STAKEHOLDERS AND THE CONSTRUCTION OF A MANAGEMENT MODEL FOR THE VIRTUAL UNIVERSITY OF THE 21ST CENTURY THAT INCORPORATES THE SUSTAINABLE DEVELOPMENT GOALS.

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I. VIRTUAL UNIVERSITY OF THE 21ST CENTURY: MANAGEMENT MODEL

Education and, alongside it, Higher Education, does not respond to formulas or production functions. This is the great thing about the educational process, which is generated and reconstructed automatically without the possibility of being repeated in space and time; it is a human process, not a mechanical one.

Therefore, if the educational process is unique in space and time, it should be noted that universities are not knowledge or employees factories for a market that demands new "products" and workforce. Universities are unique and atypical organizations, there are no formulas to impose "such and such" management model. As Duque (2009) has said, returning to Mintzberg (1991).

> There are no management models designed *a priori* that fully satisfy the vision of Higher Education institutions. Each educational organization is different, either because of its context, because of the mission and vision that have been drawn, because of its lucrative or non-profit purposes, because of its philosophical or religious foundations, among others. There are no "equal" universities and, therefore, each educational institution should be encouraged and inspired to build its own management model.

If for a traditional university the construction of a management model is a challenge, in the case of non-on-site universities is greater. Given the growth that virtual education has had, along with the innumerable programs and institutions that have emerged in this modality, the design of management models has been neglected. As Antúnez points out in his work *Management Model for Distance University Education Centers,*

> ... due to the rapid growth of the sector, it has been difficult to reflect on the creation and implementation of management models according to the needs and expectations of the virtual modality, and in many cases it has been necessary to "adapt" models brought from the face-to-face system.

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This situation forces us to think and question about the extent to which the ways of managing or administering in virtual education institutions are really relevant and appropriate for the processes that are carried out within them (2012: 2).

Although the topic studied here is strategic for the functioning of Higher Education Institutions, it was found that the studies and designs of management models carried out so far are not abundant.

We therefore consider that contributing to the topic will stimulate debate and generate new ideas. After all, daring to propose, based on what others have spent a lot of time researching and writing, which is a risk since it can lead to other errors, will open opportunities for university leaders, both students and administrative, companies and all stakeholders[1] or involved, promote a constructive dialogue in our own house of studies, the Universidad Autónoma de Chiapas.

This article seeks to interweave researchers and specialists' thinking, considering that it is time to not only work in a management model for the UNACH's Virtual University, but to also recover topics that the debate on the publication of the General Law of Education of 2012 opened between academics, such as the learning environments, and go from a vision centered on "*schools that teach*" to "*schools that learn*" (Andere, 2011).

As previously noted, university is an organization with objectives and goals, so it requires the construction of a management model designed *exprofeso* for its specific characteristics and context.

The production of theories and studies related to the management model based on stakeholders is not new; however, it is not abundant either. The need to promote a management model design is feasible and becomes relevant when the university is part of the global reality of knowledge, given that it is an organization in which different actors interact to efficiently produce knowledge and with a social responsibility. Such design acquires greater importance when little has been written on the subject, as it is the case of the UNACH.

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1   The term stakeholder refers to an individual or group that is part of an organization or has a stake or interest in it, in our case study the organization that interests us is the university. A detailed study of this concept will be presented later, which is one of the pillars of this article.

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II. MANAGEMENT MODEL FOR THE UNIVERSITY

The university is a center of production and exchange of knowledge linked to an environment that, in the knowledge society, seems to have no beginning or end. It is an organization with objectives and goals, apart from a series of strategies and academic procedures, as well as management that make it complex and, in Duque's words, said "complexity of the universities in terms of their processes and their diverse work make university organization an atypical organization "(2009: 39).

The university dynamic is linked to society, the entrepreneurial, economic and political dynamics, among other institutions. It is a network of exchange and generation of knowledge, a medium that students seek to obtain a better quality of life, meaning we are facing an extremely complex type of organization. It is, in this context, that we must reflect on a management that "implies mentioning the way to create, direct, develop and control a series of activities, resources and processes in order to fulfill the desired objectives of these centers, consolidating their educational mission"(Antúnez, 2012: 1).

It should be noted that the concept of "management model" has been gaining strength as a fundamental part in the performance of business, social and educational organizations. It is considered a strategic aspect to generate paths of growth and development in organizations, as Duque confirms:

> Universities, like any organization, paraphrasing Porter, are constantly faced with changes, derived fundamentally from the evolution of their clients' needs, in the technology to satisfy those needs and in the form of management in organizations through the development of new competitive advantages, and it is precisely this that makes the development of management models increasingly important (2009: 26).

For Institutions of Higher Education and virtual education systems, as organizations with specific goals and objectives, the concept of "management model" has become a subject of study and controversy, given that at the theoretical level different types of management models have been defined arguing, for each of them, their strengths and areas of opportunity.

One of the characteristics of virtual university systems is that, generally, they were born after face-to-face systems, even on occasion, in response to the need to expand the educational offer of an institution to optimize resources. Many of these universities or virtual systems arise or are conceived as an "addendum" of the on-site university.

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III. ANTÚNEZ MODEL

Antúnez (2012) proposes three dimensions for the construction of a management model, specifically of distance universities: Academic, Technological and Administrative. Derived from the above, it presents the following model:

Image 1. Management model for distance universities (Antúnez, 2012)
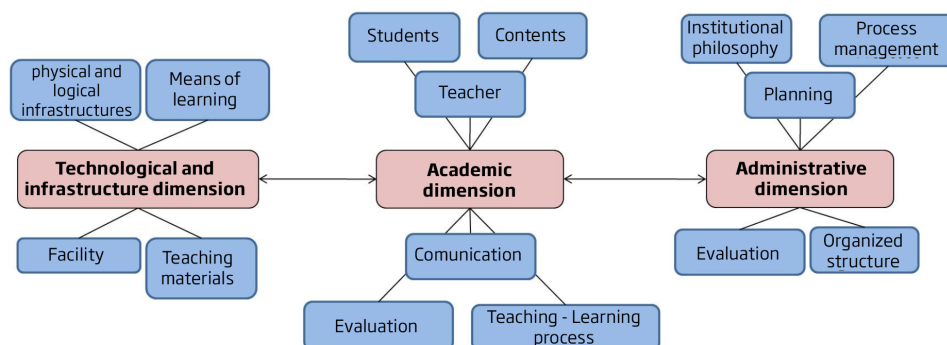
The Antúnez model gives the academic dimension the central axis role. The administrative and technological dimension, including infrastructure, must rotate and operate according to the first, and not vice versa. From the academic axis, Antúnez writes that:

> it is important, since it is the educational process itself, it is comprised primarily of the actors involved in it, especially the students and teachers, the contents that will be addressed during the learning, the forms, tools and strategies used in this process, the media used and evaluation to corroborate the achievement of the objectives (2012: 12).

As can be seen, Antúnez proposes a management model as if the university were an organization isolated from its environment. One of the limitations lies precisely in that it leaves aside the influence of other actors in the 3 dimensions mentioned, likewise it exempts the role that the leaders or university directors, as well as the unions themselves, have in the management processes of the university.

Another perspective of a management model that seeks to incorporate new spheres and actors has been proposed by Duque (2009) in his article "University management as a basic element of the university system: reflection from the stakeholders' point of view", where he points out that:

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The management model is the way to organize and combine resources in order to meet the objectives; that is, the set of principles, policies, systems, processes, procedures and behavior guidelines to achieve the expected results and improve the performance of the organization. These elements are framed by regulations, missionary objectives, basic operating processes, structure and organization, organizational culture, human talent policies and competencies, and formal strategic planning of the organization (39).

IV. MORANTES & ACUÑA MODEL

On the other hand, in the model proposed by Morantes and Acuña (2013), the representative management factors are integrated for a Higher Education Institution that offers the distance methodology (IESA), in its three main axes: Organizational Management, Academic Management and Quality management, as can be seen in the following image:

Image 2. Management model by Morantes-Acuña (2013)
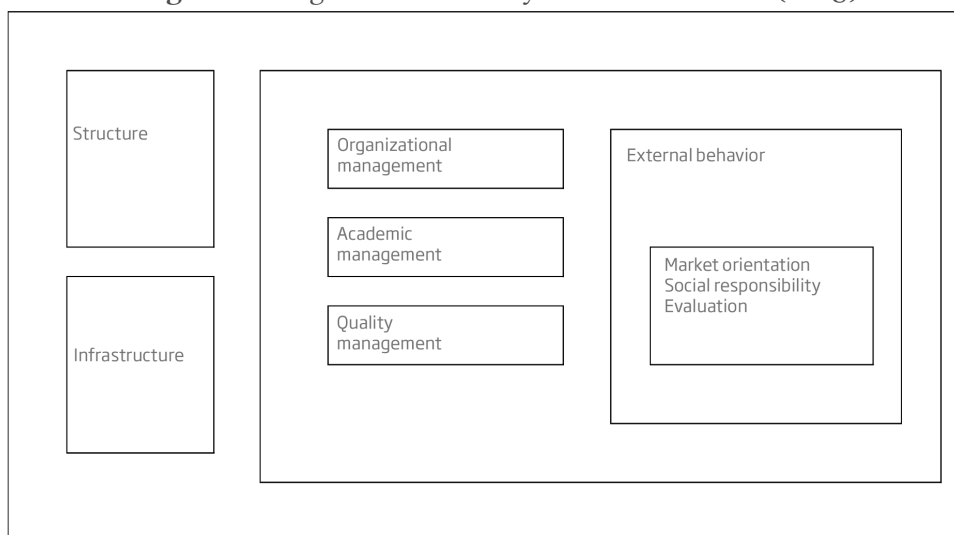
Distance education institucional system

This model recommends an establishment with adequate structure and infrastructure conditions, in terms of distance education, for maximum use, includes two management components:

- Internal, whose guidelines and course of action are defined, if not entirely, within the educational institution (in accordance with Higher Education Institutions' principle of autonomy) and, within which, factors like Organizational management, academic management and quality management are analyzed.

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- External, also known as institutional projection; is made up of factors that, although oriented from the internal component factors, have a context and scope that transcend the physical and governance borders of the institution that directly affect its management. Topics such as market orientation, social university responsibility and evaluation, acquire a singular connotation with higher education institutions, which offer distance education (Morantes and Acuña, 2013: 86).

Morantes and Acuña make new contributions compared to other traditional management models that conceive management as a "closed" model, for example, that of Antúnez. They incorporate a slope that is related to the external context of the university "that transcends the physical and governance borders".

Specifically, in this section the authors link the virtual university with other universities. Later, they pick up variables proposed by Cabero (2010) which, practically, make up each of the 3 management channels.

V. IMPORTANCE OF VIRTUAL LEARNING ENVIRONMENTS

We consider it of utmost importance, for the development of pedagogy focused on virtual learning and for the reflection and construction of management models in organizations such as universities, to define distance education from the concept of "virtual learning environment", so we propose the following: Distance education, which in the knowledge society has practically become virtual education, is that system of generation of some type of knowledge (including culture and the arts) that manifests itself in all educational levels, capable of producing a virtual learning environment, that is, an environment where learning takes place mediated by technology and where, derived from the global nature of information and knowledge, other actors participate beyond the traditional ones (teacher and student). Virtual education constructs virtual learning environments with which the "seeker" (student) is able to appropriate new knowledge and experiences regardless of their geospatial limitations.

This definition is of great interest because, recognizing that virtual environments involve not only the teacher-tutor and the student, it also opens study possibilities that incorporate the concept of stakeholders. When talking about virtual learning environments, in the paper "Virtual learning environments: a new experience", Avila and Bosco (2002) make the following statement:

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UNESCO (1998), in its global education report, points out that virtual learning environments constitute a totally new form of Educational Technology and offers a complex set of opportunities and tasks to educational institutions around the world, the environment of virtual learning defines it as an interactive computer program of a pedagogical nature that has an integrated communication capacity, which means, that is associated with New Technologies (P. 2).

In this way, it is necessary to rethink management models when seeking to build organized virtual systems for learning, especially systems centered on the student. A management model that recognizes that it is the product of the interaction of different actors with profiles, stories, visions, contexts and interests, often different, that is, a model that explains the role of stakeholders.

VI. MANAGEMENT MODEL FOCUSED ON THE STAKEHOLDERS, IN THE VIRTUAL LEARNING ENVIRONMENTS.

The presented expositions were made taking into account a market perspective. Stated in other words, stakeholders are those actors that can influence the university or be influenced by it, since the term "stakeholder" refers to an individual or group that is part of an organization or has an "investment" or interest in her.

According to Kaler (2002), stakeholders can be defined from two points of view: those who have acquired rights in the university or the agents that have a defining influence in the educational institution; "A stakeholder is any group or individual that can affect or be affected by the achievement of the organization" (93).

The vision of Kaler, although very general, has the virtue of transmitting the importance of the stakeholders in the policies and processes of management both in the academic as in the educational organizational quality. When the author talks about a group or individual that can affect or be affected by the objectives, in our case, the university opens the perspective to incorporate actors such as unions, social or political groups, among others.

Academic decisions such as the incorporation of a new process of quality control or the modification of a regulation, are examples that are part of the management system of a university that will not only be subject to the decisions of teachers and students, but to a complete universe of stakeholders who see their interests affected and who can influence them.

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There are different positions with respect to this universe that should be studied to build a management model. For example, Reavill reviews and justifies the inclusion of some stakeholders for the case of the university: students, employers, the family and dependents of the student, universities and their employees, assets and services suppliers, the secondary education sector, other universities, commerce and industry, the State, among others (53).

We think that building a management model from the perspective of stakeholders offers the possibility of expanding the universe of people or organizations that influence the policies, objectives and strategies of the university. A management model for the university is a strategic and vital instrument for the performance and evaluation of this type of organization. Identifying the universe of stakeholders and the way they affect the management of the university is not an easy challenge, but one that must be addressed.

The great economist Keynes affirmed in his *General Theory* that "it is the ideas and not the men that matter, whether for good or for bad". This statement is crucial when it comes to build a management model for a complex and atypical organization such as the university, because in addition to all the complexity that stakeholders represent, a management model for a university always has a theoretical foundation behind it regarding learning, which further expands the debate.

## VII. SUSTAINABLE DEVELOPMENT GOALS (SDG), THE UNIVERSITY AND SOCIETY

Mexico has adhered to the UN initiative to reach the 17 SDGs, both public and private universities play a strategic role to reach the goal in 2030. That is why a space for scientific and constructive dialogue should be opened to link bridges that allow the universities to participate in the construction of efficient public policies and that they lead to the great goal of reaching the 17 SDGs.

The University must play a fundamental role in the formation of socially responsible citizens, who know and commit themselves to the challenges and problems of a global world. The University must incorporate into university teaching, in addition to technical knowledge, the generic skills linked to the transmission of values that contribute to the formation of responsible citizens committed to Sustainable Development (Solana and Llanos, no date, P.2).

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VIII. LEARNING FROM THE STAKEHOLDER PERSPECTIVE, INCORPORATING THE SDGS.

Next, we present our model and its characteristics, starting from the following figure:

Image 3. A proposal for a management model incorporating the SDGs
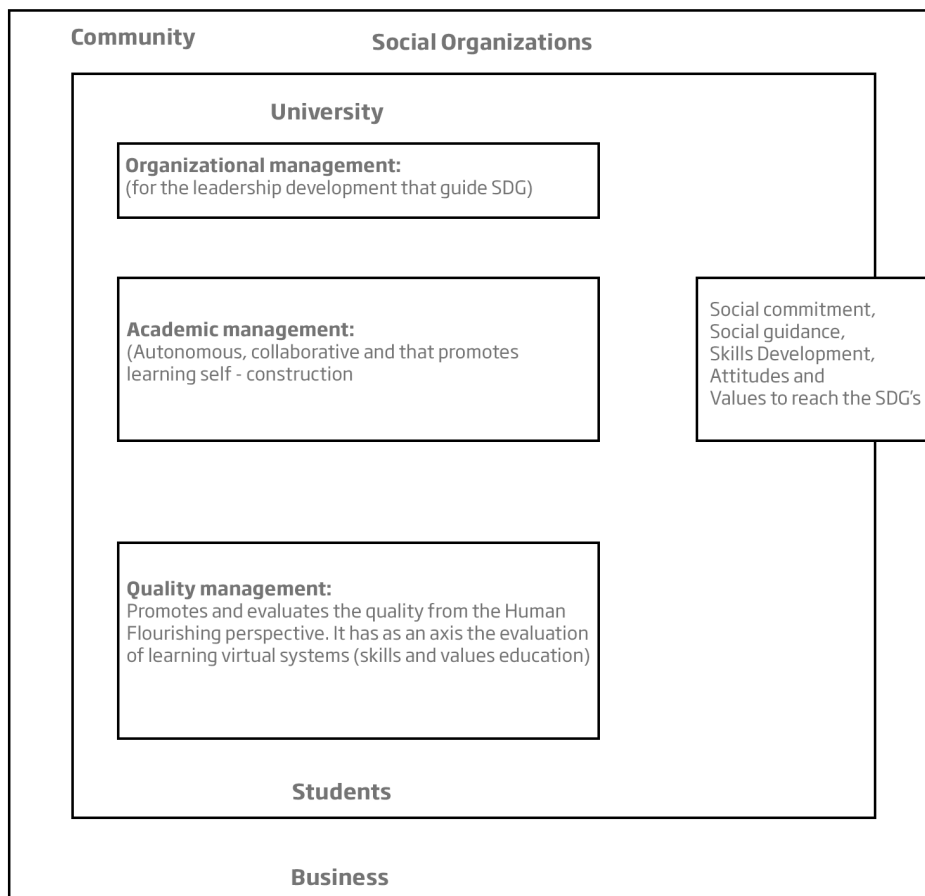
1. This model complements the one proposed by Morantes and Acuña, in the sense that it recovers the figure of the stakeholders, and makes the interrelation of a finite universe explicit.

2. Retakes the idea of Morantes and Acuña to recognize the existence of an external factor that affects and interrelates with the work of the university. However, it "amplifies the photo" by identifying a set of external stakeholders involved, to a lesser or greater extent,

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with academic, administrative, and quality management policies, among others.

From the definitions in the previous section, how to identify a stakeholder? As some specialists affirm, identifying them in a university system, and understanding how they are related, is not an easy task considering the complexity of an organization such as the university, which is especially sensitive to its immediate social, economic, political and business environment, but also those environments that are not "so immediate" that *are generated around it*; for example, the results of a chemical investigation, in the health department that has been carried out at the university, is not only the result of the academic level of its teachers and students. To reach this result, the university needed the talent of its professors, researchers and students, but it also had to be related to the state of the art of a scientific event, the state of innovation and technology, or the contributions that the Private companies have done to the health department.

In relation to the previous example, the effects of scientific advance not only impact on the areas of science and health, but also on the social areas for human development of the region and, perhaps, of the world. As has been repeated over and over again, the university is a complex and atypical organization, especially sensitive to the social, political and economic environment.

Defining and describing the interrelation of stakeholders in a management model also has to do with the limits of the private and the public, with greater importance in public universities. For example, should a scientific discovery financed entirely by public resources be shared with for-profit companies? Or, from another point of view, someone could say: "after all, who finances the university are the taxes of individuals, among them, for-profit companies".

Resuming the above, describing the interrelations between stakeholders is not an easy task, because it is a complex and dynamic power structure that does not follow a certain pattern. Due to this, a set of stakeholders is proposed that directly affect the management of the university, whose contribution is immediate and evident, with the fundamental purpose of opening a discussion that is not new, but is updated in very short terms by the dynamics of the knowledge society.

3. The model proposes academic and quality management systems that not only seek the optimization of resources, but, beyond that, place at their center virtual learning environments and academic leadership as axes to improve the quality of academic processes, promoting the

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> vision of involving the student in the construction of their knowledge in a framework of collaborative work and socio-affectivity.

As you can see, it is necessary that the quality management and academic management system go hand in hand understanding the meaning of the construction of virtual learning environments, as Andión points out in his paper "On quality in higher education: a qualitative view":

> In the context of economic and cultural globalization, higher education systems have diversified, becoming complex systems energized by market forces and digital technology. The evaluation of the quality of educational services in the Mexican field of higher education is almost always linked to accreditation. Although this process has consolidated the hierarchical structure of the system, it has not helped much to measure the quality of education nor to evaluate the quality of the educational programs offered by the various institutions of the system. To achieve this, first of all, we need to really know the state in which the programs operate and what their impact is based on their actual results, regardless of accreditation. However, in order to effectively evaluate the quality of educational programs, it is necessary to adopt a qualitative vision of the problem of quality, and to look at quality in education and not the quality of education. That is, "knowing the qualities of the learning environment that promotes the operation of educational programs and not only identify certain attributes of educational programs as determinants of quality. From this qualitative point of view research is focused on the strictly educational, deepening in the pedagogical dimension of the processes to know their actors and the various resources that mediate the relationship between them "(2007: 91).

Teaching in a virtual environment is not just about changing the technological conditions and schedules of the students. Marianela Delgado summarizes the importance of generating a management model whose system is focused on the virtual learning environment:

> being a mediator in virtual environments, does not mean changing the space of a traditional classroom to a virtual classroom, changing books by electronic documents, class discussions in virtual forums or hours of attention to students by chat meetings or conversation forums . It means finding new strategies that allow us to keep our students active even when they are in different parts of the world, promoting the construction of knowledge and collaboration (Delgado and Solano, 2009: 2).

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4. The model proposes to build a proper concept of academic and administrative quality, in addition to promoting academic leadership.

Currently there is a series of quantitative measurements for the quality evaluation and certification of higher education programs. To access the financing of programs, universities must comply with a series of quantitative processes.

The systems of management of the quality effective in universities, generally, look for the assurance and improvement of the quality education. Some universities are immersed in processes of auditing and certification in university quality standards. This is the reality; the quality management of the model must be adapted in such a way as to encourage compliance.

In addition to the above, the management model of the virtual university should aim to develop a "proper" system of administrative and academic quality. It is necessary to build a vision of what is understood as "Quality Virtual University ". Without a doubt, this will lead us to an immense and endless debate about what we should understand by quality education. In fact, there is abundant literature on this in higher education institutions and also for virtual university systems.

Our management model seeks to define "quality university" by understanding it as a "learning university", a university focused not on teaching but on the learning of teachers and students, but also on integrating the 17 SDGs into their educational programs. In this sense, the quality model must be such that it enables adaptation and innovation. The virtual university community is able to establish its own quality parameters focused on learning. In such a way that, independently of the quality systems that are currently being evaluated, it is possible for the university to develop its own system, which would imply revising the concept of quality to which the virtual university aspires.

In the case of virtual education, quality acquires new nuances. It is not the same for a student who arrives early to the classroom and has 8 hours to devote in his learning environment to a virtual university student who, in general, "turns on" his computer after his workday and to face his daily life.

To evaluate the quality of virtual education, Andere's words acquire greater importance, by mentioning that:

The education or learning quality is a function of a complex and mysterious network of factors so mixed and interconnected that it is impossible to

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separate, to specify a causal and unequivocal relationship. What is known is that what happens outside of school, home and society is as important or more than what happens inside the school to improve learning (2011: 132).

In the process of quality improvement, the role of a leader is fundamental. In addition it requires a very different function than the one usually developed by the director in the schools of our countries. Quality requires a new type of leadership based on personal experience and conviction, and not necessarily on schooling, age or rank. He achieves more with a coherent example to his life, with the values he proclaims and with his consistency, than with the authority that comes from his position.

IX. VIRTUAL LEARNING ENVIRONMENTS AND THE IMPORTANCE OF SOCIO-AFFECTIVITY

The proposed management model should see other areas that, as noted, have a great importance in the explanation of poor academic performance and, even more, in the university dropout. It is not just about establishing processes to optimize the always scarce resources in a public university. The management model should not be embedded in an economic vision of education. However, incorporating the socio-affectivity theme and virtual learning environments will be a "good investment" in the medium and long term because it will obtain better academic results and optimize resources.

The processes of organizational quality and academic development should be focused on the virtual learning environments and on the student, as well as encouraging the latter to become involved in the self-construction of their knowledge. In any case, socio-affectivity should be a fundamental condition of virtual programs, an idea also expressed by the Northern Catholic University Foundation:

> Thus, as virtual educational environments are spaces for communication between human beings, socio-affectivity does not lose its essence there, and is, as in the face-to-face modality, in turn the input and result of educational actions typical of curricular formalization or implications of the context. In these environments, learning about values and attitudes are not absent, but they are different. That is, they reach the student through the same commitment that determines the virtual educational environment and the communication needs that are established among the participants (2005: 179).

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X. MANAGEMENT MODEL: STUDENTS' INVOLVEMENT IN THE LEARNING PROCESS

So far we have reflected on the virtues that constructivism has especially in virtual learning environments. Managers, academics and administrators must be very clear about the needs of involving students in their knowledge, which, in addition to improving academic performance, helps facilitate quality management processes.

As established in the definition of virtual education within our proposal, the virtual student must be a "seeker" capable of appropriating new knowledge and experiences regardless of their geospatial limitations, an idea confirmed by Schmelkes in the text "The formation of values in education", when we read the following:

> The student learns more, better and more durably, when he makes discoveries and solves problems. A team of teachers interested in improving processes can assume the diversification, expansion and improvement of the quality of the processes that take place inside the classroom to make this possible. The process will begin by knowing how students participate in their school. The team will discover and share the strategies used by the various teachers of the school to encourage the participation of their students. They will document about different practices, used by others, to achieve this purpose. They will investigate the causes why the participation of students in this school is difficult or does not reach the levels that could be expected. There, for example, the team can discover strategies that include changing the disposition of students in the classroom. The results of the work can be analyzed collectively among teams of students. They will discover, perhaps, innovative experiences in which students of various degrees work together on a project, in which the older ones help the younger ones. They will propose solutions to the problems detected. They will be attentive to the process. They will evaluate its effectiveness and will monitor that the problems that previously hindered greater opportunities for participation do not recur (1995: 97).

XI. AN EXERCISE TO QUANTIFY THE POWER RELATIONS BETWEEN STAKEHOLDERS

The following is an exercise that shows the interrelation between the stakeholders. This activity was created from the game theory and, rather than offering irrefutable quantitative measurements, it is intended to show how the proposed model can be evaluated.

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The weight given to each "power relationship pair" is arbitrary and totally dependent on a subjective view of those who elaborate this material. A more objective weighting could be obtained from the debate among a multidisciplinary group of university students.

For analysis purposes, a limited set of stakeholders has been selected and a model based on a double entry matrix has been designed.

Two areas of the management model were studied:

> 1st area: Establishment of policies to improve administrative and organizational quality.

> 2nd area: Establishment of policies for the development of virtual learning environments.

Three types of qualification were fixed:

> 3 = Strong influence in the area at issue
> 2 = Intermediate influence in the area at issue
> 1 = Little influence in the area at issue
> 0 = No influence in the area at issue

The assumptions of the model were:

1. There are a limited number of stakeholders.
2. Single relationships between stakeholders are qualified, that is, only relations between couples are being evaluated.
3. It is assumed that relations between pairs of stakeholders have the same force, independent of meaning. For example, when rating the influence of an area of the relationship between union and directors, it is assumed that the union to directors' relationship is the same as that of directors to unions.
4. It is assumed that, in the case of administrative and organizational policies, the participation of teachers is less important than that of the union.
5. It is assumed that, in the case of academic policies, the participation of teachers is more important than that of the union.

Each matrix shows a maximum score that shows the stakeholder of greater importance due to its influence in the area evaluated. As already noted, the qualification is quite subjective, part of the researcher's perspective,

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however, this qualification could also be assigned by developing a workshop between a representative of the selected stakeholders, or a group of multi-disciplinary specialists.

Regarding the area: Establishment of policies to improve administrative and organizational quality, the results were the following:

Picture 1

Stakeholder's influence in the creation of Policies to improve administrative and organizational quality											
Stakeholder	Students	Teachers	University managers	Administrative staff	Government	COMMUNITY	Social organizations	Private educational evaluation agencies	Union	Other universities	Private companies	Score
Students	1	1	1	1	0	0	0	0	0	0	0	4
Teachers	1	2	3	1	0	0	0	0	0	0	0	6
University managers	1	3	3	3	0	0	0	2	3	1	1	17
Administrative staff	1	1	3	3	0	0	0	0	3	1	0	12
Government	0	0	0	0	2	0	0	2	1	1	0	6
Community	0	0	0	0	0	0	0	0	0	0	0	0
Social organizations	0	0	0	0	0	0	0	0	0	0	0	0
Private educational evaluation agencies	0	0	2	0	2	0	0	1	0	1	1	7
Union	0	0	3	3	1	0	0	0	3	2	0	12
Other universities	0	0	1	1	1	0	0	1	2	1	1	8
Private companies	0	0	1	0	0	0	0	1	0	1	0	3
Score	4	7	17	12	6	0	0	7	12	8	3	76

The three stakeholders with the greatest power to influence the definition of policies to improve administrative and organizational quality were: University managers, administrative staff and the union.

In the case of the area: Stakeholders' influences in the construction of the Virtual Learning Environment, the results were the following:

Picture 2

Stakeholder's influence in the construction of the Virtual Learning Environment

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Stakeholder	Students	Teachers	University managers	Administrative staff	Government	Community	Social organizations	Private educational evaluation agencies	Union	Other universities	Private companies	Score
Students	3	3	3	1	1	2	0	1	1	1	0	16
Teachers	3	2	3	1	1	2	0	1	1	1	0	15
University managers	3	3	2	1	1	2	0	1	1	1	0	15
Administrative staff	1	1	1	1	1	0	0	0	1	1	0	7
Government	1	1	1	1	1	0	0	1	1	1	0	8
Community	2	2	2	0	0	1	0	0	0	0	0	7
Social organizations	0	0	0	0	0	0	0	0	0	0	0	0
Private educational evalu- ation agencies	1	1	1	0	1	0	0	1	0	1	1	7
Union	1	1	1	1	1	0	0	0	1	1	0	7
Other universities	1	1	1	1	1	0	0	1	1	1	0	8
Private companies	0	0	0	0	0	0	0	1	0	0	0	1
Score	16	15	15	7	8	7	0	7	7	8	1	91

The three stakeholders with the greatest power of influence in the construction of the Virtual Learning Environments were: the students, the teachers and the university directors, the administrative staff and the union.

XII. CONCLUSIONS

The construction of a management model will systematize a global vision of the virtual university and will lay the foundations to design management and quality policies in the search to reach the SDGs. The student, the virtual environments and the strategic stakeholders must be cornerstones to consolidate it, framed by the 17 SDGs.

With all this, a series of ideas has been generated to contribute and promote the debate for the construction of a management model for the virtual university of the 21st century. Our contribution has come from models made by scholars and specialists.

The universities, as it is seen, are atypical organizations and with particularities that make them different from the others, however, like any organization with a vision, objectives and strategies, it must have a relevant management model.

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As has been pointed out, based on management models already developed, a management model has been proposed that is characterized by incorporating the vision of the stakeholders and putting the student at the center of the model, as well as the virtual learning systems and self-construction of knowledge.

A quantitative model was developed that shows an alternative to study the relationships between the various stakeholders. This exercise, as far as it was investigated, had not been carried out, reason why it is expected that it will stimulate the restlessness of the students and academics.

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