68	9.26
Pedagogical Process	9.52	9.62	9.30	9.12
Planning and Organization	9.63	9.76	9.58	9.66
GENERAL AVERAGE	9.61	9.66	9.47	9.35

This condensed summarizes the following indicators, in a scale 1 to 10, being 10 the highest satisfaction grade.

	THE FACILITATOR		DIDACTIC PROCESS
1	Presentation and socialization of the work agenda and objectives at the beginning of the process.	14	Contribution of the module to the teaching performance.
2	Relationship contents to module's objectives.	15	Methodology used.
3	Processing in the classroom of participants' homework	16	Use of didactic resources to facilitate learning.
4	Actualization, knowledge and domain of subject explained.	17	Relationship of assessment criteria with proposed objectives.
5	Answers to questions asked by the participants.		
6	Reflexive participation of attendees.	18	Functionality of previous and process autonomous work.
7	Construction of partial or total synthesis of main issues presented.		
8	Quality of rapport with participants.	19	Practical use of technical notes.
9	Handling of available time to accomplish proposed objectives.	20	Adequacy of the module's rubrics
	THE PARTICIPANT		PLANNING AND ORGANIZATION
10	Punctuality according to schedule established for classes.	21	Previous management and organization of the course.
11	Responsibility of assigned work.	22	Attention received by CISE staff during the module.
12	Ethical behavior when doing the tasks. Handling information, tasks done and other activities.	23	Compliance of planning and programming.
13	Relationship with facilitator and peers.	24	Suitability and equipment of classroom/laboratory.

BASIC CYCLE OF TEACHING TRAINING IN THE BLENDED LEARNING FORMAT

This program is in the PILOT phase of design, execution and validation. It began in the month of October-2016 with a group of 30 teachers. Currently, the Propaedeutic Module and the Thinking to Communicate Module have been developed, as well as the Macro-Curricular Planning: pertinence.

The following process is instructional design:
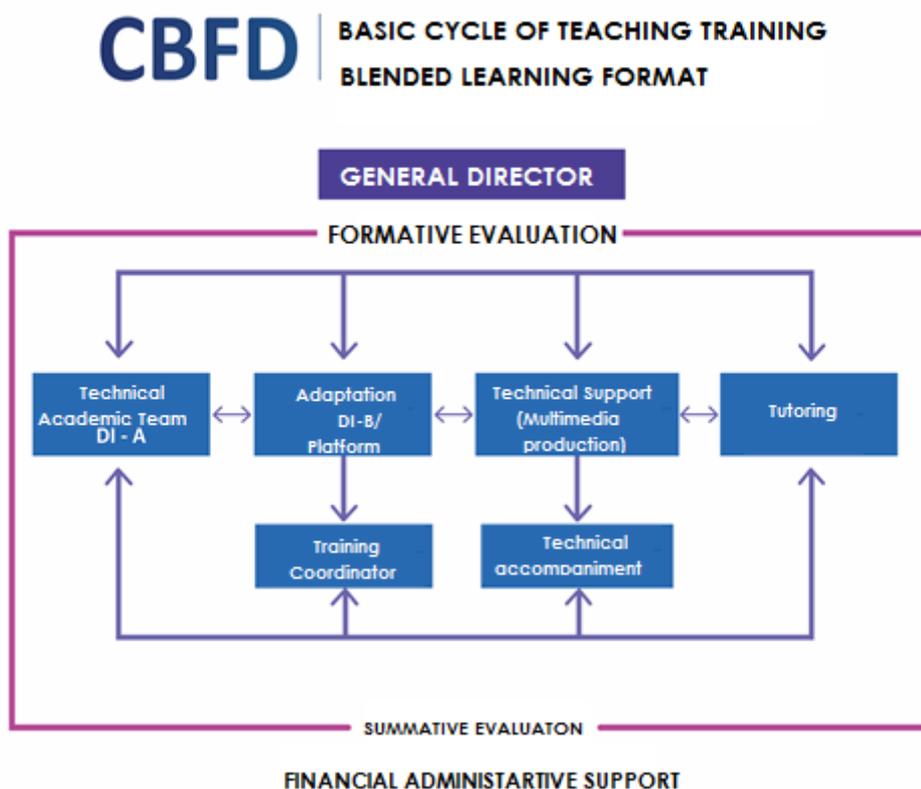
BASIC CYCLE SPECIALIZED IN TRAINING RESEARCH

This program is in the design and validation phase and it counts with the support of a team of research professors from ESPOL. It arises as a necessity to assume the training in this area

since the curricular revision has received it in the different instances of the curricula and in the Integrative Subject which is developed as one of the forms for the graduation of the students.

It will be offered in the face-to-face format with the support of SidWeb.

BASIC CYCLE SPECIALIZED IN MANAGEMENT

It is also in the design phase and IT will systematize the experience of a group of teachers who followed the international training program in Management offered by the IGLÚ system.

Both programs will be offered from the second semester of the year 2017.

It will be offered in the blended learning format.

CONCLUSIONS

1. The use of the model of training and continuous teacher training used by CISE-ESPOL is relevant to the educational purposes of the institution in the context of the current curricular revision.
2. The application of the ADDIE instructional model allowed the planning, execution, and evaluation of the training actions to be systematic and systemic, providing educational management with rationality, systematicity, planning, clarity of goals, effectiveness control and optimization, basic principles of the educational technology.
3. The formal and non-formal educational actions of the model constitute an important and varied support in the process of training for both participants and those who have not yet participated in the CBFD,
4. The coverage and quality obtained in attendance-participation indicators (96/100) and academic performance (86.16 / 100) are very satisfactory considering that this is the first time

that ESPOL has taken on board teacher training with the characteristics described in this study.

5. The instructional results of module 1 THINK TO COMMUNICATE, basis for the curriculum revision of ESPOL allows to deduce that teachers need to intensify the acquisition and improvement of mental operations and provide the modeling necessary for the intellectual work of students.

6. The transfer and accompaniment to the classroom-learning environments is not relevant so far because there are insufficient indicators that the Academic Units, responsible for these decisions and actions, are performing.

SUGGESTIONS

1. The training actions from CISE require complementary instances in the academic units. This implies that all directors especially deans, sub-deans and degree coordinators participate in the Program to reflect and design actions in the accompaniment that allows teachers to reinforce and improve the knowledge, skills, and attitudes developed especially in the CBDD face-to-face and blended. These actions need to be contrasted with the teaching performance, depending on the various forms that are applied. For the latter, it is suggested to implement the classroom co-evaluation that gave very good acceptance results in the last CBFD where it was first implemented.

2. It is necessary to consider as mandatory for all teachers the study of Module 1 THINK TO COMMUNICATE, basis of the curricular revision and that will allow teachers and students to promote the quality of intellectual work by enhancing oral and written speech beyond the academic and thus empower the citizen who is formed in our classrooms.

3. It is necessary to work the teacher training especially in the new teachers, the majority of them young people who return from their postgraduate studies in order to incorporate them to the new paradigms which emphasizes the curricular revision.

4. Teaching and research assistants can become a seedbed of new teachers so we have to continue and optimize their training oriented towards the discovery of the vocation and skills required.

5. It is necessary to continue diversifying the training offer so that all teachers study in the modality of their choice: face-to-face, blended learning or totally online.

6. It is convenient to create a stimulus system to recognize the efforts of teachers who engage with dedication and enthusiasm in their teacher training bringing significant changes to the classroom.

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