GROWING UP IN ADVERSITY: THE RESILIENCE OF STUDYING WITH DISABILITIES AT THE NATIONAL UNIVERSITY, COSTA RICA

Angélica del Socorro Fontana Hernández
Universidad Internacional Iberoamericana (Mexico)
angelica.fontana@doctorado.unini.educ.mx
Juan Luis Martín Ayala
Universidad Europea del Atlántico (España)
juan.martin@uneatlantico.es · https://orcid.org/0000-0002-7461-2857

Abstract. This article is derived from the research of the Doctoral Thesis on resilience, disability and higher education. The study design is mixed, sequential explanatory type with a research strategy that integrates the quantitative and qualitative research approach. The purpose of the research is to characterize the resilience of students with disabilities that allows them to face barriers in higher education in order to establish the enclave factors for the design of a resilient accompaniment route. Different inquiry techniques were used, such as the SV-RES60 resilience scale, a questionnaire, and an interview. 110 students participated (55 regular and 55 graduates) who are studying or have completed a career at UNA from 2000 to 2020. A descriptive and comparative analysis is carried out using basic statistical tools and with the support of the SPSS program. quantify and characterize the information collected; also establish relationship patterns by study groups complementing with argumentation, testimonies and the theory investigated. It is concluded that students with disabilities present a resilient state during their university training in the presence of structural barriers that hinder their personal, academic and social development. Based on the results, the updating of the teaching staff and the support services on the models for promoting resilience and the implementation of a resilient accompaniment route derived from this study is justified.

Keywords: higher education, disability and resilience

CRECIENDO EN LA ADVERSIDAD: LA RESILIENCIA DEL ESTUDIANDO CON DISCAPACIDAD EN LA UNIVERSIDAD NACIONAL, COSTA RICA

Resumen. Este artículo se deriva de la investigación de Tesis Doctoral sobre resiliencia, discapacidad y educación superior. El diseño del estudio es mixto, de tipo explicativo secuencial con una estrategia de investigación que integra el enfoque investigativo cuantitativo y cualitativo. El propósito de la investigación es caracterizar la resiliencia del estudiantado con discapacidad que le permite enfrentar las barreras en la educación superior con el fin de establecer los factores de enclave para el diseño de una ruta de acompañamiento resiliente. Se emplearon distintas técnicas de indagación tales como la escala de resiliencia SV-RES60, un cuestionario y una entrevista. Se contó con la participación de 110 estudiantes (55 regulares y 55 egresados) que cursan o han cursado una carrera en la UNA del año 2000 al 2020. Se realiza un análisis descriptivo y comparativo mediante herramientas básicas de estadística y con apoyo del programa SPSS permitió cuantificar y caracterizar la información recabada; asimismo establecer patrones de relación por grupos de estudio complementando con argumentación, testimonios y teoría indagada. Se concluye que el estudiantado con discapacidad presenta un estado resiliente durante su formación universitaria ante la presencia de las barreras estructurales que obstaculiza su desarrollo personal, académico y social. A partir de los resultados se justifica la actualización del personal docente y los servicios de apoyo sobre los modelos de promoción de la resiliencia y la implementación de una ruta de acompañamiento resiliente que se deriva de este estudio.

Palabras clave: educación superior, discapacidad y resiliencia.

Introduction

The 21st century is the beginning of great social transformations, derived from economic, ecological, and ethical crises. For this reason, new forms of resilience emerge at all levels of society to survive the sadness, impotence, and lack of a future, due to the scarce values and collective positions.

Inclusive education emerges as an innovative pedagogical response in this century to respond to student diversity and their social inclusion. From this perspective, diversity is valued as a source of richness and not as otherness, disorder, abnormality, madness, illness, marginality, poverty, disability; thus favoring the construction of an axiological framework (tolerance, respect, solidarity, justice, equality, equity, among others) based on human rights.

Education, being conceived as a right, contemplates equivalent learning opportunities for all without detriment to individual differences in terms of capacities, skills, social, and cultural conditions (Opertti, 2008).

Since the 1990s, higher education institutions at the international level have promoted the inclusion of persons with disabilities in response to current legislation (IESALC/UNESCO, 2005). More recently, with the Sustainable Development (SD) approach, specifically, Goal 4 Ensure inclusive, equitable, and quality education throughout life for all (UNESCO, 2015).

The challenge for public and private universities in Latin America and the Caribbean (LAC), particularly in Costa Rica, is to renew their educational offerings and curricula in line with the principles of inclusive education, the humanistic perspective, complex, critical and systemic thinking, constructivist pedagogical trends, and advances in neuroeducation.

In addition, the Regional Commission on Higher Education (CREES) of LAC points out that the permanence and progress of the student population is a challenge in higher education, since it requires an analysis of the factors associated with academic lag, dropout, and abandonment in the region (Henríquez, 2018).

It is necessary, then to pay attention to the multiple factors that limit compliance with current legislation and educational policies in higher education in the LAC Region (Rama, 2006 and Paz, 2018). This phenomenon of invisibility of persons with disabilities in LAC can be seen in other European countries, as Echeita (2006) points out the acceptance of social inequalities as a normal fact in societies, which no longer flinch in the face of poverty, begging, abuse, and even death.

The social model of disability, a perspective shared by this research, approaches the situation of these people from a social and political perspective. For this reason, disability is conceived as a concept that evolves and is closely related to the elements of the environment, because of their interactive relationship with people with disabilities, which can hinder or facilitate their personal development and social inclusion. (UN, 2006)

In this sense, Palacios (2008) indicates that "the causes that originate the exclusion of people with disabilities are not religious or scientific, but are, to a large extent, social" (p. 26), which define their valuation and participation in society.

From this perspective, the person with disabilities was considered as a subject with rights who requires services and, therefore, should have a role in their planning and development. It is intended, then, the acceptance of the differences of people and the adjustments of the social environment to facilitate their integration and participation in society, which generated a change in the field of conceptions, as well as in social attitudes towards people with disabilities.

It is pertinent, then, to reflect on the conditions in the educational context that generate social and educational exclusion of the student population, particularly the group with a disability.

From a vision of universal accessibility, De Asís Roig (2005) states that barriers refer to "any obstacle that hinders or prevents, under conditions of equal opportunities and full participation, people's access to any of the spheres of social life" (p. 51), highlighting the interrelation between barriers to learning and participation and the accessibility conditions of educational environments.

Barriers in higher education is a phenomenon studied for three decades in the European context and in the United States, such as, Konur (2006) Abu-Hamour (2013); Cotán (2015), Morgado et al (2016).

In the LAC context there are studies by López (2016), Ocampo (2013) Salinas et al (2013), Corrales et al (2016) Forgiony (2019). In higher education in Costa Rica, Ramirez (2011), Stiller and Gross (2012), Gross (2016) Torres (2013) Vargas (2012- 2013) evidence that the prevailing barriers limit the entry and permanence of the student population, which implies that the transition from secondary to university education is difficult for students with disabilities corroborating what is indicated in the reports of international organizations (Brunner and Miranda, 2016, Henriquez, 2018).

In this sense, it is important to highlight the relevance of this research, which may contribute valuable information about the resilience of students to structural barriers in higher education in order to generate forms of support in their university education.

Problem statement

The opportunities to enter Costa Rica's higher education and complete a degree have had a remarkable expansion in the last forty years in Costa Rica. In the IV Report on the State of Costa Rican Education, by 2016, university coverage has expanded among 18-24 year olds in the Central region, urban areas, and among women (PEN, 2017).

Despite the prevailing legal support, according to the National Survey on Disability (ENADIS/ INEC, 2018) this group presents lower levels of education than the population without disabilities.

Therefore, attention to diversity in higher education entails the challenge of generating accessibility conditions that allow the construction of an inclusive university environment, without barriers, prejudices, or actions of discrimination or exclusion (Calvo, 2009).

According to the VI State of Education Report (PEN, 2017) each public university in Costa Rica applies measures to improve access for populations in vulnerable socioeconomic conditions. Only the University of Costa Rica (UCR) and the National University (UNA), coordinate the application of the Academic Admission Test (PAA).

The National University, the context where this research is conducted, for more than three decades, has had programs and academic initiatives for the educational inclusion of students with disabilities congruent with the principles and purposes of a comprehensive education according to the Organic Statute (UNA, 2016).

To respond to the requirements of this student population, UNA has an Institutional Commission on Disability (CIMAD), the Support Services Unit (USA), and other institutional support bodies that ensure equal opportunities and accessibility conditions for people with disabilities, establishing institutional guidelines and procedures for the support and monitoring of their university education.

Based on the above, it would be expected that the UNA has the ideal accessibility conditions for the student population. However, according to the Institutional Diagnostic (Fontana et al, 2012-2015), attitudinal, conceptual, and structural barriers prevail in the university context that hinder the inclusion, permanence, and graduation of students with disabilities, reflecting a contradiction with current international and national legislation that advocates for equality and equity of opportunities, education for all and inclusive education.

In a university context, which does not include diversity by itself, the topic of resilience of students with disabilities in higher education is relevant for current studies because it will reveal the systemic relationship between individual and social development of people.

The concept of resilience is broad and well-studied, with theories developed according to the historical moment and with models according to the application environments.

According to studies, the concept has undergone significant changes since its emergence in the 1960s. At the beginning, it was conceived as an innate characteristic of people, and then research moved from an approach focused on the individual dimension to a perspective on the social and holistic dimension, as well as a form of intervention and promotion practices.

Currently, resilience is conceived as a process of social construction, where personal and contextual variables converge in a dynamic and creative interrelation in the face of adverse events. That is, resilience is understood "as a process that is built in and from the social, relational, and

human schemes, although this process is manifested in individual, family, social, and organizational behaviors" (Madariaga et al, 2014, p. 12).

In the processes of social construction, resilience is mediated by the life histories of each person and the cultural contents of their own context, which of course condition the emerging resilience that will allow new ways of interpreting the adverse situations they face.

Resilience is built in and with the social fabric from this perspective in higher education, the empowerment of resilient capacities concerns all members of the university community, in this dynamic, the institutional support services have a significant role because of their essential role in the accompaniment of students with disabilities.

Therefore, the paradigm of resilience allows a new look at people, their lives, and the socio-cultural reality, which leads to rethink the forms of support and monitoring in university education.

According to the literature review, there are previous studies in the international arena (Cedeño and Intriago, 2018; Maitta et al, 2018; Moriña and Melero, 2016 and Suriá et al, 2015), which expose the need to deepen the knowledge of resilience of students with disabilities.

The resilience studies presented above found that what made the difference was a positive influence, a loving and close relationship with a *significant adult/resilience coach*, so that people in vulnerable conditions could overcome their adversities.

As this figure of the resilience coach has wide applications in the educational environment, the results of recent research, such as that of Perez et al (2010), should be considered for the implementation of teacher training programs in higher education and implementation of support services with a resilient approach.

However, the phenomenon of resilience in the UNA is little explored, only the work of Garro and Pereza (2018) is found and its results do not impact university policies, guidelines, and procedures to promote resilient accompaniment, capable of innovating the support services they currently provide.

Method

The methodology followed in the research is framed within the naturalistic paradigm with a mixed, sequential explanatory design (Hernández et al, 2014).

In the research strategy, the first stage is quantitative and the second qualitative with the integration of the data collected through the explanation and interpretation of the relationships that emerge according to the variables addressed, which will provide a more comprehensive view of the resilience resources of students with disabilities in the face of structural barriers in the university context.

We had the participation of 110 students (55 graduates and 55 regular students) selected by means of intentional sampling, taking into account the condition of disability (sensory, physical-motor, intellectual, and psychosocial) and other conditions (specific difficulties) who are studying or have studied at UNA from 2000 to 2020, with ages ranging from 20 to 54 years and most of them from the urban area of Costa Rica, who were willing to participate in the study.

In order to gather the perspective of university students, the SR-RES60 resilience scale was applied, which consists of 60 items distributed in 12 factors that are grouped in 4 areas of depth ranging from the base conditions (belief system and cultural values), the vision of oneself, the vision of the problem, and resilient behavior (evident response).

A three-part questionnaire with open and closed questions was also used. The first part addressed general information and the second part contains 6 questions about barriers in university education, ways of dealing with them and institutional support services. The third part consists of 10 questions about resilience, strategies, and recommendations. These instruments were developed by the researcher and validated by the criteria of judges (UNA academics specializing in psychology and special education).

For the analysis of the information, in the first quantitative phase, a descriptive analysis will be carried out using basic tools such as graphs and tables. The research process is carried out cyclically by organizing and recording the information in matrices (spreadsheet) according to the topic addressed. From this basis and with the support of the statistical program (SPSS) version 25 (IBM, 2019), the quantification and characterization of the data on barriers in higher education, the resilience resources of students with disabilities, and the institutional support services they receive in their university education was made possible. Patterns of relationship are established according to the divergent and convergent aspects by study groups and are complemented with the argumentation, the inclusion of testimonies and the contrast with the theoretical reference and the knowledge acquired by the researcher's experience.

For the purposes of this article, the general results of the quantitative stage are presented.

Results

The results obtained in the study are presented below, arranged according to the variables addressed.

Barriers in higher education

According to the perception of the students participating in the study, 96.46% indicated that they faced different barriers during their university education and 3.54% of the graduates indicated that they did not face any barriers during their studies. However, they mentioned at least one obstacle in the methodology and evaluation of the assignments of the degree courses in which they graduated and in the access to the virtual platform of the UNA.
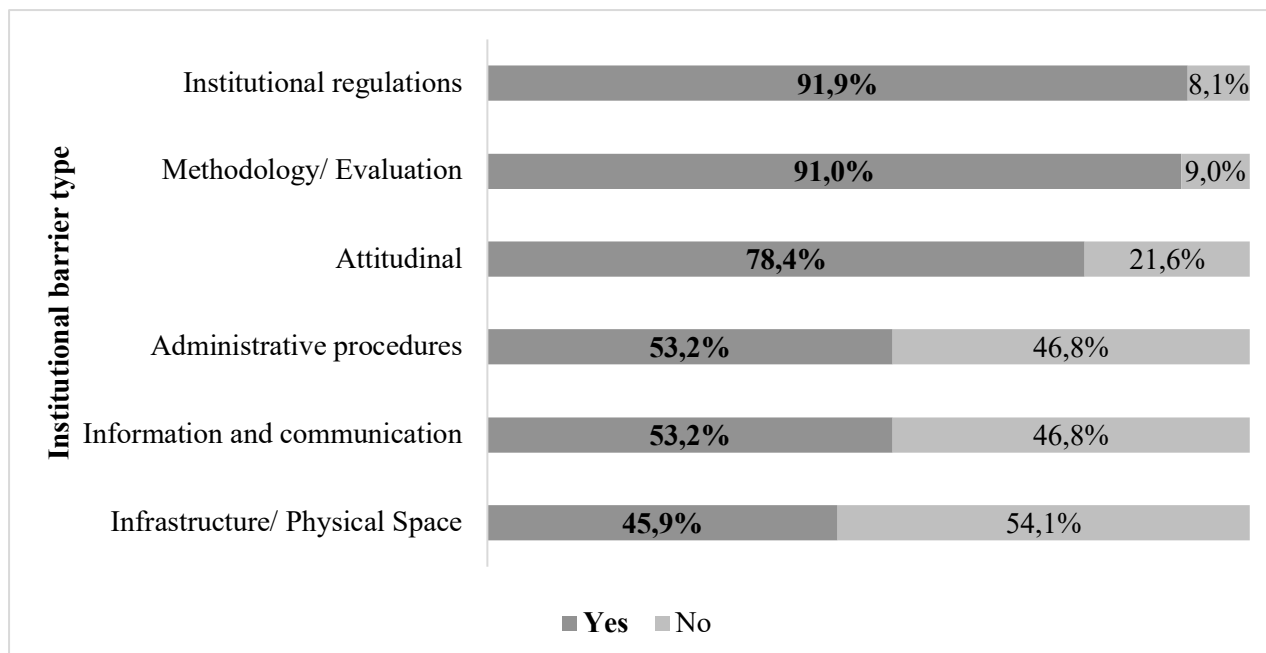
*Figure 1.*Type of institutional barrier in the training of students with disabilities at the National University- UNA in the year 2020, variable 1 questionnaire question 2 N110

In general terms, Figure 1 shows that 91.90% of university students indicate that the UNA does not comply with international, national, and institutional regulations on access to higher education for people with disabilities in conditions of equity; this is reflected in university teaching, since 91% of students indicate that the methodology and evaluation of courses present persistent barriers that limit their learning and academic development.

In the attitudinal area, 78.40% of university students mentioned that they have faced disparaging gestures and expressions, as well as discriminatory treatment due to their disability, affecting the socioemotional part and the interaction with their peers.

With a similar percentage, in the area of communication and information and administrative procedures at the university, 53.20% of students mention barriers that limit their autonomous participation and force them to request support from another person who does not necessarily show willingness and interest in collaborating, which generates concern and anxiety.

Moreover, for 45.90% of university students who use wheelchairs or are visually impaired, barriers in the infrastructure and physical space of the university hinder their mobility and movement on the university campus.

Regarding the meaning of barriers, 50.45% of the students indicate that they are a problem they have to face in their university education generated by the non-compliance with current regulations, the lack of accessibility conditions and lack of training for teachers and administrative staff of the UNA on disability and inclusive education. While for 49.55% of the student body, barriers are an opportunity to grow as a person. They are challenges to be overcome, struggles to be carried out, gaps to be closed, and good life experiences; this is how one student explains it: *"At the beginning barriers are obstacles, but circumstances change and they become challenges to face and move forward." (R 18).*
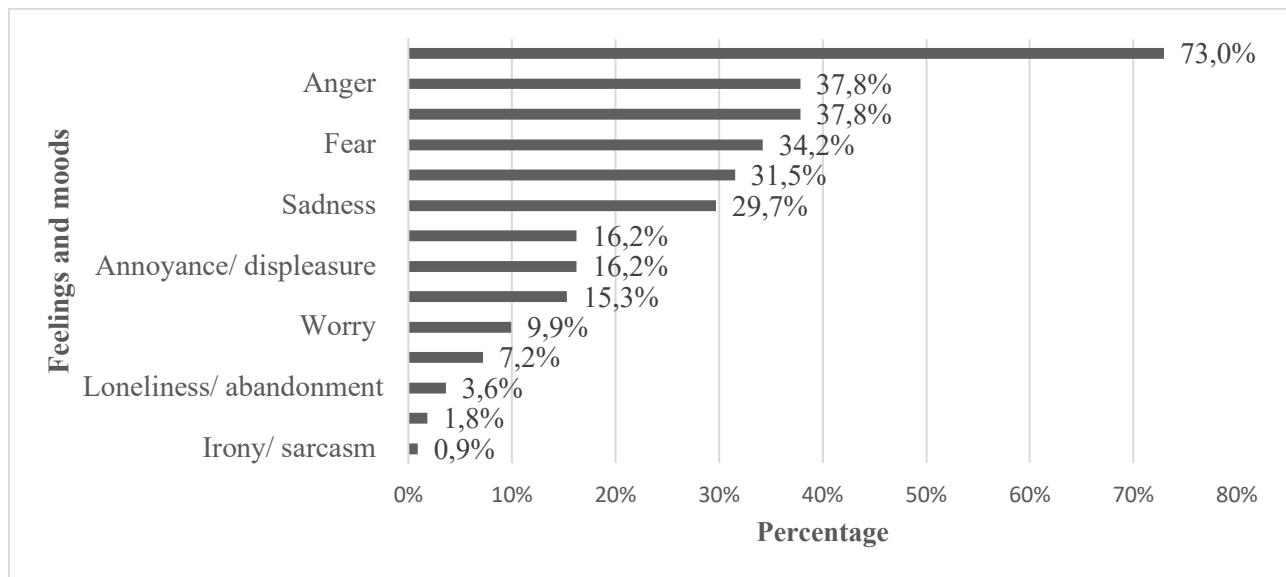

Figure 2. Feelings and moods about barriers to university education for students with disabilities in 2020; variable 1 questionnaire question 3 N 110

Figure 2 shows that the students participating in the study experience feelings of discomfort with the barriers in their university education, 73% feel frustration with the prevailing situation, which generates anger and helplessness, fear, sadness, and indignation that affect their emotional state and the quality of social interactions.

On the other hand, only 3.60% of the participating students indicated that the barriers in their university education are a source of motivation and courage to move forward, as expressed by one student: *"It generates a desire to overcome in a certain way a learning process; however, this is subjective, since it is subject to the personality and the magnitude and characteristics of the barrier." (R 2)*.

Resilience in higher education

According to the results of the research, 100% of the student body affirms that they are resilient because they have been able to face and overcome adversities in their lives. The desire to overcome and the constant struggle they have had to face barriers in their university life has allowed them to move forward with their studies in an optimistic manner and with a positive vision of their future.
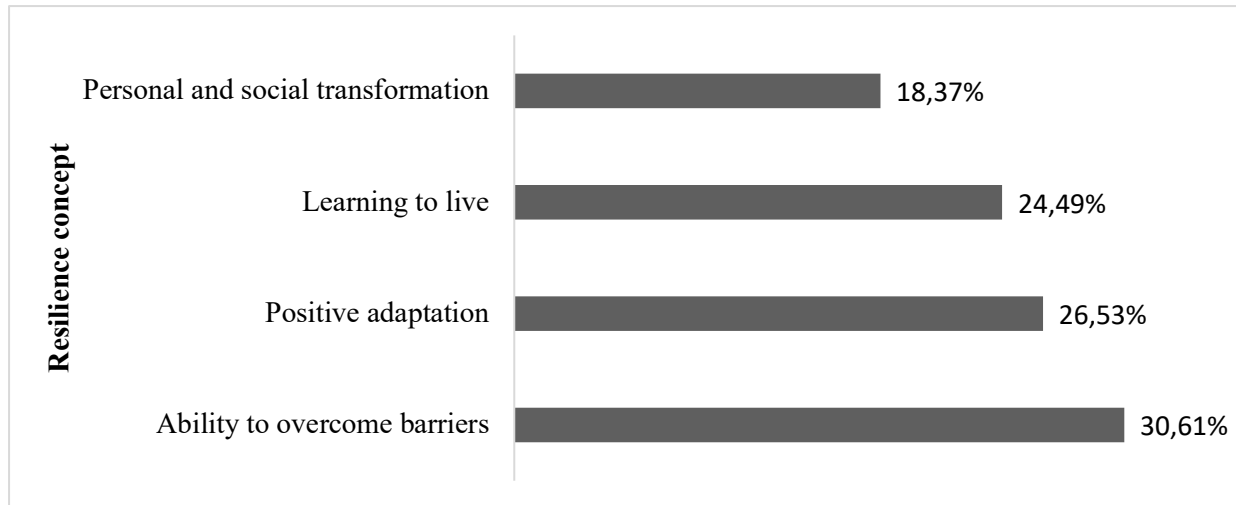
Figure 3. Concepts of resilience of students with disabilities at the National University in 2020, variable 3 questionnaire question 7 N110

Figure 3 shows that 30.61% of university students consider that resilience is a capacity to overcome life's adversities that constitute cognitive, emotional, and behavioral efforts. Some 26.53% focus on the process of positive adaptation to barriers or life circumstances in order to give a flexible response with the support of family, friends, and other people.

For 24.49% of the students, resilience consists of learning to live visualizing something positive, better, desirable, and different in order to overcome barriers and build alliances; and 18.37% highlight the process of personal and social transformation in their lives expressing: *"Resilience is a process of transformation that has been built in my life throughout the stages I have lived through." (R 3).*

Table 1

Percentage of students participating in the study by resilient characteristic in 2020

Resilient characteristics*	Percentage **
Studious / dedicated in study	39,14 %
Intelligent / ability to learn	32,43 %
Empathetic / understanding the person's situation	27 %
Strenuous / courage to undertake	23,42 %
Responsible/ fulfills obligations/ punctual	23,42 %
Proactive / manages alternatives and solutions	16,22 %
Optimistic / positive attitude in life	13,51 %
Creative / imagination and inventiveness	13,51 %
Tolerant / acceptance of situations or persons	13,51 %
Disciplined / organized	12,61 %
Respectful / considerate of the person	11,71 %
Humble / knows his/her qualities and weaknesses	11,71 %
Resilient / adaptation and transformation	10, 81 %
Brave / strong with courage	10,81 %

Note: *Each characteristic includes the interpretation of the group of participants.
Only the characteristics that represent 10% of the group of participants are included.
Variable 3, questionnaire question 9 N 110

As shown in Table 1, university students identify characteristics that define them as resilient. In the academic area, traits such as being studious, intelligent, hardworking, responsible, proactive, creative, and disciplined stand out, evidencing the importance of education in their lives, specifically university education.

In the socioemotional area, the traits that stand out are empathy, optimism, tolerance, respect and humility, resilience, and courage that allow them to face barriers in the personal, family, social, and educational spheres, adapt and maintain a healthy life.

Regarding the sources of motivation to continue with their studies, 50.45% of the students indicate that the support of their family and friends is fundamental in their lives due to the economic and emotional support. The 48.54% indicate that the career selected at the university is a reason to achieve a better future despite institutional barriers.

For 47.75% of the university students, the inner motivation they have during their university education is another essential factor to achieve academic, personal, and social goals. A 31.53% consider that the institutional support services are a reason that allows them to remain in the university because of the support they receive in the academic, social, and emotional areas, revealing its importance in university education, as expressed by a student: *"The support of the*

UNA Quality Education project is an incentive to seek alternatives when I have problems or to share with other people." (E 15)

In addition, 29.73% of the student body mentions that the beliefs and values acquired in their lives are a reason to continue with their studies, as shown: "*I believe in spirituality, even though I do not practice any religion. I believe in that light that protects us all, which, although I do not know its form, name, or place. I know it is there and that we have to be close to it with our heart transparent, free of grudges, and full of love." (E 1).*
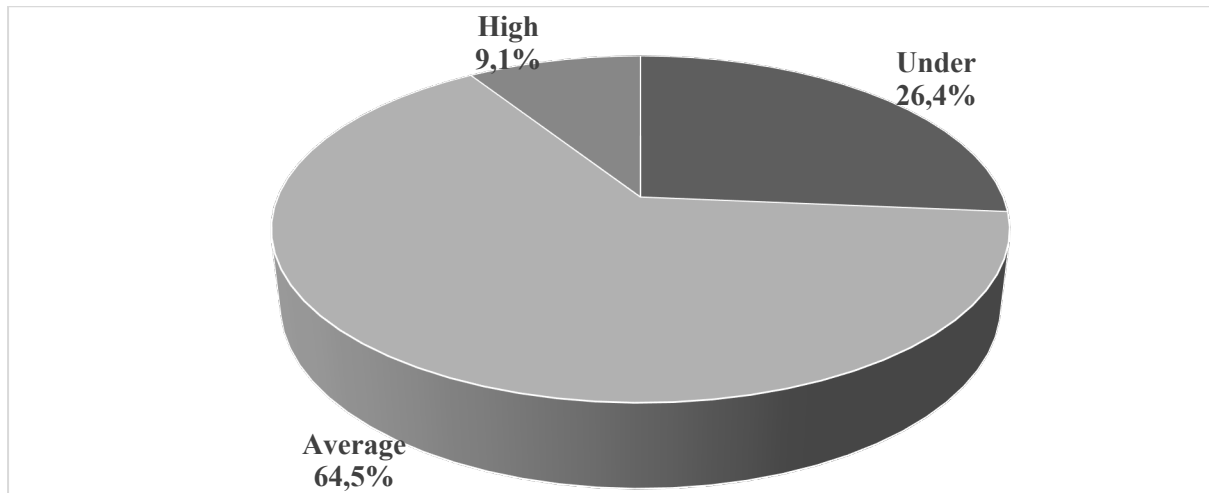

Figure 4. Level of resilience of students with disabilities at the National University according to the SV- RES60 scale in 2020, variable 3 N 110

Figure 4 shows that 64.50% obtain an average level of resilience with a range of 33 to 74 points according to the SR-RES60 scale and 9% reach a high level with a range of 71 to 90 points. A smaller proportion of students, 26.40%, obtained a low level of resilience with a range of 3 to 24 points.

On the other hand, when comparing the study groups, it can be seen that the graduate students obtain higher scores in the three dimensions of resilience (I am 59.20% graduates and 43.4% regular students; I have 59.2% graduates and 46.2% regular students; I can 44.46% graduates and 42.2% regular students).

Table 2

Percentage of resilience factors in the problem's vision-dimension according to the SV- RE60 scale and by study group in 2020

Structuring of consciousness, Saavedra and Villalta (2008)	Resilience factor by study group		
	Percentage	Regular %	Graduated %
	3. Satisfaction	**13,50**	**21,50**
Vision of the problem	7. Models	38,80	59,90
	11.Apprenticeship	**14,20**	**20,40**

Note: V 2 Resilience factors N 110

Table 2 shows that the participating university students obtained a low level in two factors that contribute to the *vision of approaching the problem* for the construction of resilience, evidencing that, in both study groups, they continue to perceive adverse situations as problems that generate dissatisfaction and few possibilities for learning.

Resilience strategies in higher education

According to the results of this study, **100%** of the participating students claim to use different resilience strategies in their university education.
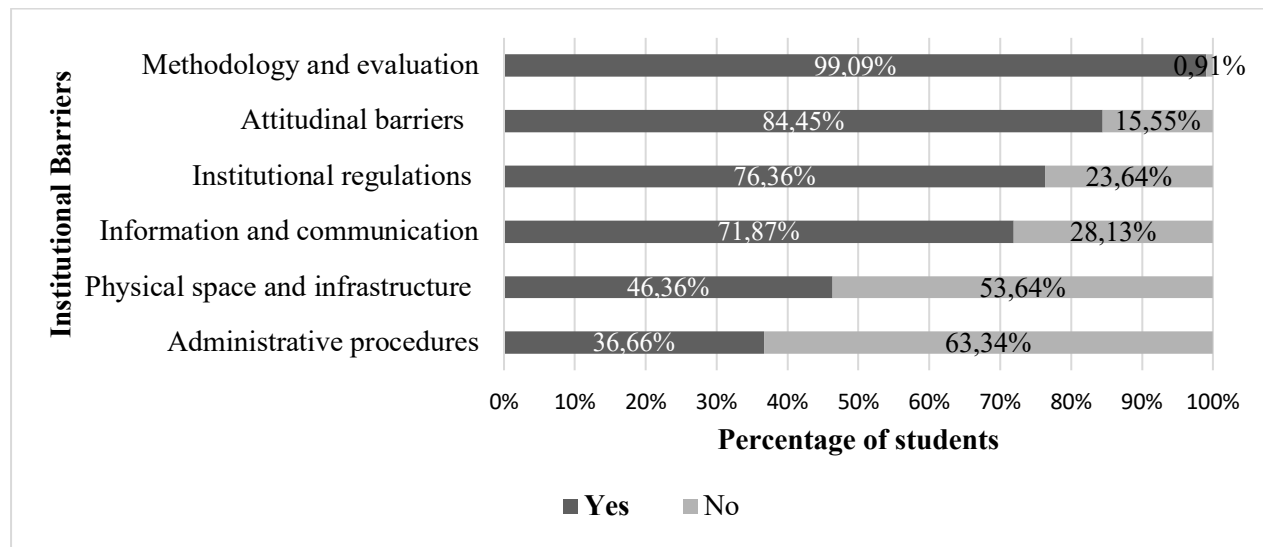

Figure 5. Resilience strategies of students with disabilities at the National University, variable 3 questionnaire question 11 N 110

Figure 5 shows that university students, faced with the prevalence of structural barriers, employ different resilience strategies, most of which are individual responses according to their

personal and social condition, reflecting their capacity for self-determination, autonomy, and pragmatism in order to generate the required support, these results being congruent with those obtained in the SV RES60 resilience scale (Figure 4).

In relation to the people the students trust to face the barriers in their university education, 88.99% indicate that they turn to their peers when they have difficulties or have to resolve various situations in their studies; in particular, university students with a visual impairment (blindness or low vision) the support of their peers is essential to move around the university campus; also to orient themselves in the class sessions and to prepare their work.

The 63.30% indicate that they find in their family and friends the economic, emotional and, in many occasions, academic support they need in their university education. This group of students indicates that usually a family member (mother, sister, or brother) helps them with the reading of documents, elaboration of materials, and transcriptions to Braille; in this way, they express, *"My family is also a great support. They represent a great economic and emotional support. They even sometimes help me to elaborate didactic materials." R.1.*

If adverse situations warrant it, 40.37% of university students turn to the UNA Quality Education Project and 3.67% to the Student Assistance Office or the Guidance and Psychology Department. In addition, 30.28% turn to the teaching staff to seek advice and collaboration to resolve conflicts in the curricular and academic areas (application of adjustments and respect for their rights).

It is noted that only 6.4% approach the university's student promotion groups, particularly music and theater, in order to find a space for support and recreation.

Institutional support services

According to the results of the research, the participating students receive different support services during their university education.
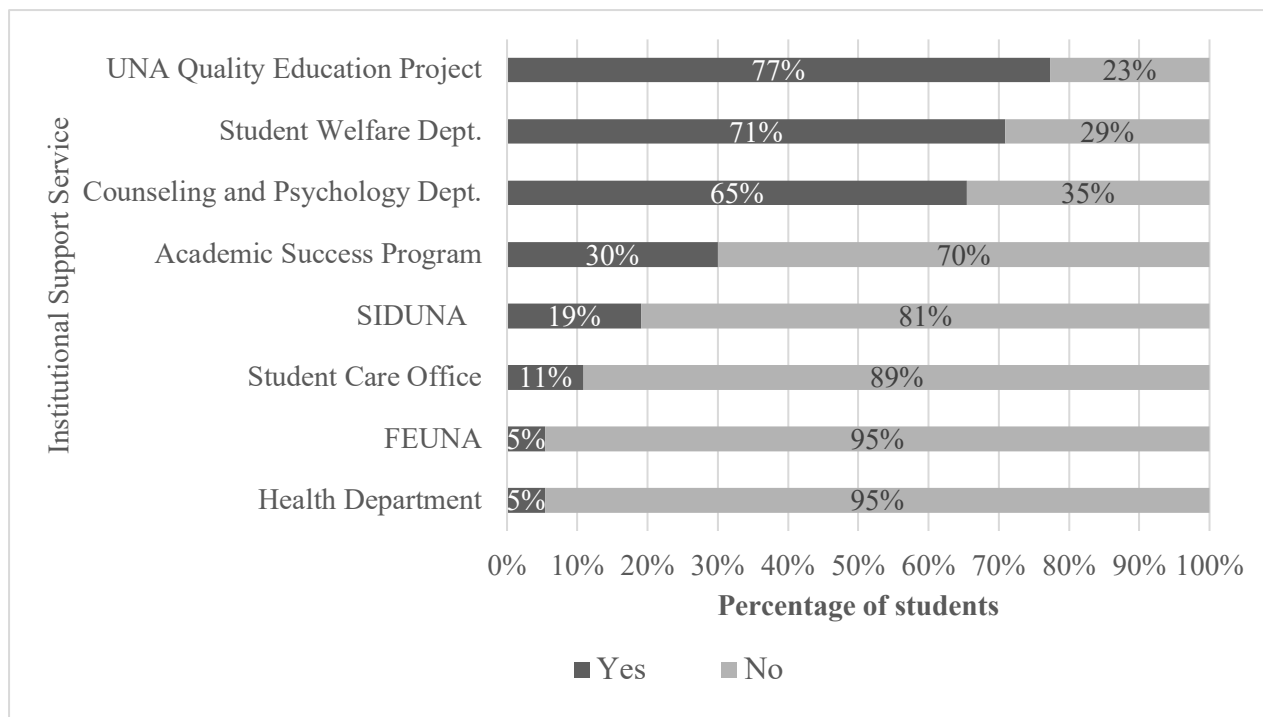
Figure 6. Institutional support service received by students with disabilities at the National University in 2020, variable 4, questionnaire question 14 N 110

As shown in Figure 6, 77% of the students attend the UNA Quality Education Project for academic support (digitalization of materials, individual support to prepare assignments, access to technological equipment, and other actions), 65% attend the Guidance and Psychology Department for psycho-pedagogical and psychological follow-up, and 30% attend the Academic Success Program to receive tutoring in the most demanding courses (mathematics, chemistry, and English).

A smaller part of the student body uses other services, such as the Information and Documentation System (SIDUNA, 19%) for the digitalization of printed documents, the Student Services Office (11%), and the Student Federation (FEUNA) and the Health Department (5%).

Discussion and conclusions

In this study, it was determined that the inaccessibility conditions prevailing at UNA harm the rights of students with disabilities and generate different forms of discrimination and exclusion with their emotional and social repercussions, since they are perceived as people who must adapt to a society that does not integrate them by itself, to a university context that does not ensure their permanence or the completion of their studies, evidencing a contradiction with the vision and mission of the university and with the principles of humanism and inclusion, the values of equity and respect for diversity (UNA, 2016).

It is concluded that the barriers faced by students with disabilities during their university education are structural because they are found in the physical, organizational, administrative, and curricular dimensions of the university that hinder their personal, academic, and social development.

These results are consistent with studies conducted in universities in Latin America and the Caribbean (Henríquez, 2018) and with the Institutional diagnosis on the constructions of academic staff about disability and the forms of support and follow-up at UNA (Fontana et al, 2012 - 2015); likewise with other studies by academics (Torres, 2013 and Vargas, 2012- 2013).

The situation of inaccessibility is not alien to other universities in the country, according to research conducted by Gross (2016), Ramirez, 2021, Stiller, and Gross (2012), students with disabilities at the University of Costa Rica (UCR) point out achievements and shortcomings in inclusion in higher education.

The presence of structural barriers in university education is a stressful aspect for students with disabilities that repeatedly exceeds their cognitive, emotional, and behavioral capacity, generating feelings of discomfort and altering their emotional state, which affects academic performance and the quality of interactions with peers, teachers, and members of the university community.

It is concluded that students with disabilities are perceived as resilient people because they have been able to face and overcome adversities in their lives, the desire to overcome, the constant struggle against barriers in their university education has allowed them to move forward with their studies in an optimistic way and with a positive vision of their future, as indicated by Luthar (2006), Forés and Grané (2016).

These results are congruent with those obtained in the SV RES60 resilience scale, since most of the participating students present an average level of resilience (64% with a range of 33 to 74 pts.) and a high level (9% with a range of 75 to 90), which are similar to the general population in other studies (Saavedra and Villalta, 2008; Saavedra et al, 2012).

On the other hand, university students who present a low level of resilience (26.4% with a range of 3 to 24 pts.) according to the SV RES60 scale, it is feasible that they should strengthen personal and social skills that allow them to face the barriers of the university environment and build increasingly healthy lifestyles, since resilience is a universal human capacity that is built in and from the social factors (Madariaga et al., 2014).

Based on the conceptualization of resilience, four stages are identified: confrontation with environmental barriers, positive adaptation, learning to live with life circumstances, and realization and transformation, these processes reflecting the routes of construction and reconstruction of resilience in each student with disabilities individually and socially in order to move forward with their lives.

Students have four sources of resilience: internal motivation (inner strength), external motivation (family support), the university career, and institutional support services that interact in a dynamic and flexible way in their lives, promoting the entry, permanence, and completion of studies in higher education, constituting a cyclical and unfinished process according to the different situations they will face in their lives (Pourtois, 2014).

From the results of the SV RES60 resilience scale, it is determined that the graduate students achieve a higher score in the three dimensions of resilience (*I am/ I am, I have, and I can;* Grotberg,

1995) than the group of regular students. This is consistent with the adult stage in which they find themselves, since it allows them a particular way of appropriating the events in their lives, a strengthened capacity in their personal and professional achievements, with stable links and networks; also with more collaborative and slower generative responses.

While regular students obtain a lower level of resilience in the previous dimensions, which is a result congruent with the young adult stage in which they are exploring different ways to face adversities in their lives; with aspirations and projects to achieve, which requires a generative response focused on their academic goals, relying on their personal possibilities and the resources of their environment to successfully complete their studies, allowing them to achieve personal and professional fulfillment.

It is concluded that the possibilities of learning from adverse situations continue to be a critical aspect in their lives, particularly in higher education, since in the dimension of resilience, vision of the problem (barriers in higher education), both groups of students present a low level in the factors: satisfaction and learning according to the SV- RE60 scale.

Given the structural barriers in the UNA, it is determined that the student body generates resilient responses through individual actions. It is evident, then, the absence of a strategy as a student group that ensures not only their rights in higher education and the conditions of accessibility in university education, but also their emotional well-being, the empowerment of their capabilities, and their social projection.

In university education, it was determined that the role played by peers (classmates, friends, and students with disabilities) and people they trust in institutional support services in building resilience is relevant because they show empathy, maintain constant communication (cell phone), serve as a guide, and give them recommendations to overcome the adversities they may encounter during their university education.

It is concluded, then again, that students with disabilities present a resilient state during their university education, which consists of more than the sum of personality traits, since resilient characteristics are modeled according to the demands of each stage, particularly in higher education, as indicated by Connor and Davidson (2003).

Based on the results of the study, it is justified to update the academic and administrative staff of the UNA and to renew the praxis of the institutional support services from the models of resilience promotion committed to the maximization of human potential and well-being. In addition, it is intended to establish the resilient enclave factors for the implementation of an accompaniment route at the National University.

References

Abu-Hamour, A. (2013). Faculty Attitudes toward Students with Disabilities in a Public University in Jordan. *International Education Studies 6*(12), 74-81. http://dx.doi.org/10.5539/ies.v6n12p74

Brunner, J. and Miranda, D. (2016*). Educación superior en Iberoamérica Informe 2016*. Centro Interuniversitario de Desarrollo-CINDA. https://cinda.cl/wp-content/uploads/2018/09/educacion-superior-en-iberoamerica-informe-2016.pdf

Calvo, I. (2009). Community participation. In P. Sarto and M.E. Venegas (Cords.). *Key Aspects of Educational Inclusion*. INICO. https://sid.usal.es/idocs/F8/FDO22224/educacion-inclusiva.pdf

Cedeño, H. and Intriago, A. (2018). Affectivity in subjects with disabilities and its relationship with gender: an approach from resilience. *Espirales multidisciplinary research journals, 2(14),* 101-114.

https://www.revistaespirales.com/index.php/es/article/view/194/136

Connor, K. and Davidson, J. (2003). Development of a new resilience scale: the Connor-Davidson Resilience Scale (CD-RISC). *Depress Anxiety*, *18*(2), 76-82. https://onlinelibrary.wiley.com/doi/abs/10.1002/da.10113

Corrales, A., Soto, V. and Villafuerte, G. (2016). Learning barriers for students with disabilities in a Chilean university. Student demands- Institutional challenges. *Journal of Actualidades de Investigación en Educación, 16*(3), 1-29. http://dx.doi.org/10.15517/aie.v16i3.25957

De Asís Roig, R. (2005). *The meaning of universal accessibility and its justification in the Spanish regulatory framework.* Ministry of Labor and Social Affairs, Universidad Carlos III. https://e-archivo.uc3m.es/handle/10016/9895#preview

Echeita, G. (2006). *Educación para la inclusión o educación sin exclusiones*. Narcea.

http://www.rinace.net/reice/numeros/arts/vol11num2/art5.pdf

Fontana, A., Vargas, M.C., Fernández, M. and Chavarría. S. (2012- 2015). *Institutional diagnosis on the constructions of academic staff about disability and educational needs, forms of support and monitoring in university training of students with disabilities* at UNA. Vice Rectory of Research, National University, Costa Rica.

Forés, A. and Grané, J. (2016*). Resilience. Growing from adversity*. (6th ed). Plataforma Editorial . https://www.plataformaeditorial.com/uploads/La-resiliencia.pdf

Forgiony, J. (2019). Conceptual analysis of inclusive classroom practices, diversity and school coexistence. *Aibi journal of research, management and engineering*, 7(1), 36-40. https://doi.org/10.15649/2346030X.504

Garro, M. and Peraza, F. (2018). *Resilience strategies of students with visual impairment in the face of elements that influence student well-being in the context of the National University at the Omar Dengo Campus: A study from the discipline of Guidance, in 2017*. [Bachelor's thesis in Guidance. Unpublished). National University of Costa Rica.

Gross, M. (2016). Accessibility in the university educational process. *Electronic Journal Actualidades Investigativas en Educación, 16*(1), 1-17. http://dx.doi.org/10.15517/aie.v16i1.21920

Grotberg, E. (1995). *A guide to promoting resilience in children: strenghening the human spirit.* The International Resilience Project Bernard Van Leer Foundation. https://bibalex.org/baifa/attachment/documents/115519.pdf

Henríquez, P. (2018). (Coord.). *Tendencias de la educación superior en América Latina y el* UNESCO- IESALC/ UNC . https://www.iesalc.unesco.org/2019/07/17/coleccion-cres-2018-tendencias-de-la-educacion-superior-en-america-latina-y-el-caribe-2018/

Hernández, R., Fernández, C. & Baptista, M. P. (2014). *Research methodology*. (6 ed.) Mc Graw Hilll Education. https://www.uca.ac.cr/wp-content/uploads/2017/10/Investigacion.pdf

IBM (2019). SPSS Statistics V25.0. https://www.ibm.com/support/knowledgecenter/SSLVMB_25.0.0/statistics_kc_ddita/spss/product_landing.html.

National Institute of Statistics and Census- INEC (2018). *Encuesta Nacional sobre Discapacidad ENADIS.* https://www.inec.cr/encuestas/encuesta-nacional-sobre-discapacidad

Konur, O. (2006). Teaching disabled students in higher Education. *Teaching in Higher Education, 11*(3), 351-363. https://doi.org/10.1080/13562510600680871

López, F. (2016). Comparative Higher Education: Global and Latin American and Caribbean Trends. *Revista da Avaliação da Educação Superior, 21*(1), 13-32. http://dx.doi.org/10.1590/S1414-40772016000100002

Luthar, S. (2006). Resilience in development: A synthesis of research across five decades. In D. Cicletti and D. Cohen (Eds.). *Developmental psychopathology: Risk, disorder, and adaptation.* (3 Ed.). Hoboken, NJ, US: John Wiley & Sons Inc. (pp. 739-795). https://doi.org/10.1002/9780470939406.ch20.

Maitta, I, Pinargote, J., Alcivar, E., & Coello, E. (2018). Teaching resilience to People with visual disabilities. *International Research Journal of Management, IT & Social Sciences, 5(1), 36-44.* https://doi.org/10.21744/irjmis.v5i1.592

Madariaga, J.M., Palma, M., Surjo, P., Villalba, C. and Arribillaga, A. (2014). The social construction of resilience. In J.M. Madariaga. (Coord.) *Nuevas Miradas sobre resiliencia. Expanding scopes and practices.* Gedisa.

 https://rua.ua.es/dspace/bitstream/10045/73040/1/2013_Rosser_Tejiendo-la-resiliencia-en-el-acogimiento-familiar.pdf

Moriña, A. and Melero, N. (2016). Social and academic support networks of students with disabilities that contribute to their inclusion in higher education. *Journal Inclusive Education in Sociology, 16,* 32-59. https://revistaprismasocial.es/article/view/1252

Morgado, B. Cortés, M.D. López, R. Álvarez, E. and Moriña, A. (2016) Inclusive Education in Higher Education? *Journal of Research in Special Educational Needs,16*, 639-642. https://doi.org/10.1111/1471-3802.12323

Ocampo, A. (2013). Inclusion of Students with Disabilities in Higher Education. Challenges and opportunities. *Latin American Journal of Inclusive Education, 6*(2), 227-23. http://riberdis.cedd.net/bitstream/handle/11181/5553/Inclusi%c3%b3n_de_estudiantes_en_situacion_de_discapacidad.pdf?sequence=1&rd=0031821475102217

Opertti, (2008). Inclusive Education, international perspective and future challenges. XV Colloquium on the History of Education. "Special and Social Education in the 19th century". http://www.ibe.unesco.org/sites/default/files/Simposio_Pamplona-09_presentacion.pdf

United Nations - UN (2006). *Convention on the Rights of Persons with Disabilities.* https://www.un.org/esa/socdev/enable/documents/tccconvs.pdf

United Nations Educational, Scientific and Cultural Organization-UNESCO (2005): *Guidelines for Inclusion: Ensuring Access to Education for All*. Paris: UNESCO. http://www.ibe.unesco.org/sites/default/files/Guidelines_for_Inclusion_UNESCO_2006.pdf

United Nations Educational, Scientific and Cultural Organization- UNESCO (2015). *Incheon Declaration. Education 2030. Towards inclusive, equitable quality education and lifelong learning for all.* Incheon. http://www.unesco.org/new/fileadmin/MULTIMEDIA/FIELD/Santiago/pdf/ESP-Marco-de-Accion-E2030-aprobado.pdf

Palacios, A. (2008). *The social model of disability: origins, characterization and embodiment of the International Convention on the Rights of Persons with Disabilities.* http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0041-86332013000300008

Paz, E. (2018) Current situation of attention to diversity in higher education in Honduras. *Revista Actualidades investigativas en Educación, 18(3)*, 1-32. https://doi.org/10.15517/aie.v18i3.34148

Pérez, García, Gil and Caballer, (2010) What is resilience? Towards an integrative model. In Jornadas de Fomento de la investigación. Jaume University. http://repositori.uji.es/xmlui/bitstream/handle/10234/77669/forum_2009_15.pdf?sequence=1&isAllowed=y

State of the Nation Program (2017). *IV State of Education Report.* PEN. https://www.estadonacion.or.cr/educacion2017/assets/ee6-informe-completo.pdf

Pourtois, J.P (2014). The resources of resilience. In J.M Maradiaga (Coord) *New Perspectives on resilience. Expanding fields and practices.* Gedisa. https://es.scribd.com/book/446032838/Nuevas-miradas-sobre-la-resiliencia-Ampliando-ambitos-y-practicas

Rama, C. (2006) The third reform of higher education in Latin America and the Caribbean: massification, regulations and internationalization. *Revista Educación y Pedagogía*, *XVIII (46),* 11-24. https://revistas.udea.edu.co/index.php/revistaeyp/article/view/6875

Ramírez, M. (2011). The dimensions of accessibility at the University of Costa Rica, Sede Rodrigo Facio, an approach from the perspectives of disability and gender. *Revista Reflexiones, 90* (2), 71-88. https://revistas.ucr.ac.cr/index.php/reflexiones/article/view/1461/32378. https://revistas.ucr.ac.cr/index.php/reflexiones/article/view/1461/32378.

Saavedra, E. and Villalta, M. (2008). *SV-RES resilience scale for youth and adults 15 to 65 years old* . https://www.academia.edu/26343874/Saavedra_Villalta_SV_RES60_ESCALA_DE_RESILIENCE_SV_RES

Saavedra, E, Castro, A. & Saavedra, P. (2012). Self-perception of young university students and resilience: construction of their particularities. *Katharsis,14*, 89-105 . https://doi.org/10.25057/25005731.450

Salinas, M., Lissi, M.R, Medrano, D., Zuzulich. S. and Hojas, M. (2013). The inclusion of in higher education: from the voice of Chilean students with disabilities. *Iberoamerican Journal of Education, 63*, 99-113. https://doi.org/10.35362/rie630502.

Stiller, L. and Gross, M. (2012). Accessibility in the admission process to the University of Costa Rica, of the student population with special educational needs associated or not with disability. *Revista Educación*, *36*(1), 73-81. https://revistas.ucr.ac.cr/index.php/educacion/article/view/453/9904

Suriá, R., García, J.M., Ortigosa, J.M.. (2015). Resilient profiles and their relationship with social skills in people with motor disabilities. *Psicología Conductual, 23*(1) 35-49. https://rua.ua.es/dspace/bitstream/10045/57932/1/2015_Suria_etal_BehavioralPsychology.pdf.

Torres, J. (2013). *Inclusion and equity of people with disabilities in Costa Rican Higher Education.* [Specialized article to opt for the degree of Professional Master in Educational Sciences with emphasis on teaching]. San Isidro Labrador International University.

National University. (2016). Estatuto Orgánico. D.O. No. 03 Extraordinary. https://documentos.una.ac.cr/bitstream/handle/unadocs/6693/ESTATUTO-ORG%c3%81NICO-UNA-digital.pdf

Vargas, M.C. (2012- 2013). *Influence of the prejudices of a sector of the university population regarding disability in the construction of an inclusive institutional culture at the National University*. [Unpublished doctoral thesis]. University of Costa Rica.