



Resilience and Personal Improvement of Students with Motor Disabilities: Universidad Técnica de Manabí



Ruth Leonor Bergmann Zambrano ^a
Kasandra Vanessa Saldarriaga Villamil ^b
Kenia Liceth García Cantos ^c

Article history:

Received: 21 July 2017
Revised: 15 January 2018
Approved: 6 February 2018
Published: 9 February 2018

Keywords:

Resilience;
Motor disability;
Disabled students;
Personal improvement;

Abstract

The condition of disability causes multiple changes in the life of a person, putting into play different mechanisms that allow him to adapt to the new situation and learn to live with important restrictions that require an effort to realize a normalized life, in a society where there is no shortage discriminatory and differentiating attitudes, which make the process of adaptation to society more difficult, all this influences the efforts to achieve the personal improvement of the disabled and the strengthening of their resilient posture. The objective of the research is to establish the resilience and personal improvement of students with disabilities in the Universidad Técnica de Manabí. The research shows an analysis of the functional and conceptual background of the phenomenon related to motor disability and the rights of people who suffer from it to develop their social skills to obtain a profession. It addresses the concept of resilience and what is related to the ability of people with disabilities to overcome. The results obtained in the application of the SV-RES test prepared by the researchers (Saavedra & Villalta, 2008a), to the students who suffer motor disability and who are enrolled in different careers of the technical university of Manabí, are offered. Offer in tables and an analysis related to the resilience and personal improvement of said students is presented.

2395-7492© Copyright 2018. The Author.
This is an open-access article under the CC BY-SA license
(<https://creativecommons.org/licenses/by-sa/4.0/>)
All rights reserved.

Author correspondence:

Ruth Leonor Bergmann Zambrano,
Teaching Technician, Faculty Humanistic Sciences,
Universidad Técnica de Manabí, Portoviejo, Manabí, Ecuador
ebergmann@utm.edu.ec

^a Teaching Technician, Faculty Humanistic Sciences, Universidad Técnica de Manabí, Portoviejo, Ecuador

^b Doctoral Program in Social and Legal Sciences, Universidad Técnica de Manabí, Portoviejo, Ecuador

^c Graduate in the Faculty Humanistic Sciences, Universidad Técnica de Manabí, Portoviejo, Ecuador

1. Introduction

When talking scientifically about the phenomenon of motor disability and its relation to resilience, it is necessary to know some functional and conceptual background. Throughout history, humanity has had different ways of reacting to individuals whose intellectual functions or body formations differ from those of most of its members. During the Roman Empire, in their idealistic conception of health and physical beauty, they unleashed malformed births from Mount Taygeto in Sparta or from Tarpeia in Rome, while in ancient India they were thrown into the Ganges River [1]. In contrast, the Vikings, who were a warlike people, considered these people as gods [2]. Infanticide was practiced in some cultures that disapproved of what is now known as a disability. In this way, different people have existed and exist, where the treatment towards them has been discriminatory and is approached by the different theoretical and political approaches.

Paradoxically, progress has been made and, at the same time, we have moved backwards in the search for less pejorative, stigmatizing terms or with less negative connotations with the genuine attempt to change that image of rejection and the role of people with disabilities in this society. Many of these denominations, in spite of being representative of medical, psychological, educational or social conceptions already surpassed or inadequate for the present times, continue being used by a considerable number of people. Individuals with disabilities have often been unfairly identified with intellectual limitations or psychological dysfunctions [1].

The presence of students with disabilities in Ecuadorian universities has strengthened research on their problems, proliferating studies related to the lives of disabled university students. These experiences come to highlight that in the current university context, these students present greater difficulties than the general population because, in addition to their own disability, they must overcome not only architectural but also psychosocial barriers. At present, it is a social duty to ensure that the person with disabilities achieves full incorporation into academic life and the attainment of a professional title. One of the objectives embodied in the National Development Plan of Ecuador 2017-2021 [3], is to achieve educational justice and equity, that is: guarantee the right to education, a right expressed as equal opportunities for access, the permanence and educational achievement of all young people in the country in higher education. It is already a reality that the efforts of people with disabilities, of their families, of teachers, of special education personnel, have promoted changes in social attitudes, in legislation, in opportunities for work and in education.

People with disabilities have access, based on their rights, to higher education, and have the opportunity to increase their knowledge, to develop their social skills, to obtain a profession. The Technical University of Manabí has the social commitment to provide an efficient educational service in its formative dimension, but students with disabilities lack an infrastructure according to their physical needs, specialized technological equipment and adequate academic strategies to strengthen their learning and develop the capacities intellectual, physical and aesthetic of its members. The motor disability is immersed in this reality and the people who suffer it are often subject to discrimination and indifference, because in society there is still ignorance and omission of the rights that protect them, considering themselves a vulnerable population and being limited to living with dignity.

2. Research Methods

The inductive method was applied that allowed to logically reason the concepts associated with resilience in students suffering from motor disability. The investigative techniques associated with the performance of the SV-RES test prepared by the researchers [4] were applied. This instrument is based on the evaluation of 12 dimensions, which allow to verify the situation according to three scales: high, average and low. The dimensions correspond to the following: identity; autonomy; satisfaction; pragmatism; link; networks; Models; goals; affectivity; self-efficacy; learning and; generativity. The study is of a quantitative-descriptive nature, of primary data sources, transactional in the collection of information, micro-sociological in its sample coverage. The fields of study are psychology and society. The sample is intentional, looking for the attributes necessary for the study

3. Results and Analysis

3.1 The concept of resilience

The concept of resilience has been studied since the second half of the 20th century; it has as etymological origin the Latin word "*resilio*" that means to go back, to return of a jump, to emphasize, to bounce [5], [6]. In the field of Psychology, the term resilience becomes important through the works of [7], who considers that resilience "should not be understood as the animated denial of life's difficult experiences, pains and scars: it is more In spite of this, the author suggests that it is difficult to identify the roots of the emergence of interest in resilience, its origin

dates back to 1955, with the longitudinal study developed by Emmy Werner and Ruth Smith, in which studied, over 30 years, a cohort of 698 children born in the Kauai Islands (Hawaii) in unfavorable conditions.

In the study conducted by Emmy Werner and Ruth Smith it was found that 80% of the sample did not exhibit psychopathological behavior as adults, on the contrary, they were optimistic, positive vision, adapted, competent and integrated into their social and cultural context. This research, despite having been carried out in a context different from resilience, has had significant relevance in its emergence and subsequent development [8]. From that moment on, countless studies on childhood resilience were carried out, which went back to the observation of individual self-improvement behaviors, which seemed more isolated and anecdotal cases and, on the other hand, to the evolutionary study of children who had lived in difficult conditions, such as extreme poverty and psychopathology of parents, among others [9], [10]. Later, the focus of studies on resilience manages to transcend the traditional view of adversity versus the presence of psychopathology, to that of adversity versus the possibility of successful adaptation [10].

Resilience can transform or strengthen those facing adversity, maintaining adaptive behaviors, allowing normal development or promoting growth beyond the present level of functioning. Thus, it can be identified as resilience in physically disabled students, to their ability to overcome the risks and avoid negative results, in behavioral, psychological, academic, and even physical terms. Considering the above, it is possible to understand resilience to the human capacity of the individuals or groups of these, to overcome great difficulties and grow from them. The diversity of obstacles that can interfere in the path of a subject can range from permanent and structural situations, such as poverty, to specific and personal situations such as having a motor disability [11]. In this way, it is very likely that examples of resilient capacity can be located in each of the human beings. Apparently the situations of people who succeed, after overcoming the obstacles, are present in different cultures and different countries.

The development of resilience is usually discontinuous or go through certain fluctuations. In the same way that it will be a capacity that goes beyond the resistance, but it implies projecting from the difficulty, sometimes even transforming a negative situation into something positive that facilitates growth. Nor is it an absolute condition, whether one has it or not. It is always dynamic and in constant construction, which develops in interaction with others and the environment surrounding the subjects [11]. Resilience should not be seen as a simple intervention technique that helps to repair a damage, but it is a different global perspective that seeks from the problem, generate resources to rebuild and reinvent life from an adverse situation [11].

The concept and models of resilience are not a panacea or a simplifying recipe for complex processes of social intervention, but they can be an approach that, in a transversal sense, guides the interventions of teachers and everyone who has a relationship in their work, with disabled students. Resilience is emerging as a research line with great possibilities for future development for its application to the social field, in general, and in social work in particular [12], [13].

3.2 Overcoming ability

The universal capacity that man has to face the totally adverse circumstances and overcome without surrender, using the strengths of his psychic system and the external supports of family or friends, is defined as resilience, understood as the human resistance that moves the will of the individual that allows him to resist, survive, get up and redirect his life, acting with the impulse that moves the energy of power, of wanting and doing, pushing him to exercise his strength and defend himself against those who act against his security. It uses the instinct of survival and cognitive processes as pillars and sources of container systems [14].

In the process of resilience, difficulties become opportunities for personal growth, the need that emerges not only leads to overcoming adversity, the ability to solve problems, or to successfully face difficulties, but also obtains result the improvement of the human condition. The resilience is as individual as each person, the process is unique, implies the own responsibility of work and time in which a constant search for creativity must be maintained, not to trust because a resilient behavior was maintained in an event, imagine that it will remain the same in another situation, resilience is the result of each process, which involves, will, motivation, and time between the subject-environment relationship.

Being resilient means overcoming adversity creatively, removing fears and trusting one's own abilities; to get used to criticism, to experience loneliness, independence and sadness. To allow oneself to feel pain, because true success does not come so soon or by chance, it requires the commitment to direct one's gaze into oneself, seeking to find the calm and optimistic responses, is to learn to live with night and darkness, face real and imaginary risks, take problems and storms with courage, renew energy positively enriching talent, creativity and imagination, is to take advantage of all the resources offered by the social environment.

The life of the human being is complex, is surrounded by changing circumstances, offers opportunities to enjoy moments of immense happiness, to experience the novelty, feel different emotions such as joys, fears, sadness, anger while allowing you to prepare academically and stand out at a professional level

With regard to the dynamics of human existence, it is immersed in various activities, making plans, negotiations, organizing trips, creating, and imagining situations. Therefore, it is dedicated to the demands of each day of work and endless commitments; nevertheless, the individual is not exempt from suffering at some point in his life or going through a crisis of any kind.

3.3 Students with motor disabilities of the Universidad Técnica de Manabí

In recent years the number of students with disabilities enrolled in different careers has been experiencing a sustained increase. Currently, at the Technical University of Manabí, 88 students study that present some type of disability and specifically of them there are 35 that suffer from a motor disability. Table 1 shows the number of students who suffer motor disability by career.

Table 1
Students who suffer from motor disabilities by racing

| Career | Quantity |
|------------------------------|----------|
| Administración | 3 |
| Accounting | 1 |
| Economy | 3 |
| Nursing | 3 |
| Language and linguistics | 1 |
| Civil Engineering | 1 |
| Engineering in Industries | 2 |
| Computer systems engineering | 2 |
| Mechanical Engineering | 1 |
| Chemical engineering | 4 |
| Zootechnical Engineering | 2 |
| Clinical laboratory | 1 |
| Veterinary Medicine | 1 |
| Nutrition and diet | 1 |
| Optometry | 2 |
| Clinical psychology | 2 |
| Social work | 5 |
| Total | 35 |

Of the total of students with motor disabilities, 18 are women for 51.42%, and 17 are men for 48.58%. With ages between 19 and 37 years. They were classified according to the stage in which they acquired the disability, corresponding 19 young people with acquired disability from birth to 54.3% and 16 with disabilities occurring for 45.7%. According to the level of physical disability, they are distributed according to what is expressed in table 2

Table 2
Distribution according to the level of physical disability

| Disability level (%) | Amount |
|----------------------|--------|
| Less than 10 | 1 |
| Between 30 - 39 | 4 |
| Between 40-49 | 14 |
| Between 50-59 | 3 |
| Between 60-69 | 6 |
| Between 70-79 | 3 |
| Between 80-89 | 4 |
| Total | 35 |

3.4 Relationship between resilience and personal improvement

With the aim of defining the existing relationship between resilience and personal improvement achieved by students with motor disabilities at the Technical University of Manabí, the SV-RES test prepared by the researchers [4] was applied to the 35 students with motor disabilities. Where the following results could be obtained. Table 3 shows the results of the statistical analysis related to the study of the resilience of young people with disabilities.

Table 3
Results of the study on resilience of disabled youth

| Dimensions | HIGH | | LOW | | PROMOTION | |
|---------------|----------|----------------|----------|----------------|-----------|----------------|
| | Quantity | Percentage (%) | Quantity | Percentage (%) | Quantity | Percentage (%) |
| Identity | 3 | 9 | 23 | 65 | 9 | 26 |
| Autonomy | 5 | 14 | 19 | 54 | 11 | 32 |
| Satisfaction | 3 | 9 | 15 | 43 | 17 | 48 |
| Pragmatism | 4 | 11 | 16 | 46 | 15 | 43 |
| Links | 3 | 9 | 20 | 57 | 12 | 34 |
| Networks | 5 | 14 | 15 | 43 | 15 | 43 |
| Models | 3 | 9 | 17 | 50 | 15 | 41 |
| Goals | 6 | 17 | 20 | 57 | 9 | 26 |
| Affectivity | 5 | 14 | 17 | 50 | 13 | 36 |
| Self-efficacy | 3 | 9 | 18 | 51 | 14 | 40 |
| Learning | 5 | 14 | 19 | 54 | 11 | 32 |
| Generativity | 4 | 11 | 20 | 57 | 11 | 32 |

Source: Prepared by the authors of the work based on the results of the resilience test

The result of the test made it possible to verify that there is a close relationship between the level of resilience and the degree of disability of the students, since the number of students with a high level of resilience is relatively proportional to the number of students who have between 10% and 39% disability. In the same way, it happens with those who have a high degree of disability, who manifest proportionality in relation to the low level of resilience. At the same time it can be seen that a significant number of students do not achieve the expected personal improvement, so it is necessary to devote time to the psychological work of resilience, in which the Technical University of Manabí has accumulated experiences, during an investigation entitled "Support resilient in cancer patients. Post-earthquake trauma " [15], where several resilience workshops were applied with satisfactory results

4. Conclusion

The work made it possible to determine the relationship between the degree of motor disability of the students and the level of resilience, being able to verify that the greater the degree of disability, the resilience is usually lower. It was found that the majority of students do not achieve the expected personal improvement, so it is necessary to apply psychological activities aimed at strengthening the resilience of students with motor disabilities.




Acknowledgements

We would like to thank I Wayan Suryasa and María Rodríguez Gámez for their valuable time and advice to complete this paper.

References

1. Márquez-Ramírez, G. (2015). Los estudiantes universitarios con diversidad funcional visual. Sus retos. *Revista iberoamericana de educación superior*, 6(17), 135-158.
2. Dueñas, P. (2001). El licenciado en Relaciones Industriales buscando oportunidades de trabajo para personas con discapacidad. *México: UIA GC*.
3. Torre Neira, O. R. D. L. (2017). Vivienda de interés social: una oportunidad para todos.
4. Saavedra Guajardo, E., & Villalta Paucar, M. (2008). Medición de las características resilientes: un estudio comparativo en personas entre 15 y 65 años. *Liberabit*, 14(14), 32-40.
5. Iglesias, E. B. (2006). Resiliencia: definición, características y utilidad del concepto. *Revista de psicopatología y psicología clínica*, 11(3), 125-146.
6. Luthar, S. S. (2006). Resilience in development: A synthesis of research across five decades.
7. Rutter, M. (2006). Implications of resilience concepts for scientific understanding. *Annals of the New York Academy of Sciences*, 1094(1), 1-12.
8. Kotliarenko, M. A., Cáceres, I., & Fontecilla, M. (1997). *Estado de arte en resiliencia*. Organización Panamericana de la salud.
9. Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child development*, 71(3), 543-562.
10. Pan, J. Y., & Chan, C. L. W. (2007). Resilience: A new research area in positive psychology. *Psychologia*, 50(3), 164-176.
11. Saavedra, E., Salas, G., & Cornejo, C. (2015). RESILIENCIA Y CALIDAD DE VIDA La Psicología Educacional en diálogo con otras disciplinas.
12. Delgado, G. R. E., Meza, A. K. T., Chávez, S. A. R., & Murillo, G. S. A. (2018). Demands of People with Disabilities and Empowerment of Resilient Strategies. *International Research Journal of Management, IT and Social Sciences (IRJMIS)*, 5(1), 45-54.
13. Rosado, I. S. M., Ortega, J. M. P., Medranda, E. A., & Basurto, E. X. C. (2018). Teaching Resilience to People with Visual Disabilities. *International Research Journal of Management, IT and Social Sciences (IRJMIS)*, 5(1), 36-44.
14. García de Hurtado, M. C., & Leal, M. (2008). Evolución histórica del factor humano en las organizaciones: de recurso humano a capital intelectual. *Omnia*, 14(3).
15. Williams, O., Tarazona, R., Wack, A., Harker, N., Roderick, K., & Kioussis, D. (1998). Interactions with multiple peptide ligands determine the fate of developing thymocytes. *Proceedings of the National Academy of Sciences*, 95(10), 5706-5711.
16. Meza, A. K. T., Freyre, J. R. A., Cevallos, M. G. O., & Pico, M. J. M. (2018). Autonomy, Good Humor and Support Networks, Potential of Community Resilience Intervention in People Victims of the Earthquake in the Calderón Parish. *International Research Journal of Management, IT and Social Sciences (IRJMIS)*, 5(1), 1-8.
17. Meza, A. K. T., Aguayo, M. D. Z., Cevallos, M. G. O., & Zambrano, P. F. R. (2018). Estimation of Resilience in University Students. *International Research Journal of Management, IT and Social Sciences (IRJMIS)*, 5(1), 16-24.
18. Rosado, I. S. M., Ortega, J. M. P., Medranda, E. A., & Basurto, E. X. C. (2018). Teaching Resilience to People with Visual Disabilities. *International Research Journal of Management, IT and Social Sciences (IRJMIS)*, 5(1), 36-44.
19. Jurado, W. C. C., Pérez, A. V. P., Quiroz, A. M. V., & Gámez, M. R. (2017). Environmental Impact On Electrical Networks Near The Manabita Litoral. *International Journal of Life Sciences (IJLS)*, 1(2), 18-27.
20. Parihar, K. S., Dahiya, R., Billaiya, R., & Jain, P. (2017). Effect of Nuclear Family in Participation of Activities. *International Journal of Health Sciences (IJHS)*, 1(1), 28-35.
21. Arauz, W. M. S., Cedeño, G. I., Chávez, S. S., Pérez, A. V., & Gámez, M. R. (2017). Microgrid With a 3.4 kWp Photovoltaic System in the Universidad Técnica de Manabí. *International Journal of Physical Sciences and Engineering (IJPSE)*, 1(2), 11-20.
22. Omer, A. M. (2017). Sustainable Development and Environmentally Friendly Energy Systems. *International Journal of Physical Sciences and Engineering (IJPSE)*, 1(1), 1-39.

Biography of Authors

| | |
|--|--|
|  | <p>Ruth Leonor, Teaching Technician, Faculty Humanistic Sciences, member of the student welfare committee, currently performs the task of promotion and prevention in mental health in the Universidad Técnica de Manabí.</p> |
|  | <p>Kasandra Vanessa, Master of Business Administration, Doctoral Program in Social and Legal Sciences of the University of Córdoba (Spain), Full-time Assistant Professor Internal Evaluation Coordinator of the Librarianship and Information Sciences Course of the ksaldarriaga@utm.edu.ec</p> |
|  | <p>Kenia Liceth, Graduate in the Faculty Humanistic Sciences, Universidad Técnica de Manabí, Portoviejo, Ecuador</p> |