

SELF-EVALUATION IN DISTANCE EDUCATION IMPACT IN THE FORMATION OF STUDENTS AND TUTORS IN POST-GRADUATION COURSES EXPERIENCE REPORT

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ABSTRACT

This article reports on the experience of using self-evaluation in the learning process in three “lato sensu” distance post-graduation courses on the Internet. The tool Moodle Virtual Environment Questionnaire was used as technological support. The observations made open discussions for the following subjects: formative evaluation, communication tutor x student, meaningful learning, autonomy and formation of tutors. The results showed the development of the students' competences and the changes in the way of studying and of exercising tutorship in Distance Education.

Keywords: self-evaluation; formative evaluation; evaluation in Distance Education; formation of tutors.

1. Introduction – Distance education has been requiring several studies due to the proliferation of courses in the modality. According to data of the Higher Education Census of 2006 [1], in the period from 2003 to 2006, there was an increase of 571% in the number of courses and of 315% in the number of registrations. Those percentages cause worries and reflections on the part of the educators and of those involved. The challenges are set, not only for teachers or professors, but for students as well. Among those challenges, one can cite the need to overcome the passivity of students, a result of years of transmissive pedagogy; the need of learning how to deal with new communicative demands caused by the evolution of technology and the convergence of media; of promoting the development of communities; of looking for the collective construction of knowledge; of giving new meaning to educational practices and processes; of breaking several paradigms; besides seeking new means of evaluation.

It is in this context of worries that this article seeks a new way to look into the question of evaluation, more specifically, into self-evaluation as one of the possibilities to promote learning situations that mobilize the students to generate meanings and, consequently, to improve autonomy.

This work relates the experience of using self-evaluation in three classes of the specialization courses in Educational Administration, Distance education, and Environmental Education that started in 2006 in Senac Ceará. These 360 hours courses were divided in long distance modules with three class meetings, and the Moodle Virtual Environment (version 1.53) was used for the development of the program. The motivation for this research is due to the following factors: the need for a deeper look into the evaluation topic in Distance Education; the possibility of experimentation with new pedagogic practices that use the tools of the virtual environment with persons of different profiles; the possibility of observing attitudes in virtual courses; the opportunity of verifying educational communication processes through the dialogue tutor x student; the perspective of expanding the studies on new methodologies that facilitate quality learning in the model of competences, and that contribute to the formation of tutors and new knowledge in Distance Education.

2. Theoretical principles and questions – Mediation, evaluation, self-evaluation, and questions about autonomy and communication in the process of Distance Education constitute the conceptual bases that are the guidelines of this work, and they supply – from practice – the questioning for the discussions.

According to Gutierrez and Prieto [2], pedagogic mediation “is the treatment of contents and the ways of expression of different themes, in order to make the educational act possible within the framework of an education conceived as participation, creativity, expressivity and relationship.” Prado and Martins [3] have added – based on the former quote – that mediation is a movement for the re-creation of strategies, so that the student may make sense of what he/she learns. Knowing that in the courses (object of this work) strategies of the cognitive model were used, in which way can the results of the tasks and discussions be verified to check if the students established relationships and developed a sense of what they studied?

Belloni [4] also gives several meanings for mediation. One of them states that, from the point of view of the conception of the course units, “to mediatize” [term used by the author] means “to conceive teaching methodologies and strategies for the use of teaching/learning materials that maximize the possibilities of autonomous learning.” She adds that it is valid to select the most appropriate means, to create and implement strategies that facilitate learning. So, what to do in order to maximize the possibilities of autonomy in a group of adult students, full-time workers, the majority of which is taking part for the first time in a Distance Education course? Is it necessary to maximize or to sensitize in order to make (them) “learn how to learn” in that new context?

The project of the courses of this research follows the orientation for a formative evaluation, according to Perrenoud [5], “it is formative all evaluation that helps the student to learn how to develop, or better, that participates in the process of learning regulation and in the development of an educational project.” So, what to do to make students get involved in “regulating the learning process”, if the mental model to which they are used is that of “grade expectation”?

Palloff and Pratt [6] suggest that formative evaluation “is a continuous process that may happen at any given moment in the course, bringing to the fore gaps in the course subject or in the ability that the students have to understand it.” They add that it gives the teachers an opportunity to change the direction of the course. So, how can the tutor go beyond the contents in order to notice that there is need for a change in the context of Distance Education?

It is interesting to note that Souza *et al* [7] mention evaluation instruments applied to metacognition, such as self-reports and protocols (tests that insert within the curricular content questions that request the students to describe what they have just done, the difficulties experienced, their doubts, and the self-correction of mistakes). In what way can the insertion of protocols in a self-evaluation make the students modify structures and forms of performance for a more significant learning in Distance Education?

Kenski [8] affirms that “the interaction processes and communication in teaching have always depended much more on the people involved in the process than on the technologies used, be they books, a piece of chalk, or the computer and the nets.” According to the author, “it is the way that technology is used for mediation between teachers, students and the information” that makes a difference. Therefore the question arises: how to use the tools beyond the contents on behalf of the communication/negotiation process (Hadji [9]) of the apprentice by means of the the dialogue tutor x student x results? How to use the answers of the self-evaluation, mainly in metacognitive questions, for a clearer communication that may bring not only the student, but also the tutor to evaluate the ethical posture and the adopted procedures?

For Hadji [9], the act of evaluating always has a communicative dimension. When a teacher/evaluator comments on both the expectations that he/she has and the evaluation process, he/she is sending a message to the students. The author quotes Barlow (1992), who makes observations concerning a formative communication based on getting “the students' reactions, their questions about the sense and reach of what has been said by the teacher/evaluator, and their requests for explanation about his/her appreciations and notes.”

Another thought fits here: to what extent can that change of messages generate problems of attitude? Problems such as: the power relationship as seen from either side; the authorship authenticity of any work; the non-recognition of mistakes as opportunities for growth; being conscious about what should be done and how to accomplish it; the position of the student as subject in the cases proposed and not just as a mere expectator. Will questions of such level be observable in the self-evaluation, and can they contribute in an effective way to the development of the student's attitudinal competences? And in the case of the tutor, can such questioning make him/her think about the relationship of power, or about forms of negotiation? Can this favor a more open dialogue?

Finally, Freire [10] states that "the subject that opens up to the world and others inaugurates with this gesture a dialogue relationship that appears as inquietude and curiosity, as inconclusiveness and permanent movement in History." It is in the framework of this search – inquietude and curiosity in face of those questions – that the challenges of attributing meaning to what is learned, of growing in terms of autonomy in the learning process, and of breaking paradigms in Distance Education lead this work to the faith that self-evaluation is one of the roads that will enable the student to be conscious of what needs to be improved and modified in his/her formation. This requires a process of efficient communication. In that sense, the next step in the search of answers was to seek for similar self-evaluation experiences that will be reported in the next topic.

3. Some studies about Self-evaluation in Distance Education – In the bibliographical search for experiences related to self-evaluation in Distance Education some articles were found that will be presented as sources that may help to answer part of the issues being questioned.

In the Medical Distance Education (MDE), the Federal University of São Paulo (Unifesp) has analyzed, in a critical way, programs of continued medical education being held in several countries. According to Christante *et al* [11], the offer of distance courses for medical professionals in Brazil is growing, and benefits those that cannot participate in congresses or scientific events and that are distant of the main centers of the country. The educational programs based on the self-learning have been considered of good quality, but there is an alert as regards some important aspects of the evaluation. Among them, it was noticed that there is a difference between that which a doctor considers as "need to learn" and reality. This difficulty of the doctors to check the knowledge is due to the lonesome nature of the work done, a fact that limits the discussions with their peers, as well as the fast speed of scientific development that renders knowledge obsolete. There is also a tendency to prefer subjects related to their specific areas, which results in less amplification. Therefore, it is recommended that self-evaluation should be used in combination with evaluation systems by pairs, which should be made of doctors, consultants, and even patients.

The work of Prata [12] presents a framework of Distance Education evaluation using "intelligent agents". The author mentions – in the design of the environment - a module of the student's self-evaluation that contains information about his/her situation in relationship to the group, such as: participation, keenness of perception, difficulties and results of the evaluations. Then it presents questions about the course, the teacher/tutor, and the colleagues for the student to reflect about and to answer. There are not details on the results, but it is worth to note that at various points the article approaches ethical subjects such as

plagiarism and falsification (is it the student that is answering?). It highlights the importance of communication and of the need specific pedagogy and didactics for Distance Education.

Reis [13] presents a general vision of the new teaching practices and of learning used in courses on-line. In the case in point, he/she reported on the application of formative evaluation, somative and self-evaluation in a course at an institution of higher education in São Paulo, in the discipline "Scientific Methodology". According to the author, the application of this last one allowed for the student to "in a given learning situation, develop strategies of analysis and interpretation of his/her work and autonomy, thus favoring the taking of conscience of the learning process." He/she adds that self-evaluation favors "the construction of personal strategies in the student's professional development, the establishment of goals and the exercise of the autonomy in relation to the own formation." In spite of not telling details of the aspects approached in the self-evaluation, Reis's work is the closest to the object of study of the present work.

In Primo's study [14], self-evaluation was used so that the student analyzed his/her own participation in relationship to the group, using as reference the information about access to the tools in the period of one week, in the form of bar graphs. By means of the "Logbook" tool, of the virtual environment Teleduc, the student made analyses and proposed improvements. Positive results were noted, mainly in the taking of conscience of the need to participate. It was also used as meta-evaluation, so that the student could check his/her development process.

In view of these reports, the construction of a model of competences is considered an important and innovative characteristic of the experience object of this study, because in this model the students feel the responsibility of developing abilities, attitudes and knowledge; and the use of the available technology in the virtual environment may as well involve students and and tutor in the formative process. That's the reason why it is believed that self-evaluation is an alternative towards autonomy.

4. Methodology – This research is of the exploratory-descriptive type and in it we have used, as method, an inductive approach. The scientific form was based on observation and experimentation. Quantitative and qualitative data were collected from the answers of the students to the questionnaires, the postings in the meta-evaluation forum, and the opinions of the tutors.

The following steps were taken in the investigation: 1. Application of the self-evaluation questionnaire at the end of each module of the courses; 2. Tabulation of the results; 3. Quantitative and qualitative analysis of the results (individual and of the group); 4. Verification of the results of the mandatory partial evaluation, which is made up of objective questions; 5. Comparison and analysis of the results; 6. Bibliographical research; 7. Search for similar experiences in the scientific community; 8. Elaboration of the conclusions.

In the following topics, there follows the description of the experiment, the profile of the subjects under study, the development and follow-up process, and the technology used.

4.1. Description of the Experiment – The experiment consisted of the use of self-evaluation as instrument in the learning process in Distance Education.

4.2. Profile of the Subjects – The subjects of this study were 75 students of the post-graduation courses: 30 of Educational Administration, 25 of Distance education, and 20 of Environmental Education. Within the larger group, it was initially established that 52% of the students of Educational Administration, 38% of Distance education, and 67% of Environmental Education were taking up a long distance course for the first time.

4.3. The Process of Development and Follow-up – The process was developed in three stages: the first stage began with the elaboration of a Plan of Educational Action (PEA), i. e., the planning of the module of the course. It is the basic document elaborated by the tutorship, and it consists of the competences that should be developed, the technological bases, the resources used, the methodological procedures, and the evaluation indicators regarding the Distance Education modality. This document was the source for the self-evaluation questions and those of the mandatory partial evaluation as well.

In the second stage, starting from the PEA, the tutorship followed up the students in their development, elaborated the self-evaluation questions, configured the Questionnaire tool in the Moodle environment, and the made it available to the students that finished the module. After the learners answered to the self-evaluation, the tutorship analyzed the answers and gave its opinion, highlighting the positive points, giving guidance to “partial” answers, and asked for clarification of the remaining doubtful points, in order to elucidate them try for a deeper examination of these points.

The questions of the self-evaluation addressed the knowledge and abilities related to the activities accomplished during the course module, as seen in the example (figure 1):

1 (337)

Na UT1 - Ponto de Equilíbrio, T1 - Cálculo do Ponto de Equilíbrio dos conteúdos estudados e realização das atividades (AT1 e 2) estou apto a:

- Definir termos como maximizar resultados e ponto de equilíbrio;
- Identificar variáveis que influenciam no Ponto de Equilíbrio (PE);
- Entender e utilizar a planilha para calcular: preço de venda e valor da mensalidade;
- Entender e identificar itens essenciais como custos, despesas, impostos e lucro.

Resposta: a. Em parte (menos de 60%)
 b. Boa parte (entre 61 e 80%)
 c. Por completo (com consulta para referências)
 d. Preciso rever alguns pontos para tirar dúvidas

Figure 1. Question that requires reflections about knowledge and abilities related to the accomplished activities.

To reflect about attitudes, the questions addressed points such as: time dedicated to the study, quality of participation, posture in face of difficulties, use of the didactic material, and study procedures, among others, as it illustrates by figure 2. There were also topics about the methodology, the tutorship, and the coordination and support, so that the students could also evaluate the course.

13 (482) O meu envolvimento na realização das atividades nesse módulo foi:

- Mínima:
 - li o enunciado
 - respondi de acordo com o solicitado
- Básico:
 - li o enunciado
 - consultei o e-book
 - respondi de acordo com o solicitado
- Dedicado:
 - li o enunciado
 - consultei o e-book
 - verifiquei outras fontes
 - relacionei com a minha prática
 - respondi de acordo com o solicitado
 - verifiquei se estava de acordo com os critérios de avaliação
 - encaminhei a versão final

Resposta: a. Mínimo
 b. Básico
 c. Dedicado

14 (483) O tempo que dediquei ao curso durante este período (incluindo leituras e uso do ambiente) foi:

Resposta: a. Inferior a 3 horas por semana
 b. De 3 a 5 horas por semana
 c. Igual ou superior a 6 horas por semana

15 (484) Sobre a minha participação no grupo (fóruns e wiki) posso afirmar que foi:

Resposta: a. Tímida (não contribuí ou fiz só algumas)
 b. Boa (particpei regularmente e com frequência)
 c. Excelente (particpei regularmente e com frequência)

Figure 2. Self-evaluation questions for the students' reflection on their attitudes and values regarding the study.

In the third stage, the tutorship had the opportunity to examine the course in a global way, in order to analyze the modifications to be made in the following module. Based on the results pertaining knowledge and abilities, it proceeded with the elaboration of the questions of the mandatory partial evaluation (figure 3). The remaining information (methodology, tutorship, coordination and support) was used by the coordination to analyze and discuss improvements with the team. In that way, it was possible to verify pedagogic and structural aspects of each module in the course and take appropriate measures.

Q#	Questions text	Answer's text	partial credit	R.	R. %	% Correct	Facility	SD	Dis Index
337	M4-P1 : Na UT1 - Ponto de Equilíbrio, T1 - Cálculo do Ponto de Equilíbrio dos conteúdos estudados e realização das atividades (AT1 e 2) estou apto a: • Definir termos como maximizar resultados e ponto de equilíbrio; • Identificar variáveis que influenciam no Ponto de Equilíbrio (PE). • Entender e utilizar a planilha para calcular preço de venda e valor da mensalidade. • Entender e identificar itens essenciais como custos, despesas, impostos e lucro.	Em parte (menos de 60%)	(0.25)	1/11	(9%)	20%	0.101	0.2	
		Bom parte (entre 61 e 80%)	(0.25)	3/11	(27%)				
		Por completo (com consulta para referências)	(0.25)	5/11	(45%)				
		Preciso rever alguns pontos para tirar dúvidas	(0.25)	0/11	(0%)				

Figures 3. Example of results from the environment.

4.4. Supporting Technology – In order to proceed with the process, the tutorship used the Questionnaire tools of the Moodle virtual learning environment, with modifications for the elaboration of the self-evaluation; and the Message tool, for contacts with the students. In the beginning, the Logbook tool was used, but that resource didn't show efficiency for not keeping the records.

5. Results and Discussion – The self-evaluations were applied in the groups of Educational Administration, Environmental Education, and of Distance education. The tutorship asked the students to answer the self-evaluations, but they were also allowed not to answer them, thus establishing a democratic formula.

The data revealed changes from one evaluation to the next. In the question “time dedicated to study”, the group of Educational Administration showed that 13% of the students had dedicated less than 3 hours a week in the first questionnaire; in the second, that same group migrated for a time of study between 3 and 6 weekly hours, a fact that shows a positive change in the understanding of the need of more dedication for the long distance. Taking into consideration that the initial diagnosis showed that 52% of the students were taking up a long distance course for the first time, it can be said that a degree of attitudinal competence was developed.

As regards the autonomy in the search for solutions for the difficulties in understanding the contents, the groups of Environmental Education and Educational Administration showed a percentage above 45% in the two self-evaluations, thus demonstrating the dependence on the orientation of the tutorship to solve problems. In the course of Distance education, that value was of 11%, showing a higher autonomy degree, since 32% stated that they had not faced any difficulties, and 36% affirmed they had solved the problems alone. In that case, the tutors of the courses of Educational Administration and Environmental Education re-evaluated the action plans in order to make the necessary adjustments in the mediation strategies, so that the students could develop the autonomy in the following modules and, consequently, those values could be reduced. This result is partly due to the lack of experience of those groups in participating in long distance courses, so they needed different strategies in order to develop the competences. The tutor became aware of that only after getting the students' feedback.

The questions pertaining to knowledge and abilities were discussed individually with the students by the tutorship. A positive indicator is the result of the mandatory partial evaluations. It was observed that the students increased the number of accesses to the self-evaluations as the date for the mandatory partial evaluation drew near, and that means that they used them as a study guide. It was also verified that the students that answered more than three evaluations got a result of over 70% of hits in the mandatory partial evaluation, as per the data in chart 1:

Course	Percentage of students	Number of Self-evaluations answered	Percentage of successes in the Partial Evaluation
Distance education	45	3	70
Educational Administration	52	3	70
Environmental Education	64	4	60

Chart 1. Relationship between the number of answered self-evaluations and the results of the Partial Evaluation. Source: the author.

The general results common to the three courses, as regards the participation in the group activities, the interaction with the media available (video and audio), as well as the application of the knowledge in practical life, demonstrated that the answers to the activities improved in consistency, the coordination of several materials and the deepening. This shows that the students have perceived how to better use the resources for the development of distance studies.

Another positive aspect was extracted from the qualitative references in the meta-evaluation done after the application of the mandatory partial evaluation. The students were asked about their stance regarding the usefulness – or not – of the self-evaluation in the results; some answers follow: “The self-evaluations gave me guidance about the topics that I should review and, at the same time, they allowed for a global vision of the course and the interconnection of the modules.” Another report: “... they made me to reflect about my way of conducting my studies during the course, enabling me to make corrections and modifications in what I found to be incorrect.”

In four cases, the students affirmed that the self-evaluation didn't influence in their results. It was noted that these students had used the questionnaires as testing tools, and not as indicators for reflection and change. However, the tutorship has established that those students that did the self-evaluations presented better results and more critical and consistent positionings.

6. Conclusion – The subject of evaluation in Distance Education is a complex and involved one, and it requires deeper studies in order to create solutions that minimize its complexity and the subjectivity, as well as serving as a “compass” to the acquisition of the knowledge and competences established in the formation plans.

This work has sought, therefore, to search for that understanding of the evaluation in the universe of Distance Education, in the expectation of finding new methodologies and strategies that may favor the formation of tutors and of students for a quality Distance Education.

Although not answering all the questions posed, the use of self-evaluation in the post-graduation courses of Senac/CE has proved to be a valid tool, for it has allowed us to verify several positive points, such as: changes of the students' and tutors' behavior in the use of resources and in interactivity; adjustments by the tutorship in order to maximize the learning process, starting from the information obtained in the questionnaires and during the follow-up of the students; improvement in the communication tutor x student; significant learning verified in the results achieved; increasing involvement and autonomy of the students in the search for their formation.

Changes are already in process for the next groups, in order to try to answer other questions, with a view to creating new contributions for Distance Education. The use of protocols is under way, as well as new communication strategies, in order to sensitize the students in the sense of perceiving the self-evaluation as an alternative to “learn how to learn”. Those experiences shall be told in future works and we hope to contribute a new way of looking into the formation of tutors, the use of methodologies that allow for reflection, new actions and, consequently, intervention in the formation process.

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