COMPREHENSIVE MANAGEMENT FOR THE PROCESS OF ACCESS, RETENTION, GRADUATION, AND EMPLOYABILITY IN HIGHER EDUCATION

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ABSTRACT

Objective: To mold theoretically a comprehensive management system for access, retention, graduation, and employability, based on the potential of career guidance, as a contribution to the sustainable reduction of student drop-out.

Theoretical Framework: The Higher Education system of access, retention, graduation, and employability has been described fragmentarily through Pedagogical Sciences. This paper systematizes contributions on vocational training processes and career guidance in the stages of human development.

Method: The theoretical approach carried out is based on the application of the systemic-structural-functional scientific method. From this perspective, the logic or succession of procedures for constructing knowledge in a coherent and rigorous manner is expressed from the General Systems Theory.

Results and Discussion: The achieved theoretical results on the approach performed have been the essential support for the elaboration of regulations; in the projection on the integrated admissions process to the former students’ condition; as well as in the academic monitoring of each student. This constitutes evidence of its applicability in practice.

Research Implications: Practical and theoretical implications of this research are discussed, providing Higher Education institutions with ideas for integrating universities with preceding educations and the production and services sector.

Originality/Value: The novelty of this paper lies in the idea of a macro process that systematizes career guidance as a source of professional motivation in the different stages of personality development.

Keywords: Comprehensive Institutional Management, Student Drop-Out, Career Guidance, Professional Motivation, Access, Retention, Graduation, Employability.

GESTÃO INTEGRAL PARA O PROCESSO DE ACESSO, PERMANÊNCIA, GRADUAÇÃO E EMPREGABILIDADE NO ENSINO SUPERIOR

RESUMO

Objetivo: Modelar teoricamente um sistema de gestão integral para o acesso, permanência, graduação e empregabilidade, baseado nas potencialidades da orientação profissional, como contribuição para a redução sustentável da evasão escolar.

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Comprehensive Management For The Process of Access, Retention, Graduation, and Employability in Higher Education

Referencial Teórico: O sistema de acceso ao ensino superior, permanência, graduação e empregabilidade tem sido descrito de forma fragmentada nas ciências da educação. O trabalho sistematiza as contribuições sobre os processos de formação profissional e orientação profissional nas etapas do desenvolvimento humano.

Método: A modelagem teórica realizada baseia-se na aplicação do método científico sistêmico-estrutural-funcional. Nessa perspectiva, a Teoria Geral dos Sistemas expressa a lógica ou sucessão de procedimentos para a construção do conhecimento de forma coerente e rigorosa.

Resultados e Discussão: Os resultados alcançados na ordem teórica da modelagem realizada têm sido o suporte essencial para a elaboração de regulamentos; na projeção sobre o processo integrado de admissão até o status de Alumni; bem como no acompanhamento acadêmico de cada aluno. Isso é prova de sua aplicabilidade na prática.

Implicações da pesquisa: As implicações práticas e teóricas desta pesquisa são discutidas, fornecendo às instituições de ensino superior ideias para a integração destas instituições com graduações anteriores e com o setor da produção e dos serviços.

Originalidade/Valor: A novidade do trabalho reside na ideia de um macroprocesso que sistematiza a orientação profissional como fonte de motivação profissional nas diferentes fases do desenvolvimento de personalidade.

Palavras-Chave: Gestão Institucional Integral, Abandono Escolar, Orientação Profissional, Motivação Profesional, Acesso, Retenção, Graduação, Empregabilidade.

LA GESTIÓN INTEGRAL PARA EL PROCESO DE ACCESO, PERMANENCIA, EGRESO Y EMPLEABILIDAD EN LA EDUCACIÓN SUPERIOR

RESUMEN

Objetivo: Modelar teóricamente un sistema de gestión integral para el acceso, la permanencia, el egreso y la empleabilidad, basado en las potencialidades de la orientación profesional, como contribución a la disminución sostenible del abandono de los estudiantes.

Marco Teórico: El sistema de acceso, permanencia, egreso y empleabilidad universitario ha sido descrito de manera fragmentada en las Ciencias Pedagógicas. Se sistematiza en el trabajo los aportes sobre los procesos de formación vocacional y de orientación profesional en las etapas del desarrollo humano.

Método: La modelación teórica realizada se sustenta en la aplicación del método científico sistémico – estructural – funcional. Desde esta perspectiva, se expresa desde la Teoría General de los Sistemas, la lógica o sucesión de procedimientos para la construcción del conocimiento de manera coherente y rigurosa.

Resultados y Discusión: Los resultados alcanzados en el orden teórico sobre la modelación realizada, han sido el soporte esencial para la elaboración de reglamentos; en la proyección sobre el proceso integrado de admisiones hasta la condición de Alumni; así como en el seguimiento académico de cada estudiante. Ello es una prueba de su aplicabilidad en la práctica.

Implicaciones de la investigación: Se discuten las implicaciones prácticas y teóricas de esta investigación, proporcionando a las instituciones de la Educación Superior, ideas para la integración de las universidades con las educación precedentes y el sector de la producción y los servicios.

Originalidad/Valor: La novedad del trabajo radica en la idea de un macroproceso que sistematice la orientación profesional como fuente de la motivación profesional en los diferentes estudios del desarrollo de la personalidad.

Palabras clave: Gestión Institucional Integral, Abandono Estudiantil, Orientación Profesional, Motivación Profesional, Acceso, Permanencia, Egreso, Empleabilidad.

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1 INTRODUCTION

A 2022 Diagnostic Report on Higher Education and Post COVID-19 Science in Latin America: Prospects and Challenges for the Future (OEI, 2022), demonstrates the prevalence of high dropout rates. It is noted in this report that approximately 20 to 40% of university students drop out in the early years of their careers. In relation to the above, it has been shown that poor professional orientation can cause an inadequate selection of the profession to study. This situation generates inequality and poverty, and ultimately for many educational experts a young society of frustrated professionals is being created (UNESCO, 2006). In addition, the employability of young graduates is uncertain, among other reasons due to the contraction of the economy (IESALC-2020).

For the case of Ecuador, according to a study on indicators of Higher Education, science, technology and innovation, associated with the 2021 – 2025 (2022) opportunity creation plan of the (SENESCYT), the gross enrollment rate of third level in its projection to the year 2025 will have a sustained growth, together with a tendential decrease in student dropout, as shown in Figures 1 and 2. However, as Hershberg et al, 2020, states, as cited in OEI, 2022, various studies carried out in Latin America foresee a notable increase in dropout rates in Higher Education between 10 and 25% in the coming years, whose causes are based mainly on the economic crisis, the contraction of the budgets of universities and families, as well as the digital gap between different groups caused by the massification of the virtual training modality.

The reality presented suggests that the numbers of university dropout have not gone, nor will they go hand in hand with the figures of increase in enrollment in Higher Education. The 2022 Diagnostic Report on Higher Education and Post COVID-19 Science in Latin America: Perspectives and Challenges for the Future (OEI, 2022), notes that 10% of students show the probability of dropping out. The three main reasons, according to SEP-ANUIES-UANL (2022), are economic problems (31.7%); emotional problems (14.2%) and for reasons of work or job search (13.1%).
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Figure 1

Gross enrollment rate in Higher Tertiary Education of Ecuador. Projection until 2025. (%)  


Figure 2

First-year dropout rate in third grade (%)  


The authors of this work, based on the above, consider that it is essential for the Ibero-American countries to maintain, with the systematicity and consistency of recent years, the continuity of enrichment in institutions of Higher Education, of the theory, methodology and practice that contribute to the decrease of abandonment and the increase of student tenure. This is the idea that supports the contributions of integral management for the process of access, permanence, exit and employability that is presented.
2 THEORETICAL FRAMEWORK

The system of access, permanence, graduation and employability (SAPEE), has been described by Barrios and collaborators (2005), as part of a research carried out to offer strategic treatment from the university to the main indicators of each stage through which the life of a professional passes (Rabossi, 2014). These stages of life are essentially linked to the level of vocational development and professional motivation that is reached from childhood, adolescence, youth and adulthood of a subject. They are decisive for achieving a life project associated with professional work.

The characteristics and results of the SAPEE, has been the subject of scientific, political, economic and social debate, in order to achieve that the society as a whole, and the universities in particular, manage to interpret the conception and connection that exists between these stages of human development. Their results are also considered in international rankings and national accreditations.

Various studies carried out in universities in Latin America show that the problem of SAPEE is associated with different conditions in each country, as well as the characteristics of higher education institutions, not being equal this problem in such contexts (González, 2001, Rama, 2005; Araujo, Patiño, 2012; Stella, 2017 and Henríquez, 2018). One of the most generalized determinants is related to the elements inherent in the development of personality linked to professional motivation (Fernández et al., 2013; Suárez et al., 2015). Professional motivation is the essential core of career guidance.

In relation to the above, Munizaga and collaborators (2018), identify five essential factors structured in 111 variables that affect the problem treated with respect to SAPEE, a result achieved from the systematic review in 10 countries of Ibero-America. From this finding, the authors of this work have identified for each factor, the indicators that are directly related to the level of motivational development of the subjects involved (Fonseca, 2013; Munizaga et al., 2018).

(1) **Individual factor.** Personal traits, aspirations and expectations of students and their families: motivation, adaptation, individual, school formation, career choice, expectation, self-perception, self-determination, satisfaction.

(2) **Academic Factor.** It considers the previous academic trajectory and during the student's formation in the university: academic performance, approved credits, academic
autonomy, suspended subjects, commitment to the course, academic performance, academic dissatisfaction, permanence in class, school average and semester average.

(3) **Institutional factor**: professional orientation, teaching models, teacher training, academic – social networks and university life.

(4) **Economic Factor – Labor**. Related to family and personal economic income, in addition to forms of financing of university studies and employment opportunities: socioeconomic, financing, employment situation, labor field and career-market relationship.

(5) **Cultural Factor**. Beliefs and practices that are part of the cultural context of the student and that affect his decision-making: sociocultural.

The factors indicated, although they are results of a multicausal nature, it is possible to associate them, according to González Rey (1993), to the motivation of the students that makes it true opportunities for the student.

According to Sampedro and Castañeda (2006), the SAPEE is successful when in its access stage (also called university access process), it has as its basis a vocational training in the previous educations, followed and in harmony with a process of professional orientation fundamentally developed during secondary education and high school. If this work is not systematized, during university studies it is possible for the student to abandon his studies due to lack of professional motivation towards the career he selected.

The career guidance process ensures the development of professional motivation, which is its core. According to González Rey (1993), this process is structured by different stages:

**I. Development of basic interests and capacities.** It is closely associated with school subjects, experiences and experiences of daily life, in which the family, teachers and school play a decisive role. It is stated that at this stage the so-called professional motives are formed, characterized by diverse and sometimes contradictory inclinations with respect to their professional future as it is an indicator of the process of formation of their personality.

**II. Development of professional reasons and professional process.** This stage is characterized by the delimitation of the spectrum of professional interests and the development of motives towards one or more professions. The adolescent at the threshold of his youth, more or less immediately, chooses the profession he wishes to study, he builds his life project, raising awareness of the need for this choice. In this
sense, family, friends, school and the media play an essential role in future professional expression.

III.- Professional reaffirmation. It is the last stage and occurs throughout the study of the profession and during the first years of its performance in the production and services sector. Professional reaffirmation is the culminating process of shaping professional identity. At this stage the case of the university student not only experiences motivation towards the profession, but is permanently expressed through the profession in various situations of their daily life, experiencing experiences of fulfillment, recognition and personal security related to their profession. Precisely, this is the culminating moment of their professional identity.

Professional motivation includes functional specificities that must be taken into account by Higher Education to ensure a system of access, permanence, exit and exercise of the profession of graduates. This is decisive for students to consider their studies within the purposes, plans and life projects.

3 METHODOLOGY

The integral management for access, permanence, graduation and university employability presented (hereinafter GIAPEE), is the consequence of a theoretical modeling process based on the application of the systemic - structural - functional scientific method systematized by Álvarez (1989). This method expresses the logic or succession of procedures that guide a theoretical modeling during the construction of scientific knowledge in a coherent, synthetic, argued and concrete way. Together it requires methods such as: abstraction – concretion; analysis and synthesis, documentary review and statistical analysis, among others.

The modeling carried out by the authors of this article considers that the GIAPEE, is a subsystem of the Management System of the University Institution and is structured by different components, closely related to each other, which have different functions. Figure 1 graphically depicts these two scientific decisions.
3.1 SUMMARY OF THE MODELING PROCESS

a) The University Institutional Management System (SGUI), represents a whole and covers the set of subsystems that structure it (the parts), among which is the GIAPEE subsystem. The whole is considered to be in the parts, as are the parts in the whole.

Currently, for some authors such as Abad-Villaverde et al., as cited in OEI, 2022, for the function of the SGUI it is necessary to assume the proposal of the Sustainable Development Solutions Network (SDNS, for its acronym in English, 2017), where "... the governance of institutions must be seen as the fourth pillar so that the functioning of the IES can be in accordance with the approaches of the Sustainable Development Goals (UN, 2015). While the management emerges the guiding axis from which the proposals that comply with the institutional philosophy are developed and allow to measure the scope and limitations of actions aimed at promoting social change (García-Arce et al., 2021, as mentioned in OEI, 2022), this cannot be separated from substantive functions, nor from any other university process” (p. 221).

b) The GIAPEE subsystem represents the object of study of this work. It complies with the different properties of Systems Theory:

1.- Given its border – context is applicable only in Higher Education.
2.- Its objective is: “To contribute to comprehensively manage the process of access, permanence, exit and employability, through the pedagogical design of each of its
components, as a way that favors the reduction of the dropout rates of university students”.

3.- As the information that each of the structural components of the GIAPEE subsystem receives increases, its entropy decreases, that is, a better order in its operation is achieved.

4.- The component elements of the GIAPEE subsystem tend to adapt as the environment evolves, its context according to external changes.

5.- The improvement of GIAPEE's results, given the level of integration of its components, makes it generate better qualities within the prefixed objective.

6.- The functional coherence of GIAPEE can be verified through its recursion, since it is independent within the SGUI.

7.- Its autopoiesis is based on the idea that, despite having been prepared by professionals, by people, GIAPEE tends to charge autonomy.

GIAPEE is structured as follows:

**PA:** University entrance process. Currently the Pedagogy of Higher Education considers that it begins from the early ages of the student and culminates approximately, during the first year of the university career, that is, it implies a time of 14 years. This process has been structured, according to Sampedro et al. (2006) in three main stages:

- **Stage of general vocational training.** It takes place from kindergarten until the end of Primary Education with the formation of general interests and knowledge (vocational training). The important thing at this stage is to direct the educational influences of the family and teachers towards certain professions in children, using wide and varied interests related to the different spheres of culture, science, sport, aspects that allow them to "discover" their inclinations and skills.

- **Stage of preparation for professional selection.** Occurs in Secondary Education, it is directed to the development of cognitive interests, knowledge and specific skills, which are detached from those subjects or spheres of knowledge and social work towards which the adolescent has been showing inclinations or preferences.

- **Stage of training and development of professional interests and skills.** It coincides with the entry of the adolescent or young person to the baccalaureate and has as its essential objective the formation and development of interests, knowledge and professional skills that make him suitable for the successful performance of a certain profession.
Professional orientation acquires at this stage special particularities that are expressed in the “professional approach” of the educational teaching process.

- **Stage of consolidation of interests, knowledge and professional skills.** It begins in the last year of high school and ends during the first year of university career. It works to achieve that students reach a higher level of independence in the application of professional knowledge and skills to the solution of problems of professional practice. It is characterized by initiative, perseverance, creative and thoughtful action in solving problems of professional practice are indicators of the level of functional development of motivation and expression of the possibility of the subject to apply the acquired knowledge and skills formed regardless of their professional performance.

The four stages mentioned above are decisive to make the process of university retention effective and therefore must be led by the university in its role as an institution of greater incidence in the construction of knowledge, advice is given to the improvement of public policies, together with previous education and the family.

**(PP): University tenure process.** There is a period of overlap between (PA) and (PP) of vital importance to avoid stimulating the process of university dropout due to the lack of motivation of students. Among its essential characteristics is the difficult period of admissions to the university.

It is both process and result. Its essential indicators, the retention and abandonment of students throughout their training curriculum, contradictory to each other, must also be considered processes and results. Students maintain or drop out of their studies as part of a succession of stages of their student life. Historically, student retention and abandonment has been compiled numerically into what has been an erroneous decision and practice in institutional management. The professional orientation changes function towards the reaffirmation of students by their profession.

From the qualitative point of view, the efficiency, effectiveness and effectiveness of the retention process, it is possible to analyze it by assessing the level of motivational development achieved by university students through their commitment, despite or not personal, economic, academic, social or contextual limitations, the successful completion of their studies in Higher Education. Interest in his university studies is consolidated.

**(PEU): University graduation process.** It is both process and result. Its beginning overlaps with the completion of the (PP). It has been little recognized by university management. It's the preamble to the students' departure from the university. It receives a
decisive influence from the production and services sector during its pre-professional internships and in many cases decides the future life of the graduates. The professional orientation changes function towards the exercise of the profession that is studied. Now it is a question of motivating the future graduate by the exercise of his profession. If this stage is not taken care of, many students, knowing the truth about the labor market, society as a whole and the reality of the status of their profession, lose interest, do not graduate with the illusion of professional practice and this limits their professional status.

(PEG): Employability process of university graduates. It is both process and result. Employability is understood as the skills that strengthen people’s ability to take advantage of the opportunities of their training and thereby forge, identify and retain a job. Its beginning overlaps with the completion of the (PEU). It currently influences the three previous processes in a decisive way. The university must train so that its graduates have an entrepreneurial spirit or that, at least, they can practice the profession studied. The non-employability index reaches 46% in Latin America, which is significantly affecting the (PA); (PP) and the (PEU) in countless careers.

4 RESULTS AND DISCUSSION

The application of comprehensive management for access, tenure, graduation and university employability at the SEK International University has been successively modeled within its Educational Model versions 2020 and 2024, which can be found on its institutional website, in the section relating to “Regulations”. This is proof of its concreteness and applicability in practice.

In this way, from the University Institutional Management System, an Annual Operational Plan is planned to impact each of the components of GAIPEE:

▪ Teachers from all careers of the training offer systematically participate in the activities convened by the institutional Admissions Directorate. They include counseling, talks, visits to educational centers, certified trainings, open doors, sports, cultural, recreational actions that contribute more than to the knowledge of the University and its offer, so that high school students, along with their teachers, families and mass media, appropriate the results of professional orientation, which is to assume conscious modes of action derived from the development of professional motivation.
• From each career, the results of the diagnostic, formative, summative and authentic evaluations are used to promote a better knowledge of the learning process, its indicators and its evolution, so that individual differences can be addressed in time based on the personalization of the training. This has favored the implementation of academic and guidance tutoring to meet the needs of personological and professional training presented by students, and greater security with respect to their chances of achieving, together with teachers and other colleagues, their individual goals.

• It has been designed that each subject promotes in its class system the integration of teaching with research and the relationship with society. This strategy ensures that the training curriculum is characterized by bringing students closer to their productive context, services and society in general, which is enriched by linking theory with practice, compliance with the system of pre-professional practices and the permanent solution of professional problems. The results show that students develop a better motivation to solve reality problems with what they learn.

• The UISEK promotes benefits through the Job Exchange, permanent information on job opportunities and postgraduate studies for those who attend the final semesters, the systematic link with its Alumni community and with the system of companies and institutions that offer employment or stimulate the creation of companies. This practice ensures a transition of the student to the world of work. It is the essential route to achieving better indicators of employability. In the UISEK during the year 2023 this indicator has a behavior of 83% of graduates in the exercise of the studied profession, which exceeds the Ecuadorian average that has been estimated at 65%.

5 CONCLUSION

In a synthetic way, in the present work a comprehensive management system for access, permanence, graduation and university employability is presented, based on the potentialities of professional orientation, as a contribution to the sustainable improvement of university retention. In its essence, it is conceived that universities must lead the training of their professionals not only with an endogenous character, but also with the participation of social agents who intervene in the efficiency, effectiveness and effectiveness of the training of professionals from a professional orientation that guarantees a true motivational development and, therefore, the achievement of the retention of university students that society demands.
The idea of a retention of university students during their conscious stay in the university presupposes an efficient access, an effective exit and an effective employability. With all this, the hypothesis that ordered our investigative behavior was defined in the following terms: “the application of a process of professional orientation during the access, the permanence, the exit and the employability led from the university, would favor a greater retention of university students”.

The modeling carried out by the authors of this work assumes a novel process of professional orientation, which must occur in a continuous, constant, differentiated, specific and coherent way from the time the child enters Initial Education, until he enters and remains in the sector of production and services once graduated. It is a theoretical assumption that has its foundation in one of the traits of the development of the personality that has to do with the formation of the professional motivation.

Vocational guidance work should not be confused with vocational training work. The vocation is formed, the profession is oriented. The professional orientation is directed to the development of authentic professional interests and intentions as motivational psychological training, that is, it is to educate the motivational spheres of the students and to develop these motivational trainings. The development of a motivational formation of the subject, particularly in its regulatory function, must take into account its functional specificities from the system of objectives that the subject proposes; the system of affective experiences that it experiences; and the system of personal senses that the activity covers for the personality.

REFERENCES


Barrios Queipo y Col. (2005). La orientación profesional pedagógica y técnica desarrolladora en la mejora del proceso de acceso, permanencia y egreso escolar de los profesores y estudiantes de la ETP. Universidad de Ciencias Pedagógica José Martí. Cuba.


