# Academic Management in Higher Education: The Challenge of Change 

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#### Abstract

Higher education institutions have historically been organized in vertical structures with little integration. The academic system worked through departments, managed by professors, while the administrative system was organized hierarchically, and its operationalization maintained the standards of vertical management coordination. The present research describes a case report of a model organized in a public university that sought to overcome the fragmented disciplinary, curricular and institutional view. The implemented model contained horizontal and vertical structures, with two main guiding axes: student success and integrated curriculum. The academy was composed of Centers and Nucleus of Teaching, organized by areas of specific knowledge, to which teaching, research and extension activities are associated. As horizontal structures, the Pro-Rectory of Students was created to serve the areas of development and student assistance; Internationalization Advisory and Strategic Affairs Coordination, which was responsible for monitoring the strategic planning, institutional development plan and quality control. The pedagogical projects of the courses were revised in an integrated curriculum logic. Difficulties and resistance were observed during the course. The implemented model became a successful initiative, resulting in a more robust university structure, capable of reconciling professional training that meets the desired profile, in addition to the possibility of inserting new courses. However, challenges are still present, such as the modification of the institutional culture, which is in transition from a hierarchical and disciplinary curricular model to the integration and interdisciplinarity, as well as the adhesion of professors, students and technicians.


Keywords: Higher Education, Institutional Organization, Curriculum, Institutional Management

## 1. INTRODUCTION

In the work "Journeys to England and Ireland", Tocqueville ${ }^{1}$ described his visit to the University of Oxford. The book can be considered an external evaluation report and describes the organization existing in Oxford in 1835:

There are in a very confined gathered nineteen colleges, most of which preserve their Gothic architecture. (...) The colleges that together make up the University of Oxford were originally to make available instruction in all the knowledge then known to man. They were richly endowed so as to draw the best teachers there and to enable the best possible education to be given free of charge (p. 50-51) ${ }^{1}$.

Several centuries have passed since these origins, with a great expansion of the universities in the world, however maintaining the vertical organization.
Mintzberg ${ }^{2}$ considered that every organized human activity originates two requirements: the division of labor into various tasks to be performed and the coordination of these tasks to carry out the activity. According to the author, organizations would coordinate their work vertically, through five mechanisms: mutual adjustment, direct supervision, standardization of work processes, standardization of work outputs, and standardization of worker skills.
Further on, Cohen and March ${ }^{3}$ added that higher education institutions organized themselves into vertical structures, but operated with diverse goals, in order to allow for creative thinking and to
respect the autonomy of different disciplines. The authors called this organization "organized anarchy", where the leader presided two separate systems of authority in the same institution: one for academic subjects and the other administrative. The administrative system was hierarchically organized and its operationalization maintained the standards of authority, control and vertical management coordination. In turn, the academic system operated with little integration with the administrative system, through independent departments and programs, managed by professors and academic professionals.
According to Morril ${ }^{4}$, in the vertical model, academic units do not need each other to do their work, as well as the majority of professors do most of their activities, both in teaching and research, independently of each other. Deans or Presidents conduct a supervision, which is filtered through various committees and collegiate councils.
Keeling et al. ${ }^{5}$ described vertically organized institutions where there are essential horizontal forces, such as student services: student health and counseling programs, recreation centers, student health insurance plans, unions and student services, and dining services, for example, as well as student policy, transition programs, student reception, general education courses, student mobility, and academic advising. A structuring model was presented by the authors, including possible inherent and necessary tensions between the horizontal and vertical elements.The authors conclude that vertical and horizontal structures vary in number and dimensions from institution to institution and that a curricular approach to supporting the student experience through programs, services, andpolicy allows for appropriate vertical activity while insisting on balanced horizontal functioning.
Oliveira ${ }^{6}$ mentioned that the university was the first universalizing knowledge space that the West constructed, with respect to knowledge and integration of people, outlining our social and scientific identities. Over time, changes occurred, according to the trends of society and existing knowledge at each era, preserving the university's role as a trainer and whose mission is the study, science, and knowledge.

In the following years, several publications on the use of methodologies utilized in industryemerged, which have become to be increasingly applied in service organizations, including public health services and higher education. Radnor and Bucci $^{7}$ conducted a case study survey on the implementation of the Lean method in Colleges and Universities in the United Kingdom. Francis ${ }^{8}$ carried out a literature review on the Lean methodology, as well as its use in higher education, and highlighted the association between the methodology and organizations, also describing recommendations for improving the management of higher education institutions.
Regarding professional training in the health area, it has been an increasing challenge to find a curricular model that meets the demands, considering the speed with which changes are happening in society around the world and also due to globalization ${ }^{9}$.In this sense, the National Curriculum Guidelines (NCG) for Health Courses in Brazil provide common recommendations for the development of general skills and competences, with respect to health attention, decision-making, communication, leadership, management in health and continuing education.TheNational Curriculum Guidelines for the Occupational Therapy ${ }^{10}$ course, for instance,aimsto promote professional training based on interdisciplinary exercise and meeting the specificities of the current Health System in the country, in this case, the Unified Health System ${ }^{11}$.
In 2004, the Brazilian National System of Higher Education Assessment - SINAES ${ }^{12}$ was created, with the objective of ensuring the national assessment process of higher education institutions, undergraduate courses and the academic performance of their students.

With the introduction of the national guidelines and the assessment system, there was a concern in Brazil on the part of the university community to adjust their curricula, in such a way that their graduates were inserted into the labor market with technical competence and skills and attitudes compatible with local social needs and the possibility of acting in different scenarios and contexts, thereby promoting sustainable development ${ }^{13}$.

It was in this scenario of unrest and attempts to improve its organization that the Alagoas State University of Health Sciences (UNCISAL), a young institution that inherited a vertical structure with isolated Colleges and Courses, in addition to incipient support for student and standardization of
administrative and academic practices, undertook the change of the management structure. The need for change also came from the various recommendations of the assessments to which the institution was submitted, which pointed to the urgent necessity to change its management structure, with strategies for intercourse training experiences, multidisciplinary activities and the institutionally shared adoption of a biopsychosocial health model.

## 2. Materials and Methods

In 2010 , the UNCISAL management group established the challenge of developing a new University project, with a Situational Strategic Planning and the appointment of a Special Commission, under the supervision of an ad hoc consultant, to elaborate proposals for changes in the management structure, for discussion with the university community. In 2014, another Strategic Planning was carried out for the next 10 years of the Institution.

The Special Committee defined a work methodology:

- Survey of the theoretical framework on university organization models to support discussion and decisions.
- Use of two work strategies: discussion workshops and formation of working groups.
- To forward the defined management structure as the outputs of the discussion workshops and working groups to the University Council, for deliberation.

For the discussion workshops, invitations were sent by physical and electronic means to the students, technical workers, professors and academic managers, during a period of four months. Furthermore, working groups were formed for discussion and presentation of proposals for academic and administrative structure models in the discussion workshops.

During the discussion workshops, the weaknesses and strengths of the model in operation were evidenced, the summary of the theoretical survey, existing university management models and proposals submitted by working groups, which supported the deepening of discussions based on the following guiding questions: Why change? How to achieve a pedagogical structure? What is college, institute, center? What are the criteria for grouping pedagogical structures? What are the criteria for creating new courses? Where does it fit in the higher education institution for distance education? Are there management structure models?
In the end, after discussions in the various working groups and workshops, the proposal for the new structure was submitted for approval by the University Council and its implementation began.

## 3. RESULTS AND IMPACTS

The management structure implemented was formed by horizontal and vertical axes (Figure 1), aiming at the integration of administrative and academic sectors, with two horizontal forces, focused on two central guidelines, Student Success and Integrated Curriculum, guiding the curriculum approach.


Figure1. Horizontal and vertical structure of the educational institution
Source: Adapted from Keeling, Underhile \& Wall (2007) ${ }^{5}$

### 3.1. The Reorganization of Management - Expanding Horizontal Structures

As horizontal lines in one of the guidelines of student success, the Pro-Rectory of Students (PRS) was created to serve the areas of development and student assistance. For student assistance, different strategies were implemented, including school permanence scholarships, support for participation in events, socio-economic and socio-cultural situation assessment program, access program through social quota and in student development, leveling program, reception program, offer of English courses and Toefl test, development of sports practices, monitoring of graduates and student mobility program, in addition to offering a culture week, with the participation of students in the organization.

The Pedagogical Support Nucleus (PSN) was reorganized, in order to provide direct support to students and educational processes, conducted in a clear perspective of counseling, always understanding that the psychopedagogical work occurs in a space shared with teachers and teams, who are responsible for supporting.
The Pro-Rectory of Extension (PRE) implemented the Academic League program, characterized by student networks who desire and create opportunities for scientific, didactic, cultural and social work in intra- and extra-university spaces, besides the implementation of projects and extension programs. In 2011, the UNCISAL Annual Academic Congress was also implemented, being part of the academic calendar and presenting a Central Theme, to which the activities of the scientific and cultural programming must converge.

The Department of International and Interinstitutional Relations (DIIR), inserted in 2013, was responsible for carrying out international agreements and national partnerships, in addition to strengthening the mobility of students, professors and technicians at the institution.
Francis ${ }^{8}$, in recommendations for institutions that seek to implement methodologies or tools to improve management, listed five points of attention: the executive leaders of the institutions would need to understand how to use the tools to achieve short and long-term goals, as well as involve the bases of organization in the process; the need for continuous training and development of teams, including organizational philosophy and information on the methodology used; taking advantage of the opportunity to deal with knowledge management to manage documents, institutional policies, knowledge transfer, skills mapping, among others; constant use of information technology systems and having external consultants to launch new initiatives or to expand the existing ones.

In December 2014, the Management Excellence Program of the institution was initiated, under the consultancy of the company Movimento Alagoas Competitiva, and its main objective was to promote at the university the practice of the fundamentals of excellence in administration, contributing to the increase of management maturity and for the efficiency of administrative actions in accordance with the standards of the Management Excellence Model, proposed by the National Quality Foundation. Initially, the 2014-2024 Strategic Planning was elaborated with a review of the mission, vision and institutional values, development of goals to be achieved in the next 10 years and definition of the institution's strategic map, with a forecast of a review every two years.Posteriorly, training was carried out in the use of the adopted methodology, interpretation of indicators, knowledge management and preparation of the improvement plan to be implemented. Finally, management manuals were created, both for the administrative system and for academic management, to structure practices and standards, from which we highlight the Undergraduate Teaching manuals; Management of Research, Postgraduate and Extension Projects and Programs; Student Assistance and Development, Administrative Management, Financial Management and Management, Control and Audit.

In early 2016, the Strategic Affairs Coordination (SAC) was created, responsible for institutional policy, with the objective of consolidating the new management model of UNCISAL and highlighting institutional development actions, fundraising and project management with external funding. Importantly, it is also responsible for monitoring and controlling the actions, goals and indicators provided in the planning instruments, for monitoring the actions aimed at implementing the management system.
The Own Evaluation Committee (OEC) was reorganized to meet the requirements of SINAES, having the responsibility to synthesize the information collected through workshops with technicians,
students and teachers, institutional documents and systematization of data from a questionnaire made available through an APP, aiming at identification of the institution's weaknesses and strengths, proposing at the end of the report strategies to improve the quality of the teaching-learning process at its various levels, as well as the improvement of work processes.

### 3.2. Academic-Pedagogical Reorganization - New Pillars of the Vertical Structure

As vertical structures, it is noteworthy the health units that compose the university complex, with the expansion of units and the administrative and physical structure reorganization. Additionally, it is possible to mention the reorganization of the numerous administrative sectors and implementation of the Pro-Rectory of People Management (PRPR), with the creation of the People Development Supervision, responsible for the planning, execution and monitoring of people development actions, performance assessment and leadership development and Health and Welfare Supervision, besides the implementation of the Occupational Health and Safety Care Center and implementation of the Events and Quality of Life at Work Centers and Support for Humanization Actions in Health Management.
The Pro-Rectory of Research and Postgraduate Studies (PRRP) realigned the needs to improve the qualification and development of teachers, performed agreements for the realization of Interinstitutional Doctorates with prestigious institutions in Brazil, resulting in an expansion of the training of masters and doctors for the Institution. The department was also responsible for other actions, culminating in the approval of a master's course and, through adherence to state and federal programs, it expanded the number of research grants and contributed to the reform and organization of research laboratories.

UNCISAL is also responsible for the Technical School in Health Professor ValériaHora - ETSAL, which was reorganized and expanded the number of courses.

Finally, for the academic structure of UNCISAL, a nuclear model was adopted (Figure 2), consisting of Centers and Nucleus of Teaching, organized by areas of specific knowledge, to which teaching, research and extension programs are associated, thus favoring interdisciplinary, inter professional and multidisciplinary activities.


Figure2. Design of the Academic Structure of the educational institution

## Source: The author

The process of implantation and subsequent implementation of the new academic structure also included a period of collective work in the form of workshops and meetings in small groups representing the teaching, student and technical-administrative segments, in order to define the identity and objectives of the centers and nucleus, which culminated in the restructuring of the Institution's internal regulations in 2013, period in which the institutional roles of each academic unit and its managers and collegiate bodies were defined ${ }^{14}$.
Several regulations for academic activities were also defined, such as the Mandatory Supervised Internships, Complementary Activities and Completion of Course Work, which were subsequently analyzed and approved by the University Superior Council and disseminated to the entire academic community ${ }^{15,16,17}$.

In another consequential action, Pro-Rectory of Teaching and Graduation (PRTG) conducted the curricular restructuring of health courses, using mainly a participatory work methodology with the involvement of the University, which was institutionalized as an Academic Management Forum:
[...] a permanent and continuous space for dissemination, analysis, discussion, construction and collective agreement, forwarding and definition of issues inherent to the academic and administrative management of Teaching Centers, Teaching Nucleus and Undergraduate Courses, being also a space for training in academic management, as themes are discussed as instrumentation for management, information or updating (p. 84) ${ }^{18}$.
Complementing the process, in 2010 the Pedagogical Week Program was implemented, where professors and management met once a year for a week to address institutional issues, for example, the 2011 Week, with the theme Interdisciplinarity and Flexibility: principles for curriculum (re)structuring, and the II Pedagogical Week of Uncisal, that opened the discussions about the possibilities of change and pedagogical articulations resulting from the Academic Restructuring. In 2012, with the theme Curricular Organization - conceptual and operational bases, the III Pedagogical Week of Uncisal had as its main objective to discuss the concept of health to be institutionalized and to identify the possibilities of integrality of intracourse and intercourse health care. Completing this thematic cycle, Uncisal's IV Pedagogical Week in 2013 had as its theme the Implementation of Curriculum Interfaces in Bachelor's Degree courses of the university, whose purpose was to present the proposals for curriculum reorganization built within the scope of the Structuring Teaching Nucleus (STN), for a broader discussion with the professors, in order to define and validate the operational bases of possible curricular interfaces.
Another action to reformulate the curriculum was the institution of Integration Forums between the courses, with the aim of initiating anapproximation between professors and the Structuring Teaching Nucleus to discuss possibilities of connection points in the curriculum designs. During the writing process of the Pedagogical Projects of the Courses - PPC, there was a need to strengthen the ties between the STN with more specific meetings aimed at proposals for the curricular and methodological design of the Courses, with the creation of the Forum of Structuring Teaching Nucleus, also institutionalized through the Undergraduate Teaching Management Manual ${ }^{18}$.
The curriculum reformulation process culminated with the approval by University Council (CONSU) of the new PPC for Physiotherapy and Speech Therapy in 2014 and for Occupational Therapy in 2015, which started the activities of their integrated curricula, respectively in 2015 and 2016. The Medicine and Nursing Courses, although do not have modified their curricular matrices in this same time frame, had some adjustments in content and methodologies to participate in certain moments of integration with others, noting that the proposition of integrated research and extension activities was also considered, including the proposition of green areas in common to enable the development of intercourse activities.

Another focus of the reformulation of the courses was the attempt to disrupt the dichotomy between theory and practice. In this sense, the logic of the integrated curriculum was used, which considers the presentation of content in an interconnected way, centered on the student and with the use of active methodologies focused on the development of the student's ability to learn ${ }^{19}$. This type of curriculum was considered as "...a pedagogical plan and its corresponding institutional organization that dynamically articulates work and teaching, practice and theory, teaching and community".
To contemplate these definitions, the implementation of the integrated curriculum was organized through integrating thematic axes, structured by curricular components common to the training of different health professionals. Moreover, integrating disciplines were created, available for all courses, such as the Health Education discipline, which is in compliance with the principles of interdisciplinarity and applicability in the health system of the country. It is offered as a mandatory subject for the Physiotherapy course and as an elective for the other courses, using active methodologies and 360 -degree assessment. It aims at the identification by students of a disease or injury in the communities in which they work and, later, on the construction of an educational resource for the prevention of these diseases or injuries. On the other hand, the subject of Alterity and Affirmative Policies is offered as an elective for all courses with the purpose to develop the skill of problematization, as a central element of a professional praxis to enable, for the student, experiences
in indigenous tribes, quilombos or candomblé yard, in order to promote the deconstruction of prejudices for acting in the work process, with respect to differences in the implementation of affirmative policies and educational practices in health, with a view to overcoming inequalities.

Although the new curricula are in the period of implementation and adjustments regarding the offer of modules, distribution of classes, development of interdisciplinary projects of research and extension, in the first re-accreditation assessment of courses held in 2016 for bachelor's degrees, improvements have already been pointed out in the didactic-pedagogical dimension of all of them, hence suggesting that the new academic structure promoted an advance in the curricular proposal of these courses.

Nevertheless, even with the understanding of having triggered a great process of a required and emerging institutional change, numerous difficulties were faced for its fulfillment, both administratively and academically. As it could not be different, the change in the management structure and curriculum, while removing people from their comfort zones, altered the institutional hierarchy with its horizontal pillars and propositions of collective participation and collaboration among peers. In this scenario, the configuration of forces and power relations were also changed, requiring a personal and ethical adjustment and an effort to reconfigure the teaching role in the face of new work relations, which has not yet been accepted by the entire group of teachers, technicians and students to date.

The importance of organizational culture in achieving high performance and institutional innovation was evidenced by the study developed by Hussein et al. ${ }^{20}$. The authors found that continuous learning is correlated with organizational performance, while collaboration and team learning were highly associated with organizational innovation. The findings also exhibited a strong correlation between organizational culture and organizational performance and innovation.

The discomfort of moving, physically and organizationally, caused discontent among a group of people in this case study, who set themselves up as an opposing force to cultural change in the institution, generating tensions, the need for intermediation and negotiation of conflicts that impact until today in the execution of actions proposed for curricular integration and interdisciplinary work, configuring itself as a crucial element for the constant adjustments required for the success of the change process.

## 4. Conclusions

From the point of view of changing the management structure, we consider the implementation of promising changes to improve processes in the Institution. However, as in any change process, challenges are still present. The first major challenge is the continuity of processes to maintain the implemented model, as the institution changes the management group every four years, through consultation with the university community, and it may happen that a management group assumes the management and does not agree with the changes that were described in this work.Moreover, the modification of the institutional culture that is still in transition from a vertical model to a model with horizontal lines, from a hierarchical and disciplinary curricular model to integration and interdisciplinarity represent another challenge, where the adhesion of professors, students and technicians to the new way of facing learning and the challenge of transforming the way they learn, teach and manage the institution is pivotal for the implementation of new actions, reviewing, following up and monitoring what was planned.

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