Student Empowerment in Higher Education Through Participatory Evaluation

Dina Soeiro, António Dias de Figueiredo, and Joaquim Armando Gomes Ferreira University of Coimbra, soeiro@dei.uc.pt, adf@dei.uc.pt, jferreira@fpce.uc.pt

Abstract - This paper is concerned with sharing between students and teacher the power to manage a course that engages heterogeneous student populations in a blended learning environment in higher education. Our aim is not just to see how the students can be empowered to act autonomously, but rather to understand how they can fare as full partners of the course management experience. To this end, we engage them in a cultural transformation based on strategies that promote their participation in their own learning and evaluation. This is done with the help of the evaluation star, an ideogram we have developed to support these strategies. Our study draws on principles proposed by Dewey, Freire, Knowles, Mezirow, and Fetterman, and follows a research approach based on two action research cycles that involve different courses, subjects, and students. Our study, which can be seen as a proof of concept, shows that the students have learned to evaluate and accept evaluation, share critical reflections, and take responsibility for their contributions. They have also participated democratically in their learning process and have built change, quality, and competent collective learning.

Index Terms - Blended-learning, empowerment evaluation, higher education, participatory evaluation.

INTRODUCTION

With the increasing adoption of learning management systems to support teaching and learning, higher education is gradually starting to combine traditional face-to-face practice with online activity. This new context offers, in turn, interesting opportunities to improve teaching and learning. From a project we are developing to explore some of these opportunities, we discuss here the component devoted to the empowerment of the students to participate in their own evaluation and in the evaluation of the pedagogical process they partake, making evaluation a core component of the learning process, both individual and collective.

We have developed an evaluation strategy for exploration in a blended learning environment supported by a learning management system based on Moodle. Because the process occurs within a technology-rich, learner-centered, ecology [1] where the students are encouraged to control their learning process, we have valued strongly the critical contributions of the students to the pedagogical evaluation. Our goal was, in this context, to enrich with an

explicitly democratic pedagogy the learning of the individual students and of the whole class and to contribute to improve pedagogical quality.

Our study progressed through the academic years 2008/2009 and 2009/2010 and involved about 300 students, from the first year to the senior year, taking nine different subjects, in a mix of degrees, at the Polytechnic College where we teach. Some of the students participated in the study in both academic years. This population ranged from young full-time students to mature students working full-time, some of them deaf, covering a diversity that illustrates the richness of new adult publics in higher education. This richness involves, in turn, different learning needs, autonomy, and maturity, as well as thornier demands regarding the participation of the students in the control of their own academic life and in the construction of their own success.

We were interested in clarifying the extent to which our evaluation strategy could lead the students to act, not just as empowered actors in the learning process, but as full partners of the course management experience. This has led us to realize that we were apparently breaking new ground. So, we have opted to support our evaluation strategy on principles proposed by Dewey, Freire, Mezirow, Knowles, and Fetterman, and gradually improve it throughout the project in successive action research cycles that involved different courses, subjects, and students.

To John Dewey, democracy "is a way of life, a shared experience" mobilizing "individuals who participate in an interest so that each has to refer his own action to that of others and to consider the action of others to give point and direction to his own" [2]. In his perspective, democracy is the method by which educational institutions transform society by creating contexts where democracy is practiced [2]. It requires the individual to contribute to build the environment and its control.

With this in mind, we have used Knowles' andragogical model [3-5], which focuses on self-directed learning and the development of the learner. In this democratic pedagogical environment, the participation of the students is the positive catalyst of change.

Freire [6] argues that democracy is learned through the practice of participation. In higher education, as well as in other levels of education, democracy must be taught and learned. It can be taught through the construction of contexts that are open to collective processes of pedagogical management. It is learned by living it. According to Freire [7], democracy involves change. Evaluation is also learning

978-1-61284-469-5/11/\$26.00 ©2011 IEEE

and, in this sense, it is change. The competence to evaluate can be learned, developed, and, so, it can contribute to a culture of quality.

Mezirow [8] argues that learning evaluation should be centered in the transformative aspects. Empowerment evaluation, proposed by Fetterman [9], meets this idea from Mezirow. The concept has roots in community psychology, action research, and collaborative and participatory evaluation and defines "the use of evaluation concepts, techniques and findings to foster improvement and self-determination" [9]. People participate in the evaluation. "This process is fundamentally democratic in the sense that invites (if not demands) participation (...) as a result, the context changes." [9]. "By taking control of the evaluation, stakeholders are believed to enhance their capability for critical analysis, redouble their commitment to their program's goals, and commit themselves to learning about their program." [10].

"Empowerment evaluation is an evaluation ideology", according to Smith [11], and that is why the instrument we have built and the development of the strategy were anchored in the principles of empowerment evaluation [9, 12-13]:

- 1. Improvement
- 2. Community ownership
- 3. Inclusion
- 4. Democratic participation
- 5. Social justice
- 6. Community knowledge
- 7. Evidence-based strategies
- 8. Capacity building
- 9. Organizational learning
- 10. Accountability.

We propose a participatory, critical and reflective evaluation strategy, an empowerment evaluation, which uses the strategy we describe in the next section.

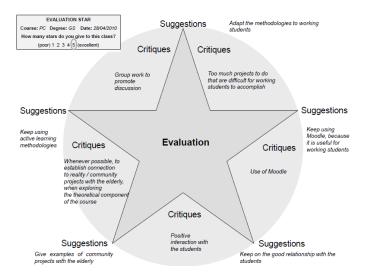
STRATEGY: THE EVALUATION STAR

Inspired by the image of a star as associated to illumination, guidance, and quality, we have named our strategy the *evaluation star*. It is a systematic, continuous, and demanding strategy where the students are invited to evaluate each lesson and co-participate in the definition of the subsequent lessons. Although it calls for complex competences, like critical thinking, its application is simplified by resorting to a five-pointed star ideogram that asks the students to share online, with their peers and teachers, five critiques and five suggestions that are expressed both qualitatively and quantitatively.

In the beginning of the semester, the teacher presented the strategy, explained it, and justified its theoretical background. The students were also invited to change and improve it, which facilitated its adoption as a user-friendly device to support collective evaluation. The identification of the stars with quality (like the five stars in a hotel) made the ideogram inspiring and open to customization by the students..

Figure I shows an example of an evaluation star for a working student. The student indicates the course, degree and date. There is no need to give a student name because the students are identified by the system when they put their stars online.

FIGURE I EXAMPLE OF AN EVALUATION STAR



The star has two parts: quantitative and qualitative. In the quantitative part, the students are asked to classify the class on a scale from 1 (poor) to 5 (excellent). In the qualitative part, the students are invited to post online, before their peers and teacher, five critiques and five suggestions about the class. The critiques are inserted inside the star, while the suggestions (pointing to the future) are inserted outside.

We have established the number of five critiques to stimulate the critical thinking abilities of the students. They could produce less, if they wanted, but we have intentionally put the bar high enough to challenge them.

METHODOLOGY

We have followed a participatory action research approach, essentially qualitative, based on content analysis carried out on the evaluation stars and on the corresponding online discussions, reflective descriptions of the classes, students' e-portfolios, and interviews with the students.

The protocol for the semi-structured interviews was tested previously with a few students. For the deaf students, besides the pre-test, we enlisted the support of a sign language interpreter, the same professional who worked on the classes. The interview protocol integrated and adapted the questions according to the development of the action research cycles. The topics and issues of the interview were

October 12 - 15, 2011, Rapid City, SD

978-1-61284-469-5/11/\$26.00 ©2011 IEEE

41st ASEE/IEEE Frontiers in Education Conference

the first category framework for the content analysis, which was enriched with the emerging categories that resulted from a comparative analysis of the data [14-17].

In agreement with our qualitative intention, we have used "purposeful sampling" [18]. After a preliminary exploratory content analysis of each subject, we have intentionally selected for deep analysis the materials that we felt significant for the study. This decision was inevitable given the huge volume of data obtained. To facilitate and support the analysis we have resorted to NVivo.

To strengthen validity, we relied on the diversity of the participants and contexts, the duration of the study, and the attitude of critical reflection, as well as on the triangulation of multiple methods, multiple data, multiple sources and multiple theories. With the same aim, we have carried out a review and verification of the written information and shared interpretations with the participants.

STRATEGY DEVELOPMENT

In the first research cycles, through 2008/09 and in the first semester of 2009/10, the strategy concentrated in obtaining contributions from the students on how the learning and teaching processes should be evaluated at the end of the course. It was, thus, a summative, global, and open strategy aimed at understanding the students' perceptions about the course and obtaining their proposals for improvement. As the results of this strategy only materialized after the last class, the students' proposals were analyzed and taken into consideration for the future, so as to influence the subsequent editions of the course. This means that the students involved did not get any explicit benefit.

In a second research cycle, which followed an empowerment evaluation logic, the strategy was used in all the classes throughout the semester. This means that the critiques and suggestions could be reinvested in the course to the benefit of the students who produced them. Given the volume of data generated in the project, we will focus here only on the content analysis of about 1000 stars produced in this second research cycle, including the observations and records of the corresponding classes.

As criteria for the analysis of the evaluation stars, we have considered quantity and quality. For quality, we have selected depth, adequacy, engagement/commitment, responsibility, and focus (to what and to whom they were directed).

Through the analysis of the critiques and suggestions generated as the semester developed, we verify that they increased and improved, but they also became repetitive. The repetition of the same critique or suggestion by several students was justified by their significance, meaning that they had a relevant dimension.

However, some of the critiques or suggestions were repeated because the classes and activities were similar. For instance, some of the students argued that the evaluation star was unnecessary and it was a hard work to do every class. In one of the subjects, this critique was discussed in the class. Some students suggested that for similar classes only one

evaluation star should be filled in. However, this suggestion ended up being rejected by the class, which argued that no two classes are equal, so evaluation stars completed for similar classes would generate different critiques and suggestions. The students themselves produced this argument, and the role of the teacher was just to promote the discussion in class. As a result of this debate, the students ended up deciding in favor of keeping one star per class, without any imposition or suggestion by the teacher.

The students who postponed the weekly task tended to submit similar critiques and suggestions from star to star, and those who left a few stars behind tended to submit evaluation stars with less quantity and less quality. As some students copied the contributions of the colleagues who preceded them in the Moodle discussion forum, we also found a repetition of critiques and suggestions for the corresponding stars. This situation was discussed in the class so that those who had copied could confront the authors of the stars and the remaining colleagues. The students who demonstrated less committed to honesty and accountability were thus confronted with their acts, felt the need to apologize, and agreed to start contributing with their own effort to the common good of the class. They began in this way to understand the task as a contribution to their own learning and that of the class and not as an evidence to be forged in order to obtain a grade.

The assessment of the stars contributed to the final grade with a value defined by each class. Indeed, if it had not been chosen to count for the final grade, the students would have seen it as unimportant. Still, this value was assigned to the production of a star per class, not to the quality of the critiques and suggestions, so as not to discourage insecure students. Quality mattered, but to enhance learning.

The students who realized that the 'easy way' would result in a loss of respect in the eyes of their colleagues thus started to become more honest and constructive in their critiques and suggestions. The cross and comparative analysis we have carried out on the production of each student and of all the students for each class did, indeed, show a positive trend. Once again, it was the students who self-regulated the process.

Fatigue and repetition was found on the contributions of the students who failed to gain awareness of the function, usefulness, and effectiveness of the evaluation star and saw it as an obligation and not as an opportunity to improve their own learning context.

In one of the courses, the critiques and suggestions were more related to space, resources (such as Internet access), time, and noise, and less to pedagogic issues, as was the case for all the other courses. The conditions where some of the classes took place were, indeed, far from desirable, and this is reflected in the results of the content analysis of the evaluation stars of the course. Symptomatically, the reflective level of these contributions was very low. Also, in this class, unlike in all others, there were several voices

978-1-61284-469-5/11/\$26.00 ©2011 IEEE

against the routine imposed by the strategy and complaints about the way in which it affected their time:

ES 24.03.2010 ASE APIC Francisca¹ – "Although the evaluation stars forced us to reflect on the lesson, sometimes the task took precious time."

The students who published the first critiques and suggestions, which tended to be the most interesting and constructive, were also those who participated more actively face-to-face, with the exception of some working students who, not being able to have frequent participation in class, did maintain very good participations online.

Because the strategy was systematic, it forced the students to attend the classes, which are not of compulsory attendance, since they had to reflect about the class, and do it online, before their colleagues and teacher.

The evaluation stars are, thus, an invitation to learn and practice critical reflection. Initially, it was not easy to use them. Many students complained that they had nothing to criticize or suggest, that they were unable to produce as much as five critiques and suggestions, or that the task was too demanding for them. For this reason, many of the first stars had no more than two or three critiques and suggestions. Some of the stars had only critiques, with their authors arguing: "it is easier to criticize than to offer solutions". To this, the teacher countered: "it's only fair that you make a suggestion for every critique you produce". They agreed, and accepted that they had to share the responsibility of the task.

As far as autonomy was concerned, the students noticeably expressed the need for more guidance: "we need the teacher to tell us what to do". They also demonstrated a strong dependence from objective guidelines, and they openly avoided thinking on their own: "Why doesn't the teacher think, since she thinks better than we do?"

We found many difficulties in obtaining suggestions. Many of the students took for granted that "the teacher knows best, we don't know", thus undervaluing their ability to contribute. As they started overcoming these inhibitions, their critical competence increased, and so did their confidence – and, with it, the quality of their suggestions. In practice, most of the suggestions became solutions to the critiques they had formulated.

One issue of concern is that this strategy requires a strong exposure of the students. Since they will be assessed by the teacher, how is it guaranteed that they will be sincere and outspoken? To what extent do they feel free to say what they think? Their duty to publish the star in the Moodle discussion forum, giving their identification, is intended, precisely, to make sure that they take responsibility for what they write. As the students share with the teacher and their peers the critiques and suggestions about the pedagogical processes, this often puts into question the teacher and the students. However, we found out that the daring negative

critiques made by some of the students encouraged the others to overcome their concern about exposing themselves.

Most of the critiques and suggestions were directed to the teacher and focused on her relationship with the students, on the use of active methods in the course, and on the need of improved contact with the professional context outside the classroom. Some of their contributions were addressed to the students themselves, as in the following example:

ES 24.03.2010 GS PC Emília - "The attitude of some colleagues who missed class and disappointed their group".

The students were very critical. However, their level of exigency did not always translate into greater commitment to implement the proposals that had been suggested and collectively accepted. Sometimes, they acknowledged the opportunity they were given to participate freely but they did not value its potential. We believe that the issue of student maturity is important in this respect.

We observed a direct relationship between the quality of the contributions and the recognition, by the students, that their opinion is taken into account and produces immediate results.

This process of engaging the students in criticizing, approving suggestions, and committing themselves collectively to carry out these decisions generates an environment where the power to manage the pedagogical experience is genuinely shared between students and teacher. "My opinion matters", they say, as they become aware that the teacher is sharing the power traditionally held by a teacher and is, indeed, using their suggestions to improve the pedagogical quality. The students are no teachers, they may have no pedagogical competences, and they have no formal responsibility for the management of the course, but they put at the service of their individual and collective learning their experience as students. They are experts at being students, and, in this sense, they have a clear idea of what is pedagogically effective.

One aspect that turned out to be of key importance for the success of the strategy was the identification, by the teacher, during the classes, of the useful critiques and suggestions and of their authors. It also became clear from the collected data that it was important for the students to feel that the classes were organized taking into account their critiques and suggestions:

EA 09.06.2010 GS PC Constança - "The performance of the teacher was good because she gave us liberty and autonomy in the execution of all the assignments. Furthermore, she always tried to put into practice the suggestions given by the students, such as in the adoption of more practice-oriented and active classes".

This feedback was continuous during the classes. Thus, as the teacher took the suggestions with reference to their authors, promoting discussion and explaining why some of the suggestions could not be applied, the students understood

¹ The names are not the students real names.

978-1-61284-469-5/11/\$26.00 ©2011 IEEE

that their contributions were respected and taken into account. Respect played a key role in this strategy: respect for and from the teacher, and respect between all the students. It was clear how much the students valued the positive and open teacher-student relationship.

ES 09.06.2010 GS PC Catarina - "The excellent, friendly and respectful relationship between the teacher and the students stimulated their interest in participating and in presenting their views, ideas and suggestions to improve the classes."

One of the virtues of the strategy was that the reflective effort to improve the learning processes was collectively exercised and shared between teacher and students and opened communication about these issues, which are not always easy for the isolated teacher to manage.

The participation of the students solves problems, but it also creates conflicts, which is natural, bearing in mind that the exposure to conflict is inherent in the exercise of democracy. The teacher loses control, which is shared with the students, but the pedagogical project is reinforced, and so is its validity and quality.

In practice, the existence of open dialog and conflict has led the students to their "zone of proximal development" [19]. The structure of authority has not changed, but the decision-making power has been partly shared with the students, who could feel, in this way, that they controlled and were responsible for their learning processes and results.

ES 09.06.2010 ASE MPEA Inês - "The learning was collaborative, we have criticized, argued, assessed and we helped each other by sharing responsibility for learning."

The strategy focused on improvement, not failure, as Fetterman [12] advocates. Therefore, non-constructive critiques were severely rejected by peers. The first unfair critiques had harsh responses from other students, more committed to the value of the opportunity and right to evaluate. This reaction required the students to contribute to quality and to have pride in their contributions. They felt responsible, individually, but also collectively, as a community of learning. The evaluation process was a learning process: they learned to evaluate and to value their participation in the evaluation.

As for the quantitative part of the evaluation star, which is not so rich from the point of view of the analysis, it led us to conclude that, in essence, it is rare for the students to classify a class as excellent. Even when they only reserve praise for a class, they tend to classify it with four stars. Negative classifications were very rare.

The strategy is laborious and demanding for the students, but also for the teacher, who must analyze the stars and integrate their suggestions in the plans of the subsequent classes. This must be taken into account in the workload of the teacher, because it becomes difficult to manage the strategy for classes with more than thirty students.

Conversely, it has the advantage of letting each teacher, in each class and course, obtain important inspiration to adapt or develop a strategy with the students. Many lighter variations are possible. For example, the teacher may challenge the students to produce one star per month, or may open an online discussion space where the students can, as they consider necessary, share their critiques and

CONCLUSIONS

suggestions, without a time obligation.

As higher education institutions gradually adapt their organizational and pedagogical models to technology-rich ecologies and to a much wider diversity of adult publics, issues like the empowerment of the students to self-regulate their own learning and that of their colleagues become particularly challenging. This is, however, a topic that has been receiving very little attention from the traditions of hierarchical, teacher-controlled, higher education.

In this paper, we describe a project where we have been studying the empowerment of the students to participate in their own evaluation and in the evaluation of the pedagogical process they share, so that they can contribute to the improvement and effectiveness of the whole pedagogical process.

To this end, we have proposed the *evaluation star*, a strategy grounded on the ideals of democracy, empowerment, transformative learning, and empowerment evaluation, and we have illustrated, through a case, the extent to which this strategy can let the students become more critical, more engaged, and more pedagogically responsible.

The most unusual aspect of the strategy is that it argues in favor of letting the teacher relinquish a significant part of the traditional decision-making power of a teacher, so that the students can share it and, through its use, contribute to a richer learning environment, while growing personally as more participative, responsible, and democratic citizens.

The paper describes some relevant aspects of the project, showing that participation has grown through a process of progression and that the students need to see that their participation matters and that their suggestions are taken into account.

Our study has shown that the students learned to evaluate, discuss, accept evaluation, share critical reflections, and take responsibility for their contributions, participating democratically in their learning process and building change, quality, and competent collective learning.

As the ability to evaluate is transversal to any area, we hope that this strategy will be able to inspire other educators and researchers to develop more democratic pedagogical approaches with their students.

Referring to the future of empowerment evaluation, Fetterman and Wandersman [13] expressed the hope that they could see "new stars shining over the intellectual landscape of evaluation". Departing from this image, that inspired our project, we hope that our evaluation star will contribute to illuminate our common pedagogical landscape.

978-1-61284-469-5/11/\$26.00 ©2011 IEEE

Session F4C

REFERENCES

- [1] Luckin, R. 2010. Redesigning Learning Contexts: Technology-rich, learner-centred ecologies. New York: Routledge.
- [2] Dewey, J. 1944. Democracy and Education: An Introduction to the Philosophy of Education. New York: The Free Press.
- [3] Knowles, M. 1975. *Self-directed learning*. New York: Association Press.
- [4] Knowles, M. 1980. The modern practice of adult education. Chicago: Association Press
- [5] Knowles, M. 1984. The adult learner: A neglected species. Houston: Gulf Publishing.
- [6] Freire, P. 1996. Letters to Cristina. Reflections on my life and work. London: Routledge.
- [7] Freire P. 1973. Education as the Practice of Freedom in Education for Critical Consciousness. New York: Continuum.
- [8] Mezirow, J. 1991. Transformative Dimensions of Adult Learning. San Francisco: Jossey-Bass.
- [9] Fetterman, D. 2001. Foundations of Empowerment Evaluation. Thousand Oaks: Sage.
- [10] Miller R., & Campbell, R. 2006. Taking stock of empowerment evaluation: An empirical review. *American Journal of Evaluation*, 27(9), pp. 296-319.
- [11] Smith, N. 2007. Empowerment Evaluation as Evaluation Ideology. American Journal of Evaluation, 28(2), pp. 169-178.
- [12] Fetterman, D. 2005. Empowerment Evaluation Principles in Practice: assessing levels of commitment. In D. Fetterman & A. Wandersman (Eds.), *Empowerment Evaluation: Principles in Practice*. New York: Guilford, pp. 42-72.

- [13] Fetterman, D., & Wandersman, A. 2007. Empowerment Evaluation: yesterday, Today, and Tomorrow. *American Journal of Evaluation*, 28(2), pp. 179-198.
- [14] Bogdan, R., & Biklen, S. 1991. Qualitative Research for Education: an Introduction to Theories and Methods. Boston: Allyn & Bacon.
- [15] Strauss, A.; & Corbin, J. 1998. Basics of qualitative research: techniques and procedures for developing grounded theory. Thousand Oaks: Sage.
- [16] Richards, L. 2005. Handling qualitative data: a practical guide. London: Sage.
- [17] Cohen, L., Manion, L., & Morrison, K. 2007. Research Methods in Education. New York: Routledge.
- [18] Creswell, J. 2008. Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research. New Jersey: Pearson.
- [19] Vygotsky, L. 1978. Mind in Society The Development of Higher Psychological Processes. Cambridge: Harvard University Press.

AUTHOR INFORMATION

Dina Soeiro, Centre for Informatics and Systems, University of Coimbra and Polytechnic Institute of Coimbra, Portugal, soeiro@dei.uc.pt

António Dias Figueiredo, Centre for Informatics and Systems, University of Coimbra, Portugal, adf@dei.uc.pt

Joaquim Armando Gomes Ferreira, Faculty of Psychology and Education Sciences, University of Coimbra, Portugal, jferreira@fpce.uc.pt