



The Brazilian higher education evaluation model: “SINAES” *sui generis*?

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ABSTRACT

A study applied to the context of Higher Education (HE) accreditation and evaluation in Brazil. It discusses recent reforms within the context of the Brazilian evaluation model. The changes brought by the new resolutions published in 2016 have been presented, and a conceptual mapping of the HE evaluation model has been drawn. The objectives were to explain, longitudinally, the ways used by monitoring agencies/bodies to assess performance, and to assure a quality HE. The research methodology used a combination of multiple qualitative methods to present results as conceptual maps. The study may contribute to improving quality, based on best practices in the evaluated model.

1. Introduction

Accreditation and evaluation agencies around the world have discussed and pursued the development of quality HE through initiatives that assess performance of both courses and students. We can see examples of initiatives such as that of the Economic Organization for Economic Cooperation and Development (OECD), which applies an international performance evaluation test to recent graduates (Morgan and Shahjahan, 2014; Richardson and Coates, 2014; Shahjahan and Torres, 2013; Shahjahan, 2013), named *Assessment of Higher Education Learning Outcomes* (AHELO), which evaluates the effectiveness of education systems, and prepares audit strategies, in order to legitimize its operation in 27 countries (Barzelay, 2014; Morgan and Shahjahan, 2014; Hanushek et al., 2013; Lenkeit and Caro, 2014; Soh, 2014). Also, in terms of quality assurance in evaluation and accreditation processes by agencies, some recognized international organizations such as the *European Association for Quality Assurance in Higher Education* (ENQA), and the *Advancing Quality Management Education Worldwide* (AACSB), have a specific line of specialized accreditation for business and accounting programs. (Blomqvist et al., 2012; Maccari et al., 2014).

Against the backdrop of the main European and American evaluation models used by accreditation agencies; the various educational policies applied to HE; and the different ways of assessing quality in HE, the aim of this study is to assess and explain the role of accreditation and evaluation agencies/bodies in Brazil.

OECD's concern regarding the need to increase the quality of HE has

been discussed since the mid nineteen sixties. The connection between the design of HE, and the issue of quality and internationalization was highlighted in 1999 by David Woodhouse, in a report that questions the training offered by Higher Education Institutions (HEIs).

First of all, are HEIs clearly planned and organized to produce the graduates required by society, that is, are their goals appropriate? [...] are HEIs producing the desired graduates? These questions have led to new interpretations of the quality concept [...]. At least this is the theory, but if it is actually achieved or not, also depends on the existing culture. For instance, systems based on the US model tend to be comfortable with different higher education institutions, but systems based on the British model often have policies that tend towards reducing variability. (OECD, 1999, p. 29–30).

Near the year 2000, OECD (1999) mentioned the different cultures between accreditation and evaluation models and, as an example, considered the different quality assurance standards between the US and the UK. In 2009, discussions related to quality and to quality assurance applied to HE kept emphasizing the need to promote a culture of quality. Harvey (2009, p. 1) points out that quality culture tends to be understood as a result of better internal quality assurance processes: “There is increasingly a taken-for-granted view that quality culture is about the development of, and compliance with, processes of internal quality assurance.” Lanares (2008, p. 13) explains that between the two ways in which HEIs can develop quality as a culture, one should prefer the second way, in which the continuity of culture tends to facilitate change:

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“In some cases, the institution will introduce quality assurance. This will imply new values, which will have to be integrated in the organizational culture. In other ones, the creation of quality assurance will start from the existing quality culture. Once finalized, quality assurance will in turn influence and modify the quality culture”.

This paper's initial questions adhere to this scenario, and will help develop questions related to HE accreditation, evaluation, and quality in Brazil:

Are there differences in the Brazilian HE accreditation and evaluation model, when assessed in the light of those in developed countries? What indicators are used by accreditation/evaluation agencies/bodies to influence or determine institutional performance, and that of graduate courses?

The main objectives of this study were, to explain, longitudinally, the ways used by the monitoring agency to assess performance, and to assure a quality HE in Brazil. The specific objectives were: a) to review the literature, the approaches that define accountability and the need for quality in HE; b) to explain the main characteristics, and the quality assurance mechanisms and practices in Brazilian HE; c) to compare practices with the legal requirements of accreditation agencies; d) to explain the Brazilian HE model, considering the different dimensions of the accreditation and evaluation processes.

In order to achieve these objectives, it was decided to use the triangulation strategy as research methodology. By providing multiple views and methods for obtaining information, its use might alleviate research credibility issues (Tashakkori and Teddlie, 1998; Fielding and Schreier, 2001; Yauch and Steudel, 2003; Hussein, 2009), through the combination of methods and data sources in qualitative aspects.

The challenge of combining data in a qualitative way, with different presentation methods and techniques, using conceptual diagrams and maps, allows one to provide more accurate results, and allows the analysis of multiple perspectives. There is also a classical trend in the literature regarding research methods in social sciences by using multiple methods (Hussein, 2009; Webb et al., 1966). By using the triangulation strategy one can enrich the analysis, favouring the visualization of multiple possible perspectives, while at the same time facilitate the understanding and perception of phenomena. Secondary data have been used, including official reports and statistics provided by the evaluation and accreditation agency.

2. Accountability and pressure for quality in HE models

Harvey and Askling (2003) said that in the 1990s, the search for quality emerged within the scenario of HE. Once the search for efficiency and effectiveness in public services was started – arising from the ideals of *New Public Management* (NPM) (Hood, 1989; Pollitt, 1993), it was not possible to exempt HEIs from this new requirement of producing more with less costs (Bleiklie, 1998). HEIs started to incorporate these changes (Askling and Henkel, 1988) in an effort to follow the rise of “*The Evaluative State*” (Neave, 1988), cultivating quality, efficiency, and an entrepreneurial culture within HE.

Following this *status quo*, Santos (2011) positions HE as a public responsibility, and emphasizes the importance of governments and society assuring a quality HE. This followed from the need to ensure the quality of HEIs through public authorities, and can be evidenced by various accreditation models based on self-regulation. The approach of making governments accountable for the quality of HE, its accreditation and evaluation, has been highlighted in various academic communities (Bleiklie, 1998; Cret, 2011; Deem, 1998; Neave, 1998; Stensaker et al., 2011).

We have witnessed the evolution of evaluation and quality assurance models and systems in a global way. Governments in each country have adapted their rules, improvements, and monitoring agencies differentially. As for example, the use of evaluation procedures in the European Community (ENQA, 2005, 2007, 2009; Rosa et al., 2011), the

accreditation procedures in the United States (Eaton, 2009, 2012; Harvey, 1995, 2002; Massy, 2005), and hybrid evaluation systems or those used interchangeably in Latin America (Lamarra, 2006, 2007; Santos, 2011; Law No. 10 861, 2004),¹ and Eastern European countries.

2.1. The evolution of accountability and quality within the Brazilian HE context

Polidori (2009, p. 440–441) points out that the reforms that took place during the government of Fernando Henrique Cardoso (1995–2003), culminated in privatization or in granting to the private sector the implementation of public functions and services, including higher education. From this landmark, which Felix (2008) named as “construction of emancipatory evaluation,” the implementation of the National Higher Education Evaluation System (SINAES) began to have the goal of developing, within the country, an evaluation policy consistent with its own reality.

In a way, these changes have tried to adjust the scenario of the country to the suggestions of the report published by the *Observatory on borderless higher education: prioritizing knowledge for the development of a nation*; including rational changes to HE; reducing unequal relations between developing countries; implementing democratization policies of access to and quality of HE; combating the erroneous view of prioritizing basic education at the expense of HE (Naidoo, 2007, p.2–9).

Lamarra and Centeno (2016, p. 138), claim that the quality assurance processes in Latin America have been strongly influenced by the standards in North America – primarily in the United States and in Canada –, and in Europe. As for the rampant growth of HE in Latin America, Lamarra and Cópola (2007, p. 18), and Lamarra and Centeno (2016, p. 137), say that various types of university and non-university HEIs have been established,² mostly private ones, in an attempt to meet the growing market demand, and, in such a context, quality and institutional relevance criteria were not previously thought of. The statement reinforces the need to establish a HE evaluation model able to provide response to emerging demands, without losing focus on quality.

These initiatives have consolidated a proposal for deployment of a quality model in the Brazilian HE that meets the state-monitoring model, which, according to Neave and Van Vught (1994), recognizes that the state has difficulties with, and is inefficient in monitoring a mass, dynamic, higher education system that is complex and constantly changing.

In summary, the proposal followed the international trend of turning the government into a regulator of HE, not worrying about occasional entropies, but rather concerned in maintaining the homeostasis of the whole, for which it has designed the implementation of SINAES. For Amaral and Magalhães (2001), this HE model allows very few interventions in the daily decisions of HEIs, due to their autonomy,³ for which the government is just limited to the subsequent task of directing, monitoring, and evaluating performance.

Durham (2003, p. 276–277) states that Universities enjoy autonomy to perform those activities which are their own, and that are not conducted for their exclusive interest, but are a service they provide to Society. As a result, acknowledging autonomy does not relieve the broader public authorities from the actual provision of these services. This prerogative of autonomy is not easily found in other contexts. One can cite, for instance, the case of The Encyclopedia of Higher Education (Schwartzman et al., 1992), which does not show any chapter discussing autonomy of universities.

As a highlight of the Brazilian model for the biennium 2015 and 2017, it began to play an important role in the HE quality assessment

¹ Law No. 10 861 of April 14 2004, by the Ministry of Education. Presidency of Brazil, which established the National Higher Education Evaluation System (SINAES).

² In Brazil, non-university institutions are represented by Federal Institutes.

³ In Brazil, universities have the autonomy to create, modify and extinguish HE courses, among other powers.

process within Mercosur,⁴ From the choice of the National Institute of Educational Studies and Research Anísio Teixeira (INEP) to lead the Secretariat of the Network of National Accreditation Agencies (RANA) (Ordinance No. 388, 2016, Art. 1)⁵ that make up the Mercosur Regional Accreditation System of Graduate Courses (Arcu-Sur). Arcu-Sur is the result of an agreement between the education ministers of Argentina, Brazil, Paraguay, Uruguay, Bolivia, and Chile, approved by the Mercosur Council in 2008. (Decision CMC No. 17, 2008).

3. The evaluation model of the HE evaluation/accreditation agency

Law No. 10 861 (2004) by the Brazilian Ministry of Education (MEC) established the SINAES. The purpose of SINAES (INEP, 2009) is to carry out a diagnostic, formative, and regulatory assessment of HEIs. It consists of three main components: evaluation of HEIs, of their courses, and of student performance.

In short, SINAES assesses all aspects around the three main educational areas: teaching, research, and extension. For which it takes into consideration social responsibility, student performance, HEI management, faculty, facilities, and other aspects (INEP, 2010a, 2010b).

The MEC integrates the INEP within its functional structure, as a linked federal agency (INEP, 2010a, 1–3), responsible for organizing and maintaining the educational information and statistics system, and for developing and coordinating educational evaluation systems and projects, at all HE levels and modalities in the country.

The results of evaluations coordinated by SINAES provide an overview of the quality of courses and of HEIs in the country. The evaluation processes are coordinated and monitored by the National Higher Education Assessment Committee (CONAES). According to Polidori et al. (2006), the role of the CONAES is to establish the general parameters and guidelines for implementing the evaluation system, leaving the operational responsibility to the INEP.

In Fig. 1, the conceptual map prepared by Pereira et al. (2015) offers a systemic understanding of the evaluation process of the quality of HE in Brazil. It was prepared from the SINAES legislation (INEP, 2009), and then further complemented by the contributions of Pedrosa et al. (2012), and Verhine et al. (2006).

In a mass, complex system, as in the case of Brazil, a conceptual map facilitates systemic understanding in a more simplified way than with a descriptive analysis.

It is noteworthy that the three educational axes of the Brazilian evaluation model – teaching, research, and extension –, presented in Fig. 1, are all managed by SINAES through the three evaluation pillars: institutional evaluation, course evaluation, and evaluation of student performance.

Next, internal and external institutional evaluation will be contextualized, and the new measures adopted in the 2016 reform will be presented.

3.1. Institutional evaluation

Institutional evaluation, as mentioned in Fig. 1, is one of SINAES components, and occurs through regulation and monitoring processes carried out by institutions. It is performed for accreditation and reaccreditation purposes of HEIs before the MEC.

SINAES established the top ten dimensions for institutional evaluation, which are illustrated in Fig. 2: Institutional Development Mission and Project (PDI); Teaching, research, post-graduation, and

⁴ The Southern Common Market (MERCOSUR), is a sub-regional bloc composed of the Acceding Countries: Argentina, Brazil, Paraguay, Uruguay, and Venezuela; Associated Countries: Chile, Bolivia, Peru, Colombia, and Ecuador, and Observer Countries: New Zealand and Mexico.

⁵ Management will be conducted under the responsibility of the Evaluation Technical Monitoring Committee (CTAA).

extension policies; HEIs social responsibility; Communication with society; Policies regarding personnel, faculty, and technical and administrative staff careers; HEIs organization and management; Physical infrastructure; Evaluation planning; Policies regarding student support services, and Financial Sustainability (Law No. 10 861, 2004 art.s 2–3).

§2, Art. 3 of Law No. 10 861 (2004) points out the two ways in which institutional evaluation should occur: “Different procedures and instruments will be used to evaluate institutions, among which self-evaluation, and *in loco* external evaluation.” Fig. 2 details the dimensions of institutional evaluation by SINAES.

3.2. Self-evaluation (internal evaluation), and external evaluation

Self-evaluation occurs internally within each HEI through the Own Evaluation Committee (CPA). Article 11 of Law No. 10 861 (2004) states that the CPA has the primary responsibility of conducting internal evaluation procedures to HEIs, as well as systematizing and providing the information requested by the INEP. It must act autonomously regarding other existing councils and collegiate bodies within the HEI (see Fig. 3).

For Ristoff and Giolo (2006, p.199) the autonomy of the CPA – conferred on it by law –, allows it to take action at the internal level of each HEI, in order for self-evaluation to actually happen. The self-evaluation guide jointly prepared by CONAES and by INEP establishes which aspects of each of the ten dimensions (Law No. 10 861, 2004, Art. 2–3) should be considered by the CPA in its work, not preventing it from adding others deemed as appropriate.

External evaluation is conducted by external members appointed by the INEP. Its committee is made up of members of the academic and scientific community, recognized by their qualifications in their field, and endowed with a broad understanding of HEIs. External evaluation requires the same minimum quality standards as for HE (INEP, 2010; Ristoff and Giolo, 2006), expressed in specific evaluation tools, and in institutional self-evaluation reports.

The Evaluation Technical Monitoring Committee (CTAA), illustrated in Fig. 4, is the collegiate body responsible for monitoring periodic processes of external institutional evaluation, and for evaluating the HEIs' graduate courses (Ordinance No. 386, 2016; Ordinance No. 1 027, 2006).

It is worth highlighting the existence of a Pool of SINAES Evaluators (BASIS), regulated by Ordinance No. 1 027 (2006, Art. 2), which is a single, national register of INEP evaluators for establishing the *in loco* Evaluation Committee. The BASIS register consists of a nominal list of 4495 institutional evaluators, and 8992 course evaluators throughout the country (Ordinance No. 1 751, 2006, p. 17–67).

In May 2016, Ordinance No. 208 (2016) established a standard procedure for selection of SINAES evaluators. Two specific indexes were created (Fig. 4): the Selection Index of Course Evaluators (ISA_{CURSO}), and Selection Index of Institutional Evaluators (ISA_{IES}). The variables that make up both indexes are explained in Table 1.

The two variables with the greatest weight in the selection of course evaluators are those related to their experience in course management (25%), and in terms of participation in the NDE (25%), as shown in the statistical model in Table 1. This criterion highlights the expected selection of professionals with relevant academic know-how to perform these activities.

One can see that the same criterion was adopted for selecting institutional evaluators, however, the most valued experience (30%) is related to institutional management such as leadership or provostship positions. The other two highest scores for this selection (20% each), have to do with experience in CPA and NDE.

Considering the above explained variables and their respective criteria, the statistical model to calculate the ISA_{CURSO} and ISA_{IES} indexes is shown in Table 2. A ranking of distances between candidates will be established, and those that qualify will be empowered and eligible for appointment in external evaluation committees (Ordinance No. 208, 2016, p.5–8).

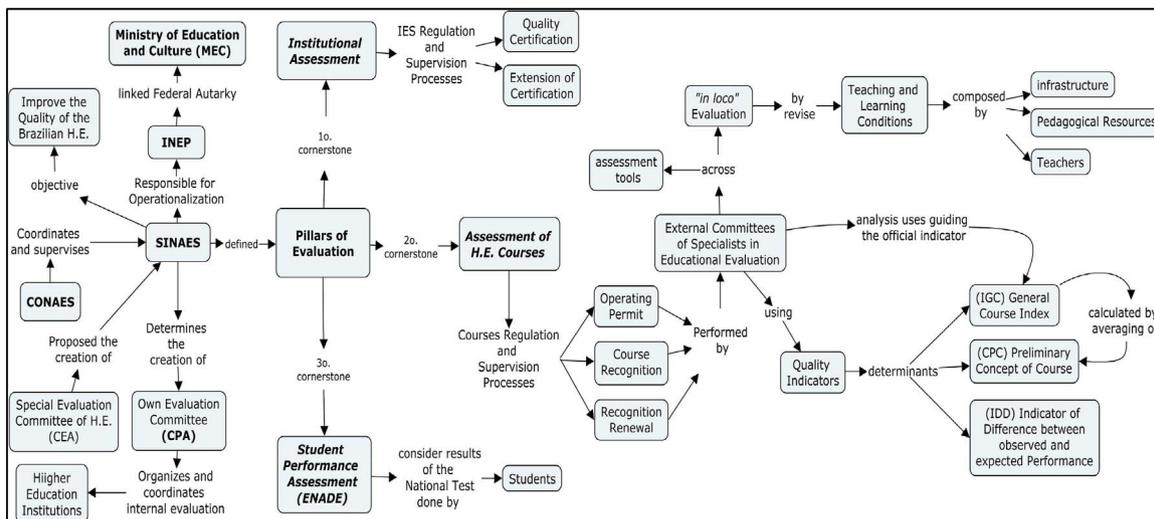


Fig. 1. Conceptual map of the Brazilian HE evaluation model. The map illustrates the functions of the main responsible bodies, MEC, INEP, SINAES, CONAES, highlighted in bold. It helps identify and contextualize the relationships between the main components of the evaluation elements: CPA, ENADE, IGC, CPC, and IDD. Source: Adapted from Pereira et al. (2015).

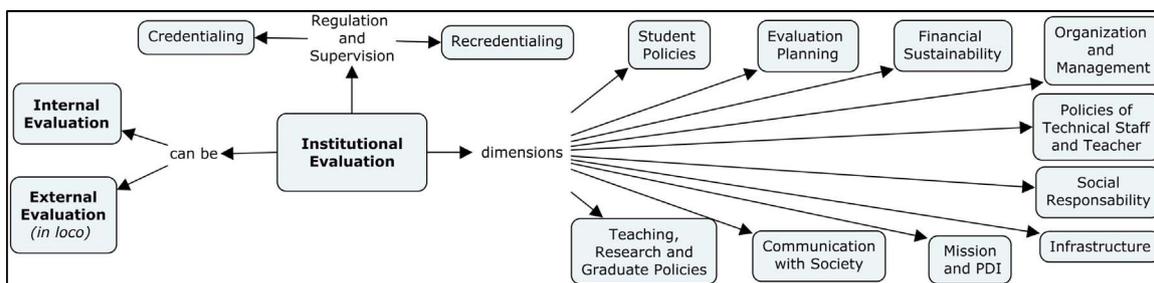


Fig. 2. Conceptual map of institutional evaluation in Brazilian HE. It helps identify the dimensions assessed by SINAES, and the types of assessment: internal and external. Source: Developed by authors.

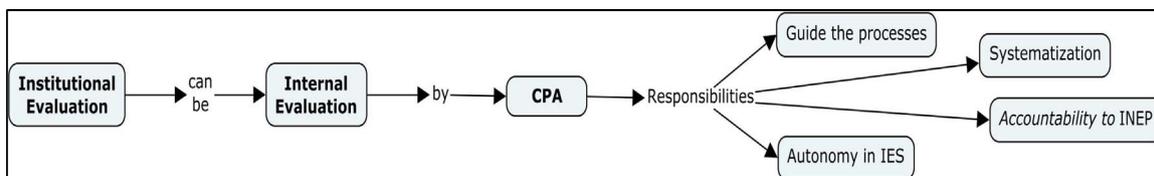


Fig. 3. Internal institutional evaluation in the Brazilian HE evaluation model. Helps identify the responsibilities of the CPA. Source: Developed by authors.

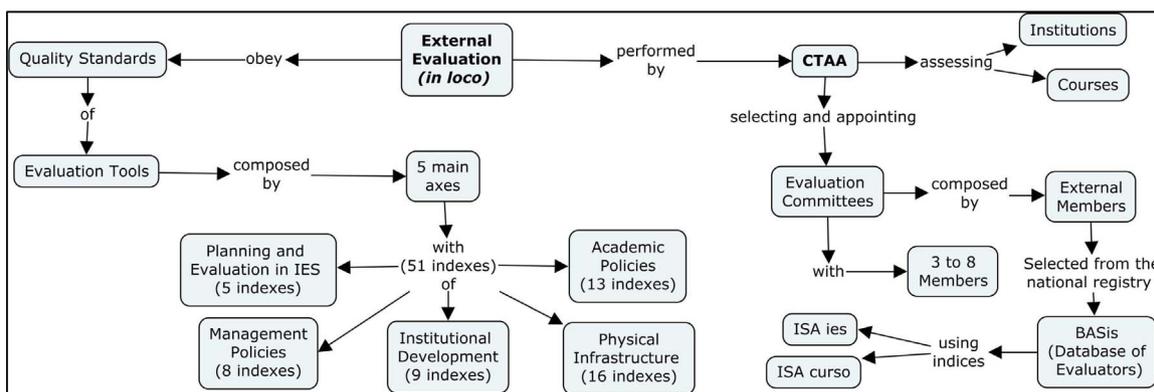


Fig. 4. External Evaluation in the Brazilian HE model. Helps to identify the CTAA and its assignments. Quality standards are divided into 5-axes, and are set out in the evaluation tools. In total, 51 quality indicators are evaluated. Source: Developed by authors.

Table 1
Variables that make up the Selection Indexes of Evaluators: ISA_{CURSO} and ISA_{IES} .
Source: Ordinance No. 208 INEP/MEC (2016).

| Variables | Indicators (measures in full years) | Indexes |
|-----------|--|--------------------------|
| ExpAC | - direction, or direct participant, in course evaluations. | ISA_{CURSO} |
| ExpAI | - direction, as a direct participant, in institutional evaluations. | ISA_{IES} |
| ExpNDE | - president or member of the course. | ISA_{CURSO}, ISA_{IES} |
| ExpDOC | - at the undergraduate or postgraduate level. | ISA_{CURSO} |
| ExpCPA | - as coordinator; president; member. | ISA_{IES} |
| ExpGC | - coordination of courses; assistant; coordination advisors; heads of institute. | ISA_{CURSO} |
| ExpGA | - positions/functions related to academic: rector; pro-rectory; board of directors; academic management; quality management. | ISA_{IES} |
| Pub | - production per year in the last three years. | ISA_{CURSO}, ISA_{IES} |
| CC | - on a scale of 1–5, with 3 being the minimum level satisfactory. | ISA_{CURSO} |
| CI | Issued by ad hoc committee of INEP for an HEI as a result of evaluation of Accreditation/ Reaccreditation: scale from 1 to 5, with 3 the minimum satisfactory level. | ISA_{IES} |

Notes: Variables meaning: ExpAC – experience in Course Evaluation; ExpAI – experience in Institutional Evaluation; ExpNDE – Experience in Structuring Teaching Centre⁶ (Res. Conaes No. 1 (2010); ExpDOC – Teaching in HE; ExpCPA – participation in CPA; ExpGC – Course Management; ExpGA – Academic Management; Pub – Scientific production; CC – Course Concept; CI – Institutional Concept.

Table 2
Statistical models for calculation of ISA_{CURSO} and ISA_{IES} indexes.
Source: Ordinance No. 208 (2016, p. 5–8).

| Indexes and specific weights of the variables |
|--|
| $ISA_{CURSO} = \text{ExpAC} (0,10) + \text{ExpNDE} (0,25) + \text{ExpDoc} (0,20) + \text{ExpGC} (0,25) + \text{Pub} (0,10) + \text{CC} (0,10)$ |
| $ISA_{IES} = \text{ExpAI} (0,10) + \text{ExpNDE} (0,20) + \text{ExpCPA} (0,20) + \text{ExpGA} (0,30) + \text{Pub} (0,10) + \text{CI} (0,10)$ |

The models composition highlights the prioritization of management skills for evaluation. In both models, the weight is more than half the total weight of each index. For example, in ISA_{CURSO} , it appears that the weight for ExpNDE is 25% added to ExpGC with a 25% weight, and ExpAC, with a 10% weight, increases the need for management skills to 60% of the index. In ISA_{IES} , the proportion of management skills reaches 80% of the index when we consider: ExpAI (10%) + ExpNDE (20%) + ExpCPA (20%) + ExpGA (30%).

3.3. Evaluation committees

As far as the composition of the *in loco* external evaluation committees, Ordinance No. 1 027 (2006, Art. 7) states that HEIs evaluation committees will be composed of at least three, and, at most, eight evaluators. In the case of the evaluation of graduate courses (Ordinance No. 1 027, 2006, Art. 8), the number of evaluators varies, depending on the amount of qualifications offered per course.

The external institutional evaluation tool is public and should support the academic organization's acts of accreditation, reaccreditation, and transformation.⁷ This instrument includes the five axes (see Table 3) that cover the ten dimensions evaluated by SINAES.

For each dimension evaluated there are, on average, ten specific indicators that are scored on a Likert scale from 1 to 5. By the end of the

⁶ Course professors, with high training/graduation, which are now accountable for designing, implementing, and consolidating the Course's Political Pedagogical Project (PPC).

⁷ The instrument, in its updated version (2015), is available in INEP's website at: <http://bit.ly/2jCvr53>

Table 3
Relative Weights for Accreditation and Reaccreditation of an HEI.
Source: INEP. http://portal.inep.gov.br/superior-avaliacao_institucional-instrumentos

| Axes | Accreditation | Reaccreditation | Number of Indicators |
|--|---------------|-----------------|----------------------|
| Axis 1–Institutional Planning and Evaluation | 10 | 10 | 5 |
| Axis 2 – Institutional Development | 20 | 20 | 9 |
| Axis 3 – Academic Policies | 20 | 30 | 13 |
| Axis 4 – Management Policies | 20 | 20 | 8 |
| Axis 5 – Physical Infrastructure | 30 | 20 | 16 |
| Sum | 100 | 100 | 51 |

evaluation process, evaluators submit their final report, with the indicators of each dimension automatically totalled by the system, and with their specific weights.

The final concept of the external evaluation, as far as the accreditation/reaccreditation of the HEI, is calculated based on 51 indicators assessed among the five axes, and presents a concluding note that should be the main substance to the Committee's final opinion (Table 3).

In Table 3 one can notice that each axis has different weights for different actions: Accreditation or Reaccreditation. For instance, it appears that physical infrastructure has the greatest weight (30) at the time of accreditation of an HEI, while at the time of institutional reaccreditation, the greatest weight (30) falls on the adequacy of academic policies. It should be noted that among the axes with the greatest weight (axes 3 and 5), are also those that record the highest number of indicators, 13 and 16, respectively, within a total of 51.

The five evaluation axes shown in Table 3 contain and are inter-related with the top ten dimensions of SINAES for institutional evaluation (see Fig. 5). It should be understood that Axis 1, in addition to meeting the dimension of evaluation planning, also includes institutional reporting. Axis 2 meets the dimensions of Institutional Mission and PDI, and HEIs Social Responsibility. Axis 3 meets the dimensions of Education, Research, Post-Graduate Studies and Extension Policies; Communication with Society; and Student Support Service Policies. Axis 4 meets the dimensions of Technical, Administrative and Faculty Policies; HIE Organization and Management, and Financial Sustainability. Axis 5 meets the Physical Infrastructure dimension.

Fig. 5 shows the interrelationship between what is assessed in each evaluating axis, and its connection with the evaluation dimensions of SINAES. On the whole, the evaluation processes applied to Brazilian HE are summarized in Fig. 5, and constitute a system that allows the integration of the various dimensions of the evaluated reality. Standardized procedures, through evaluation tools, combined with evaluator training, are a vital condition for achieving the goals of the evaluation model.

3.4. Course evaluation

There are different types of higher education courses in the country: bachelor, graduate and higher technology courses, both as in-person and correspondence courses. For the evaluation process, different weights are assigned to the authorization and recognition, or recognition renewal acts. Three evaluation dimensions are also adopted: Didactic and Pedagogical Organization; Faculty and Tutorial; and Infrastructure (Table 4).

In total, during course evaluation, the Expert's Committee checks 80 indicators (INEP, 2016b) distributed among the three dimensions that are evaluated, besides meeting with faculty, with students, with the CPA, with the coordinator of the course, and with the HEI leaders.

In total, 36 indicators are evaluated, which comply with the

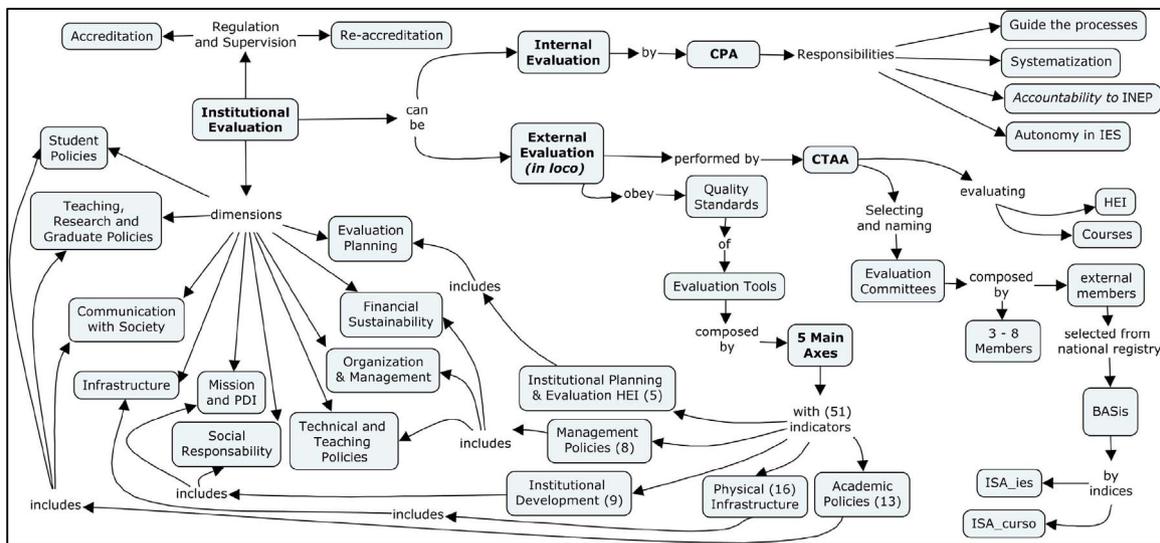


Fig. 5. Summary of the Brazilian HE evaluation model. The map highlights how internal evaluation is implemented within HEIs through the CPA, and how external evaluation is conducted under the control of the CTAA. It also highlights how the 51 evaluation indicators are distributed among the institutional evaluation dimensions conducted by SINAES. Source: Developed by authors.

Table 4
Allocation of weights by evaluated dimension and number of indicators.
Source: Ordinance No. 386 (2016). New indicators of the SINAES Evaluation Tool of Classroom and Distance Education Graduate Courses.

| Dimension | Authorization | Recognition and Recognition Renewal | Number of Indicators |
|---------------------------------------|---------------|-------------------------------------|----------------------|
| Didactic and Pedagogical Organization | 30 | 40 | 36 |
| Faculty and Tutoring Body | 30 | 30 | 21 |
| Infrastructure | 40 | 30 | 23 |
| Sum | 100 | 100 | 80 |

Note: When reviewing the evaluation tool (Technical note CGACGIES/DAES/INEP/MEC No. 010/2016), INEP increased the number of indicators from 69 to the current 80. Retrieved from: <http://bit.ly/2jrkdOM>

Table 5
Key course evaluation indicators organized by dimensions.
Source: New Evaluation Tool of Classroom and Distance Education Graduate Courses. INEP (2016a).

| Didactic and Pedagogical Organization Dimension | | |
|--|---|--|
| Educational Context | Number of vacancies | Practical teaching activities |
| Institutional Policies in the course | Course Completion Works | Social Responsibility |
| Course Objectives | Student support | Course integration – Community |
| Professional profile of graduates | Course contents | Complementary Activities |
| Curricular Structure | Mentoring Activities | Supervised Internship |
| Methodology | ICTs in teaching and learning | Institutional study materials |
| Teaching and learning evaluation procedures | Interaction mechanisms (teachers, tutors, and students) | Student participation in PPC monitoring and evaluation |
| Actions following from course evaluation processes | | |
| Dimension of the Faculty and Tutoring Body | | |
| NDE's performance | Faculty's academic qualifications – % PhDs | Operation of the Course Board |
| Coordinator's action | Employment status (Faculty) | Scientific, cultural, artistic or technological production |
| Training and academic qualifications (Tutors) | Professional experience in teaching and education | Experience in teaching, and in academic management (Coordinator) |
| Employment status (Coordinator) | Teaching experience in basic education | Tutors experience in distance education |
| Work load (Coordinator) | Experience in university education (Faculty) | Ratio professors and tutors – per student |
| Academic qualifications of the Faculty | Ratio between professors and number of vacancies | Pedagogical Support Centre and teaching experience |
| Infrastructure Dimension | | |
| Teachers Room | Specialized periodicals | Basic bibliography |
| Classrooms | Ethics Research Committee | Supplementary bibliography |
| Control over production and distribution of educational material | Specialized teaching laboratories | Workspace (Coordination and Academic Services) |
| Students' access to IT equipment | Work offices (Full-Time Professors) | |

adequacy between the course proposal and the national guidelines, and those associated to institutional policies. Table 5 shows the main indicators evaluated in all three course-evaluation dimensions: Didactic and Pedagogical organization, faculty and tutoring body, and infrastructure.

Two new indicators have been included in the Didactic and Pedagogical Organization dimension: Social Responsibility and Students' Participation in PPC monitoring and evaluation. The Social Responsibility indicator is assessed as a guideline in the HEI's social mission, and should consider the following aspects (INEP, 2016a, p. 23): the academic community's opportunities for engaging in social responsibility activities; the existence of partnerships, and the contribution to the design, planning, and implementation of educational activities. The Student Participation indicator in PPC provides the opportunity to standardize student participation in PPC review and evaluation activities with the faculty (Table 4).

Within the Faculty and Tutorial Body dimension, the new proposal (INEP, 2016a) includes two new indicators specifically geared to medical courses: Teacher's responsibility for oversight of medical care, and Mechanisms to foster integration between teachers and tutors in the Unified Health System (SUS) network (INEP, 2016b, p. 11–12). Because they are specifically tailored for the medical field, they have not been listed in Table 4, but they do represent important new features for evaluation.

In evaluating the Infrastructure dimension, 23 indicators are assessed. The main indicators are highlighted in Table 4. It should be noted that the emphasis is on the physical resources available in the library, and there is a standard calculation to assess the required amount of copies of the various titles per curricular unit.

3.5. Students' performance evaluation

The last pillar of SINAES is students' performance evaluation. It is conducted by ENADE. This test is the main student evaluation tool in Brazil, and has been adopted on a mandatory basis. It has nothing similar in other Portuguese-speaking countries, and is not a common element in evaluation and accreditation systems across Europe and Latin America, with only a few open and mandatory initiatives in Europe.⁸

As far as HE evaluations based on graduate student skills in Europe, a skills study conducted among college students and graduates (Kuhn and Zlatkin-Troitschanskaia, 2011) is reported, which, based on current German and European research activities, points towards the fact that these countries do not necessarily regard “direct large-scale evaluation of student and graduate skills (in specific and generic domains) in different subjects” as important. Classifying as insufficient the research field in direct evaluation in Germany and Europe.

ENADE has features that suggest it having been inspired by standard tests from the United States of America (USA). According to Pedrosa et al. (2012) this feature reflects quality control based on student outcomes. One can cite the case of the *Collegiate Learning Assessment* (CLA) in the United States, which was assessed by Lennon (2014, p. 7) to determine its usefulness as an appropriate mechanism to assess generic skills in the Ontario HE system.

ENADE is a curricular component with a mandatory census nature. It was established by the same Law that regulated the SINAES (Law No. 10 861, 2004), and has a three year enforcement period, just as the ENADE cycle.

Student performance regarding the syllabus provided for in the curriculum guidelines of the respective degree course, their ability to adjust to demands arising from knowledge development, and their competencies to understand external topics to the specific scope of their occupation, linked to the Brazilian and world reality, and to other areas of knowledge (Law No. 10 861, 2004, Art. 5).

Its aim is to measure the performance of students enrolled in Brazilian HE, based on skills and competences set out in the specific curriculum guidelines for each course. Its outcomes offer a systemic view of the development of HE in different regions of the country.

3.6. Student performance indicators used until 2016

The Enade test applies to higher education graduate students, and its outcomes are used to score the evaluation of outcomes from HE

⁸ Harris (2009, p. 5) points out that initiatives such as the pilot projects: OECD's Assessment of Learning Outcomes in Higher Education (AHELO); The Tuning Process (27 countries); the Chemistry Eurobachelor[®] and the CoRe Project (UK and Netherland), developed in Europe, have increased the interest in the method of measuring student achievement or performance through standard tests. The interest would not only be in measuring, but also in monitoring and reporting external standards.

courses in the country (Regulatory Ordinance No. 40, 2008⁹; Regulatory Ordinance No. 24, 2012¹⁰).

The test outcomes form the Enade concept, which is calculated for a particular HEI course, located in a given municipality, and considered as an evaluation area. The course grade includes student performance on general education tests, and on specific component tests.

These outcomes are then combined with other indicators: infrastructure and facilities, didactic and pedagogical resources, and faculty, and help calculate the Course Preliminary Concept (CPC¹¹), established by Regulatory Ordinance No. 4 (2008) and updates; and the General Course Index (IGC¹²), established by Regulatory Ordinance No. 12 (2008), and its calculation updates in 2015.

Another performance indicator – with no similarities in the European context –, is the Difference Indicator between Observed and Expected Performance (IDD), which helps to balance out course indicators within the same region, using values based on regional average, and not on the highest average in the country.

3.7. New performance indicators from april 2016

In this latter pillar, the current moment is for reforms. Since the publication of Regulatory Ordinance No. 8 (2016), on April 28, the MEC has established new quality indicators for Higher Education in the country. For this challenge, a working group has been set up to prepare the methodology for its implementation – the Working Group on Higher Education Performance Assessment (GTAES). GTAES¹³ has the purpose of preparing, defining the methodology of quality indicators in Higher Education, and take up their subsequent implementation. To better assess and improve the quality of graduate courses and of HEIs in the country, eight new indicators have been created, which are illustrated in Fig. 6.

The indicators are shown in Table 6 Regulatory Ordinance No. 8 (2016, p. 11–12): Performance Indicator in Enade (IDE); Difference Indicator between Observed and Expected Performances (IDD); Indicator of Students' Trajectory in graduate courses (ITE); Faculty Development Indicator (IDCD); Graduate Courses Performance Index (IDC); Course Performance Institutional Index (IIDC); Extension Performance Indicator (IDEX); Institutional Performance Index (IDI).

In presenting the various indicators, Table 6 shows whether they are new indicators, or modifications of existing indicators. It also presents the inputs to be used for their preparation. The dynamics of this new indicators proposal can be understood synergistically, by analysing the conceptual mapping drawn in Fig. 6, with the details of each indicator listed in Table.

To conclude this section, Fig. 7 shows the consolidated conceptual mapping of the Brazilian HE evaluation model. The proposal is to present a complete model that includes all three evaluation pillars, with their respective characteristics, indicators, and highlights.

In preparing the model, when presenting institutional evaluation, its main processes are highlighted, explaining how does internal evaluation by the CPA, and external evaluation by CTAA take place; the criteria for the composition of external evaluation committees and evaluators selection criteria are stated, with a ranking mechanism formalized through BASIS and their selection indexes (ISA_{CURSO} and ISA_{IES}).

In Fig. 7, one can also understand how does course evaluation take

⁹ This Ordinance was republished on December 29 2010, by the MEC.

¹⁰ Amends Regulatory Ordinance No. 40 of 2007.

¹¹ As of April 2016, the indicator has been replaced by the Graduate Courses Performance Index (IDC). (Regulatory Ordinance No. 8, 2016).

¹² As of April 2016, it has been replaced by the Institutional Performance Index (IDI). (Regulatory Ordinance No. 8, 2016).

¹³ The characteristic of wide discussion was assured through the creation of GTAES, by including, in its members selection process, representatives from the main entities in the field.

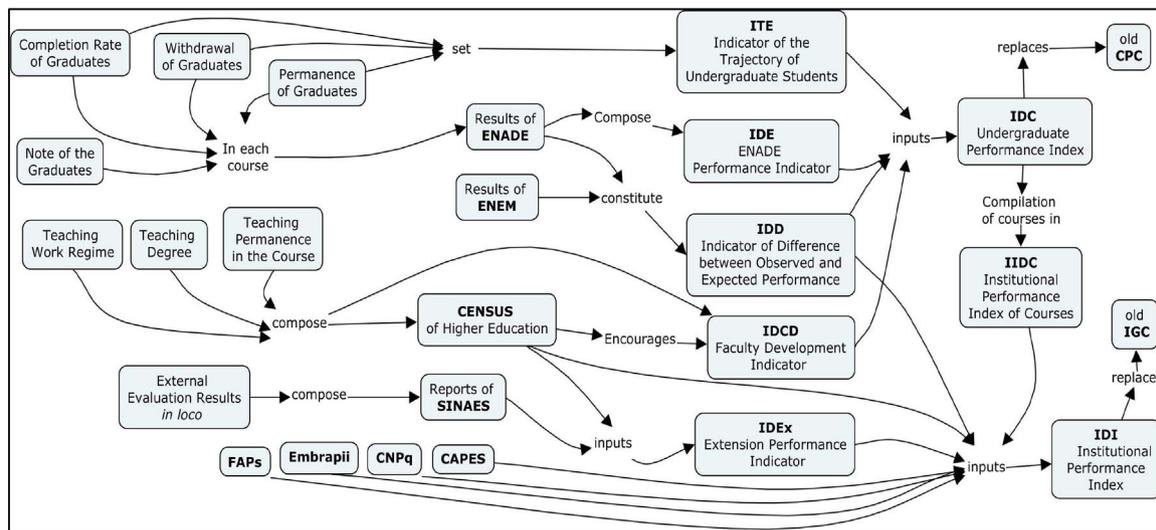


Fig. 6. New quality indicators of Brazilian Higher Education. It highlights the eight new indicators/indexes, and identifies the inputs to be used for their preparation. Source: Developed by authors.

Table 6
New indicators for Student Evaluation from 2016.
Source: Regulatory Ordinance No. 8 (2016, p. 11–12).

| Indicator | Status | Detailing |
|-----------|--------------|---|
| IDE | New | Obtained from the ENADE results, calculated according to the levels of proficiency of the graduates, determined by the Evaluation Advisory Commissions of each area. Expresses the absolute value resulting from the average student performance in each course |
| IDD | Reformulated | It will be calculated based on ENEM and ENADE results. |
| ITE | New | It will be calculated by following the trajectory of the students entering in HE. The initial proposal is to use the rates of permanence, withdrawal and completion. |
| IDCD | New | It will be calculated from information from the Census of Higher Education on the evolution of the work regime, titling and permanence of teachers in the course. |
| IDC | New | Replaces the CPC, it will consist of the inputs: IDE, IDD, ITE and IDCD. |
| IIDC | New | It will be calculated for each HEI from the weighted average, by number of registrations, of the IDC set of its undergraduate courses |
| IDEx | New | It will be calculated from information from the Higher Education Census and the External Evaluation Reports from SINAES. |
| IDI | Reformulated | It replaces the IGC, to analyze institutional development in relation to teaching, research and extension |

Notes: Indicators are meant to represent the outcomes of HE students in the country.

place, as well as understand their regulatory and monitoring processes, which are carried out by the evaluation instruments, and following the 51 indicators listed.

The third pillar, ENADE, is also shown in the mapping of Fig. 7, and highlights its indicators and the academic elements that make them up. It is worth emphasizing the use of these indicators as inputs for the Higher Education Census, and for SINAES reports.

From this diagram one can visually understand the numerous areas, dynamics, and interactions between the elements of the system as a whole.

4. Final considerations

The study presented the Brazilian university context, mainly dominated by private HEIs in response to rampant growth, which is a feature of HE in Latin America (Lamarra and Cópola, 2007, p. 18; Lamarra and Centeno, 2016, p. 137). The system implemented by the government through SINAES presents derivations from the state supervision model (Neave and Van Vught, 1994). The educational policy of turning the government into a regulator has a critical challenge: to adapt quality and efficiency control mechanisms to a dynamic HE, plus with mercenary features such as massification, complexity, and constant mutation.

The actions discussed in the paper have shown the responsiveness of this model to contemporary provocations, and the choice of INEP for the management of RANA/Arco-Sur is a recognition of its cross-border

“virtues.”

The organization of SINAES, with its conceptual mapping of roles and responsibilities has been presented. The three main components or pillars of Brazil's evaluation policy were listed, but the focus of this study was institutional evaluation, course evaluation, and the recent changes to student performance evaluation, to compare the volume of evaluating actions, both institutional as in graduate courses.

It is worth highlighting that the innovative policy of selecting institutional and course evaluators through indexes (ISA_{IES} and ISA_{CURSO}), and its standardization and operationalisation using BASIS, is presented as a viable and quality assurance enhancing alternative, in an HE massive model like the Brazilian where, on average, 3500 external evaluating actions take place every year.

Occasionally, *in loco* evaluation procedures were presented and discussed, as they occur, or should occur, both for course evaluations and for institutional evaluations, knowing their key indicators and their respective weights in the overall assessment of each unit evaluated.

A consolidated conceptual map, with the purpose of explaining the interrelationship between the evaluating dimensions of SINAES, and the 51 indicators used in the external institutional evaluation was presented. In course evaluation, the main indicators adopted, among the 80 indicators used, were presented, and their highlights in the composition of the evaluated dimensions: Didactic and pedagogical organization; Faculty and tutorial body; and Infrastructure.

Students' performance evaluation by ENADE, from May 2016, began a reform process, and it progresses to meet the needs of a dynamic,

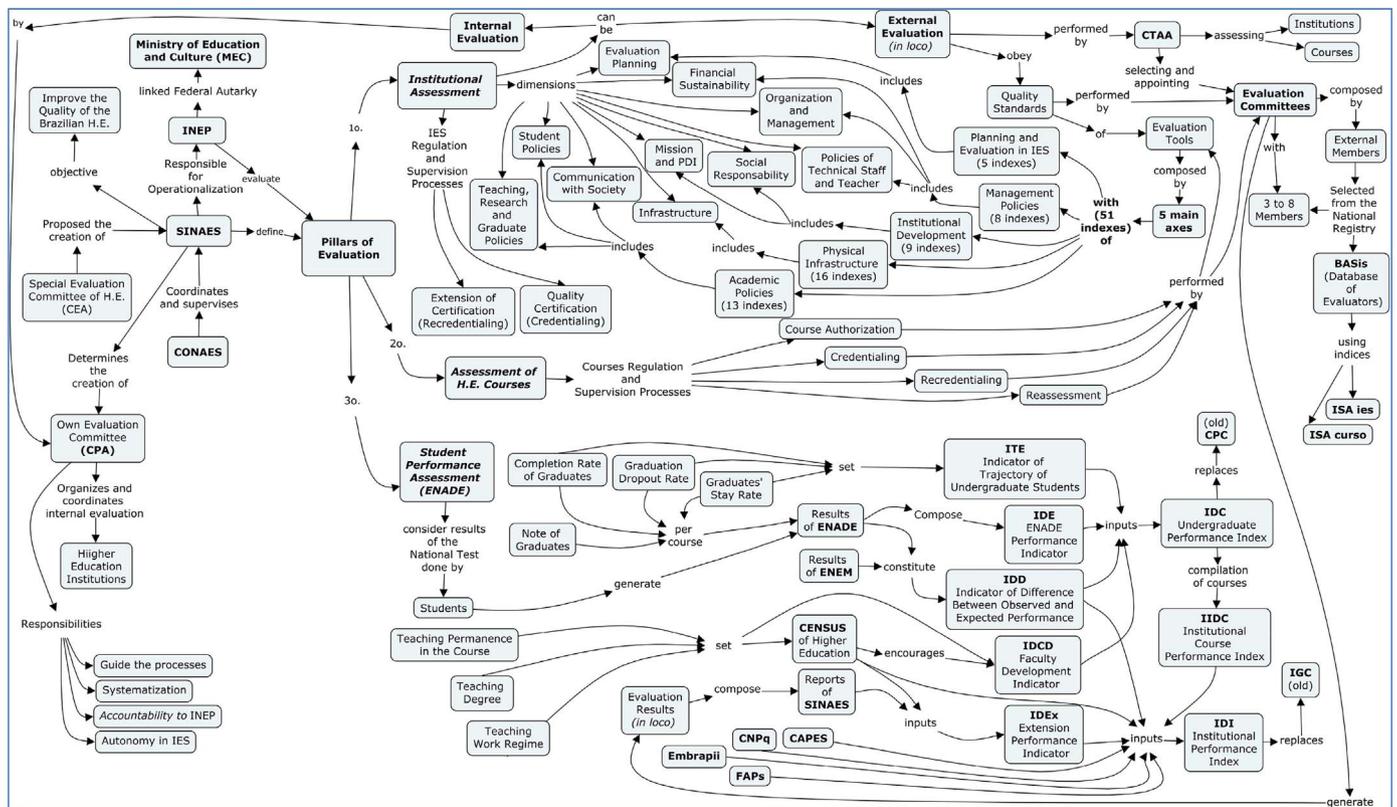


Fig. 7. Presents the complete conceptual mapping of the HE evaluation model in Brazil. It highlights the structure of the evaluation agency, and presents the three main pillars guiding the evaluation. It shows the types of evaluation, their instruments, and indicators used. Source: Developed by authors.

massified, evaluation system. New indicators are being worked by GTAES, and were conceptually mapped to offer a view of the transition moment.

The discussion that emerges relates to the *sui generis* role of SINAES: can one use the term properly, after having presented the context of HE in Brazil?

Initially one must consider the characteristics of the Brazilian model: massified, complex, constantly changing, mainly due to the prominence of private HEIs. Then, by considering as course evaluation factors, the outcome of a test carried out by students – the ENADE – which has great weight in the final grade of each course. Thirdly, a model in growing expansion since 2004 – which accommodated 7.8 million enrolments of new entrants, and 1 million graduates in 2014, which works with 383,000 professors, and an average ratio of 20.4 professors per enrolment in HE (INEP, 2014) –, cannot be governed by easily generalizable management standards. Finally, concern for external evaluation criteria has been shown, from the selection of HE evaluators, when BASIS was established, its quality indicators, and its database of institutional and course evaluators. If not by most of the features presented here, by those that stand out from other HE models distributed across the globe, the performance of SINAES can be regarded as quite *sui generis*.

4.1. Limitations and clues for future work

As limitations of this study, namely questions related to the time of reform of the third pillar of students' performance evaluation by ENADE could not be addressed in full. The restructuring process is on-going, and can develop different characteristics, in order to promote improvements in a dynamic, massified, evaluation system. The new indicators should be effectively implemented in the transition between 2016 and 2017.

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