Evaluate the Pedagogical Practice of the Teachers of Higher Education: A Proposal

Evaluar la Práctica Pedagógica de los Profesores de Educación Superior: Una Propuesta

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With the Bologna Declaration in 1999, the European Union has unleashed, the reform of Higher Education Institutions (HEI), aiming at the creation of a European Higher Education Area, with the goal of improving the quality of teaching-learning processes. In Portugal, the concern in the pedagogical evaluation of the Professors in Higher Education as a process of personal and professional development is, within the framework of educational policy, of great relevance. Thus, the practice of pedagogical supervision in the classroom context should be generalized in Higher Education establishments, as a strategy of professional development and support to the reflection on teaching practices. The question that arises here is whether the objectives to improve teaching, learning and quality of the school organization, involve, necessarily and exclusively, the use of supervisory procedures. We don't believe so. We stand for the peer interaction, which results in a sharing of knowledge, without hierarchies, and a collaboration of efforts focused on improving the teaching practice and student learning. A qualitative research was carried out, using narrative analysis, supported by webQDA® software, which resulted in the production of a grid to support the peer interaction work.

Keywords: Evaluation; Quality; Effectiveness; Change; Improvement.

Con la Declaración de Bolonia en 1999, la Unión Europea ha desencadenado la reforma de las Instituciones de Educación Superior (HEI), para la creación un Espacio Europeo de Educación Superior, con el objetivo de mejorar la calidad de los procesos de enseñanza-aprendizaje. En Portugal, la preocupación por la evaluación pedagógica de los profesores en educación superior como proceso de desarrollo personal y profesional es, dentro del marco de la política educativa, de gran relevancia. Así, la práctica de la supervisión pedagógica en el contexto del aula debe generalizarse en los establecimientos de educación superior, como estrategia de desarrollo profesional y apoyo a la reflexión sobre las prácticas docentes. La pregunta que surge aquí es si los objetivos para mejorar la enseñanza, el aprendizaje y la calidad de la organización escolar implican, necesariamente y exclusivamente, el uso de procedimientos de supervisión. No lo creemos. Defendemos la interacción entre compañeros, lo que se traduce en un intercambio de conocimientos, sin jerarquías, y una colaboración de esfuerzos centrados en mejorar la práctica docente y el aprendizaje de los estudiantes. Se llevó a cabo una investigación cualitativa, utilizando análisis narrativo, respaldado por el software webQDA®, que resultó en la producción de una cuadrícula para apoyar el trabajo de interacción entre pares.

Descriptores: Evaluación; Calidad; Eficacia; Cambio; Mejora.

Introduction

With the Bologna Declaration in 1999, the European Union has unleashed, through legislation, the reform of Higher Education Institutions (HEI), aiming at the creation of a European Higher Education Area, with the goal of improving the quality of teaching-learning processes. These processes should take into account the challenges of employability in contemporary society, subjected to greater mobility, scientific and technological renewal, economic and cultural globalization and ease of communication and information exchange.

The purpose of developing professional competences holds HEI responsible for the creation of opportunities, offered to students, in the fields of knowledge, skills to use knowledge and to collaborate with peers in solving problems, as well as for the experiences of personal formation structured around individual freedom and the capacity to ethically self-determine their action, the one restricted to the professional field or the one extended to the totality of citizenship.

Thus, the improvement of the teaching-learning processes implies changes in the ways of teaching, learning and evaluating, reconstituting the roles of the Professor and the student. The reconstitution of these roles consists, in summary, in the Professor focusing the teaching on the students' learning, and these in participating actively, developing processes of reflection and self-evaluation of their learning. The perspective of unity and interaction in the domains of teaching, learning and evaluation changes the more traditional forms of the teaching organization, centered on the teacher, and of the learning evaluation, focused on the product, summative and punctual, for other forms, subordinated to the student's participation at all stages of the teaching-learning process and evaluation. Hence, the emphasis placed on student participation and on the teaching, learning and evaluation unit will direct the teacher's methodological options to the active methods that involve students in activities that enhance meaningful learning and through the use of systematic formative evaluation forms, integrated in the teaching-learning process, using permanent feedback, capable of making students and teachers responsible for improving the learning (Crews, & Curtis, 2011; Spencer, & Schmelkin, 2002).

1. Theoretical context

1.1. The pedagogical evaluation of professors in higher education

According to the authors' point of view, Franco and Almeida (2017, p. 17), "in a scenario with remarkable forces such as economic globalization and the accompanying social changes, and where multiculturalism, technological advances, excessive information, or the overcrowding of a broader, innovative and unexpected labor market are seen as challenges". Certain questions arise that require a timely and adequate response from HEI: What knowledge to build? What skills to develop? What curriculum to implement? (Conselho Nacional de Educação, 2015), What training to promote to HEI Professors? And how to evaluate them? However, it is so relevant that the direct relationship between the socioeconomic development of a country and the quality of the learning of its population is pointed out (Conselho Nacional de Educação, 2015; IGEC, 2018),

> *The report "Universal basic skills: What countries stand to gain" indicates that it is not about more schooling but about ensuring that individuals build a solid foundation*

of knowledge in key disciplines that develop creative skills, critical thinking and collaboration skills. (Franco and Almeida, 2017, p. 17)

And that cultivate dispositions connected with conscious and deliberate practice, curiosity, courage, and resilience. (OCDE, 2015, p. 9)

The Portuguese higher education system has been undergoing a profound reform, in accordance with the European-wide strategy for the modernization of Higher Education promoting the knowledge based economy and society (Jesús-Silva et al., 2017). The importance of the pedagogical training of the HEI Professors is valued as a condition for improving students learning. The lack of critical reflection that accompanies the flow of the teaching-learning process, and that the formative evaluation could carry out, is an obstacle to the timely introduction of the necessary adaptations in the plans and strategies used (Chen, & Hoshower, 2003).

Knowing the impact of the application of active learning methodologies in HEI requires, not only the identification of the quality of the competences learned through the analysis and interpretation of the students' academic results, but also the knowledge of their effects on future professional performance through the perceptions of the students, employers and the professionals themselves.

Given that the main objective of Higher Education is to make students active agents, autonomous and responsible for their own learning, Professors should be able to promote and assess students' self-regulation and self-efficacy processes. The importance of evaluation, self-assessment, regulation and self-regulation, in order to enhance learning, determines the need to control the use and quality of these processes through meta-evaluation, in the sense of a reference to the teaching-learning process. We verified that, within the framework of the educational policy in force in Portugal by the Agency for the Higher Education Evaluation (Reis, Formosinho, &Costa-Lobo, 2014), it could consider pedagogical supervision as an instrumental process of personal and professional development. In this context, the practice of pedagogical supervision in the context of the classroom should be generalized in HEI, as a strategy for professional development and support for reflection on didactic practices (Fernandes, Costa-Lobo, & Regueiro, 2018).

Considering this framework and society, which, due to constant change, is uncertain and unstable, it is urgent to have a dynamic pedagogical evaluation of Professors, capable of interpreting the signs of time. To deal with this challenge, it is our purpose to create strategic mechanisms to adapt to new realities, developing in Professors, plural and multifaceted competencies, as well as creating a combination of efforts between people and between institutions, both at professional and at interpersonal relations level, to cope together with the emerging needs. Now, according to the above, that implies ensuring professional coherence and cohesion, necessary for the reflective capacity of Professors. From the considerations mentioned, we felt the need to dialogue with Professors, understand their anxieties, fears, uncertainties and needs to implement among peers, given that this is practically non-existent or very incipient with regard to the adopted methodologies. The grid is only a proposal, changing and dynamic, a contribution to the state of the art of supervision among peers in the context of the Institutions.

1.2. Supervision and peer interaction

Henriques (2010), Gilkman and Bey (1990) and Formosinho (2002), claim that the improvement of teaching and learning, in the context of a school organization, is dependent on the exercise of supervision, whether it is undertaken by a supervisor, by the

school coordinator or director, or by a peer. The question is, however, whether the objectives of improving teaching, learning and the quality of the school organization, necessarily and exclusively involve the use of supervisory procedures. We don't believe so.

The more general and common notion of pedagogical supervision considers it a set of actions or procedures for monitoring pedagogical practice (Vieira, 1993) and "a process in which a teacher, who is, in principle, more experienced and informed, guides another teacher or candidate teacher in their human and professional development" (Alarcão, & Tavares, 2010, p. 16). The supervisory function establishes a differentiation relationship between the supervisor and the supervised one, which may vary, according to the supervisory models that are put into practice, between the most asymmetrical and severely hierarchical extreme and the other extreme, with the hierarchical distinction more blurred, tending to be more equal.

The implementation of pedagogical supervision procedures in school's results from political and organizational orientations that assume that the school with quality and student-oriented teaching depends on supervision (Formosinho, 2002). Apparently, realizing the latest emphatic guidance for building successful school, Alarcão and Tavares (2010) explained the supervision function as "the promoting and monitoring of the qualitative development of the school organization and of those who carry out their work of studying, teaching or supporting the educational function through individual and collective learning" (p. 120).

Henriques (2010) advocates that the clinical supervision model is most suitable for peer supervision in the context of continuous training of Professors, rather than for initial training. Glickman and Bey (1990) delimit the usefulness of clinical supervision to assisting Professors' work in the classroom. But teaching work in the classroom depends on broader skills. Formosinho (2002, p. 141) recognizes that as a result of "changes of thought about the nature of teaching ... supervision as a collaborative function has been affirmed, consecrating itself as a persistent vision and guiding changes in its practice". In other words, as it was defended by Alarcão and Tavares (2010, p. 113), if it is "true that the figure of the supervisor can disappear, and it generally does, the reality of supervision should not disappear, although it takes on new forms".

But if the figure of the supervisor disappears, and the hierarchy implicit in supervision, in favor of learning through peer collaboration, in a more democratic relationship, carried out in the concrete context of the pedagogical practice of those involved, then it must also give way to a new alternative, peer interaction. We argue that the goals of improving teaching and learning should not disappear, neither the quality of the school organization that empower them, the functions of monitoring, reflecting and orienting the pedagogical practice, systematically and continuously, for those purposes. Such purposes can be achieved by Professors with professional experience, accomplishing such functions in the context of their daily collaborative teaching practice, through peer interaction. This assumes and enables self-observation and professional evolution, with the consequent improvement of students learning.

The daily collaboration between peers, unveiled with an artificial hierarchical structure, dialogical, formative, attentive to the problem solving of teachers and students, by individual and team reflection, is a form of interaction with peers, more conducive to improving teaching and learning conditions than to the practice of supervision, which

only affects some curricular activities and does not interact with all school members and the environment of the school where the peers belong.

2. Method

In the present research, after content analysis (Bardin, 2015), of the 140 opinions, we proceeded to the free-floating reading. In this way, the ideas were being cut into register units, words or phrases, pieces of text contained in the information material produced, which corresponded to clear, objective and meaningful ideas in the context of the research. Subsequently, after deep reading, the register units were grouped into indicators and subcategories were established, which later allowed us to clarify the definition of each of the dimensions. As frequency unit, we took the register or reference unit, which was counted as many times as those present in the speech. The work of data analysis and treatment was carried out with the support of content analysis software in qualitative research, webQDA® (Souza, Costa, & Moreira, 2011), through open procedures, and corresponded to a permanent process of progressive character creation, in which data reflection and analysis triangulated rigorously and constantly. In the same line of different authors (Bardin, 2015; Holsti, 1969; Silva, & Pinto, 2005), the content analysis seemed the most appropriate way to proceed with the treatment of the testimonies and information collected.

The software webQDA® support the analysis of qualitative data in a collaborative and distributed environment. Although there are some software packages that address non-numeric and unstructured data (text, image, video, audio) in qualitative analysis, there are few that can be used by several researchers in a collaborative work environment and distributed as the Internet can offer. It is a software directed to researchers in different contexts, that need to analyze qualitative data, individually or collaboratively, synchronously or asynchronously. The software follows the structural and theoretical design of other programs available in the market, differentiating itself by providing online, real-time collaborative work and a service that supports the research process (webQDA®, 2018).

The study was conducted in June 2018. The community included in the sample consists of 20 professors, 17 of two public higher education institutions and 3 of a private higher education institution, all from the North and Centre of the country. The 20 professors are participated in research voluntarily. The sample has 15 teachers of the feminine gender and 5 of the masculine gender. The professors are 11 associate professors and 9 auxiliary professors (the auxiliary professor is the beginning professor and the associate is the next level). The ages of professors are between 39 and 51 years old. The field of study of the teachers is: 12 of the area of Medical Sciences and 8 of Social Sciences. Professors were selected based on the knowledge of the researcher and author of the paper, since most of the teachers were not able to respond to the questionnaire.

Data collection

The sampling procedure was by random invitation to the Director of the institution or department of the three institutions of higher education. Each Professor was asked to come up with ideas on this subject, with colleagues in their institutions of origin, and 140 opinions were collected employing a semi-structured questionnaire with four open questions. The questions asked were: Have you worked collaboratively with colleagues?

What objectives do you think Professors have when they become involved in collaborative work practices? Give your opinion on the process and results of peer collaboration and interaction? In what ways does your institution/ department direction allow peer work? The data collection was done through the reception of the questionnaires online to one of the author of the paper.

Categories of the analysis

Taking into account the objectives of the study, we have sought to provide a detailed and rigorous description, in order to guarantee validity or credibility in a qualitative study (Amado, 2013). Some authors (Sá, & Costa, 2016) refer to "the need to establish some strategies. Among them, we highlight the triangulation of the various collected sources, that is, look at the same phenomenon from different angles" (p. 9); we have also chosen to focus on triangulation of data "a modality that proves whether the information collected is confirmed by another (theoretical) source, and we turn to the transparency of the whole process that guarantees the reader the merit, credibility and reliability of the research" (Souza, Costa and Souza, 2015, p. 151).

With the help of webQDA® software, we included the data (activity narratives and critical reflection reports) in the internal sources. We questioned the 20 most frequent words conditioned to a minimum of 7 letters and the most mentioned was school president (80), director of the department (74), planning (6), reflection (5), resources (4) evaluation (3) and colleagues (2) (table 1).

Table 1. Categories and indicators related to the Leadership dimension

CATEGORIES	INDICATORS
School President	The peer professional development is assessed within the school/institute/department
	The directing bodies of the school/ institute/department recognize the importance of the contributions of peer collaboration
	The directing bodies of the school/institute/ department value the importance of the contributions of peer collaboration
Department Director	Provides the optimization of teaching work
	Promotes collaborative work
	Manages conflicts
	Discusses the results of common evaluations in meetings
	Discusses in meetings the results of implementation of new learning strategies
	Surveys the training needs of colleagues to offer them in the form of seminars, workshops, colloquia, etc.

Source: Developed by the authors.

Data analysis

As a methodology, we proceeded, in an initial phase, to the results analysis of the Professors of each separate Higher Education institution. Subsequently, and whenever possible, in order to compare and triangulate the data, conducted by questionnaire in the software and by 2 Professors experts in the matter who validated the categories and we carried out a comparative analysis between the results of professors of different institutions. As data collection techniques, we privileged the narrative one.

After reading the normative texts, the question that we wanted to answer came up: how could peer interaction be evaluated, as an alternative process of evaluation of teaching

pedagogical practice in Higher Education? In this sense, we were guided by the following objectives: to understand how Professors engage in collaborative work practices; to know the Professors' opinions on the process and the results of peer collaboration and interaction.

Finally, the data questioning to answer the research questions. We were aware of the characteristics of each community and of the great differences related to the theoretical framework. Thus, it was important to create a homogeneous analysis matrix which had three objectives: (a) not lose sight of the research questions; (b) allow a triangulation and comparison between the various data *corpora*; (c) enable the comparison between contexts (table 2).

Table 2. Internal coherence of the research for the Training in context dimension

Research Question
How could peer interaction be evaluated, as an alternative process of evaluation of teaching pedagogical practice in higher education?
Research Objectives
Understand how professors engage in collaborative work practices
Know the professors' opinions on the process and the results of peer collaboration and interaction
Data Corpus
Activity narratives
Institutional regulations
Types of Analysis
Content analysis
Observations and Expectations
We hope to be able to compare the data of professors' narratives and correlate them with those of the various schools, institutions and regulations

Source: Developed by the authors.

We began with the free-floating reading (Bardin, 2015), in order to establish initial contact with the documents. This was followed by further reading, due to the wealth and extension of the analyzed corpus. After this stage, the larger categories began to emerge inductively, in accordance with the pre-established objectives, the theoretical framework and the results which ensued from the reading of the narratives and reports. Since these were replicated in the 3 institutions, we found two categories: School President and Department Director.

3. Results

From the analysis of the point of view of the management body of the school/ institute/ department, since it was the one that, in the study, was object of more reference units, at the level of meaningful register units, that is to say, in a universe of 140 register units, after the questioning of the data, with the help of software webQDA®.

This category was referenced twice and we state the two examples: "I don't know why I had all this work, the direction did not appreciate it"; "the evaluation will be done by supervision, as required by law, not by this process". But interestingly, in this study, the scope of this article, this category was much focused on the Professors' responses, quoting: the professional development by peers is evaluated within the school and the school

Leader (School President), they recognize and value the importance of the contributions of peer collaboration.

The Department Director plays an important role in the success of enabling peer interaction, starting with making timetables with regular hours of non-teaching work between Professors teaching the same school year, as well as the lack of recognition of the importance of collaboration by the school hierarchy, seems to be a disturbing factor, since it is not contemplated in the school's guiding plan, the method will not be recognized by the school's managing bodies as an evaluation of teaching performance. Also, the evaluation of teaching performance through the peer interaction should be valued in the pedagogical part of the Professor. On the other hand, resulting from the correlation between the opinions of the Professor, of the different schools and institutions, new categories and new indicators appeared, and are presented in table 3 in three large sections: student learning, peer work, and professional development.

We will define the categories emerging from the data. Defining the category "Student Learning", we included Professors' responses that refer to the collaborative planning and whether their changes are duly justified, as well as answers that evidence reflection on the context, processes and systems in the collaborative work that can identify factors that promote student learning. It also contains the answers that include references to the production of necessary didactic resources, which facilitate the teaching practice, to have impact on student learning. Finally, we included answers that referred that the periodic evaluation of the students was carried out from common matrices, guides for the accomplishment of summative tests (or evaluation instruments) with identical or the same degrees of difficulty, in students of the same school year and of different Professors.

Table 3. Categories and Indicators resulting from the correlation of Professors' opinions

CATEGORIES	INDICATORS
Student learning	Carrying out the planning
	Planning amendment
	Reflection to identify factors that promote student learning
	The guides for periodic assessment are the same among peers' students
Peer work	Task sharing among peers
	Peers solve constraints and conflicts
	Autonomy *versus* improvement in the classroom
	Collaborative work resorts to feedback
	There is motivation and empathy among peers
	Common hours are contemplated in the teaching hours for the practice of the collaborative work in the institution
	Creating an environment of motivation among peers
Professional development	Identification of pedagogical training needs
	The collaborative environment is useful to the exchange of knowledge between peers
	The reflexivity was translated into changes in the practices

Source: Developed by the authors.

In the category "Peer work", we included answers that refer to the task sharing between peers, as well as responses that include a sense of individual responsibility, to solve dilemmas and constraints within the school, so that professional development can be translated into classroom improvements. Still in this category, we included answers that indicate that the peers are sufficiently autonomous and not constrained to make decisions

and/or actions, so that professional development can be translated into an improvement in the classroom, as well as if the collaborative peer work resorted to continuous feedback. We considered that the answers which refer the motivations and empathy in peer work, as well as the reference to the difficulty in creating an immediate atmosphere of motivation among peers. Also included were the answers that indicated the need to include simultaneous hours in the colleagues' timetables, which allowed to implement, incorporate and evaluate changes in the practice that may have an impact on learning.

In the category "Professional development", we included the answers that referred to professional improvement to identify the Professors' needs to provide knowledge (lectures, seminars, etc.) and resources, and we considered the answers that regarded whether a collaborative environment among peers within the organization would be useful, mainly, to facilitate the transmission of knowledge between peers and whether reflexivity was translated into improvements in classroom practices. We present, in table 4, the matrix resulting from the data questioning, with webQDA® software, of the reference units of various indicators of the categories "Student learning", "Peer work" and "Professional development".

Table 4. Matrix with the indicators and opinions of the dimensions Student learning, Peer work, and Professional development

CATEGORIES	INDICATORS	OPINIONS*
Student learning	Carrying out the planning	10
	Planning amendment	5
	Reflection to identify factors that promote student learning	25
	The guides for periodic assessment are the same among peers' students	23
Peer work	Task sharing among peers	27
	Peers solve constraints and conflicts	24
	Autonomy *versus* improvement in the classroom	21
	Collaborative work resorts to feedback	6
	There is motivation and empathy among peers	8
	Common hours are contemplated in the teaching hours for the practice of the collaborative work in the institution	15
	Creating an environment of motivation among peers	11
Professional development	Identification of pedagogical training needs	9
	The collaborative environment is useful to the exchange of knowledge between peers	30
	The reflexivity was translated into changes in the practices	24

Note: Reference units.
Source: Developed by the authors.

From table 4, we verify that we obtained answers referring to the carrying out of the planning (10 reference units), for example, "it is very important to carry out the planning together", as well as answers (5 reference units), which referred to changes in planning, "it is important to carry out changes in planning as a group".

We obtained 25 reference units in answers that referred to reflection to identify factors that promote student learning,

> *... When I'm teaching the same year, I like to work with other colleagues because we can identify weaknesses in our teaching methods and contribute to better help students.*

The opinions had 24 reference units regarding the production of didactic resources to improve learning,

> *... With our colleagues we have developed worksheets, protocols and exercises and sometimes materials for the laboratory; I remember a sound-level meter we built last year to facilitate the learning of decibels.*

We obtained 23 units of reference in the professors' opinions regarding the periodic evaluation being the same among the peers' students, "carrying out joint tests to assess learning". The opinions of the Professors regarding the sharing of tasks among the peers presented 27 reference units,

> *... When I work with colleagues who teach the same year, it becomes easier because the work is divided.*

> *... So, I always do the geometry problems and my colleagues do the functions problems that I do not like so much.*

As for the peers solving constraints and conflicts, opinions presented 24 reference units, such as,

> *... When there is a delicate situation to solve in the department, it is easier to solve it among colleagues.*

In the indicator, autonomy *versus* improvement in the classroom, we obtained 21 reference units in the Professors' opinions, for example,

> *... When working as a group, I do not lose the autonomy in decision making in the classroom and that does not affect my performance in the classroom, which remains the same or even better.*

Professors' views on collaborative work resorts to feedback (6 reference units), for example, "It is important to always have a colleague's opinion on what we have done". There is motivation among peers (8 reference units), an example of an opinion, "I prefer teaching a year when I have other colleagues to work with, rather than being alone." Common hours are contemplated in teaching hours for the practice of collaborative work in the institution, as in using non-teaching moments for collaborative work. For creating an environment of motivation among peers (11 reference units),

> *... The group works if we are all willing to work.*

> *... If a colleague does not want to collaborate with us it is hard to turn him around, but it's not impossible, because he just has to feel the need of some help from the group.*

For Identification of pedagogical training needs (9 reference units), an example of an opinion:

> *... Sometimes we don't even know what we need in order to attend training actions, but a colleague might realize it and make a suggestion.*

The collaborative environment is useful for the exchange of knowledge between peers (30 reference units), and an example of a relevant opinion,

> *... If we are working collaboratively and at will and trust, we can put our scientific or pedagogical doubts without being judged or badly seen by peers.*

Reflexivity was translated into changes in teaching practices (24 reference units), and an example of opinion,

> *My experience in working with peers was when I taught first year, I loved it, I learned to take a more trans-disciplinary approach, setting the class in a period of modernism, beginning of the twentieth century, relating to Amadeo de Souza-Cardoso in painting, with its articulation between Cubism, Futurism and Expressionism. Today, I can make science students fall in love with painting.*

Now, according to the professors' comments, cohesion and professional coherence was a necessary factor for the teachers' reflective capacity, as well as the willingness and recognition of the hierarchies for the pedagogical valuation of the teaching career. From the above-mentioned considerations, we find that, among restricted peers, teachers feel more comfortable to express their doubts and share their teaching materials.

4. Discussion and conclusions

Gathering all the indicators resulting from our study, we present, in table 5, the proposal for an evaluation grid of teaching performance, which can be an instrument of self-assessment or of hetero-evaluation (Rhodes, Stokes, & Hampton, 2004), at the end of a previously stipulated period of peer work. We should open a parenthesis and remember that here the concept of "peer" does not mean "two", but it means a group of professionals, even or odd, who share the same level of education, with equal rights and duties. The grid should be filled by all the peers and discussed in open group, until a personal consensus is reached. This evaluation will be qualitative.

This grid is only a proposal, not closed, and each evaluating element can add or withdraw questions that they consider pertinent, as well as add notes. This grid may also be a document to be filled, periodically, at each meeting or at any time, as appropriate, by the discipline/year/cycle/course coordinator, in order to have a record of the peer interaction work that is being carried out, and be filed for future reference.

When we try to answer the question "How could peer interaction be evaluated, as an alternative process of assessing teaching performance?" we have unequivocally assumed that, at this moment, the evaluation teams external to the Higher Education institutions express, in the activity and self-assessment report, the area on which they should focus their efforts for improvement should be "the monitoring and supervision of teaching practice within the classroom, as a strategy for professional development and support for reflection on teaching practices." In this regard, we argue that the work of peer interaction does not contradict, in any way, this assumption of external evaluation, since the proposal of the evaluation grid explicitly states the concern about improvements in professional development, reflection, clearly provided by peer feedback and, as a consequence, improved student learning in the classroom (Moreno Olivos, 2018; Sá, 2015; Sá, Alves, & Costa, 2014, 2015).

Suggestions and limitations

The issue that arises is the very definition of Supervision for the external evaluation teams. If the definition includes a set of actions or procedures to monitor the pedagogical practice and a process in which a Professor, in principle more experienced and more informed, guides another Professor or candidate Professor in their human and professional development, we agree that this definition is based on the following assumptions: a) The object of supervision is the pedagogical practice of Professors; b) The most important function is practice monitoring; c) At the heart of the supervision process are reflection and experience. Therefore, the evaluation of teaching performance using

peer interaction does not, in any way, collide with the recommendation of the external evaluation.

Table 5. Registration grid to evaluate peer interaction work

Department/ Professor: _____

Year:_____   **Subject:**_____   **Cycle of studies:**_____

Questions	Yes	No	Notes
Have the long-term and short-term curriculum goals been planned in a collaborative way by peers?			
Have the planning changes been duly justified?			
Is reflection about the context, processes and systems in collaborative work involved that can identify factors that promote student learning?			
Was task sharing among peers noted?			
Do peers, individually, feel responsible for solving dilemmas and constraints within the school so that professional development can be translated into classroom improvements?			
Does peer collaborative work rely on constant feedback so that professional development allows identifying the Professors' needs to provide knowledge (lectures, seminars, etc.) and resources?			
Are peers sufficiently autonomous and not constrained to make decisions and/or actions so that professional development (their research area) can be translated into an improvement in the classroom?			
Will the collaborative environment among peers within the organization be useful, mainly, to facilitate the transmission of knowledge among peers?			
Is it difficult to create an immediate environment of motivation among colleagues?			
Are they including, in the colleagues' timetables, simultaneous exclusive hours for the pedagogical part, which allow to implement, incorporate and evaluate changes in the practice that may have an impact on learning?			
Is the periodic evaluation of students carried out with common matrices, allowing summative tests to be performed with identical degrees of difficulty?			
Were necessary resources produced that facilitated the teaching practice in order to have an impact on student learning?			
Do peers feel motivated for collaborative work?			
Is professional development by peers evaluated within your school?			
Was reflexivity among peers translated into changes in the practice or in the impact on student learning?			
Do leadership bodies recognize and value the importance of peer collaboration?			

Source: Developed by the authors.

Another recommendation to be taken into account in the activities and self-assessment of the external evaluation report is to broaden the supervision mechanisms of teaching practice as a way to identify problems and support their resolution, promoting the sharing of scientific and pedagogical practices and professors' professional development.

It was clearly realized that the way Professors engage in collaborative work practices and peer interaction allow the monitoring of pedagogical practice beyond the classroom, identifying and solving problems, promoting an improvement of scientific-pedagogical practices with the sharing of knowledge, materials, strategies, diagnosing Professors' training needs, allowing a true personal and professional evolution, as we mentioned above.

This Professors' view on the process and results of peer collaboration and interaction is that there is very little or none, and that the directivity, in this sense, by the Department Director, or the School President, i.e. Leadership, is central in every way: teaching hours, recognize the method of peer work as a professor evaluation performance, and this be valued and contemplated in the Professors' component. Our results are consistent with those from other studies such as Guzmán (2018) or Young and others (2018).

> *Deciding the processes and practices he performs in the preparation of a study plan, in the management of the classroom, and in the promotion of useful social resources to students, often follows his Intuition, between routines and experiences lived as a student. This observation learning, through prolonged contact with the teaching profession, will affect the understanding and its teaching practices.* (Jesús-Silva et al., 2017, p. 4565)

Our study (although ours was carried out in Higher Education and that of the authors in Secondary Education, there is still no work done, in Portugal, in the area of Teaching Assessment in Higher Education) is in agreement with Alarcão and Roldão (2008), the vertical nature that the supervisory processes assume in initial training contexts should give rise to a type of horizontal supervision, when it occurs between professors in work context. In these authors' opinion, "the current supervisory tendencies point to a democratic conception of supervision and strategies that value reflection, collaborative learning" (Alarcão, & Roldão, 2010, p.19). They should also develop mechanisms for self-learning and self-supervision, and investigative skills, leading professors to generate and share knowledge.

We recommend the use of the professor's peer interaction be evaluated, as a good suggestion of pedagogical evaluation of professors, in order essentially to collaborative work among professors so that relevant changes in the ways of learning, teaching and evaluating in Higher Education can be verified.

The limitations of the study, however, this is evident because the nature of the work is to present an instrument whose implementation and effect should be presented in future research. We do not find state-of-the-art research in this area for the evaluation of professors in higher education. This grid was built from emerging categories of our research, with a very small sample. It would be interesting to verify the applicability of the grid in other researches.

References

Alarcão, I., & Roldão, M. (2008). *Supervisão: Um contexto de desenvolvimento profissional dos professores [Supervision: A context of professional development of teachers]*. Mangualde: Pedago.

Alarcão, I., & Tavares, J. (2010). *Supervisão da prática pedagógica: Uma perspectiva de desenvolvimento e aprendizagem [Supervision lof pedagogical practice: A perspective of development and learning]*. Coimbra: Almedina.

Amado, J. (2013). *Manual de investigação qualitativa em educação [Manual of qualitative research in education]*. Coimbra: Universidade de Coimbra.

Bardin, L. (2015). *Análise de conteúdo [Content analysis]*. Lisboa: Edições 70.

Guzmán, J. C. (2018). Buenas prácticas de enseñanza de los profesores de educación superior [Good teaching practices of higher education teachers]. *REICE. Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación, 16*(2), 133-149. https://doi.org/10.15366/reice2018.16.2.008

Chen, Y., & Hoshower, L. B. (2003). Student evaluation of teaching effectiveness: An assessment of student perception. *Assessment & Evaluation in Higher Education, 28*(1), 71-88. https://doi.org/10.1080/02602930301683

Conselho Nacional de Educaçao. (2015). Estado da educaçao 2014 [State of education 2014]. Available in http://www.cnedu.pt/pt/publicacoes/estudos-e-relatorios/estado-da-educacao

Crews, T. B., & Curtis, D. F. (2011). Online course evaluations: Faculty perspective and strategies for improved response rates. *Assessment & Evaluation in Higher Education, 36*(7), 865-878. https://doi.org/10.1080/02602938.2010.493970

Franco, A., & Almeida, L. (2017). O lugar do pensamento critico no ensino superior pos Bolonha: Dados empiricos e consideraçones teoricas [The place of critical thinking in higher education post Bologna: Empirical data and theoretical considerations]. In C. Atas Albuquerque, A. Oliveira, A. Seixas, A. Ferreira, C. Santos and M. Paixao (Coords.), *O ensino superior pós Bolonha, tempo de balanço, tempo de mudança* (pp. 16-20). Coimbra: Universidade de Coimbra.

Fernandes, S., Costa-Lobo, C., & Regueiro, A. (2018). Ensino-aprendizagem de empreendedorismo: Perceções de estudantes universitários [Entrepreneurship teaching and learning: Perceptions of university students]. In R. M. Lima, V. Villas-Boas, A. L. Aquere, and J. Mello (Eds.), Proceedings of the PAEE/ALE'2018, 10th International Symposium on Project Approaches in Engineering Education (pp. 466-475). Brasília: University of Brasília.

Formosinho, J. (2002). *A supervisão na formação de professores II. Da organização à pessoa*. Porto: Porto Editora.

Glickman, C. D., & Bey, T. M. (1990). Supervision. In W. R. Houston (Ed.), *Handbook of research on teacher education* (pp. 549-566). New York, NY: Macmillan.

Henriques, M. (2010). *Supervisão inter-pares: Um percurso colaborativo de formação [Peer oversight: A collaborative training path]* (Masters dissertation). Lisboa: Instituto Politécnico de Lisboa.

Holsti, O. R. (1969). *Content analysis for social sciences and humanities*. Reading: Addison-Wesley.

IGEC. (2018). *Relatório de atividades e autoavaliação*. Available in http://www.ige.minedu.pt/upload/Instrumentos_Gestao/IGEC_RA_2014.pdf

Jesús-Silva, N., Costa-Lobo, C., Santos Pereira, C., & Seabra Durão, N. (2017). Evaluation of teaching performance in higher education: Students perspectives and teaching management indicators. In INTED. (Coord.), *Proceedings of 11th Annual International Technology, Education and Development Conference* (pp. 4565-4571). Valencia: INTED.

Moreno Olivos, T. (2018). La evaluación docente en la universidad: Visiones de los alumnos [The teaching evaluation in the university: Visions of the students]. *REICE. Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación, 16*(3), 87-101. https://doi.org/10.15366/reice2018.16.3.005

OCDE. (2015). *Universal basic skills: What countries stand to gain*. Paris: OCDE. https://doi.org/10.1787/9789264234833-en

Reis, C. S., Formosinho, M., & Costa-Lobo, C. (2014). Higher education in Portugal: From expansion to quality assessment. *The Online Journal of New Horizons in Education, 4*(4), 44-53.

Rhodes, C., Stokes, M., & Hampton, G. (2004). *A practical guide to mentoring, coaching and peer. Networking: Teacher professional development in schools and colleges.* London: Routledge.

Spencer, K. J., & Schmelkin, L. P. (2002). Student perspectives on teaching and its evaluation. *Assessment & Evaluation in Higher Education 27*(5), 397-409. https://doi.org/10.1080/0260293022000009285

Sá, S. (2015). *Ensino, aprendizagem e avaliação no ensino superior: Perspetivas e práticas [Teaching, learning and evaluation in higher education: Perspectives and practices]* (Doctoral dissertation). Braga: Universidade do Minho.

Sá, S. O., & Costa, A. (2016). Critérios de qualidade de um estudo qualitativo [Quality criteria of a qualitative study]. *Revista Eixo, 5*(3), 9-12.

Sá, S., Alves, M., & Costa, A. (2014). A avaliação formativa no ensino superior: O contributo do feedback interativo e construtivo na aprendizagem ativa dos estudantes [Formative assessment in higher education: The contribution of interactive and constructive feedback in students' active learning]. *Revista Comunicação & Informação, 17*(2), 55-69. https://doi.org/10.5216/31821

Sá, S. O., Alves, M. P., & Costa, A. (2015). Perceptions of teaching in students and in teachers' point of view: Implications on students' learning skills in higher education. In A. Rocha, A. M. Correia, S. Costanzo, and L. P. Reis (Eds.), *New contributions in information systems and technologies* (pp. 255-263). Switzerland: Springer. https://doi.org/10.1007/978-3-319-16528-8_24

Silva, A. & Pinto, J. M. (2005). *Metodologia das ciências sociais [Methodology of social sciences].* Porto: Edições Afrontamento.

Souza, N., Costa, A. P., & Moreira, A. (2011). *webQDA®.* Aveiro: Esfera Crítica.

Souza, N., Costa, A., & Souza, F. (2015). Desafio e inovação do estudo de caso com apoio das tecnologias [Challenge and innovation of technology-supported case study]. In F. Souza, N. Souza and A. Costa (Ogs.), *Investigação qualitativa: Inovação dilemas e desafios* (pp. 143-162). Aveiro: Ludomedia.

Vieira, F. (1993). Para uma visão transformadora da supervisão pedagógica [For a transformative vision of pedagogical supervision]. *Educação & Sociedade, 29*(105), 197-217. https://doi.org/10.1590/S0101-73302009000100010

webQDA®. (2018). *Software to support the analysis of qualitative data.* Available in https://www.webqda.net/o-webqda/?lang=en

Young, K., Joines, J., Standish, T., & Gallagher, V. (2018). Student evaluation of teaching: The impact faculty procedures on response rates. *Assessment & Evaluation in Higher Education, 8*(3), 78-92. https://doi.org/10.1080/02602938.2018.1467878

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