Challenges to Foster Resilience: Inclusive University

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**Abstract**

The work aims to provoke critical educational reflections on the current state of the scientific-pedagogical conception of inclusive education in the university context. In this sense, we are aware of the existence of an extremely positive conceptual evolution in recent times. It is necessary to articulate new discourses and teaching practices that project and illuminate the idea that inclusive education as a permanent process of change in education and for which the development of psychological activities outlined in resilience can play an important role. The Ecuadorian higher education system has experienced, for a few years, changes of great pedagogical interest. In this framework, a whole process of generating educational policies and inclusive education is shown, taking as a framework the professors and managers of the Technical University of Manabí (UTM) (Ecuador), to contribute to the greater inclusive development of the said university. The main challenges for university institutions regarding fostering the resilience of the academic process are presented.

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1. **Introduction**

The Institutions of Higher Education (IES) in their task of teaching, research and community outreach, constitute the main reference to contribute in the processes of interaction between human activities and society, to reduce the formation of negative scenarios and strengthen resilience. The problems that tend to place the human being at a disadvantage have accompanied humanity since its emergence: diseases, loss of loved ones and natural disasters among others, are presented with an endless succession as part of life. In this contextual reality, the ability of human beings to face adversities and emerge strengthened from them acquires a very important meaning.

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Universities in their task of teaching, research and extension have a unique opportunity to influence the behavior change of people, decision-makers and communities; besides contributing to the understanding of the interaction processes between human activities, society and nature to reduce the confirmation of risk scenarios. Likewise, multidisciplinary scientific research becomes a very important tool for building public policies that reduce susceptibility and strengthen resilience, based on the complementation of scientific knowledge and the local knowledge of the communities. Therefore, it is necessary to consolidate the responsibilities of HEIs, both vertical and horizontal. The objective of the work is to establish challenges to promote resilience in the Universidad Técnica de Manabí (UTM).

2. Research Methods

The research methodology was fundamentally qualitative, based on the documentary analysis of current and institutional regulations and grounded theory, with an ethnographic, hermeneutical and evaluative approach, supported by recent research in the UTM. The defined policies were understood as processes of change that were dialogued, validated and accepted by the interested parties. The results of the research are composed of the systematized set of institutional policies agreed upon and finally approved by the University Council.

3. Results and Analysis

3.1 The inclusive university

An inclusive university is one that is committed to society, which in addition to teaching quality teaching and producing the best research, assumes the social mandate to be a reference of values and human progress [1]. An inclusive university must be managed democratically and transparently, offering equal opportunities to all those who access it. But in addition to ensuring the equity of those who are part of the university community, it is capable of launching proactive mechanisms to search for diverse people, including people with disabilities, offering a welcoming environment that facilitates the necessary support to reach the maximum development of its potential [2].

In today's multicultural society, diversity is an unavoidable fact. If we bet on the inclusion of diversity in our institution, understood as a synonym of enrichment and plurality, we will be moving towards Higher Education that provides good professionals while forming critical citizenship capable of undertaking models of fair and equitable coexistence. In short, an inclusive university is a better university [1]. Ecuador's progress in the area of inclusive education has been recognized internationally. A recent one took place in the European Exhibition of Accessibility and Universal Conception Urban Acces 2015, held on 03/10/2015 in Paris. In this event, the Design for All Foundation, an organization dedicated to the promotion of scientific research, knowledge generation and application of inclusive designs, awarded Ecuador for its disability policy. Specifically, for the promotion of the Ecuadorian Methodology for the Development of Universal Accessibility, in charge of the Vice Presidency of the Republic and the Technical Secretariat for Inclusive Management of Disability (SE TEDIS), Ecuador is the first Latin American country to receive the award, which commits the Design for all foundation to include the Ecuadorian proposal as an international reference in this field [1].

The Technical University of Manabí (UTM) is a public university that has taken advantage of this momentum by making great efforts in the field of inclusive education. In just five years it has become a university with an appreciable development in this field. It is one of the few in the country in whose structure there is an official area dedicated to inclusive education and is a pioneer in Ecuador in the incorporation of subjects related to gender perspectives and sex education into the curricula. Due to its institutional trajectory, its professionals share the desire to become a reference university for the region regarding inclusive education. Their experiences in inclusive issues could be a guide for other universities that intend to embark on the path of quality and excellence from inclusive education [1].

The ten faculties of the UTM and the Institute of Basic Sciences, the latter with a faculty category, welcome approximately 18,000 students in 33 careers. Of these, 88 have physical, auditory, visual or intellectual disabilities. It employs 81 managers (1 rector, one academic vice-rector, ten deans, 32 vice-deans of schools and 37 departmental heads, including 26 academic departments). The teachers are 576, of them 16 with disabilities. 261 teachers are principal, 262 auxiliaries and 53 aggregates; 410 work full time (40h / week) and 166 at halftime (20h / week), according to article 10 of the Career and Ladder Regulations of the Professor and Researcher of the Higher Education System [3]. The UTM is the Ecuadorian university with a higher percentage of students, teachers, and employees with disabilities [1].

3.2 Resilience and its origin

The work that gave rise to this new concept of resilience was that of [4], who studied the influence of risk factors, which arise. When the processes of lifestyle, work, the life of daily consumption, of political, cultural and ecological relations, are characterized by a profound inequality and social discrimination, inequality of gender. The ethnocultural inequity that generates unjust forms of remuneration with their consequence: poverty, a life full of stressors, physical overloads, exposure to dangers that they should be considered true destructive processes [5] that characterize certain modes of social functioning or human groups.

Werner continued for more than thirty years, until his adult life, more than 500 children born in poverty on the island of Kauai [4]. All of them went through hardships, but a third of them also suffered stressful experiences, being raised by dysfunctional families characterized by fights, divorce with the father's absence, alcoholism or mental illness. Many presented physical, psychological and social pathologies, as from the expected risk factors. But it happened that many achieved a healthy and positive development: these subjects were defined as resilient.

From the experiences of Werner in his study, as always there is an important scientific change, a new question was formulated that founds a new paradigm: why do not those who do not get sick get sick? First, it was thought about genetic issues (invulnerable children were called), but the researcher herself looked in the right direction. It was noted that all subjects who were resilient had at least one person (family member or not) who accepted them unconditionally, regardless of their temperament, physical appearance or intelligence. They needed to have someone and, at the same time, feel that their efforts, their competence, and their self-assessment were recognized and encouraged, and they had it that made the difference [6]. Werner [4] himself states that all the studies carried out in the world on unhappy children proved that the most positive influence for them is a loving and close relationship with a significant adult. That is, the appearance or not of this capacity in the subjects depends on the interaction of the person and their human environment.

3.2 The pillars of resilience

From the results obtained in the studies carried out by Werner, we tried to find the factors that are protective for human beings, beyond the negative effects of adversity, trying to stimulate them once they were detected. Thus the following were described:

Consistent self-esteem. It is the basis of the other pillars and is the result of the consequent effective care of the child or adolescent by a significant adult, good enough and capable of giving a sensitive response. Introspection. It is the art of asking oneself and giving an honest answer. It depends on the strength of the self-esteem that develops from the recognition of the other. Hence the possibility of cooptation of young people by groups of addicts or criminals, to obtain that recognition. Independence. It was defined as knowing how to set limits between oneself and the environment with problems; the ability to maintain emotional and physical distance without falling into isolation. It depends on the reality principle that allows judging a situation regardless of the desires of the subject. Abuse cases put this ability into play. Ability to relate. That is, the ability to establish bonds and intimacy with other people, to balance their own need for affection with the attitude of giving to others. Low or exaggeratedly high self-esteem produces isolation: if it is low by shameful self-exclusion and if it is too high it can generate rejection due to the arrogance that is supposed. Initiative. The taste of being demanded and put to the test in progressively more demanding tasks. Humor. Encounter the comedy in your tragedy. It allows you to save yourself negative feelings even if transiently and withstand adverse situations. Creativity. The ability to create order, beauty, and purpose from chaos and disorder. Fruit of the capacity for reflection, it develops from the game in childhood. Morality. Understood as a consequence to extend the personal desire for well-being to all the similar and the ability to commit to values. It is the basis of good treatment towards others. Critical thinking ability. It is a pillar of the second degree, the fruit of the combination of all the others and that allows to analyze critically the causes and responsibilities of the adversity that is suffered when society as a whole is the adversity that is faced. And ways to face and change them are proposed. This comes from criticizing the concept of positive adaptation or lack of imbalances that in the Anglo-Saxon literature is thought as a feature of the resilience of the subject [7].

The interactive sources of resilience, according to [8], to face adversities, overcome them and leave them strengthened or even transformed, people from an early age take resilience factors from four sources that are visualized in verbal expressions of subjects with resilient characteristics:

"I have" in my social environment.
"I am" and "I am" speak of intrapsychic strengths and personal conditions.
"I can" refers to the skills in relationships with others.
I have: People around who I trust and who love me unconditionally. People who set limits for me to learn to avoid the dangers. People who show me through their behavior the correct way to proceed. People who want me to learn to unwind alone. People who help me when I’m sick or in danger, or when I need to learn.

I am Someone for whom the others feel appreciation and affection. Happy when I do something good for others and show them my affection. Respectful of myself and my neighbor.

I am: Willing to take responsibility for my actions. Sure that everything will be fine.
I can: Talk about things that scare or disturb me. Find the way to solve my problems. Control me when I feel like doing something dangerous or that is not right. Find the right time to talk with someone or act. Find someone to help me when I need it.

3.3 Results of a study on resilience carried out in the UTM
The importance of the study of resilience is to understand more and more clearly, why some individuals can resist and even get out of adversity [9]. Although there is currently a strong discussion about the concept of resilience, most studies [10] and [11] agree in considering it as a human capacity to succeed or cope favorably in the face of adverse or stressful situations that may cause consequences negative. In January 2018, an article was published [12] which presents the results of a resilience study carried out on students of the Technical University of Manabí.

For the study, two basic instruments were applied: the SV-RES (Chile) prepared by the researchers Eugenio Saavedra and Marco Villalta [13] and; the Arratia instrument, 2011, which consists of a self-report that was previously developed in Mexico for children and adolescents, which measures specific factors of resilience based on the postulates of [14]. The sample for the study by faculties of the UTM is shown in Table 1

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty of Administrative and Economic Sciences</td>
<td>52</td>
</tr>
<tr>
<td>Faculty of Mathematical, Physical and Chemical</td>
<td>39</td>
</tr>
<tr>
<td>Faculty of Computer Science</td>
<td>37</td>
</tr>
<tr>
<td>Faculty of Health Sciences</td>
<td>100</td>
</tr>
<tr>
<td>Faculty of Agricultural Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Faculty of Philosophy, Letters and Education</td>
<td>26</td>
</tr>
<tr>
<td>Faculty of Zootechnical Sciences</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>276</td>
</tr>
</tbody>
</table>

Source: [12]

Table 2 shows the results of the resilience study through the application of the instruments: SV-RES (Chile) and Arratia 2011
Table 2
Results of the resilience study

<table>
<thead>
<tr>
<th>Faculties of the UTM Participants</th>
<th>Total</th>
<th>Instrument SV-RES</th>
<th>Instrument Arratia 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>High %</td>
<td>Medium %</td>
</tr>
<tr>
<td>Administrative and Economic Sciences</td>
<td>52</td>
<td>19</td>
<td>37</td>
</tr>
<tr>
<td>Mathematical, Physical and Chemical Sciences</td>
<td>35</td>
<td>14</td>
<td>36</td>
</tr>
<tr>
<td>Informative sciences</td>
<td>37</td>
<td>11</td>
<td>30</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>100</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>Agricultural engineering</td>
<td>12</td>
<td>2</td>
<td>17</td>
</tr>
<tr>
<td>Philosophy, Letters and Education Sciences</td>
<td>26</td>
<td>8</td>
<td>31</td>
</tr>
<tr>
<td>Zootechnical Sciences</td>
<td>10</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>276</td>
<td>103</td>
<td>38</td>
</tr>
</tbody>
</table>

Source: [12]

Figure 1 shows the graphic relationship of the results of the application of the SV-RES instrument (Chile) by faculties. It can be seen that with the application of the instrument SV-RES (2008), there is evidence of a medium level of resilience, with a tendency to be low in the faculties of Zootechnical Sciences and Computer Sciences.

![Figure 1. Graphical relation of the results of the application of the SV-RES instrument (Chile) by faculties](source)

Source: [12]

Figure 2 shows the graphic relationship of the results of the application of the Arratia 2011 instrument by faculties.

![Figure 2. Graphical relation of the results of the application of the Arratia 2011 instrument by faculties](source)
Figure 2. Graphical relation of the results of the application of the Arratia 2011 instrument by faculties
Source: [12]

It can be seen that with the application of the Arratia 2011 instrument, a high level of resilience is evident, with a tendency to be medium in the faculties of Philosophy, Literature and Education Sciences and Zootechnical Sciences. Figure 3 shows the comparative graphical relationship of the results of the application of the instruments SV-RES (Chile) and Arratia 2011 by faculties.

Figure 3. Results of the application of the SV-RES (Chile) and Arratia 2011 instruments by faculties
Source: [12]

In all cases it can be seen that with the application of the Arratia 2011 instrument, a high level of resilience is evident in all the faculties. The research carried out showed the usefulness of the study carried out from positive psychology, where the emphasis is placed on the strengths and virtues of people to achieve a better quality of life and greater well-being. The results obtained in this research [12], allowed to reflect on some recommendations to promote optimism in adolescents, which can focus on three basic cognitive skills: the first is to recognize and identify the thoughts that cross the mind in the worst moments. These thoughts can be almost imperceptible, but they affect the mood and behavior. The second step is to evaluate those thoughts. The third step is to generate more accurate and alternative explanations, using them to challenge those automatic thoughts.

3.3 Challenges of Resilience in the university environment

The question of education becomes central regarding the possibility of fostering the resilience of young people so that they can face their professional training and social inclusion in the most favorable way [15]. Unfortunately, in the formational activity (as it also happens in health) usually, the greatest effort is made to detect problems, deficits, shortcomings, in short, pathology, instead of seeking and developing virtues and strengths. For that reason and to begin with, a resilience-building attitude in the university implies looking for all previous signs of resilience, tracking the occasions in which both teachers and students raffled, overcame, overcame or overcame the adversity they faced and with what means they did it. The Report [16] are specified as essential elements of quality educational policy, the need for it to cover four aspects:

I. Learn to know,
II. to learn to do,
III. learn to live with others and,
IV. learn to be

The first two aspects are those that are traditionally emphasized, and it is about measuring to justify results. The last two are those that make social integration and the construction of citizenship. For the development of the last ones (and also of the first ones), they serve the programs that promote the resilience in the schools that is why to the realization of these programs special interest must be paid. The construction of resilience in the university implies working to introduce the following building factors of resilience [17]:

1. Offer affection and support by providing unconditional support and encouragement, as the basis and support of academic success. There must always be a significant adult (teacher) in the university environment, willing to give a hand that students need for their educational development and effective containment.
2. Establish and convey high and realistic expectations for students to act as effective motivators, adopting the philosophy that "all students can succeed."
3. Provide opportunities for meaningful participation in problem-solving, goal setting, planning, decision making (this applies to teachers, students and eventually to parents). That the learning becomes more practical. The curriculum is more relevant and attentive to the real world, as well as the decisions are made among all the members of the educational community. Must appear the strengths or skills of each one.
4. Enrich pro-social ties with a sense of educational community. Find a positive family-school connection.
5. It is necessary to train staff on strategies and classroom policies that transcend the idea of discipline as an end in itself. Participation must be given to staff, students and, as far as possible, to parents, in the setting of such policies. This way, clear and consensual rules and limits can be established.
6. Teach life skills: cooperation, conflict resolution, communication skills, ability to solve problems and make decisions, and so on. This only happens when the learning process is based on the joint and cooperative activity of students and teachers.

4. Conclusion

The research allowed to offer a conceptual analysis related to the idea of the inclusive university, which highlights the role played by the Technical University of Manabí, as an exemplary institution of social inclusion. Based on the results achieved by a group of researchers and researchers from the Technical University of Manabí in 2017 and published in January 2018, an analysis is offered, and the challenges are exposed to promote resilience in the university environment.
Acknowledgements
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References


**Biography of Authors**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position and Experience</th>
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<tbody>
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<td>Graduate of a Humanities degree. Universidad Técnica de Manabí, Portoviejo, Ecuador.</td>
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</tbody>
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