

Comparative study on quality self-assessment processes at higher education institutions in Algeria: a content analysis of self-assessment reports

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Abstract

Algeria has introduced the institutional self-assessment as Quality Assurance (QA) approach in Higher Education Institutions (HEIs) at the national level. It has been formalized in official reports communicated to the Ministry. The purpose of this study is to evaluate self-assessment practices implemented in HEIs in a comparative perspective. The method of qualitative content analysis of self-assessment reports was used, based on category system deduced from the literature review. Results show that the HEIs followed common approaches with some differences in the deployment of steps and the importance given to them. The study concludes by highlighting the implemented processes advantages and difficulties and producing important recommendations for improvement of future self-assessment exercises.

Keywords: Algeria - Content analysis - Higher education institutions - Quality assurance - Self assessment processes - Self assessment reports.

Introduction

The quality concept has evolved over time, from a simple control of finished products to a management system involving different stakeholders. It has been used in business and industry for many years, and was imported into the higher education sector in the early 1980s (Elassy, 2015). The massification of higher education and the changing requirements of the employment market and various stakeholders are among the challenges that have attracted quality interest in this sector. However, this transposition has given rise to a debate on the applicability of quality management principles, methodologies and tools in the higher education sector (Davim, 2012; Rosa & al., 2012, p129), and has divided the literature into two currents of thought. The first current claims that some quality management practices applied in private companies could be transposed to the higher education

sector (Peak, 1995 referred in Calvo-Mora & al., 2005; Campatelli & al., 2011; Spasos & al., 2008). As for the second, it includes literature that considers HEIs as a particular type of organization in which it's not possible to apply industrial quality models (Houston, 2007, 2010; 2010; Pratasavitskaya & Stensaker, 2010). Although the debate is old, no firm conclusions have been reached so far (Davim, 2012; Rosa & al., 2012).

It seems, nevertheless, that in Algeria, due to the adoption of the LMD (Licence - Master - Doctorate) system in 2003, HEIs are being forced to implement a QA system based on self-assessment according to the national standard. The aim of this self-assessment is to initiate HEIs to conduct an organizational diagnosis and to reflect on continuous improvement of their practices. Indeed, the self-assessment has been implemented in all HEIs during the period 2017-2018 in response to the Ministry of Higher Education and Scientific Research (MESRS) instructions. It was given special attention and was considered as the most important action of the quality approach.

However, and despite the self-assessment guides made available, each HEI has developed its implementation approach, according to its understanding and context, which means that procedures and methods may vary and differ. Our research therefore aims to present, evaluate and compare how self-assessment has been implemented in HEIs through a methodology of qualitative content analysis of self-assessment reports. This study is exploratory in nature, as it treats a new problem in Algeria for which the literature and empirical studies is still limited.

The article begins with a literature review on self-assessment and then presents the Algerian context in which the reports were produced. Then, the methodology for content analysis is presented, followed by data analysis and discussion. The study concludes with a general synthesis of obtained results and proposes recommendations for improvement.

Self assessment as approach to QA: literature review

As soon as the concept of quality in higher education appeared, a debate about its meaning emerged, and at present there is still no agreement among researchers on its definition. The concept has been described as vague and controversial (Cheng & Tam, 1997), multidimensional (Campbell & Rozsnyai, 2002; Sarrico & al., 2010; Schindler & al., 2015) and philosophical (Green, 1994). Also, it is considered as relative to the user (Elassy, 2015; Harvey & Green, 1993) because it is interpreted in different ways by different stakeholders (Elassy, 2015; Matei & Iwinska, 2016), according to their various interests (Vlăsceanu & al., 2007). For the purposes of this study, quality refers to the institution's ability to organise its processes coherently in order to meet internal objectives and external requirements (Torre & Zapata, 2012).

QA is the expression used to guarantee and ensure quality (Campbell &

Rozsnyai, 2002). It is a whole of processes, policies or actions carried out externally or internally (Schindler & al., 2015) to meet two major objectives, namely: accountability and improvement (Rosa & al., 2012). The first objective refers to meeting the required standards defined by an external QA body, and the second to improving education (Bugday Ince & Gounko, 2014). These two goals are mutually exclusive due to a conflict of methods between them; however, they can be combined in a balanced strategy (Thune, 1996). Furthermore, if the focus is on improvement, evidence will automatically be provided for accountability (Srikanthan & Dalrymple, 2004). In this context, HEIs who undertake to QA are required to provide necessary evidences to achieve its objectives. A starting point for this approach is indeed a complete assessment of practices in order to situate them in relation to a reference model and to detect areas for improvement.

Evaluation refers to any process leading to judgments and/or recommendations regarding the quality of a unit (Campbell & Rozsnyai, 2002). It can be internal (self-assessment) conducted by institution members, or external conducted by external experts. Thus, it can cover the institution or one or more of its activities (among others: teaching and/or research). This article focuses on institutional self-assessment, understood as "*a comprehensive study process of the institution or one of its fields, essentially analytical, reflective and change-oriented in nature, which is organized and conducted in a participatory manner by directors and academics in the light of the institutional context and standard criteria*" (Silva, n.d, referred in Villalta, 1998, p103). The main purposes of self-assessment are as follows:

- Identify the organization's strengths and areas for improvement (Ahmed & al., 2003; Benavent & al., 2005; Hillman 1994; Ritchie & Dale 2000);
- Measuring the institution's effectiveness according to set objectives (Rontopoulou, 1998);
- Provide a reliable basis for decision-making (National Accreditation Commission [CNA-CHILE], 2008);
- Promote a quality culture (Tari, 2010);

Self-assessment according to Hillman (1994) is defined as a process of evaluating against a model for continuous improvement. A model can be standard or specific to academia (Tari & Madeleine, 2010). Among the standard models, there is for example the EFQM model (Calvo-mora & al., 2005; Spasos & al., 2008) and the Malcolm Baldrige National Quality Award MBNQA (Detert & Jenni, 2000). As regards the specific models developed for the education sector, these included, for example, the European Quality Improvement System (EQUIS) and the Baldrige Education Criteria for Performance. However, Conti (1997) recommended using standard models in a first self-assessment exercise, but opting for personalized models as the institution gain experience. Furthermore, Hillman (1994) specified that the success of self-assessment depends on three main elements: model, measurement and management. This shows that self-assessment

is not limited only to comparing organization's management system and results with a reference model, but rather involves a cyclical process for improvement (Benavent & al., 2005). Nevertheless, there is no well-defined way in the literature to organize this process; there now appears a variety of implementation approaches and procedures.

Based on relevant literature review on self-assessment processes (Hillman 1994, Samuelsson & Nilsson, 2002, EFQM, 2003 referred in Tarí 2010, Tarí & Madeleine, 2010), eight essential steps for successful self-assessment were deduced, namely: (1) Leadership (management commitment), (2) Planning, (3) Model setting, (4) Communication, (5) Training/ awareness raising, (6) Implementation, (7) Action plans, (8) Follow-up. Our research will focus on the first six steps that are usually described in self-assessment reports.

The literature show that self assessment steps, if properly deployed, may be a key factors for success, such as: obtaining management commitment, planning, open communication, raising awareness, training and encouraging employee participation (Ahmed, & al., 2003; Ritchie & Dale, 2000; Samuelsson & Nilsson, 2002; Tarí, 2010; Teo & Dale, 1997). If not, they may constitute barriers that prevent self assessment implementation, such as: lack of commitment and enthusiasm, lack of planning, lack of resources (Ritchie & Dale, 2000; Tarí 2010; Teo & Dale, 1997).

Based on this literature review, which provides a useful theoretical framework for our study, the HEIs self-assessment practices will be analyzed, evaluated and compared in order to meet the objectives of the study. Therefore, this research will attempt to answer the following questions: How the self-assessment processes were implemented in HEIs in Algeria? What are the differences and similarities between them? What are the advantages and difficulties experienced? What would be the recommendations for improvement?

Quality self-assessment in HEIs in Algeria

The Algerian higher education system is characterized as centralized (World Bank, 2012) and complex in terms of organization and network. Indeed, it is structured in three hierarchical levels: Ministry's central administration (strategic level) responsible for setting policies and strategies for the sector, the HEIs' directorates (operational level) responsible for the implementation of policies and activities related to teaching and research, and regional conferences (intermediate level) made up of experts who deliver opinions and recommendations on various projects and development prospects for the sector. In addition, the university network includes 106 state-run institutions, 09 private establishments and 16 research centers. In this article, we are interested in publics HEIs who are concerned by the QA project.

Faced with this massification of the higher education system, QA has become

an absolute necessity aimed at improving institutions governance and autonomy. Indeed, QA project was initiated in 2008 with the organization of an international colloquium on QA to learn from the experiences of other nations (European Commission, 2010-2013). After this event, QA has been integrated into higher education policy and officially adopted as a continuous improvement approach of teaching, research, organization and management activities of HEIs. Two years later (2010), the project was materialized with the creation of the Commission for the Implementation of QA in Higher Education (CIAQES), which proceeded to carry out the actions included in its roadmap (Table 1).

Table 1. QA implementation process in Algeria

Year	Actions
2011	Creation of Quality Assurance Cells (CAQ) in all institutions; Designation of Quality Assurance Responsible (RAQ);
2012	Continuous training of RAQs who, in turn, had to train their cell members;
2013	
2014	Elaboration, appropriation and official adoption of the National Reference for Quality Assurance in Higher Education (RNAQES);
2015	
2016	
	Development of self-assessment guide to facilitate the use of the RNAQES;
2017	Implementation of institutional self-assessment in all HEIs;
2018	Elaboration of action plans and establishment projects; Expertise to external evaluation;
2019	Follow-up.

Source: Own

The institutional self-assessment was officially launched in January 2017 by order of the higher education minister. It was conducted on the basis of the national standard RNAQES which is organized into seven major areas, namely: training, governance, research, university life, infrastructure, international cooperation and the relationship with socioeconomic environment. These areas are divided into fields, references, criteria and evidences. According to Lerari (2016), areas and fields define self-assessment scope, references are establishment objectives and criteria are the actions to be implemented to meet the references, and they are materialized by evidences.

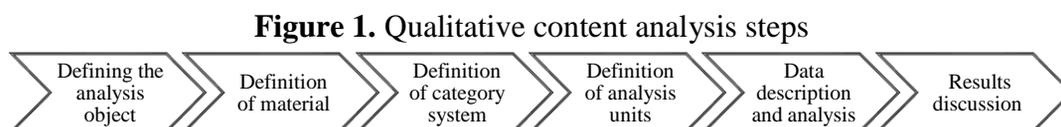
The self-assessment project planned to evaluate all HEIs, over an initial period of 6 months (January-June 2017). Nevertheless, the operation continued during the 2017/2018 academic year. Bimonthly monitoring of operation progress was carried out by the regional conferences. At the end of the operation, each establishment was required to draw up and submit to CIAQES a self-assessment report according

to a standard format made available to them. The reports objective was to describe the steps followed by HEIs to self-assess and the main results achieved. In mid-July 2018, 86 HEIs had produced and submitted their reports, representing a participation rate of 81.1% (Mezache & Chahed, 2018). For the purposes of our research, a total of 85 self-assessment reports were identified as the population of study (one institution's report was excluded for ethical reasons).

The analysis of Algerian quality self-assessment context shows that all HEIs have been put in the same institutionalization level of practices, knowledge and mastery in QA, which leads us to suppose that self assessment approaches if differ, it's going to be in the way they have been addressed. This paper is based then on hypothesis that HEIs' self-assessment approaches have common steps and differences in the way they have been implemented.

Research methodology

Qualitative content analysis is the method considers appropriate to answer the research questions. It is a technique that can be used to deal with a wide variety of documents (Aktouf, 1987) and examine their content in depth through a category system (Leray, 2008). Our approach is composed of six main steps (Figure 1). It draws on the relevant literature on qualitative data analysis (Dépelteau, 2000; Mayring, 2014), and on previous studies that have used content analysis to analyse and compare quality management practices in higher education context (Golowko & al., 2017; Zou & al., 2012).



Source: Own

The Algerian HEIs self-assessment reports, published for the period 2017-2018, constitute the official written record of self-assessment practices, and thus a relevant source for our research purpose. According to Yin (2009), the strengths of documentation as a data source lie in its stability, discretion, accuracy and broad coverage.

For collecting reports, the authors proceeded in two times: contacting the RAQs of different establishments and consulting the HEIs websites. A total of 21 reports were obtained, of which 17 were prepared in 2017 and 4 in 2018. This represents 25% of the total number of reports submitted. The study sample is small for two main reasons. The first is that there is a high turnover of RAQs, and those who are newly installed did not participate in the self-assessment process and do not have the reports produced. Moreover, this is why the authors opted for document

analysis as a research method rather than interviews. The second reason is that very few HEIs have published their reports on their websites.

The small sample size limits the possibility of generalizing the results. However, our aim is to provide a meaningful description of HEIs' self-assessment experiences rather than to provide generalizable results. Nevertheless, the sample reflects the diversity of HEIs in Algeria (HEIs of all types and belonging to different regions) (Table 2).

Table 2. Distribution of study sample by region and type

Region	Type	University	School	University center	Total (by region)
	East	06	01	01	08
	Central	01	03	01	05
	West	04	02	02	08
	Total (by type)	11	06	04	21

Source: Own

For confidentiality reasons, the names of HEIs of our sample will not be disclosed. We have coded¹ them as "RTn" with R: region, T: type, n: number.

Once the material had been collected and classified, the authors proceeded to a preliminary reading in order to get a general idea of implementing practices and to construct the list of themes structuring the different reports. The reading focused on the part relating to institutionalized efforts at quality self-assessment. For the development of category system, deductive approach was followed, which consists of deducing categories in advance, before text coding (Mayring, 2014). This approach is most appropriate when there is relevant previous research related to the subject studied (Mayring, 2014). Five main categories have been defined and divided down into themes or sub-categories (Table 3).

Table 3. Study categories

Code	Categories	Themes/ Sub-categories
A	Management Commitment	- Principals' Commitment;
		- Self-assessment objectives;
B	Planning	- Creation of implementation body;
		- Process planning;
		- Self-assessment approach ;
C	Model	- Areas and criteria for self-assessment
D	Training	- Training of evaluators teams ;
		- Sensitization to the academic community;
E	Implementation	- Self-assessment methods;

¹ For example, CU₁ (University 1 in the Central Region), WS₃ (School 3 in the Western Region).

		- Compliance assessment ; - Self-assessment reports.
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Source: Own

Once the categories were defined, the authors proceeded to extract the analysis units which could be words, sentences, general ideas of complete passages (Aktouf, 1987). To extract them, we drew up a table with several columns entitled respectively: categories, themes (or sub-categories), establishment (one column per establishment). We then read the texts in depth and assigned each passage to the appropriate category. At the beginning, the extracted passages were written out in full, then coded or transformed into a standardized form (Babbie, 2016).

Analyse and discussion of findings

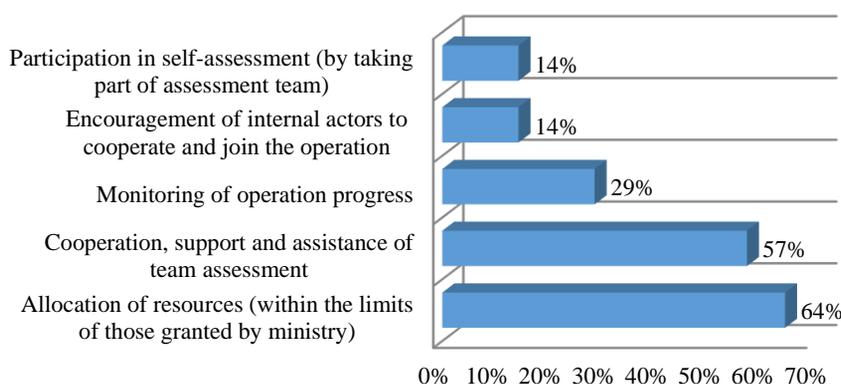
Two approaches are distinguished for data qualitative analysis: a vertical approach, which aims to study the contents of each document for all categories, and a transversal (or longitudinal) approach, which studies the contents of all documents for each category. As part of our research, the authors conducted a transversal analysis to compare the contents of all reports in each of predefined categories or subcategories. Our findings will be supported by controlled-passages extracted from the texts.

Category A: management commitment

Management commitment:

Report's analysis shows that 14 HEIs in our sample (67%) declared the principals' commitment to self-assessment process. principles, includes heads of institutions (university' rector, and school' and center' director), vice-rectors, assistant directors and deans of faculties. This commitment has been shown in different ways (Figure 2) which imply their awareness of the importance of the operation.

Figure 2. Forms of commitment to self-assessment (Figures in per cent (n=14))



Source: Own

By the remaining 33% of the HEIs, no mention was made in their reports about the principals' involvement in the process. This does not mean, however, that there was no commitment, since the HEIs' were obliged to report to the MESRS which instructed to implement self-assessment exercise. As a result, their commitment is inevitable. The authors assume that this is due to one of the limitations of documentary analysis, as the documents may not describe all practices and policies that have been implemented.

From the above, the authors make the first statement of the study which supposes that the majority of the HEIs' principals have shown themselves committed to the process. This is in line with the literature which recommends that self-assessment process should not begin without leader's commitment (Hillman, 1994; Tarí & Madeleine, 2010; Teo & Dale, 1997). The authors emphasize, however that this commitment seems weak and insufficient as it was limited to team support and operation monitoring. Yet, real commitment requires investment in the human, material and financial resources that support the achievement of objectives and the development of policies and strategies (Pires Da Rosa & al., 2003 referred in Calvo-Mora & al., 2006). Without these resources, the operation is doomed to failure (Ritchie & Dale, 2000).

This weakness can be explained by the fact that the HEIs' leaders do not have sufficient autonomy to grant and make available all the resources necessary for the operation. This is due to the high centralization level of higher education system in Algeria (World Bank, 2012) and the state control exercised over all aspects of management and organization of the institutions. The other possible explanation is that the self-assessment was initiated by the Ministry, which did not allow enough time for HEIs' principals to become aware of the complexity of the process and the organizational changes needed to ensure its effectiveness (Ritchie & Dale, 2000).

Self-assessment objectives:

It is important to recall that the self-assessment was launched in all HEIs following the Ministry's instruction. As a result, many reports point out that the main reason for carrying out a self-assessment is to respond to this instruction and to submit the reports within the set deadlines (common objective). The following excerpts confirm our finding:

“This operation is part of a self-assessment operation launched by the MESRS at the level of all schools and universities in the national territory” (CS₁)

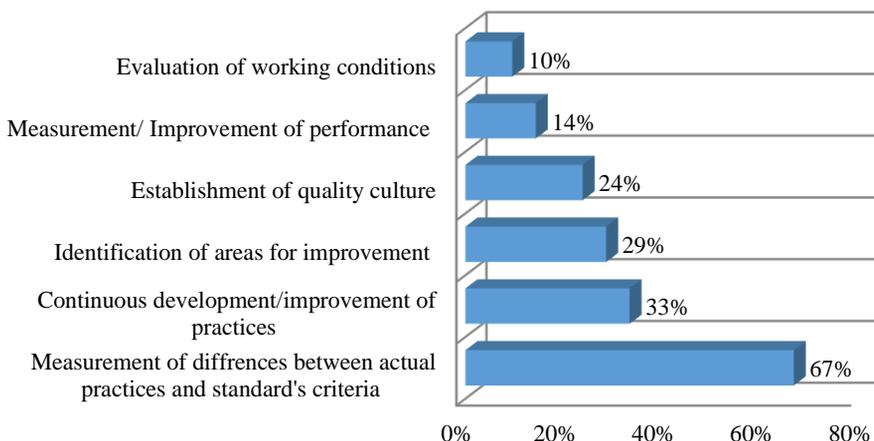
“The self-assessment operation is part of the ministerial process aimed at

establishing the status of the situation and drawing up the future establishment project” (EU₅)

In addition to this main and common objective, operational sub-objectives have been set by some HEIs (Figure 3).

As a result, the second important element that emerges from the analysis is that the vast majority of HEIs have focused on compliance with the standard's criteria more than improvement of their internal practices. This finding leads us to believe that the main objectives and purposes of the self-assessment were not well understood by HEIs. Furthermore, this could be explained by the insufficient initial time allocated to the operation, which obliged the HEIs to speed up the work in order to be able to submit the reports on time. Indeed, the four (4) reports in our sample, drawn up in 2018, all cited improvement among their objectives and thus confirm our assumption.

Figure 3. Self-assessment operational objectives (Figures in per cent (n=14))



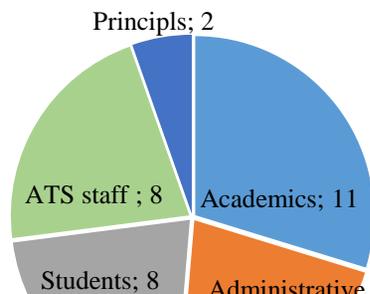
Source: Own

Category B: Planning

Creation on implementation body:

The vast majority of HEIs in our sample (71%) have set up specific committees to carry out the assessment work (Self-assessment Committee (CAE)). Others (29%) have entrusted the mission to the cells that set up the QA (CAQ). The CAEs were broken down into sub-committees by assessment area. They are mainly composed of HEIs internal members (Figure 4)

Figure 4. Composition of self-assessment committees (Figures indicate the actual number of institutions (n=15)).



Source: Own

The figure show that HEIs preferred academics who are involved in more than half of the CAEs. Nevertheless, we note a low level of a student's involvement, who are considered according to Nguyen (2016) as actors directly involved in change implementation. Furthermore, the participation of external actors has been very limited or even absent. Only two HEIs made an exception. The CE₁ institution included an alumni, which helped to assess the professional integration of graduates. Thus, the CE₂ institution included a representative of socioeconomic sector in a self-assessment sub-committee.

Process planning:

It is commonly argued that the self-assessment exercise must be planned (Rithie & al., 2000; Samuelsson & Nilsson, 2002). However, only 7 HEIs (33%) indicated having established an implementing self-assessment planning.

The lack of planning in the majority of HEIs could, as Teo & Dale (1997) have already pointed out, hamper the management of the self-assessment process.

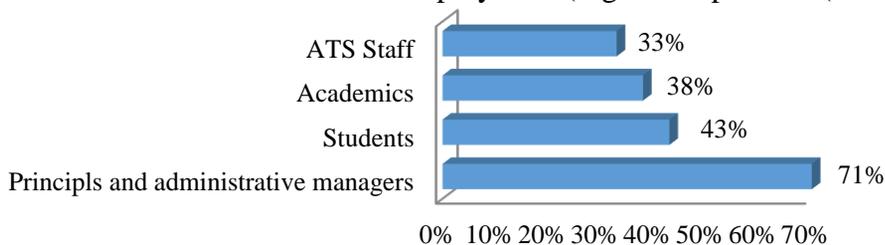
Self-assessment approaches:

The self-assessment approach refers to the method used for data collection and analysis. In all HEIs in our sample, self-assessment was conducted using a questionnaire developed on the basis of the RNAQES criteria. This is in line with what is recommended Tarí (2011), which suggests using the questionnaire approach when an institution is faced with the process for the first time and does not have much experience with self-assessment. This approach is simpler and faster compared to others, such as the workshop approach, for example (Tarí & Madeleine, 2010), however, it only indicates what people think and not the reasons that underlie their thinking (Ahmed & al., 2003, p45). To remedy this, different methods form of administering questionnaires has been chosen by the HEIs (see below).

Otherwise, questionnaires were administered with various internal stakeholders. Some HEIs limited the self-assessment to specific categories of

stakeholders, notably principals and administrative managers (71%), while others favored a participatory approach aimed at broad involvement of internal stakeholders (Figure 5).

Figure 5. Levels of self-assessment deployment (Figures in per cent (n=21))



Source: Own

The authors note, therefore, a centralization of self-assessment operation in the majority of HEIs. Centralization, as opposed to decentralization, is the extent to which self-assessment is deployed to higher hierarchical levels in the organization (Benaven & al., 2005). According to these authors, this is explained by the fact that these HEIs are not yet mature in terms of quality management, and tend to centralize it in order to identify and resolve major problems. This is indeed the case of the HEIs in Algeria.

Moreover, the involvement of external stakeholders (e.g. employers and socioeconomic actors) remains absent. They are either consulted or involved. Only one establishment (WS₁) has made an exception by sending the self-assessment questionnaires to companies representing the socioeconomic sector.

Category C: Model

Areas and criteria for self-assessment:

Regarding the areas, the majority of HEIs (71%) conducted the self-assessment in relation to all the RNAQES's areas. Others opted for only a few. The choice of the number of areas was made taking into account two main factors, namely: experience in self-assessment and the time allowed by the MESRS.

“Because of the lack of experience, on the one hand, and given the timetable for sending the report to the ministry, on the other hand, the self-assessment scope was limited to a single faculty (...) and examining only two areas, namely training and Scientific Research” (WU₃)

In addition, other factors may contribute to this choice, such as the number of evaluators, their methodological skills, their availability...Etc. However, these factors cannot be confirmed or refuted within the limited scope of this research.

As regards the criteria, slightly more than half of HEIs (52%) have adopted the RNAQES without making any changes to its criteria. This is in line with Teo & Dale (1997), who had suggested that organizations with little experience in self-assessment should use the criteria for the published model without modification. However, this cannot be valid for the Algerian model, which includes 219 general criteria requiring adaptations to the contexts and situations of each HEI. Furthermore, the remaining 43% made changes to the RNAQES criteria (addition, deletion, rewording):

“However, some references and/or criteria and/or evidence are modified; others are replaced to adapt them to the context of institution” (ES₁)

“For the choice of the references retained by area, we have taken into consideration two criteria which are: Applicability (...) & relevance (...)” (EU₆)

This adaptation of criteria has enabled the HEIs to develop their own references that take into account their specificities and institutional contexts.

Category D: Training

Training of evaluators teams:

From the literature point of view, training is a prerequisite for understanding the objectives of self-assessment (Samuelsson & Nilsson, 2002; Tarí & Madeleine, 2010) and it is of high importance (Benavent & al., 2005). In addition, it helps to develop leadership and skills of the team and its coordinator, which are the basis for successful self-assessment (National Accreditation Commission [CNA-CHILE], 2008).

On average, 67% of the HEIs in our sample have trained their teams on self-assessment methods and techniques. These trainings had a double objective: to acquire a working methodology and to become familiar and take ownership with of the standard. The training activities took different forms, such as: meetings/debates, working sessions, transmission of documentation to those concerned (online and/or paper versions), presentation and awareness-raising days and workshops.

“A training course was organized for all members (...) on the national reference system and the self-assessment exercise” (CS₁)

“Two days (...) were set aside to train the members of the self-evaluation committee, allowing them to familiarize themselves with the national standard and to understand the self-evaluation procedure” (WU₃)

On the other hand, 33% of the HEIs did not mention having trained their teams

in charge of self-evaluation, which could have serious consequences for the success of the project.

Sensitization to the academic community:

A broad awareness of self-assessment importance among internal actors is essential. It generates a situation of trust and promotes internal motivation and active participation in quality improvement (National Accreditation Commission [CNA-CHILE], 2008). By internal actors includes: principals and administrative managers, academics, students and ATS staff. However, very few HEIs (29%) stated that they had ensured awareness of their internal actors to the objectives of the self-assessment. They have done so in different ways that show their willingness to ensure involvement at all levels: information days (24%), meetings (5%) & workshops (10%).

Category E: Implementation

Self-assessment methods:

The self-assessment questionnaires were administered in a variety of ways:

- Distribution/collection of questionnaires: this approach was used by very few HEIs (19%) who chose to deploy the self-assessment at lower levels, among the various internal actors: students, academics and administrative staff;
- Visits/ Interviews: questionnaire-assisted interviews were carried out, in particular with the higher hierarchical levels (principals and administrative managers). The questionnaires were sent to them in advance so that they could prepare evidence of compliance with the assessment criteria;
- Interviews + Distribution of questionnaires: this mixed approach was chosen by the HEIs having decided to involve all internal stakeholders at all levels.

Analysis of the reports shows that the majority of HEIs (66%) favored the method of interviews (assisted by questionnaires) with higher hierarchical levels, which confirms our statement on the centralization of self-assessment. Nevertheless, half of these HEIs chose to diversify their data sources by distributing the questionnaires to other types of population.

Compliance assessment:

As mentioned above, the main objective of HEIs is the compliance assessment of practices with the RNAQES criteria. This compliance has been assessed using quantitative indicators. In fact, a quality scale was defined (from 0 to 4) for the majority of establishments and scores were assigned to each criterion or evidence according to their level of implementation. The values obtained were consolidated to determine the evaluation of the fields and references in each area.

Self-assessment reports:

The results of the self-assessment have been the subject of reports describing the approaches adopted, and identifying strengths and weaknesses. In our sample, 38% of the HEIs focused on the internal environment, highlighting their own strengths and weaknesses. The others carried out a global analysis of their internal and external environment (SWOT analysis: Strengths, Weaknesses, Opportunities and Threats). This analysis would serve as a basis for the development of action plans at a later stage.

Indeed, the self-assessment processes resulted in recommendations for improvement by area in 71% of the HEIs.

Conclusion

Results analysis indicates that HEIs in our sample carried out an institutional self-assessment based on the National Model (RNAQES), and used the questionnaire as a common tool for data collection. In addition, the self-assessments were carried out for two main purposes: assess the compliance of internal practices with the referral criteria and report the results to ministry.

This study shows some advantages of the implemented approaches, the two main ones being the creation of committees in charge of self-assessment and the training of their members. This will enable the HEIs to have specialized teams to monitor the implementation of improvement actions and conduct future self-assessment exercises.

In addition, the study highlighted some difficulties encountered that could negatively influence the success of the self-assessment, namely:

- Lack of management commitment in the process;
- Insufficient commitment to practice improvement initiatives;
- Lack of student involvement in the committees in charge of self-assessment;
- Insufficient initial time allocated to the self-assessment;
- Lack of planning of self-assessment processes;
- Insufficient sensitization actions organized for the benefit of internal actors;
- Lack of internal and external communication;
- Centralization of the operation (in some HEIs);
- Lack, or even absence, of external stakeholder involvement.

Among the difficulties mentioned above, the authors find the three factors that Ahmed & al., (2003) considered as the traffic lights that condition the success of the self-assessment process, namely "management commitment", "communication" and "involvement of actors at all levels". It seems to us, therefore, that these three factors require special and immediate attention.

Furthermore, "lack of internal and external communication" is the most critical factor to be emphasized. Moreover, communication was supposed to be included in the categories of study (in accordance with the theoretical framework) but it is

not, as it does not appear in any of analyzing reports. In no case was it mentioned that self-assessment objectives, plans and approaches had been widely communicated internally. This weakness is likely to hamper the effectiveness of self-assessment implementation process. With regard to external communication, HEIs were supposed to publish their self-assessment reports on their websites, but the majority of them did not do so. Some HEIs do not even have a section dedicated to QA on their websites.

From the above, the authors can conclude that the HEIs (in our sample) carried out the self-assessment for the same reasons and following similar steps. Nevertheless, these steps were approached in different ways according to the needs of each institution, which confirms our research hypothesis.

In conclusion, the authors propose recommendations for improvement that will be useful for both HEIs and ministry managers, as they will help to ensure the success of future self-assessments:

- Granting the HEIs' leaders more autonomy, particularly in terms of resource management;
- Ensure training and awareness raising of HEI leaders on the importance, objectives and purposes of QA and self-assessment;
- Enable all internal stakeholders to be represented in the self-assessment committees and strengthen the participation of students and academics;
- Train evaluator team to ensure the development and updating of their skills;
- Diversify self-assessment approaches in order to ensure the reliability and validity of the data obtained;
- Promote the decentralization of the self-assessment operation and a diversity of information sources (internal and external stakeholders);
- Ensure broad communication on self-assessment at internal and external levels;
- Develop action plans based on the SWOT analysis and recommendations for improvement made by evaluators, and ensure their implementation.

In conclusion, the authors would like to point out that the self-assessment carried out in 2017/2018 was only a pilot experience launched by the MESRS. This first operation proved to be useful for the HEIs in general, and enabled them to value their strengths and recognize their weaknesses. However, it is essential to address the weaknesses identified in this study to ensure that future self-assessment processes will be more effective.

This study has two main limitations, which relate to the documentary analysis methodology. The first is that it is difficult to generalize the results obtained to all HEIs. However, they could serve as a basis for future research on self-assessment approaches. The second limitation is that there is a risk of subjectivity on the part of the researcher regarding the content analysis method (Dépelteau, 2000). To reduce this risk and to ensure the fidelity and completeness of the results, two content analyses were carried out by the two researchers, and for each difference

of opinion on certain points or elements, a common and logical solution was proposed.

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