E-LEARNING QUALITY INDICATORS: AN EVALUATION OF THE ACTORS INVOLVED IN THE AT DISTANCE GRADUATION COURSES

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Teacher Specialist Ana Cristina das Neves (UNISA) – acneves@unisa.br

Teacher Specialist Cibele Reis Fernandes (UNISA) – crfernandes@unisa.br

Teacher Master Jacqueline Oliveira Lameza – (UNISA) jlameza@unisa.br

ABSTRACT

Considering the significance and development of E-learning in Brazil, the present work addresses this relevant question for the growing of this feature with the necessary quality for an efficient application. So, the purpose of this article is to describe the E-learning Quality Indicators, developed by the *Assessoria de Controle de Qualidade Estratégico da Educação a Distância da UNISA – Universidade de Santo Amaro* (UNISA – Santo Amaro University E-learning Strategic Quality Control Adviser), as evaluation instrument of the actors involved in the graduation courses Distant mode.

Key words: E-learning, Quality Indicators, Distant Tutors, Teacher Responsible

1. Initial Considerations

The objective of this article is to discuss the application of E-learning Quality Indicators used in the institution, as strategy to guarantee the effectiveness of the work accomplished by the main actors involved in the graduation courses, Distant modality through fulfillment of the Teaching Methodologies and the Instructional Design adopted. The E-learning Quality Indicators were developed by the E-learning Strategic Quality Control Adviser. To implement the indicators the institution counted with the Tactic Quality Control Team.

This article and the E-learning Quality Indicators Project application, project without punitive character, are justified by the need of a quality control of the E-learning three protagonists: the Teacher Responsible for the Discipline, the Distant Tutor and the Printed Didactic Material, represented by the Teacher Author, Teacher Reviser and the Teacher Adapter, based on the Education Ministry Superior Education E-learning Quality Referential (2007) [1].

2. E-learning Methodology

The Disciplines planning is done using the Activities Map, which is integrated to the Instructional Design Matrix previously developed by the Instructional Designer and forwarded to the teachers for filling out the Discipline specific steps, corroborating Filatro (2008) [2] when affirms that, the activities, contents, tools, evaluations, student-tutor, tutor-student and student-student interaction levels are defined in the matrix, the Virtual Learning Environment (VLE) and the activities duration, in order to reach the objectives.

The methodology anticipates that the Discipline entire content be contemplated in the Printed Didactical Material, the syllabus, also available in the on line version, including proposed activities in each chapter and the respective commented solutions at the end of the syllabus. In addition there are the Satellite Classes, which are transmitted live to all the Presence Support Poles and followed by the Present Tutors. The Teacher Responsible for the Discipline answers the student's questionnaires on line, through the Satellite Class forum. For each Satellite Class there is a corresponding Activity Class, in which, the students deliver the proposed activity to the Present Tutor, who does the commented correction. This is possible because the Present Tutor has the

Activities Notebook, developed by the Teacher Responsible for the Discipline, which includes the entire step by step realization in dialogical language.

In the Virtual Learning Environment (VLE) there is the WEB Material content in audio, through the Breeze Software where the teachers are present through photos and voice emphasizing the student autonomy

Evaluation activities are made available, such as the Discussion Forum, which is one of the richest asynchronous interaction tools. Exercise lists, researches, summaries and so on are also proposed. For the dissertation activity there is an Intermediate Feedback, in which the Distant Tutors conduct a first evaluation, orientating the student, if necessary, to do the adjustments necessary and deliver the new version, given rise to the interaction, while there is a new exchange between the student and the tutor. Thus, confirming, what is said by Moran (2002) [3] the teacher acts as a supervisor, an animator, an instigator for the students in the instigating adventure of knowledge, as well Lima, Silva e Paiva (2010) [4] who say that the student needs to be stimulated to develop his/hers autonomy to warrant the conduction and rendering effective his/her apprenticeship. The evaluation process, still, contemplates an Electronic Activity, that has ten questions of multiple choices.

3. Quality Indicators

Capacitating was done for training the team on the new model, changing the Teaching and Design Instructional Methodology. Three activities were implemented: a forum, a dissertation activity and an electronic activity, giving priority to the interactivity. The theme interaction was exhaustively discussed, as well as the affectivity importance in the teacher-student and tutor-student, corroborating Bentes in Litto and Formiga [5] the tutor is the motivating and orientating agent that will follow the student during the learning process, being responsible for creating an environment that favors the interpersonal relationship. It also is in agreement with Martins and Batista [6] that affirm that emotional affective expression, in a at distance course, mediated by a virtual environment, despite other resources, passes specially through the writing.

The preoccupation was centered in how to guarantee that the quality, approached in all capacities, in fact, was put in practice. How to measure the tools the tools, resources and team involved effectiveness? From this were

created the E-learning Quality Indicators, based upon studies realized from the Education Ministry E-learning Superior Education Quality Referential (2007) [11] which guides the processes continuous quality improvement.

In total 32 E-learning Indicators were developed, being:

Indicators	Evaluated	Weight
16	Teacher Responsible for the Discipline	4
8	Distant Tutor	3
8	Printed Didactic Material	3
Total	Course Coordination	10

Table 1: Quantity and Weight of E-learning Quality Indicators

The E-learning Quality Indicators follow the standard used by present and E-learning Graduation Courses Evaluation (2012). The items evaluated follow the 1 to 5: scale:

Grade	Interpretation
1	Unsatisfactory
2	Insufficient
3	Sufficient
4	Very Good
5	Excellent

Table 2: E-Learning Quality Indicators Grades:

3.1 Teacher Responsible for the Discipline

The indicators related to the Teacher Responsible for the Discipline take into consideration the importance of planning, understanding that a Discipline well planned facilitates the conduction through Distant Tutors and Present Tutors.

EVALUATION CRITERIA
1.   (Slide Satellite Class) When the Teacher Responsible for the Discipline attends, in a **sufficient** manner the criteria established for slides elaboration, such as source size, animations slide by slide, correct usage of Portuguese Language used etc.
2.   (Satellite Class) When the Teacher Responsible for the Discipline attends, in a **sufficient** manner the didactical-pedagogical demands in relation to the contents dominion and E-learning teaching methodology as well as posture, speech and dressing.
3. (Forum, Satellite Class) When a Teacher Responsible for the Discipline attends, in a **sufficient** manner the questioning of the Satellite Class Forum which includes live answers

and their effective recording in the LVE.

4. (Material WEB) When the Teacher Responsible for the Discipline attends, in a **sufficient** manner, the criteria established for the slides preparation and contents recording such as personalized animations in synchronism with the voice, accessibility by means of text explanation, voice intonation and quality of explanation.

5. (Back up Class) When the Teacher Responsible for the Discipline attends in a **sufficient** manner the criteria established for the Backup Class recording, such as the lack of temporality and pertinence of the theme.

6. (Compliance of time limits) When the Teacher Responsible for the Discipline complies, in a **sufficient** manner, with the time limits determined by the Academic Calendar and Discipline Agent.

7. (Follow up of Distant Tutor) When the Teacher Responsible for the Discipline attends in a **sufficient** manner the Distant Tutor follow up criteria. In a systemic and global analysis, it corresponds to the elucidation by Mail of doubts about the activities content and the content.

8. (Follow up of Present Tutor) When the Teacher Responsible for the Discipline attends in a **sufficient** manner, the Present Tutor follow up criteria. In a systemic and global analysis, it corresponds to the elucidation by Mail, of doubts about the Activities Notebook content.

9. (Affectivity) When the Teacher Responsible for the Discipline uses the affectivity in his/hers postings. In a **sufficient** manner, to allow the student to fill sheltered and belonging to the group.

10 (Timeliness) When the Teacher Responsible for the Discipline answer in a **sufficient** manner the student's, Distant Tutors and Present Tutors questioning, The answers are sent by Mail.

10. (Activities Map) When the Teacher Responsible for the Discipline attends, in a **sufficient** manner the criteria of the Activities Map. In a systemic and global analysis, it corresponds to correct fulfilling, contents adequate distribution, utilization of complementary material such as articles and/or videos, to the proposed activities detailing, as well as clarity in the criteria adopted for the proposed activities.

12. (Evaluation Activities) When the Teacher Responsible for the Discipline elaborates, in a **sufficient** manner the evaluation activities. In a systemic and global analysis, it corresponds to the activity since conception with focus on the student learning, degree of difficulty compatible with the time frame for its realization and punctuation, description of the activity, evaluation criteria. It includes also the criteria for correction detailed for the E-learning Tutor.

13. (Activities Notebook) When the Teacher Responsible for the Discipline elaborates, in a **sufficient** manner the Activities Notebook. In a systemic and global analysis it corresponds to the activity since conception with focus on the student learning, degree of difficulty compatible with the time frame for its realization, to be connected to the Satellite Class

of the day or the previous day Satellite Class, includes mainly the Present Tutor Activities Notebook step by step, thus guaranteeing that it can keep up with the students.
14. (Test Elaboration) When the Teacher Responsible for the Discipline elaborates in a **sufficient** manner the Presence Tests questions. In a systemic, global analysis it corresponds to the questions since elaboration in terms of content, degree of difficulty measured in accordance with the time frame the student has to accomplish the test, as well as the correct use of the Portuguese Language. It comprises the questions review and the test produced so guaranteeing that no question will have to be cancelled.
15. (Virtual Class Room Organization) When the Teacher Responsible for the Discipline attends, in a **sufficient** manner the virtual class room organization criteria. In a systemic and global analysis, it corresponds to the opening of the Support Material directories, making available the respective orientation texts, as well as welcome messages, Profile filling, availability of Discipline Agenda, etc.
16. (Review of Printed Didactic Material) When the Teacher Responsible for the Discipline accomplishes, in a **sufficient** manner, the Printed Didactic Material review. In a systemic and global analysis, it corresponds from proposed Discipline verification, dialogic language, summary, proposed activities, commented answers, peripheral elements, depth, density, as well how the whole program is contemplated.

Table 4: Teacher Responsible for the Discipline E-learning Quality Indicators

The Teacher Responsible for the Discipline is directed for specific capacitation such as: How to Elaborate the Satellite Class: Techniques and Technologies, How to Elaborate the WEB Material: Techniques and Technologies, among others.

3.2 Distant Tutors

In the E-learning Quality Indicators for Distant Tutors items such as interactivity, affectivity, timeliness, and feedback, as well as the fulfillment of time limits and the tutor training to conduct safely the Discipline were considered.

EVALUATION CRITERIA
1. (Training) When the Distant Tutor training fulfills, in a **sufficient** manner the didactic-pedagogical demands necessary for the Discipline in which is allocated. In a systemic global analysis it considers the graduation and post-graduation.
2. (Interactivity) When his interactivity actions fulfill in a **sufficient** manner the didactical-pedagogical demands for the collaborative knowledge construction. When the E-

learning Tutor number of postings correspond to 20% of the total of participations.
3. (Affectivity). When the E-learning Tutor utilizes affectivity in his/hers postings, in a **sufficient** manner, so that the student may feel welcomed and belonging to the group.
4. (Fulfillment of time limits) When the E-learning Tutor fulfills, in a **sufficient** manner, the time limits determined by the Academic Calendar and Discipline Agenda.
5. (Timeliness) When the E-learning Tutor answers, in a **sufficient** manner, the student's questionings. The answers are sent, in case of mailing, or commented in case of discussion forums, in a period of 48 hours.
6. (Feedback) When the E-learning Tutor supplies, in a **sufficient** manner feedback to the students. In a systemic global analysis in the closing of forums and other manual correction activities, such as exercises lists, summaries, etc.
7. (Tests Corrections) When the E-learning Tutor does the tests corrections, in a **sufficient** manner. The student's errors need to be clear, as well as the way to rightness.
8. (Model Compliance) When the E-learning Tutor accomplishes, in a **sufficient** manner the e-learning proposal. In a systemic global analysis, it corresponds since a welcome message on the mural, the Profile fulfillment, the Forums opening.

Table 5: Distant Tutor E-learning Quality Indicators

In these indicators, if the grade attributed in lower than 3. The Distant Tutor is also directed to specific trainings such as: The Feedback in E-learning, The Interpersonal Relations and Affectivity in E-learning, among others.

3.3 Printed Didactic Material

Besides the objective and content, mandatory in any type of didactic material, other elements are analyzed in the Printed Didactic Material, such as the density, the interpretability, the textual character and the peripheral elements insertion.

1. (Content) When the Printed Didactic Material complies, in a **sufficient** manner, with the discipline content. In a systemic global analysis it is considered as minimal content the one presented in the discipline summary.
2. (Objective) When the Printed Didactic Material complies in a **sufficient** manner, with the objective presentation, In a systemic global analysis it is considered the proposal clarity.
3. (Density) When the Printed Didactic Material complies. in a **sufficient** manner, with the necessary density. In a systemic global analysis it is considered the quantity of pages for the content development, duration and subject complexity.
4. (Text Characteristic and Interpretation Characteristic) When the Printed Didactic Material complies in a **sufficient** manner, with the text characteristic and interpretation characteristic necessary. In a systemic global analysis it is considered the depth and how the

discipline is developed. If it is sufficient for the student´s understanding, considering each course specificities.
5. (Dialog Characteristic) When the Printed Didactic Material uses in a **sufficient** manner, the dialogical language. In a systemic global analysis it is considered the dialogical language at the beginning of the text, during the content development, in the summaries presented and also, in the activities proposed and their respective commented answers.
6. (Peripheral Elements) When the Printed Didactic Material uses, in a **sufficient** manner, the peripheral elements. In a systemic global analysis it is considered as peripheral elements the attention boxes, curiosity, multimedia, dictionary and learn more The best form to use them is the common sense, not polluting the graphic presentation. They should complement the content, never present what should have been defined in the content.
7. (Proposed Activities) When the Printed Didactic Material presents, in a **sufficient** manner the proposed activities. In a systemic global analysis it is considered the proposed activities quality, in accordance with the developed content in each chapter. The activities should function as self-evaluations, so the student will be able to decide if he/she is in conditions to proceed to the next chapter.
8. (Commented Answers) When the Printed Didactic Material presents, in a **sufficient** manner, the commented answers for the proposed activities. In a systemic global analysis the commented answers function as feedback elements which indicate the student´s correct answers and possible mistakes. Generally, after passing the first activity, he/she is in condition to perform the next considering that de difficulty level could be elevated gradually.

Table 6: Printed Didactic Material E-learning Quality Indicators

In these indicators, if the grade attributed is lower than 3, the teacher responsible for the revision and adaptation is guided to specific trainings: Step by Step Didactic Material Elaboration and Information Architecture: Peripheral Elements and Dialog Characteristic.

4. Quality Control Team

Three are the control moments, the previous, the process and the posterior, to focus in the possibilities of control actions. The previous control is done before the disciplines are started; there is one planning which is followed by a Tactical Quality Control Team. Time when the Activities Notebooks, for example, are analyzed and when perceived as not in accordance with the standards, are sent for correction. The same occurs on how the Didactic Material is, printed or online. The process control, as asserts Maximiano (2008) [7], is the intermediate control, or, during the realization of the activities aiming

the defects or problems prevention. There is an activities daily control, such as discussions forums for example. It is analyzed if the Teachers Responsible for the Disciplines and/or Distant Tutors are mediating adequately, if they are being interactive, affective and dominating the content, among other items. For this control Daily Check Lists are used. Regarding the **posterior control**, the 32 E-learning Quality Indicators correspond to the posterior control. The indicators, the way they were conceived, will be applied for two consecutive quarters, starting April 2013. Only after the August 2013 module end they will be reviewed. Difficulties in checking certain data, such as the limitation given to the high subjectivity could be revaluated.

According to Maximiano (2008) [6] in the process control final step, the information about the real performance is compared with the standard objectives. Based on that comparison, one can start an action to correct or reinforce the activity or performance. For a real performance bellow expectation it is worth a corrective action to reach next time the expected result, such as the specific capacities already mentioned. By the other hand, there is also a chance to review if the objective and the result expected were not overestimated. If the majority is above the average, it is also worth to review expected result

5. Final Considerations

It was certified that the content – E-learning Quality Indicators – is dense and very important for the debate regarding the growing type that is desired for E-learning. In this work it was pretended to offer subsidies to analyze the procedures necessary for the development of the teaching process with the quality that the E-learning needs to continue expanding nationwide, also, having in view to supply content that makes possible the discussion about the Quality Indicators, regarding the effectiveness with the education professionals.

It is highly important to be conscious in maintain researches and experience reports regarding the implementation of the E-Learning Quality Indicators, but is unquestionable that the proposal has already exhibited a successful implementation and transformation, once the acceptance was satisfactory and it was perceived a great interest of the Teachers Responsible for the Disciplines and Distant Tutors in the professionalization of their roles through the search of internal courses of specific formation and capacitation.

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