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# RESUPERES MANUAL

INTERVENTION PROPOSAL FOR THE RESILIENCE  
DEVELOPMENT IN HIGHER EDUCATION.  
OVERCOMING ADVERSITY  
2021-1-ES01-KA220-HED-000031173

RESUPERES MANUAL  
INTERVENTION PROPOSAL FOR THE RESILIENCE DEVELOPMENT IN HIGHER EDUCATION.  
OVERCOMING ADVERSITIES

TECHNICAL SHEET

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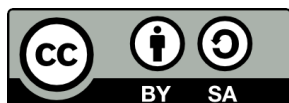
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## Introduction

In the 21st century, universities are perceived as spaces that are exposed to social reality and its conflicts. They assume social responsibility which empowers them to respond, with almost certain success, to the demands placed on society, seeking equity and the promotion of justice and solidarity.

Students who gain access to university in present society are highly diverse, which increases the urgency with which pedagogy must be made inclusive for all. This will demand that teachers respond to individual differences in order to avoid the exclusion of certain students and will lay the foundation of a sustainable and inclusive university context in which all can learn as long as they are provided with the most suitable conditions for learning (Moriña, 2020).

Indeed, many students have reported serious difficulties in terms of access to the Internet due to complex economic situations, either because they cannot afford computer equipment or because poor connectivity is inherent to their place of residence. The impact and presence of technological tools in university classrooms, student-centred teaching approaches, and the increasing presence of students traditionally unrepresented in university spaces, leads to the need to reconsider the role of teachers, underlining comprehensive lifelong training as a way of responding to this new educational reality.

In the scientific community, numerous studies have sought to analyse the impact of Covid-19 in university students and teachers, as a way of identifying effective and convenient pedagogical practices to tackle the health crisis (Cáceres-Piñaloza, 2020; Cortina & Conill, 2020; De Vincenzi, 2020; Samaniego, 2020).

Amongst the main findings, it is evident that students are required to exhibit even greater knowledge of digital tools, reading comprehension, knowledge on creativity and innovation, schedule management to reconcile personal and academic life, responsibility in general and compliance with a greater number of tasks.

In the case of teachers, research warns about the need to promote technological self-learning, digital and psychosocial-emotional skills, and efficient management of virtual learning environments in order to provide quality training that is related to the content and essential competences inherent to any given discipline. In short, the present represents a moment in time of great uncertainty, in which it is essential to learn from experience, outline preventive pedagogical proposals and risk management, and develop a capacity for empowerment and Resilience as a means of facing, in the best possible, crises that may emerge in the future.

There are many challenges that the current educational system must face. One such challenge is to mitigate the devastating effects of inequality regarding educational provision, paying special attention to the most vulnerable students and making inclusive pedagogy a reality that promotes the teaching of Resilience. This will support students to overcome and cope with adversity.

In this context, the present scientific incursion highlights Resilience teaching as a perspective for permanent development that is based on continuous adjustments to tackle the challenges present in daily life and problem-solving capacity. This takes on real relevance in the university setting, as it will support students to design realistic and coherent life projects that are adapted to their characteristics and fundamental interests.

The idea presented here has been progressively developed over time in response to, not



only, the unpredictability, dynamism, uncertainty and complexity brought about by the phenomenon of globalization and its consequences but, also, constant challenge, change, pandemics and war, amongst others, making the growing importance of higher education institutions undeniable, as they are called upon to provide adequate, creative, innovative, inclusive, resilient and appropriate responses to the various institutional issues that present themselves.

Higher education teaching and research, therefore, emerges as a challenging task, given the sheer number and complexity of the dimensions involved in it. This is, not least, because it is a duty of all those involved in higher education to contribute, in the most diverse ways and to the maximum extent of their skills and possibilities, towards the production of relevant social knowledge. In the words of Wrana Panisi (2009) this can be defined as a public good, [that is] international and global, in which the creation of conditions that support that creation and maintenance of networks to ensure the collective production and dissemination of such knowledge is indispensable.

Thus, several organs and institutional networks were put into place at the five universities involved in the RESUPERES project in order to gather information on this issue. The bedrock of this was the setting of diverse objectives, agreed upon by all members to ensure that each member was able to respond actively, critically and consciously in the specific field of their research contribution. Complete and utter importance was to be attributed to the role of systems, such as those pertaining to the educational, social, emotional, community, pre-professional and professional sphere, when it comes to promoting Resilience as an essential tool in the academic and daily life of students and teachers.

It should be noted that the European Disability Strategy 2010–2020 of the European Commission and the 2030 Agenda for Sustainable Development promulgated by the United Nations bestowed universities with the responsibility of becoming inclusive institutions (Carballo et al., 2019), encouraging the development of pedagogical proposals through which to ensure access, permanence, and graduation within the most vulnerable students.

In conclusion, the role of universities is acknowledges in terms of guiding students regarding their life projects, equipping them as professionals and harnessing their ability to adapt to and capitalize on the mechanisms available to students in difficult situations, especially given that such challenges have been aggravated by the recent global health pandemic.

By Carolina Sousa, Portugal



Dr. Carolina Sousa at the I International Congress "Resilience in Higher Education" RESUPERES Multiplier Event, organized in January 2025 in Faro (Universidade do Algarve), professor at this university, internationally renowned researcher in the construct of Resilience and promoter of the idea of the RESUPERES project.

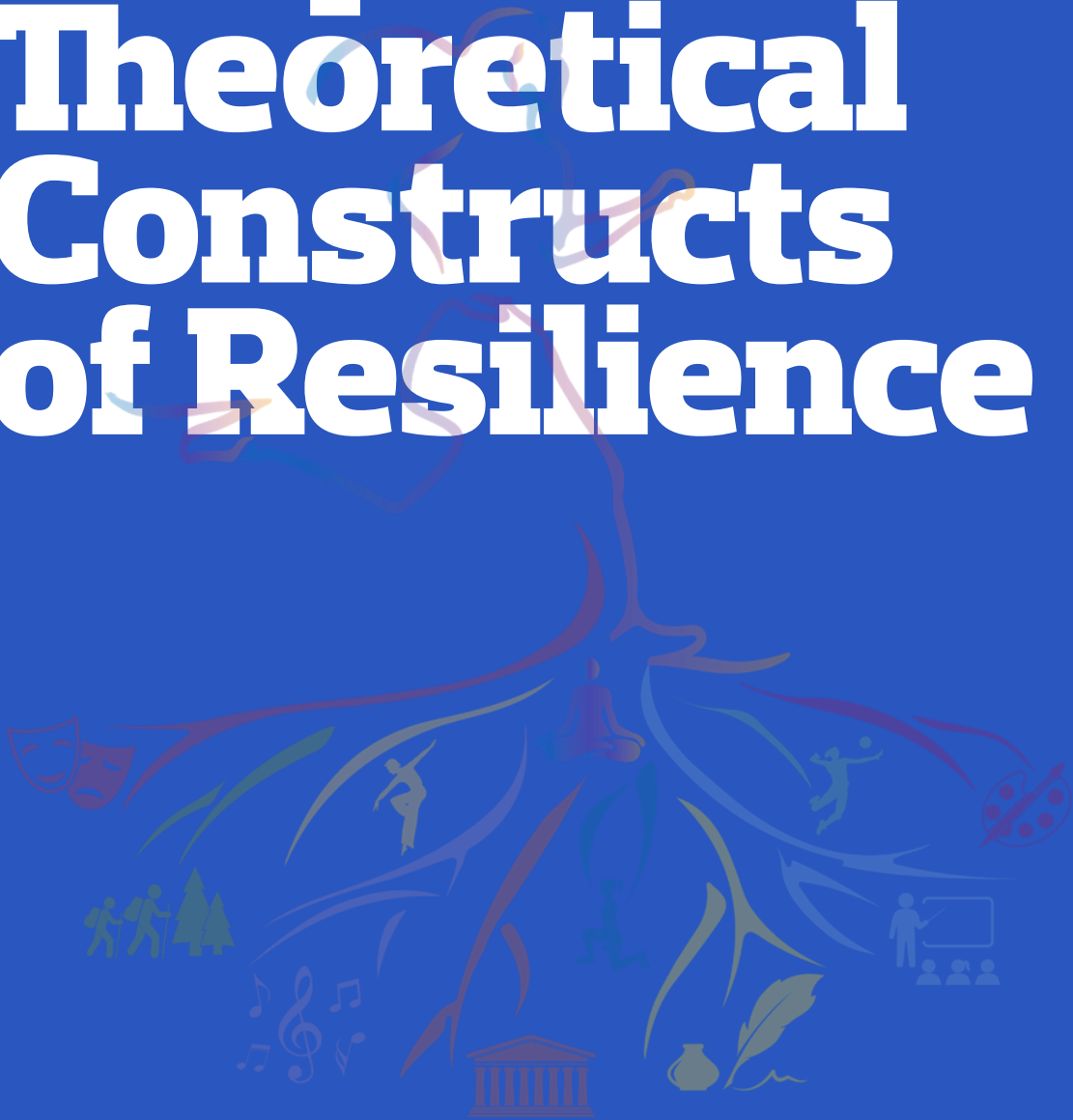


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# Chapter 1. Theoretical Constructs of Resilience





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## Chapter 1. Theoretical Constructs of Resilience

### *1.1. Conceptual justification of the importance of Resilience in higher Education*

The aim of higher education is to provide comprehensive education with a clear social, ethical and political commitment. It is based on the communion of knowledge between students, teachers and communities, with the aim of creating and strengthening a culture of cooperation and shared learning. In this landscape, recognition of the strategic role of higher education for the deepening of integration and interaction and for strengthening a culture of solidarity emerges as an ethical commitment that is inseparable from the basic human right to education. Moreover, it can be thought of as an indispensable condition for guaranteeing the sovereignty of countries, overcoming poverty, stimulating participatory democracy and more equitable distribution of power.

In this context, universities must present themselves according to a set of values that contribute to the advent of a new educational paradigm that values the life and dignity of human beings and recognizes this as being inseparable from the quality of teaching and its ethical dimension. In the light of the assumptions set out, it should be noted that the RESUPERES project focuses on the issue of resilience in higher education, in which the following countries participate Portugal, Norway, Italy, Serbia embarked upon the project, led by Spain as the coordinating country of the project, via the University of Granada, in which inter-institutional and international cooperation can contribute significantly to the maximizing of the potential of the institutions.

The aim of this is, always, to coordinate a shared stance from which to communicate and link up with other bodies, such as international bodies and networks, conceive educational/training blocks and increase joint action strategies for the transformation of higher education as a means of contributing towards sustainable development. Consequently, this may contribute towards facilitating the exchange of knowledge and experiences, academic mobility, and the creation and development of research centers targeting the development of Resilience processes in students and teachers. Indeed, embarking upon higher education enrollment processes represents a timepoint steeped in substantial learning. This, in turn, may contribute positively – or not – to student development.

In this sense, the importance of this initial process of student development is highlighted, as it must strive to incorporate collaborative learning, aimed at continuous personal, pre-professional and institutional training.

From our point of view, the various stages of initial training, insertion and pre-professional development should be much more interrelated in order to create coherent learning and a developmental system geared towards the student's future profession. Each stage should present itself as a unique opportunity for establishing the basis of pre-professional socialization or, even, the conception of interactive intercommunicability. However, in practice this does not always happen as the development of coping strategies in the academic context is, usually, accompanied by a lot of pain and feelings of frustration, adversity, complexity, academic dropout, loneliness and, even, in extreme cases, suicide.

Indeed, much has been written about the adversity faced by students in higher education. In this sense, we advocate for Resilience interventions based on practices committed to research, innovation and creativity. Bridges were created to bring territories closer together,

with this particular bridge being born out of the problems faced by students as a result of the pandemic and student Resilience, convinced that both are needed to improve and adapt to new events.

Together with that discussed above and in light of the fact that inclusive education opposes the development of barriers and social exclusion, most research in the university setting has considered inclusive education from the perspective of disability. This encourages reflection on the prevailing context, which, having not fully emerged successfully from the economic and social crisis originated in 2008, must face a new health crisis with an upcoming economic crisis due to the number of measures adopted to face the various waves of this aforementioned pandemic.

However, and in accordance with that highlighted above, we believe it will be important to guarantee spaces for continuous dialogue between teachers and students, create spaces of trust, promote inclusive learning and, where possible, adapt teaching at an individual level to address the individual issues that may arise. Other issues concern seeking equity, and promoting justice and solidarity with universities assuming responsibility for addressing existing difficulties, in addition to supporting individuals beyond strictly academic matters.

## 1.2. Defining Resilience

According to Sousa et al. (2021), each and every individual has the potential to demonstrate Resilience, however, this capacity is manifested to different degrees as a function of psychological development, the life cycle and environmental conditions. In this sense, and from an inclusive higher education perspective, it is essential to highlight the role of university teachers, whose duty is to favour the tackling of issues in such a way that allows problems to be faced critically and positively in order to overcome any adversity. Specifically, Resilience in classrooms can be installed by following a number of complementary steps. This first three steps concern risk mitigation and include establishing social bonds, delineating clear boundaries and teaching life skills, that pertain to building resilience through affection and support, the conveyance of high expectations and the provision of spaces that enable meaningful participation, without forgetting the cultural, social, personal and group context in which students operate.

Sousa agrees with Cyrulnik (2001), which defines resilience as "the ability of a person or a group to develop well, to continue projecting themselves into the future despite destabilizing events, difficult living conditions and serious traumas". Cyrulnik emphasizes that resilience is not innate, but a dynamic process that depends on individual (such as personality), social (such as affective support), and cultural factors. He also points out that this capacity is built over time, especially through meaningful relationships and experiences that help reinterpret trauma, and that it's trainable.

It is also important to note that a number of student specific factors may contribute to the realization of a successful life in all relational contexts. This includes psycho-social-interpersonal relationships and any other type of relationships that may serve as promoters within the educational context, for instance:

- (i) In the establishment of strong emotional bonds that enable the greater fulfilment and stabilization of basic security needs;
- (ii) In the social integration of diverse students, promoting their recognition and value;

- (iii) In social exchange (giving and receiving), counselling and the orientation of information and, finally,
- (iv) In the care of others, encouraging the development of feelings of usefulness, regardless of the space in which these occur, with experiences gained through higher education being considered special builders of resilience and inclusion.

In short, educational intervention that addresses the dimensions present in the construct of resilience is crucial due to its potential influence on the training and personal evolution of students and teachers in institutions that are destined to be inclusive.

Resilience teaching, therefore, constitutes a fundamental area of knowledge that allows for the implementation and consolidation of the intrinsic capabilities of human beings (Sousa, 2016). This supports individuals to overcome the difficulties inherent to the educational context, which are marked, in many cases, by unpredictability.

Based on existing research on resilience, it can be understood as a process in which human beings develop the ability to act positively when faced with the array of adverse situations likely to arise throughout the course of their academic training. One potential approach towards reinforcing resilience processes in students and teachers is to strive to develop internal and external factors and, in this way, explore the possibility of visualizing one overcoming the problem they are encountering through the use of resilient behavior and positive attitudes towards teaching and learning. The cornerstone of this approach is based on emotional, social and motivational wellbeing, as well as the ability to overcome potential adversity.

Figure 1.1.  
*Change, Mariana Gonçalves, Pastels on Paper, 2024*



Categories developed by Grotberg (2006) frame resilience research around self-care practices. Such practices help individuals take care of themselves through tools that reveal themselves to themselves. Resilience has been described as being highly dynamic. In this sense, Grotberg (2006) argues that adverse situations are not static given that they are ever changing and require changes to resilient behaviors. By upholding the dynamic nature of resilience, this author defines outlines the interaction of three levels of factors pertaining to resilience, namely: social support (I have), skills (I can) and internal strength (I am). These factors interact with each other and establish a dynamic relationship throughout the pre-professional and professional life course.

### 1.3. Theoretical evolution

According to Sousa (2006a, 2015a, 2015b, 2016, 2021), it has become indisputable that in order to educate, train and intervene effectively in the developmental processes underlying teaching and learning, despite the sometimes sporadic and inconsistent responses of less well-informed agents, it is clear (both in Portugal and in other countries) that psychology plays a role of paramount importance in education. However, despite continuous social change and concerted efforts towards the development of human beings aimed at transforming them into competent and productive citizens, it is still observed, even in societies deemed to be developed, that a considerable number of children, young people and adults face serious difficulties. As Osofsky (1995) argues, some human beings are born in high-risk situations or even with severe disabilities, whilst others encounter adversity at the family, school or community level. Such diversity can entail violence, ill-treatment, abuse and neglect that act as potential obstacles to individual development and adaptation.

In recent decades, research on developmental psychopathology and neuroscience in education has made considerable advances, form a disciplinary body with the contribution of several sciences whose subject of research is the nervous system with particular interest in brain activity and its implications for learning. Such research provides precious insight into the brain mechanisms underlying learning, memory, language as a brain faculty, sensory systems, motor systems, attention systems and all other brain processes that, day after day, are stimulated in schools. This urges teachers to recognise the risk factors that may affect brain development processes, calling on them to draw on information from neuroscience research, memory systems research and the duties of an educator in the classroom.

As a means of highlights the importance of neurobiological substrates regarding resilience, Santos (2013) outlines the way in which the brain releases chemical substances, called neurotransmitters, which are responsible for carrying information so that feeling accompanies thought. In the case of positive thoughts, a chemical substance called serotonin is produced to increase feelings of happiness. Negative thoughts are accompanied by emotions that provoke attitudes that influence behaviour and shape personality. It should also be noted that data currently available on the theme of resilience suggest the presence of a neurobiological substrate, largely genetically driven, that correlates with personality traits, some of which are socially learned, and provide varying degrees of vulnerability to stressors and the development of some psychopathologies, particularly, personality, anxiety and affective disorders (Cicchetti & Blender, 2006). This is explained by the fact that, according to neuroscience, resilient people are more emotionally balanced in stressful situations and feel a sense of control and challenge.

Research conducted around the gene–environment interactions that take place throughout the development cycle allows for understanding of the reciprocal relationships existing between constitutional factors and psychosocial factors (Cicchetti & Cohen, 1995). It should be noted that this organizational perspective of development (Cicchetti & Garmezy, 1993; Sroufe, 1990; Sroufe & Rutter, 1984) sustains that human development takes place through successive qualitative reorganizations at the level of biological, emotional, behavioral, social and environmental systems. Such modifications are based on differentiation, articulation, hierarchical integration and (re)organization processes. As Werner (1989; Werner & Smith, 2001) highlights, humans evolve from relatively diffuse and undifferentiated organization to more complex and articulated stages, through differentiation and consequent hierarchical integration within and between systems.

According to Cicchetti and Cohen (1995), it is through the process of hierarchical mobility that the former of the aforementioned developmental structures are incorporated into the later ones, in which early experiences and their repercussions are integrated into individual organization. Thus, it is explained that domains or areas that constitute forces or vulnerabilities can coexist in the current organization of subjects. Indeed, it is accepted that parents, not only, transmit their genes to their children but, also, mold their developmental context.

For Schroder (1992), human development takes place against the backdrop of a continuous balancing act between stability and change. Human development it is also highly complex, given the qualitative nature that can be attributed to many of these transformations, associating individual differences with the explanation or prediction of the developmental trajectories that are characteristic of individuals or groups.

The problem discussed here, therefore, frames the notion of resilience, which is currently a fundamental topic in education, psychology, health, etc., given the emergence of new conceptual frameworks. Such conceptual notions attribute resilience with a certain differential nature, whilst formulating expectations that reveal its evolutionary character. In this way, the differential component of resilience may explain why certain individuals, in seemingly identical circumstances, deal with adversity in a more appropriate way than others. Resilience is also vulnerable to change and can, therefore, be activated through certain appropriate interventions, particularly in educational contexts (Grotberg, 1995, 1997, 1998, 1999; Manciaux, 1999).

In fact, through the work *Stress, Coping and Development in Children* in 1983 (Garmezy & Rutter, 1983), theoretical bases and methodological principles of the construct were constituted which later enabled the development of new scientific research on the topic of resilience, many of which were conducted by Garmezy himself and his collaborators. A pertinent example of studies conducted by this group of researchers concerns the skills of children of parents with mental illness. The researchers concluded that 90% of the children studied, despite at least one parent having schizophrenic disease, did not develop the same disease (Anaut, 2002; Garmezy & Masten, 1991).

In terms of the historical evolution of the construct, a study carried out by Bleuler (1950) is worth mentioning, in which reports longitudinal outcomes over a twenty-year period involving two hundred and twenty-eight participants. The study sample consisted of individuals with schizophrenia and employed naturalistic observations of the competence demonstrated by these individuals, found that, of the children who comprised the sample, only 9% were affected by the pathology suffered by their parents and that, of those not affected by psychiatric pathology, one hundred and twenty exhibited good professional output and highly positive

personal, social and family skills (Garmezy & Masten, 1991). In this sense, this study was a landmark for the historical evolution of the concept of resilience, not, simply, due to the findings themselves, but due to the analysis performed and the high importance attributed to positive factors in ascendance over negative factors. This represented a leap ahead given that negative characteristics had, up until that time, dominated scientific research and attributed a simplistic, negative and subjective view to the concept under study.

In agreement with these ideas, Rutter (1999; 1996) regrets that the scientific research that has been carried out on the concept of interest focuses only on negative aspects of the concept, as well as on psychopathological aspects presented by individuals in adulthood, which result from an inappropriate and inadequate environment and the under promotion of physical, psychological and global health and wellbeing. Rutter defends the high importance of understanding the aspects considered as protectors against different situations of adversity and their dynamics. They argue that, in this way, it will be possible to act in order to prevent the negative and harmful consequences inflicted by the biased and inadequate nature of scientific assessment. This researcher takes a particularly pertinent stance towards the phenomenon of resilience, urging scientific research to focus its attention on the dynamics between person and environment, given their view that individuals are an active force in the environment. This turns away from the more passive standpoint taken by other researchers, and emphasizes the idea that resilience is, not only, related to the negative or debilitating aspects of individuals but, above all, forms part of the negotiation process partaken in by all individuals, as they seek to balance their own personal resources and those present in the environment, in an attempt to overcome, in the best possible way, stressful and negative events.

A leading figure in the field, Werner (1989), a developmental psychologist at the University of California who is considered by the scientific community to be the *mother* of resilience has boosted the standing and relevance afforded to the concept of resilience today. This researcher, together with her colleague Ruth Smith, conducted a longitudinal study which ran over a thirty-two-year period, with 545 children of different ethnic origins, born in 1955 on the island of Kauai, in the Hawaiian archipelago. Notable, most children came from families with very low socio-affective and socio-economic levels. The researchers found that about a third of these children, despite the unsuitable and difficult environment in which they had grown up, adapted in an extraordinary way to their socio-economic reality and had a high capacity to overcome the stressful or negative life situations they faced in their daily lives, demonstrating high resilience capacities. The researchers added that children followed into adulthood showed themselves to be individuals with high competence, properly structured personalities and high confidence in their personal abilities to solve everyday problems (Anaut, 2002; Werner & Smith, 1982, 2001). Despite not being the first instance of scientific research focused on the study of resilience, the studies developed by Werner and Smith contributed very significantly to the deepening of knowledge on the notion of resilience, as they allowed researchers to understand the complexity of the phenomenon under study, highlighting the dynamics underlying the process, its evolution over the course of individual personal development paths and the variability it exhibits both over time and as a function of gender.

Indeed, it is not by chance that, in the study of human development, several authors have found themselves confronted with individuals who, despite the unfavorable conditions of their existence and the negative outcomes that psychological science would expect from them, were largely able, despite these circumstances, to lead balanced lives and exhibit positive indices of competence and happiness. In view of this situation, the need for more in-depth examination of the concept of resilience is urged. The current concept derives from the "*Latin*

*term resilience, pertaining to the idea of an action that develops from something or from someone who has an elasticity, a flexibility that is inherent to resilience and can motivate, enlarge, strengthen"* (Tavares & Albuquerque, 1998:144). This capacity of self-correction is put into practice when individuals are confronted with adversity, especially adversity that is chronic and consistent or intense in nature and infrequent or frequent (Rouse, 1998). Resilience can, consequently, be understood as a structural characteristic that takes shape over the course of the developmental process and which is likely to be activated at early ages or during the formative years using external support structures and by reinforcing certain personal characteristics, which act as protective factors (Benard, 1991, cit. in Benard, 2002). This essentially represents the main factor responsible for preserving the stability of an individual's psychological structure throughout change and the progressive complexification that invariably characterizes the course of psychological development throughout life (Ohio State University, 2002).

In fact, we have all faced adverse situations that seemed insurmountable at the time but which, nevertheless, were overcome. Almost certainly, everybody is able to bring to mind someone, whether a child, a young person or an adult, who, despite having few chances in life, managed to succeed. How is this capacity explained? Perhaps by applying a new concept to an old reality (Tavares, 2001). In this case, the concept of resilience.

Yunes and Szymanski (2001) sought to present what they deemed to be the precursors of this concept, utilizing terms such as invincibility, resistance to stress and invulnerability (Rutter, 1979, cit. in Benard, 2002), which had previously been used to refer to highly similar aspects to that seen in a reality cloaked by resilience. This was related to a somewhat mysterious and paradoxical capacity to face adverse circumstances which were potentially harmful to individual wellbeing.

In the current climate, resilience is a concept whose importance is widely acknowledged in the context of the training of young people and in high-risk social groups or in those subjected to high levels of distress and stress. It is a concept that, aside from representing innovation in education, psychology, or other related fields, represents the resurgence of prior interest in an existing but neglected reality (Ralha-Simões, 2001).

One question that could be proposed is whether or not we are able to *embark upon helping students develop more resilient skills so that they can respond more effectively to the challenges posed by schooling?*

We are talking about the unknown capacity to deal with potentially unfavorable events, which is manifested in terms of what could have been expected given individuals' responses to circumstances they have been in, previously, in the past or are in, now, in the present. It entails, not only the capacity to neutralize the negative consequences that normally result from such circumstances but, further, capitalizing on them to convert them into a factor of human development (Grotberg, 1995). In this regard, the interpersonal relationships domain stands out as a key area from which to identify the factors that determine this capacity.

It is imperative not to overlook that personal development always entails the development of an active subject who is not, therefore, a mere target of external events or an individual who is passively shaped by the constraints of such events. Usual external aids for interaction between human beings are often withdrawn or drastically reduced during crisis situations. This makes reinforcement of the internal factors which may weaken resistance essential in order to overcome the unfavorable circumstances human beings are faced with.

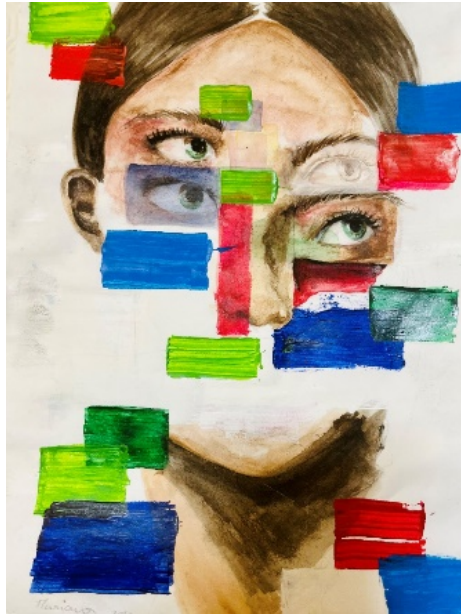
Thus, should the goal be to make the promotion of resilience feasible, we must strive to



provide subjects with certain conditions, making sure that they are the most appropriate to the surrounding context, whilst also giving adequate consideration to the strategies and initiatives that must be implemented.

Such interventions lean heavily on resilience, that is, the ability of individuals to respond more consistently to problems and to the difficulties they face in different contexts.

Figure 1.2.  
*Introspection, Dária Baskirova, China Ink and Pens on Paper, 2022*



Individuals may already have tools for resilience in their makeup. Research highlights that resistance is the result of characteristics associated with sociable behavior, temperament, character and intelligence (Grotberg, 1995). We address individual psychological characteristics at the level of the personal and interpersonal dimension pertaining to resilience.

A child, a young person or a resilient adult will, therefore, be characterized by the presence, desire for and gradual increase of coping skills to overcome adversity, which will draw on the full breadth of all of their personal resources, whether biological, psychological, social, emotional or contextual.

According to Sousa, Ana Luisa (2017), the way in which resilience should be approached and analyzed depends on the standpoint taken and the profession of interest. However, it is undeniable that the core of resilience training must seek to recalibrate assessments made at the outset of a given situation and equip individuals to tackle them from the moment they emerge. One should seek solutions, ideas, creativity and adaptation, in order to find new ways and patterns of acting, as this is at the heart of resilience. Thus, essentially, resilience is a total change of perspective. In fact, a resilient person will be highly competitive when it comes to standing out in both their personal and working life. Characteristics helping them to stand out include:

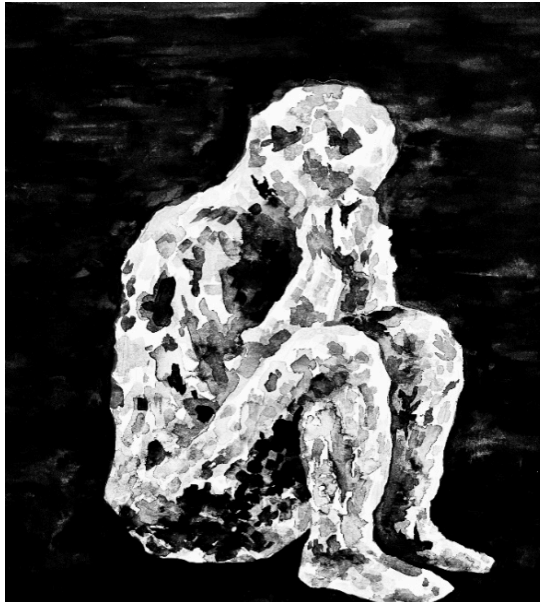
- (i) Emotional intelligence;
- (ii) Self-awareness of capabilities and limits;



- (iii) Tolerance and flexibility when faced with change;
- (iv) Optimistic and sees obstacles as potential opportunities;
- (v) Shows initiative, patience and perseverance.

This represents a U-turn from fully focusing on individual's problems, difficulties and disturbances. Analysis of the circumstances presented should be complemented with the search for skills, resources and useful factors to assist one to move forward.

Figure 1.3.  
*State of Soul, Dária Baskirova, China Ink on Paper, 2022.*



#### 1.4. Individual Vulnerability Model

Individual Vulnerability Model is a conceptual framework used to assess and understand factors that make individuals susceptible to harm, stress, or adverse outcomes in various contexts. These models are widely used in fields like psychology, public health, disaster management, cybersecurity, and social sciences. Here's a breakdown of its key components:

##### Affective relationships

In light of Bowlby's Theory of Attachment (1988, 1992, 1993, 2002), the first affective experiences shared with parents or surrogates form the basis of human development. In this way, this early bond sets the standard and influences future relationships, being indirectly responsible for mental health later on in adulthood.

##### The Central Role of Affective Relationships

Affective relationships constitute the context par excellence where socialization occurs, enabling the acquisition of communication skills, regulation of emotions, and construction of self-concept and sense of personal effectiveness. These relationships also function as resources that enable autonomous functioning in children/young adults/adults in broader contexts, in addition to serving as an important model for the construction of future affective relationships (Karr-Morse & Wiley, 1997).

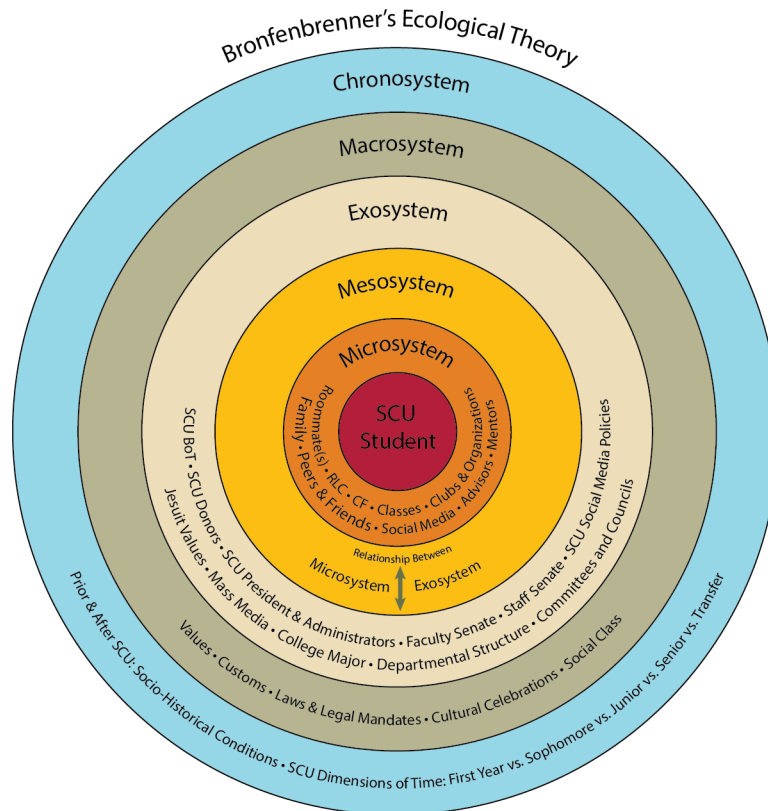
## The Five Areas of Affective relationships

Five areas stand out as being of greatest relevance to affective relationship. These consist of the following: cognitive development, personality development, construction of new interpersonal relationships and affective relationships, and psychopathological development. On the one hand, affective relationships impregnated with support, affectivity, availability and security promote adequate development in human beings in an autonomous and independent manner. However, on the other hand, negative affective relationships that are established early on in life contribute to the development of individual vulnerability and mental health problems.

In fact, the developmental trajectories of children, young people and adults are influenced by an array of factors, which must be considered whilst having an appreciation of the role of early relationships but, also, as a function of the entire developmental context that follows for all human beings. The framework of attachment theory, therefore, concerns, not only, outcomes but, also, the entire construction process pertaining to the developmental trajectories experienced. This brings us back to Bronfenbrenner's conceptual framework (Figure 1.4).

Figure 1.4.

Bronfenbrenner's conceptual framework. Source: <https://www.scu.edu/>



## Bronfenbrenner's Ecological Model

According to Bronfenbrenner (1977), human beings adapt to, whilst, at the same time, creating the ecological conditions in which they live. For this reason, public policies have the power to affect human development. The basis on which the theory stands is the firm

conviction that what makes us human beings depends on the interactions between personal characteristics and environments, whether from the past or in the future. Strong interactions exist between the structure of the person and the structure of the environment. So, it follows that if we want to change behavior, we need to change the environment. In summary, according to this theory, the environment in which individuals develop is conceived as a system of dynamic, interdependent, nested structures ranging from close surrounding contexts to more distant social contexts, such as that composed by prevailing culture. Within this system, the person is a whole, an integrated system in which cognitive, affective, emotional, motivational, social and communication processes interact.

Development represents a process of person-environment interactions because, effectively, personal trajectories and theories involving adults reveal that adults individually construct and reconstruct their training path and their career through interactions that sustain the complex psycho-socio-relational, emotional and motivational world, in which concepts emerge alongside propositional relationships, feelings of identity and self-esteem (or not), self-image, empathy, humor, passion, joy, self-efficacy, optimism, fun, curiosity, sharing, laughter, cooperation, enthusiasm, creativity, resolved (or unresolved) dilemmas, justifications for attitudes and observed behavior. This may include behaviors explained by theories in which one interprets and exposes themselves, including those that are at the very essence of pleasure and health.

The individual vulnerability model defends the existence of a complex union between cultural, biological and psychosocial variables, whose interaction, when combined with the action of the vulnerable individual within their environment, can result in psychopathological manifestations. This is because all human beings are idiosyncratically vulnerable to specific events which may not be significant to another person. This individual vulnerability is illustrated as an epigenetic condition that involves transactions between individuals and their environment throughout the course of the life cycle (Bronfenbrenner, 1979).

### 1.5. The Concept of Invulnerability

The scientific community refuses to acknowledge the concept of an invulnerable child (a concept that gained some traction during the 1970s). This terminology is rejected for four main reasons:

- (i) It can cause confusion given that resistance to stress is relative within any given human being;
- (ii) It gives a blanket consideration of all and any types of risk despite the fact that vulnerability cannot be uniform across risk categories;
- (iii) It seems to imply that invulnerability is intrinsic to individuals, which totally disregards the social context;
- (iv) It paints the picture of an invariable characteristic, however, throughout life, resilience ebbs and flows as it is a multidimensional process (Rutter, 1999, 1996). According to Rutter (1990), life involves the existence of stress and adversity from which human beings cannot escape.

This is an incomplete conception given that human beings always have the potential to reverse or, even, receive some benefits from the vulnerabilities that they face over the course of their life?

### Individual Vulnerability

In fact, the multiple existential and historical trajectories of the life course serve to prove that resilience is, not only, possible but, beyond that, it is unquestionable. In Radke's view (Radke, Yarrow & Sherman, 1990), vulnerability presents itself as a perceptible phenomenon, in which a certain level of stress results in behaviors not being adopted, since the effect of vulnerability on behavior can always be viewed along a continuum that ranges from adaptations with greater success in overcoming stress and disadvantage, on the one extreme, and less successful adaptations, on the other. According to Wright and Masten (2005), the concept refers to the characteristic or characteristics of a system (individual, family, school, community) that make it more susceptible to certain developmental threats. For example, ineffective family practices will make the child more vulnerable to problems when high stressors are present.

### Vulnerability versus Protection Mechanisms

The concept of vulnerability corresponds to an intensification of the response to stimuli that, under normal circumstances, leads to maladaptation, in which the protective mechanism acts as an attenuation factor. Thus, according to Rutter (1990), vulnerability and protection mechanisms constitute the positive and negative poles of the same concept.

### Vulnerability Factors

We live in a complex world full of adversity and, consequently, high potential risk. However, vulnerability does not always present itself as an inevitable pattern when the same situation is repeated or in the case of any given individual. This leads us to conceive a world in which a number of "filters" screen out and 'clean' reality, attributing it with differentiated personal meaning. This gives rise to more personal aspects, followed by critical aspects, framed by the socialization processes that take place throughout the life of human beings. This, ultimately, constitutes that which allows life stories to be personalized and contextualized, bestowing them with a certain sense of reactivity (Grotberg, 1999; Rutter, 1999).

## 1.6. Language of Resilience

Edith Grotberg (1995, 1998, 1999, 2006), who was responsible for the International Resilience Project research project, identified certain traits in resilient children and grouped them according to three:

- External supports and resources: including trust, access to health provision, education, social security services, family emotional support, structure and rules at home, parental encouragement and autonomy, stable school involvement, organizational models and religious models;
- Internal personal strengths: related with the sense of being loved, autonomy, having an appealing and empathic temperament, orientation towards acquisition, self-esteem, trust, faith or belief in God, morality, trust and altruism, and locus of control;
- Social interpersonal skills: related with creativity, persistence, mood, communication skills, problem solving, impulse control, confidence building, social skills and cognitive abilities.

Given that research on the subject suggests that promoting resilience depends on external supports and large scale resource availability, helping young people and adults to be able to promote the development of their resilience poses a big challenge.

In this context, Edith Grothberg (1995) proposes the following anagram:

*I Have: **I have*** in regards to the category of external supports and resources: people around me who I trust and who love me unconditionally; people who set boundaries for me so I know when to stop before danger or difficulties arise; people who show me through their behavior the correct way to proceed; people who want me to learn to develop myself independently; people who help me when I'm sick, in danger or need to learn.

*I Am: **I am*** in regards to the category of personal internal forces (internal personal strengths): a person who is liked and appreciated by others, who is happy when I do something for others and able to demonstrate affection, respectful of myself and others, and responsible about what I do and confident that things will go well.

*I Can: **I can*** in regards to the category of interpersonal social skills: talk to others about things that frighten or annoy me and find ways to solve the problems I face, control myself when I want to do something that's not right or dangerous, understand when the right opportunity is to talk to someone or act and find someone to help me when I need to.

The above all illustrates the three main sources of resilience

#### **Key categories of resilience**

Elaborated based on research and in concert with the International Resilience Project, 36 qualitative factors were identified that contribute to the promotion of resilience and which, according to Grotberg, can be divided into the three main categories introduced above. Each of these categories can further be subdivided into five subcategories.

I Have: pertains to the external support and resources needed by human beings to develop the feelings of security that lie at the core of resilience, namely, trusting relationships, structure and rules at home, role models, encouragement to be autonomous, access to health provision, education, and psychosocial, motivational and emotional wellbeing and security services.

I Am: refers to internal and personal forces including the feelings, attitudes and convictions inherent to resilient human beings. I am kind and my temperament is appealing, I am loved, empathetic and selfless, proud of myself, autonomous and responsible, hopeful, and I have faith and trust.

I Can: describes the social skills and interpersonal abilities inherent to human beings. These skills are learned by interacting with others including teaching providers. I can communicate, solve problems, manage my feelings, assess my behavior and that of others, and seek out trusting relationships.

It is important to mention that many opportunities for change arise during adulthood. Rutter (1988) revealed that non-deviant colleagues had positive effects on the mental health of ex-institutionalized colleagues. This finding demonstrates that good colleagues help predict and plan (e.g., job search), offer a source of new and best friends, increase self-esteem, and help regulation and disruption (e.g., illusions, feelings of persecution, enormous discouragement).

### **1.7. Components of Resilience**

Resilience manifests out of the confluence of personal and contextual variables that interact

with each other. In line with Carretero and Cervelló (2019), personal characteristics interrelate with the contextual variables in which resilience is worked on. These authors reiterated both the non-static character of resilience and its complex nature, since there is no single or stable resilient identity, but, rather, a changing structure formed via the confluence of personal and contextual variables.

According to Onsès-Segarra et al. (2020), resilience is a process that can be promoted throughout the course of the life cycle. It is not a strictly personal attribute, as resilience is associated with individual and social characteristics, which are linked to human development and growth as they too evolve over the course of the life cycle. It can never reach a definitive state at any point during the life cycle because it is never absolute or total.

Cyrulnik (2015, 2002; Cyrulnik et al., 2004), reflects in his works on the importance of resilience in human beings. He holds it up as a beacon of hope that helps us face four-dimensional situations, many of which are fraught with great adversity. As with many other authors, this author distinguishes between trial and trauma in relation to the attitudes adopted by individuals in the face of a situation. He argues that certain psychological factors exist that reduce the impact of stress on individual wellbeing and mentions some, such as feelings of control, ability to predict events, perceptions that things are getting better, outlets for frustration, existence of social support networks.

Merino and Privado (2015), in their research, integrate resilience with a series of psychological resources:

- Autonomy;
- Resilience;
- Self-esteem;
- Life purpose;
- Capacity for enjoyment;
- Optimism;
- Curiosity;
- Creativity;
- Humor;
- Mastery over the environment;
- Vitality.

Hobfoll (2002) presents 'psychological resources' as characteristics inherent to individuals and argues that they:

1. Are valuable in themselves because they are associated with favourable outcomes for the individual.
2. Enable better adaptation to the environment and to change, promoting individual progress towards the achievement of personal goals and relationship needs.
3. Can be adapted to the environment, can be learned and are stable.

In this sense, it is important to mention the "Pillars of Resilience", or characteristics that appear more frequently in those who have demonstrated resilience:

- Interaction/Relationship: this pillar refers to the ability of people to establish intimate and satisfying bonds with others and to be able to give themselves to others.
- Initiative: the tendency to make demands of oneself and to test oneself in increasingly demanding situations. The ability to take charge of and exercise control over problems.
- Creativity: Understood as the ability to create order, beauty and purpose out of chaos and disorder. The ability to reflect on one's own thoughts, which leads to the generation of new concepts, hypotheses, realizations and action potential. This substantially increases one's capacity to function in the world.
- Humor: Understood as the ability to see the absurdity of problems and pains and to find humor in one's own tragedy. See how humor allows one to maintain a stable attitude towards life and others, as it allows us to observe ourselves through a neutralised critical consciousness that is removed from that which is apocalyptic or dramatic. It reminds us of and helps us to accept our limitations.
- Morality: Also understood as moral awareness and encompasses two fundamental variables. Firstly, the capacity to wish others the same good that one wishes for oneself and, secondly, the capacity to commit to specific values.
- Independence/Autonomy: this pillar refers to the ability to set one's own boundaries in relation to a problematic environment, maintain physical and emotional distance from an issue without becoming isolated. This is closely related to development of the principle of reality (being able to judge a situation without being influenced by one's desires) and the possibility to make decisions for oneself.
- Insight/Introspection: it is understood as the ability to have a clear vision of your values and beliefs, moral conscience and integrate it into your daily life, and encompasses two fundamental variables: the ability to wish others the same good that one wishes for oneself, and at the same time the ability to commit to specific values.
- Communication: often defined as the ability to relate to others and the ability to establish bonds and intimacy with other people in order to balance one's need for affection with the need to give to others.
- Self-esteem: this construct could be defined as the image that people have of themselves and although it appears as another pillar of resilience it can also be understood as the cornerstone on which other pillars rest. Self-esteem cannot be simplified with the definition of loving oneself but must, also, consider respect and personal dignity.

### Activation of the Components of Resilience

The activation of the components of resilience involves the use and strengthening of internal and external resources to face adversity in an adaptive way, and is fundamental at the time of the process of formation of the person's personality, and therefore must be implicit in the educational process. In the educational field, this can be achieved by:

- *Motivation and Autonomy*: promoting the development of resilience involves awakening motivation and targeting individual development along the continuum of autonomy and independence. We emphasize the importance of motivation in the context of education, especially when human beings are faced with adversity. It is a fact that teachers can act as either facilitators or blockers of the development of student autonomy through the number and nature of their interventions.
- *Self-Assessment and Democratic Climate*: it is important to raise awareness of the

importance of self-direction and life purpose. Strategies are needed that consider particular aspects of time, priorities and problems. Awareness is required that it is possible to achieve new goals and plans for the future. Democracy is not learned through the direct teaching of values. Instead, it requires a slow pace of learning. Thus, individuals, in educational contexts that are predominantly democratic in nature will evaluate their own knowledge, challenge opinions and, ultimately, be able to establish a balance between their views and those of others revealing themselves capable of recognizing their own abilities and limitations.

The resilience activation model presupposes a democratic, participative, humanized and stimulating ecological climate, in which teacher encouragement plays a fundamental role in the personal and harmonious success of learners.

- *Educator Encouragement*: encouragement is conceived as something involved with the educational environment. It is deemed to be highly important and to be closely identified with the developmental process, teaching, learning and lifelong learning. It is a process of instilling courage and confidence characterized by attention and observation, the ability to listen, question and wait.
- *Self-Knowledge*: self-knowledge relates to one's ability for (self) confrontation. "Confrontation is an ability that can be difficult to put into practice in an effective and constructive way." When they build physical, functional, emotional and cultural relationships, teachers, through the self-knowledge that they acquire in their daily life, develops self-skills that help them observe and participate, analyze and guide, to be an actor and spectator and help their students rebuild resilience. Likewise, this self-knowledge involves (self)awareness of the importance it assumes in relation to human relationships and can play the role of facilitator, through its presence and mediation, of personal success and that of others.
- *Commitment to Personal and Interpersonal Success*: with the aim of student success, educators of children, young people and adults must be able to differentiate the various situations of life. This means that they must know the personal characteristics of human beings under their charge (abilities and aptitudes, difficulties and problems, internalization approach, degree of autonomy and socialization, prior knowledge). Further, they must facilitate group dynamics (different roles assumed by members of the group, the way in which each member participates and is accepted by others, tackling the issues of peers and providing support) and possess comprehensive knowledge of life and the factors that condition it (spaces, physical and human environment, additional resources whether available or not, schedules and potential for adaptation).

### **1.7.1. Components of Resilience in the RESUPERES Project: Resilient constructs for Higher Education**

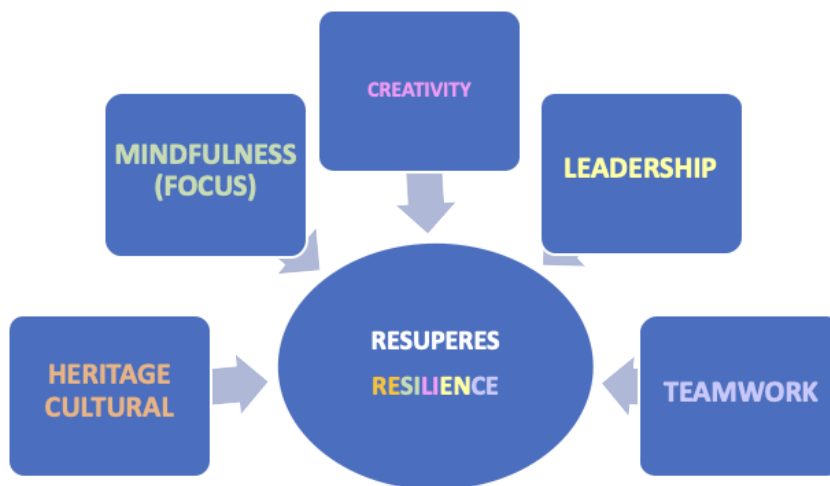
By means of concluding this section, it is worth highlighting the resilient constructs chosen by the RESUPERES team for the development of resilience in university contexts (represented in Figure 1.5.). Among the many that exist, the following were selected due, firstly, to their great importance and transcendence in the university context and, secondly, to the training required by both students and teachers to ensure effective performance. Based on this, the following constructs were selected for use in the RESUPERES project (Cepero, 2023, 2024):



- **Creativity:** resilient people use their creative resources and imagination to immerse themselves in new challenges. They see opportunities to shine in the most everyday things from writing stories or poetry to painting. Considered to be one of the qualities of resilient people that most makes them stand out since they look for opportunities in places not considered by others.
- **Teamwork:** people with high resilience do not operate alone, but have the support of colleagues and friends who help them to face challenges. The ability to work in a team is vital for personal life and professional success. To this end, resilient individuals set a positive work environment, form healthy interpersonal relationships and are willing to collaborate with others to tackle challenges. Thus, improving resilience will also promote a sense of belonging and boost confidence in the group to face challenges with optimism.
- **Leadership:** Resilience is considered fundamental to leadership capacity, since it involves constantly facing challenges and obstacles on the way to success, helping the professional to overcome challenges and keep focused on goals.
- **Mindfulness (Focus):** resilient people practice meditation or mindfulness in order to be fully present to experiences. This is characterized by living in the present and all of its nuances.
- **Cultural heritage:** Cultural heritage plays a vital role in shaping societies and preserving our rich history and traditions, understanding our roots in terms of where we have been and where we are going. This leads us to face new environmental and social challenges. It is essential to strike a balance between preserving cultural heritage and adapting it to meet modern needs.

The resilience of cultural heritage is crucial for the sustainability of communities and societies, community participation and education, and ensuring respect for and knowledge of interculturality.

**Figure 1.5.**  
*RESUPERES constructs used for the development of resilience in the context of higher education (Cepero, 2023a, 2024).*



## 1.8. Protective Factors

The concept of a protective factor, also known as a mediator, represents a new perspective in psychology, specifically in developmental psychology, as it takes a different stance to that taken up until recently, which focused on pathology and predominantly risk seeking as a means of explaining certain human behaviors.

This model has now been replaced with it becoming evident that, against all expectations, some of individuals exposed to risk contexts present healthy developmental trajectories. Risk clashes with protection. In vulnerable contexts, developmental scenarios can be used through planned interventions, in which a set of factors interact that in a given context, in a given individual and in a given moment, reinforce the capacity of individual resistance.

The protective characteristics of these interventions seem to exert their effects on all people, that is, regardless of the degree of risk present in the individual context. In this case, protective factors help individuals – always – to experience adverse situations in a more balanced way, dampening the *impact of stress*.

However, it should be noted that the effects exerted by these types of factors, in high-risk individuals operating within disorganized physical or interpersonal contexts, are more intense and may act to disrupt their psychological and social balance.

There are four distinct processes that can lead to the monetization of a risk factor in a protective factor, namely:

- (i) Reducing the impact of risk, either by changing the risk itself, or by modifying the degree of exposure of an individual to that risk;
- (ii) Reduction of the chain of negative reactions following exposure to harmful effects;
- (iii) Increasing self-esteem and self-efficacy, achieved through the contribution of interpersonal relationships formed by human beings, closely aligned with the fact that they are provided with new experiences through task performance; and
- (iv) Opening up opportunities that provide individuals with access to resources or help them to complete important transitions throughout the life cycle (Nettles & Mason, 2004).

Several authors (Brown et al., 2001; Gootlieb, 2001; Grotberg, 1999; Vaillant, 1993; Werner, et al., 2001) have categorized these protective factors into three large groups, namely, personality attributes of the subject themselves, characteristics of the family and contextual influence. Social competence emerges as a factor that could be included in the category related to personality attributes that would favor protective factors. It includes qualities such as flexibility, empathy, affection, responsiveness and sense of humor, that is, the ability to laugh at oneself and situations (Gootlieb, 1991). In fact, amongst the factors associated with resilience, personal factors such as temperament deserve special attention.

According to Goodyer (1995), resilient children and young people are more autonomous, have more positive self-esteem indices and a positive social orientation. One of the cases illustrating this situation is the effect on some children seen following the divorce of their parents. Despite the suffering most experience, research reveals that most end up evolving positively.

Another case identified as an example of resilience refers to that identified through longitudinal research conducted by Werner and Smith (Werner et al., 1989). In their opinion, one third of two-year-olds reported psychopathological risk factors and yet, ultimately, lived untroubled and without the need for specific medical help as well-balanced adults. We are

talking about resilient human beings whose behavioral and personality characteristics reveal them, at various stages of the life cycle, to be affectionate, calm and at peace.

Another example comes from research conducted with a group of one-year-old children who were identified as easy children in the sense that they were highly active and without feeding or sleeping difficulties. These children, who were found to be competent babies, responded to the appropriate attention and care around them. At the age of two, these same children exhibit a living temperament, autonomy and positive social orientation. They were also identified years later as pleasant, cheerful, friendly and peaceful beings, denoting ease in thinking in an abstract, reflective and flexible way and showing themselves capable of finding solutions to the challenges with which they are faced. Further, *focus of internal control* was understood as the conviction that they had to be able to control their own life, assuming personal responsibility over the successes and failures of their daily life.

In turn, this notion of control over what surrounds an individual interferes with their perceptions of themselves. This may explain why, in research that identifies resilient subjects, high value is attributed to variables such as self-efficacy, self-confidence, self-esteem and self-assessment capacity.

Another characteristic of resilient individuals is their inclination towards holding high expectations for their own future, in addition to setting clearly established objectives. In addition, several contexts such as the family and educational context can be identified as triggers of personal resilience. In fact, families can influence the resilience of their children by demonstrating their own characteristics in terms of resilience. In this sense, research such as that conducted by Wyman and colleagues (2000) reveals that variables that reflect parental competence are the most sensitive predictors of resilience.

Loving and supportive relationships within the family unit create a safe emotional environment and, consequently, represent a fundamental support when promoting human development. This is because factors of family origin are of great importance to the construction of self, causing them to influence and intertwine with individual factors, such as self-efficacy, self-esteem and self-concept which, in turn, determine the processes and mechanisms that govern resilience. But it is obvious that this social support must be more than simply present. Instead, it must be fully internalized by the individual, which means that resilience also involves the ability of each individual to know how to recognize, from within the interpersonal matrix in which they operate, the individuals who love them and with whom they establish healthy connections.

Alongside this, resilience also implies the ability to, not only, identify but, also, establish bonds with other individuals, who might take the form of their caregivers, and to form good relational references, giving rise to reciprocal relationships (Vaillant, 1993). This, as mentioned by other authors (Grotberg, 1999; Vaillant, 1993; Werner & Smith, 2001), is related to the presence of adult caregivers outside of the family unit and stands tall as a structural pillar of child development, especially, in young people whose lives are immersed in a situation of risk.

Evidence of this comes from Brown et al., (2001, 2016), who has reported *that being emotionally attached to adults and people in the community is a significant part of what allows nearly 70% of young people living in poor conditions to win despite adversity.*

In fact, although not all human beings present themselves with these characteristics, teachers, educators, colleagues, friends and others, can work with individuals in order to develop their resilience. For example, by promoting enabling interactions that help the child,

the young person or the *adult to succeed*, to be able to, and nullifying embarrassing interactions that limit one's ability to discover how to overcome difficulties due to them feeling ignored.

### 1.9. Risk factors

For Garmezy (1991), risk factors are multifaceted and can be categorized according to their individual, interpersonal or contextual characteristics, may emerge from difficult psychosocial situations due to a number of reasons, range from the genetic to the biological. Rutter (1999), also draws attention to *the need to consider stress and coping processes at various levels*, ranging from the social, to the psychological and passing through the neurochemical. Each of these levels provides a different, yet, complementary, perspective and each is fundamental to understanding the mechanisms and processes involved in vulnerability.

In fact, these risk factors, due to their multicausal nature, are reflected in biological, psychological and social aspects (Garmezy, 1996), and should be viewed as the result of an interaction between the individual and the environment, which both of these parties assuming an active role.

In another sense, Emery and Forehand (1996) urge the need to distinguish between risk moderating factors and risk promoting factors. The former pertains to variables that serve as markers of the tendency of psychological difficulties to increase or decrease. The role of mediating variables takes a step beyond this in that they provide an explanation behind certain specific developmental mechanisms which explain the way in which risk becomes dysfunctional.

In consideration of the impact of social aspects as factors that predispose individuals towards experiencing various types of risk, interventions targeting the development of competencies should be applied to the various setting in which risk emerged. This will empower them to constitute truly protective factors that, in the presence of adversity, allow not only the subject but, also their family, school and community, face such adversity without losing balance. This will also support the achievement of higher levels of development. Hence, higher levels of competence equip individuals with the potential to attain higher levels of resilience, given that competence attainment is strongly linked to individual development (Rouse, 2001).

### 1.10. Concepts related with resilience

Resilience, as we have exposed, is multifaceted with Key concepts related span across various domains, such as psychology, sociology, environmental science, and organizational behavior, such as the following:

#### > Successful Adaptation

A widely mentioned study, for example, on adaptation mechanisms was carried out by Vanistendael and Lecomte (2000). This study outlined a set of related adaptation mechanisms that contribute decisively to the development of a resilient personality in individuals. Amongst the strategies presented by the researchers, humor, denial, minimization and emotional control most strongly stand out.

*Humor*: with regards to humor, this is referred to as a positive adaptation strategy, with some researchers even reporting that the use of humor represents one of the best adaptation

mechanisms in existence. The use of humor helps individuals face particularly stressful life situation in a more positive and less serious way. This is possible as humor helps maintain anxiety at reasonable levels, allowing individuals to base their actions and decisions on properly structured and reasoned thought and make conscious and logical choices (Vanistendael & Lecomte, 2000). In relation to this stage of scientific development, some researchers have sought to understand the influence of humor which is considered to be therapeutic in the daily lives of individuals, particularly in the development of a resilient personality. According to Martins (2005), humor is not innate to the disposition of human beings but, instead, represents the complex outcome of an ongoing balancing act between the individuality of each human being, the environment in which they find themselves and the life situations they experience. In the opinion of Vanistendael (2003), humor is an important adaptation strategy given that it allows individuals to transform a particularly stressful or negative everyday situation into something positive through a process in which they simultaneously learn from the lived experience and develop their personality. This helps to shape an increasingly resilient personality. In this same sense, Masten (2004) corroborates these ideas, adding that research clearly shows that people who use humor frequently as an adaptation strategy have lower levels of anxiety and stress, whilst also suffering less frequently from health problems, when compared with individuals who use this type of strategy only infrequently.

*Denial* is a widely used strategy in which an individual refuses to accept a given reality that they interpret as being negative, dangerous or highly painful. This type of strategy is highly characteristic of individuals who have recently experienced a life experience that is considered to be stressful, leading some streams of thought in psychology to consider this type of strategy to be pathological. In contrast, Fisher (1994) opposes these ideas, adding that the use of denial by an individual who has experienced a certain highly stressful experience should not be seen as pathological, but as the first adaptive reaction to the stressful phenomenon, allowing the individual to react to the experience of the phenomenon and adapt to the new reality. Fisher (1994) has conducted important research in relation to this topic. This researcher verified that the use of this adaptation mechanism is highly efficient at reducing the tension felt by individuals, progressively contributing to the total abolition of it.

*Minimization*, emerges as an equally important adaptation mechanism. This describes the way in which individuals internalize the notion that the lived situation could have been significantly more serious. This strategy is widely used and allows individuals to mentally visualize themselves through comparisons between their situation and that experienced by other individuals. This enables them to see that their stressful life event is not so serious and does not have such a negative impact on their lives when compared to other situations experienced by other individuals. This type of thinking allows the individual to draw the energy and inner strength necessary to overcome this particular situation (Martins, 2005).

*Emotional control*, one adaptation mechanism that is not fully agreed upon by the entire scientific community is emotional control, since this mechanism, despite promoting resistance to stressful phenomena, can, simultaneously, encourage development of a more rigid and less flexible personality, progressively isolating individuals from the environment in which they are immersed. This opinion is supported by research carried out by Vanistendael and Lecomte (2000). This research suggests that whilst, on the one hand, this type of adaptation mechanism may contribute to effective distancing that may be beneficial for the individual, on the other hand, it may promote inadaptation when used in excess.

At this juncture, adaptation mechanisms represent useful and relevant strategies when it

comes to managing the stressful life situations that individuals face both in their professional and personal daily lives. However, it is essential that every individual human being seeks to recognize which adaptation strategy they most identify with and which, at the same time, may allow them to adequately adapt to the environment. This requires a perfect balance between not developing a highly defensive and rigid personality, on the one hand, and, on the other, overcoming trauma without serious or permanent sequelae.

A number of other studies focus on positive or successful adaptation in individuals (Masten, 1994, 1999). In fact, in so-called "developed" societies, the list of children's developmental tasks includes school adaptation with appropriate behavior, academic achievement, peer acceptance and moral conduct in accordance with the rules and social standing of their family, school and community, and society at large. In adolescence, other developmental tasks are required that are related to adaptation to the transformations that take place throughout adolescence, affecting both loving relationships and identity. During adulthood, developmental tasks include aspects such as economic subsistence, family establishment and the performance of roles accepted by society. This means that the concept of competence is no longer very relevant.

#### > The concept of competence

What is competence? Competence is a concept used in psychology that means the ability possessed by a human being in perfect circumstances at a given time (Doron & Parot, 2001). Social competence is an important factor of resilience and can be defined as the way in which individuals interact with life events. In studies on resilience, the operationalization of adaptation points to the importance of certain variables. These include academic realization (Radke-Yarrow & Brown, 1993), social relationships /social competence (Werner, 1993), behavioral problems (Ritchers & Martinez, 1993), absence of physical and mental health problems (Shepard & Kashani, 1991; Werner, 1993), satisfaction with life/self-esteem (Dongen, 1998), and emotional and psychological symptoms (Seifer et al., 1992).

According to Garmezy (1996), it is extremely important to consider the aforementioned aspects when conceiving programs that promote resilience. For instance, an effective program may strive to motivate the development of human resilience, specifically, at the level of components of cognitive content (Sousa, 1995, 2006b).

#### > Fundamental Characteristics of Social Competence

Here, it serves to highlight optimistic confidence in people and the world, positive self-assessment and control of personal life events, initiative to set realistic goals, and ability to enjoy success, suffer from failures and be able to build based on one's vision of oneself and the world. Thus, a competent individual is someone who is capable of believing in their potential, demonstrating new feelings towards themselves and establishing goals and objectives.

#### > The Concept of Hardiness

Another concept that commonly arises in association with resilience is that of hardiness. This concept has been defined as a personality characteristic that is expressed through cognitive, social and physiological mechanisms that protect health and performance. It can act as a reinforcer of stress resistance.

This concept is born out of the existentialist theory of personality (Kobasa, 1979). It is a personality trait that is expressed through cognitive, social and physiological mechanisms that protect health and performance. It can act as a reinforcer of stress resistance.

### > The Concept of Coping

This concept, roughly speaking, is associated with resilience as it also pertains to "dealing with" or "coping strategies." In fact, research linked to this topic reveals that situations that cause stress can be overcome, in a dynamic and constructive way, through effective coping mechanisms and resilient personalities (Pereira, 2001). According to some authors (Lazarus and Folkman, 1984), stressors are viewed as threats or challenges that disrupt an individual's equilibrium and give rise to the need for an adaptive response. The transactional model of stress emphasizes that stress arises, not only, from the presence of stressors but, also, from individuals' perceptions of these stressors. In fact, the stress process model encompasses stressors (source of stress), stress mediators and moderating mechanisms (processes and resources that buffer or intensify the stress response) and outcome (the result, which can be positive or negative, depending on the effectiveness of coping mechanisms).

An individual is considered to be facing a situation of vulnerability when they are faced with a stressor and are not able to mobilize coping mechanisms that lead to a positive outcome.

Risk factors emerge whenever the characteristics of the person or context are associated with increased probability of an unsuitable development. This occurs whenever the demands of a challenge exceed the adaptive capacity of the individual, limiting their response to that same dysfunctional challenge (Compas et al., 1995).

However, it should be noted that there is no single source of vulnerability, since many interactive factors intervene in this process, heightening the impact of indirect risk. However, the level of development achieved by a human being is one aspect that influences the way they experience risk. For this reason, various protective systems are present at different developmental time points to defend against different vulnerabilities (Gottlieb, 1991; Masten, 1997).

### > Adaptation – Fundamental Concept

According to Sousa and Extremera (2016), as is well known, the personality of any given human being may already contain the tools of resilience. Research indicates that resilience is the result of characteristics associated with sociable behavior, temperament, character and intelligence (Grotberg, 1995). In fact, a growing number of international, cross-cultural and longitudinal studies (Werner & Smith, 1982) have validated previous research that postulates that every human being is born with an innate capacity for resilience, through which they can develop their capacity for adaptation. It is this ability that enables them, even in the presence of serious risk, to be able to overcome disadvantage and transform a risk/ vulnerability trajectory into resilience, presenting themselves as a competent, confident, empathetic, humorous and considerate human being. Indeed, resilient personality traits presuppose the existence of behavior that aims to be constructive, adaptive and socially stable to the extent that resilient individuals are characterized by a set of competencies that allow them to deal more effectively with stressful situations. Such competencies include social skills (interpersonal skills), metacognition (problem solving), autonomy (identity development) and planning capacity (for the future).

Further, in accordance with the conceptual framework of Tavares and Albuquerque (1998), the cognitive elasticity and flexibility inherent to these higher stages guide human beings towards greater adaptation. This gives fundamental insight of the way in which a concept that is not directly related to mechanisms of resistance or desensitization is crucial for understanding the process of resilience.

### 1.11. The Structuring Dimensions of Resilience

The structuring dimensions of resilience refer to the foundational elements that shape and influence the capacity for resilience across individuals, communities, organizations, and systems. These dimensions provide a framework for understanding and building resilience by addressing the factors that determine how challenges are managed and overcome. Here's a detailed breakdown of the key structuring dimensions of resilience:

- > **Physiological Adaptation:** work performed by Blandon et al. (2008), reveals that children with secure attachment have more restrained cardiac, vagal and hormonal responses.

According to Sameroff (2006), two levels of adaptation exist. The first is ordinary and concerns factors that are expected, daily or within the normal range (e.g., starting school, birth of a sibling). The second is extraordinary and entails unexpected factors such as tragedy and significant loss (e.g., death of parents, abandonment, war, tsunami).

- > **Psychological Habituation:** psychological habituation refers to the process in which an individual's response to a stimulus decreases with repeated exposure. It is a fundamental concept in cognitive psychology that has been widely studied in order to better understand the way in which humans adapt to repeated sensory input. Various authors and researchers have explored the way in which people respond differently to stimuli that may be perceived as threatening or emotionally significant.

Dawson et al. (2010), have extensively researched the way in which humans and animals respond to threatening stimuli and the physiological processes behind habituation. Their work has helped to establish the way in which the autonomic nervous system responds to repeated exposure to emotional stimuli, showing varying levels of physiological arousal based on individual differences.

An experiment ran by their team highlights the varied ways in which humans react to emotional stimuli. While some people remain vigilant, consistently on guard for threats, others begin to avoid these stimuli in order to minimize distress. Over time, habituation can occur in individuals whose cognitive processing allows them to deemphasize the significance of the repeated emotional cue. The interplay between emotional, physiological and cognitive factors determines whether an individual adapts or remains sensitive to repeated exposures.

- > **Sense of Self-Effect:** an example of this is seen in students who perform well at school and tend to exhibit a locus of internal success and performance motivation and are able to elaborate efficacy strategies.
- > **Conductive Self-Regulation Capability:** through their famous "still face" experiment, Tronick, Adamson, Wise and Brazelton (1978) discovered that babies in the experimental condition sought to regain interaction with their mothers through positive responses such as smiling, eye contact or positive vocalizations. In contrast, other babies could not resist the stress triggered by the experience, showing obvious signs of behavioral dysregulation such as crying or physical agitation.
- > **Synthesis of the Structuring Elements of Resilience:** all of these elements are necessary components to provide a path away from risk and equip individuals with the ability to deal with adversity. But, even when such elements are present, no individual is invulnerable. What is resilience anyway? Resilience is the process of continuous adaptation. The resilience processes is dynamic, operating in many different way, with anchors that support balance and with points of imbalance, where the relationship between biology and the environment is interdependent.



## 1.12. Resilience Building Programs

In the ever-evolving landscape of higher education, which exposes students to an array of academic, personal and societal challenges, the concept of resilience emerges as a beacon of hope. Resilience, the ability to bounce back from adversity, adapt to change and thrive despite difficulties, has garnered increasing attention within higher education institutions. Recognizing the pivotal role resilience plays in shaping student success and wellbeing, universities and colleges across the globe have initiated resilience building programs. This conceptual text endeavors to delve into the essence, objectives and potential benefits of such programs, shedding light on their significance in nurturing student resilience and fostering holistic development.

Resilience is not merely the absence of challenges. Instead, it is the capacity to confront obstacles, setbacks and failures with steel and determination. In the context of higher education, resilience encompasses psychological, emotional and social dimensions, empowering students to navigate the complexities of academic life and beyond. Resilience building programs seek to cultivate this multifaceted competence by equipping students with the skills, strategies and support systems necessary to thrive in the face of adversity.

Resilience building programs in higher education have gained significant attention in recent years due to growing recognition of the importance of equipping students with the skills and mindset necessary to navigate challenges effectively, primarily designed to enhance students' ability to bounce back from setbacks, adapt to change and thrive in the face of adversity.

This conceptual text aims to provide a comprehensive overview of resilience building programs in higher education, including their objectives, key components, configuration and potential benefits, emphasizing that the primary objective of resilience building programs in higher education is to empower students with the psychological resources and coping mechanisms needed to overcome obstacles and succeed academically, personally and professionally, and therefore to foster a growth mindset, develop emotional intelligence, enhance problem-solving skills and promote a sense of self-efficacy among students. Such programs typically target one or more of the following components:

- *Empowerment*: bestow students with a sense of agency and self-efficacy, instilling confidence in their ability to overcome challenges and achieve their goals.
- *Skill development*: cultivate essential life skills such as problem-solving, stress management, emotional regulation and effective communication, with all being integral to resilience.
- *Mindset shift*: foster a growth mindset among students, wherein setbacks are viewed as opportunities for learning and growth rather than insurmountable barriers.
- *Community building*: create a supportive and inclusive campus community where students feel connected, valued and supported by peers, faculty and staff.
- *Wellbeing promotion*: promote holistic wellbeing by addressing, not only, academic concerns but, also, mental, emotional and physical health needs.

Essentially, resilience building programs typically incorporate a range of components aimed at promoting holistic development and wellbeing. These components may include:

- *Psychoeducation*: providing students with information and resources related to resilience, stress management and mental health.

- *Skill development*: equipping students with practical skills such as effective communication, time management, goal setting and conflict resolution.
- *Mindfulness and self-awareness*: introducing practices such as mindfulness meditation and reflective exercises to enhance self-awareness and emotional regulation.
- *Peer support and networking*: facilitating opportunities for students to connect with peers, mentors and support networks to share experiences and provide mutual support.
- *Counseling and mental health services*: providing access to counseling services and mental health resources for students experiencing significant distress or challenges.

On the other hand, it is worth emphasizing that resilience building programs encompass a diverse range of components and may be organized through:

- *Workshops and seminars*: one-off or recurring workshops and seminars that cover topics dealing with specific content related to resilience and wellbeing, such as stress management, resilience strategies, mindfulness practices, music and arts, photography and communication, and self-care techniques.
- *Courses and curricular integration*: incorporating resilience-building elements into academic courses or offering standalone courses focused on personal development, wellbeing or resilience.
- *Peer support networks*: establishing peer support groups, mentorship programs or resilience ambassadors who provide guidance, encouragement and solidarity to fellow students.
- *Counseling and mental health services*: providing access to counseling services, support groups and mental health resources to address psychological distress, anxiety, depression or other mental health concerns.
- *Community engagement and outreach*: collaborating with campus organizations, student clubs and community partners to organize events, campaigns and initiatives that promote resilience and wellbeing campus wide.
- *Online resources and platforms*: providing access to online resources, self-help tools and virtual communities for students to engage with resilience-building content remotely.

Participation in resilience building programs in higher education can yield numerous benefits for students, including:

- *Improved academic performance*: enhanced resilience can help students manage stress, maintain focus and persevere in the face of academic challenges.
- *Enhanced wellbeing*: developing resilience fosters emotional wellbeing, reduces symptoms of anxiety and depression and promotes overall psychological health.
- *Better adaptation to change*: resilient individuals are better equipped to navigate transitions and unexpected changes, both within the academic setting and beyond.
- *Academic success*: enhanced resilience equips students with the resilience and perseverance needed to overcome academic challenges, maintain focus and achieve their academic goals.
- *Personal growth*: resilience building fosters personal growth and self-discovery, empowering students to tap into their strengths, explore their passions and pursue meaningful endeavors.

- *Emotional wellbeing*: developing resilience cultivates emotional intelligence, self-awareness and coping mechanisms, which contribute to improved mental health and emotional wellbeing.
- *Social connection*: resilience building programs facilitate social connection, belonging and support networks, fostering a sense of community and camaraderie among students.
- *Preparation for life beyond college*: the resilience skills acquired through participation in these programs are transferable to various life domains, equipping students with the resilience to navigate transitions, challenges and uncertainties beyond college.
- *Increased employability*: employers value resilience as a crucial attribute in the workplace, as it indicates an individual's ability to thrive in dynamic and uncertain environments.

Resilience building programs play a vital role in promoting student success and wellbeing in higher education settings. By equipping students with the skills and mindset needed to overcome adversity, these programs empower individuals to thrive academically, personally and professionally. Through a combination of psychoeducation, skill development and support services, resilience building programs contribute to creating a more resilient and thriving campus community.

Finally, it can be said that resilience building programs in higher education serve as catalysts for personal growth, academic success and holistic wellbeing in students. By fostering resilience, empowering students and cultivating supportive communities, such programs play a pivotal role in nurturing the next generation of resilient leaders, innovators and change-makers. As higher education continues to evolve, resilience building remains an indispensable cornerstone when it comes to equipping students with the resilience needed to thrive in an ever-changing world.

### 1.13. Implications for Promoting Resilience in Higher Education

Resilience assessment tools can help identify learners who may be struggling with academic or personal challenges and who are at risk of dropping out of school or facing serious problems. Universities and colleges can use this information to provide targeted support services, such as life counseling, academic counseling and tutorial supervision in order to help students develop coping skills and overcome obstacles.

*How should they do it?* Colleges and universities must develop resilience-building programs and interventions based on the outcomes of resilience assessments. These resilience programs may include workshops, seminars and support groups designed to improve students' coping skills, emotional self-regulation and psychosocial support networks, with the fundamental objective by providing students with the tools and resources they need to address challenges effectively. Integrating resilience concepts into the curriculum can help students develop the skills they need to succeed academically and personally. This is really the way to institutions can foster resilience and wellbeing across campus.

For example, incorporating modules on stress management, resilience building and mental health awareness into mentoring programs or general education courses can empower learners to take proactive steps to improve their wellbeing and resilience, integrated resilience concepts into the curriculum and providing students with the tools and resources they need to address challenges effectively, so we insist that universities and colleges must foster

resilience and empower students to thrive in their academic and personal lives.

According to Sousa (2015b), institutions must, therefore, have the capacity to sensitize their students to:

- (i) The construction of knowledge as a shared reflection;
- (ii) The construction of knowledge as a pluri-methodological and inter-contextual exercise;
- (iii) Intra-interpersonal relationships in teaching and learning;
- (iv) Inter-contextuality and transgenerational issues;
- (v) The importance of cognitive mutability in vocational training processes, and;
- (vi) The importance of knowledge and use of new information technologies and communication.

Thus, this context, which is so full of diversity and unpredictability, requires that the multiple situations that may arise be addressed with a spirit of initiative, creativity, innovation, reflection and inquisition. In this regard, resilience education offers a promising area in this emerging society, in which it has never been more important to train and prepare people for unpredictability, change, uncertainty and, ultimately, for the unique and, even, shocking situations that require them to make greater efforts in favor of peace, solidarity, isomorphism, justice and the development of greater resilience.

#### **1.14. Resilience Assessment: Instruments**

Resilience is related to multiple constructs in the educational field and, specifically, in higher education. Following a detailed review of the instruments used to assess these constructs, the most commonly used in international publications were identified and are presented below (Padial et al., 2024).

- The Connor–Davidson Resilience Scale (CD–RISC): conceived by Connor and Davidson (2003), this tool was designed for the clinical setting as a means of identifying resilient behaviors early and capturing information on the responses of adults (up to approximately 65 years of age) to psychological treatments. However, some studies have administered the test to young people aged between ten and 18 years of age. This tool is one of the most commonly used in the field of resilience assessment and is considered to be one of the most reliable tools available. The questionnaire identifies the following five factors:
  - Personal competence, high standards and tenacity.
  - Trust in intuition, tolerance to negative effects and strength in the face of stress.
  - Positive acceptance of change and secure relationships.
  - Control.
  - Spiritual influence.

It is composed of 25 items, which are rated along a Likert scale ranging from 0 to 4 (totally disagree, totally agree). Questions are framed to gain responses pertaining to the month prior to questionnaire completion. Higher scores indicate higher resilience, whilst lower scores indicate lower resilience. For the version translated and adapted into Spanish, CD–RISC 21 (Crespo et al., 2014), in relation to situations of chronic stress, four of the 25 items were eliminated, as they were found to negatively affect scale reliability. As a side note, it should be

noted that, when required to administer this scale, each member country of the consortium ultimately identified and located the version that is benchmarked for their specific population, as was the case, for example, with Portugal.

The *CD-RISC 21* exhibited high reliability of 0.90 in the original study. Finally, items pertain to four factors:

1. Coping and persistence in stressful situations.
2. Ability to overcome and achieve objectives.
3. Positive assessment.
4. Confidence.

· Wagnild's Resilience Scale (ER-14) (2009), translated into Spanish by Sánchez-Teruel and Robles-Bello (2015), this tool consists of 14 items that are assessed along a seven-point Likert scale. This questionnaire assesses the degree of personal resilience, which is considered a positive personality characteristic that allows individuals to adapt to adverse situations. It comprises two dimensions of resilience, namely, personal competence, and acceptance of oneself and life.

**Instruments for Assessing the Constructs that make up Resilience:** the majority of studies tend to employ more than one instrument to evaluate the construct of resilience globally with most combining global instruments with measures that assess the concepts that compose resilience and are directly related to it. After an exhaustive literature review, the RESUPERES team selected the most appropriate tests and they are introduced below:

· Educational Goals:

- Adolescent Goals Questionnaire (CMA). This scale was conceived by Sanz de Acedo et al. (2003). This questionnaire consists of a total of 79 items that are assessed along a six-point Likert scale. It comprises social recognition ("being a leader of a group"), interpersonal ("being honest with others"), sports ("being in good physical shape"), emancipative ("having the freedom to make my own decisions"), educational ("getting high grades to be able to access university"), socio-political ("belonging to a political party") and personal commitment ("working with enthusiasm to achieve the goals I want") dimensions. For the process of creating and validating the questionnaire, the GSQ (Goal Setting Questionnaire) conceived by Carroll et al. (1997) was used as a basis, ordering 57 items according to eight first-order and three second-order factors.
- Goal Setting Adolescent Scale – Brief Version (CMA-R). This scale was elaborated by López-Mora et al. (2017). It serves to identify the motivations of the target population with respect to different areas of their lives. The reduced scale is composed of 26 items and comprises the following seven dimensions: "Social recognition", encompassing group leadership; Interpersonal" or sincerity with others; "Sports", related to adequate physical condition; "Emancipative", such as the ability to make decisions; "Educational", associated with obtaining high academic performance; "Sociopolitical", pertaining to membership of a political party, and; "Personal commitment", such as the achievement of proposed goals.
- Efficacy. Baessler and Schwarzer's (1996) Self-Efficacy Scale. This tool refers to confidence in one's own abilities to manage stress. This Likert scale comprises ten items. Higher scores demonstrate higher levels of perceived self-efficacy, whilst lower scores reflect lower self-efficacy.

- Self-Concept. Self-Concept Form 5. (AF5). This questionnaire examines the different components of self-concept all of which describe the perceptions individuals have of themselves. The version conceived by García and Musitu (1999) consists of 30 items that are scored using a five-point Likert scale and correspond to academic, social, emotional, family and physical dimensions of self-concept.
- Social Relatedness. Social Skills Assessment Scale. This questionnaire was proposed by Goldstein et al. (1980) and aims to determine the extent to which social skills are exhibited. The scale is composed of 50 items that are assessed along a Likert scale encompassing the dimensions of basic social skills, advanced social skills, feelings-related social skills, skills as alternatives to aggression, skills for coping with stress and planning skills.
- Family Support. Family Climate Scale. This scale was translated into Spanish by Fernández-Ballesteros and Sierra (1989). It assesses individuals' social and family environment. The questionnaire is composed of 90 items which measure three dimensions. The first, "development", assesses importance to the family unit of sharing life experiences. The second, "stability", measures the structure and organization of the family unit and the degree of control exercised by certain family members over others. Thirdly, "relationships" evaluates the degree of communication within the family and the level of interaction between family members. It is an adaptation of the Family Climate Scale (FES; Family Environment Scale) originally conceived by Moos and Moos (1981).
- Emotional Regulation. Cognitive Emotion Regulation Questionnaire (CERO). This tool was elaborated by Garnefski et al. (2001) and translated into Spanish by Domínguez-Sánchez et al. (2011). It assesses nine types of cognitive and emotional coping strategies that are pertinent to stressful situations. Items are assessed along a 36-item Likert scale and correspond to the dimensions of self-blame, acceptance, rumination, positive focusing, planning, positive reappraisal, perspective-taking, catastrophizing and blaming others.
- Optimism. Life Orientation Test. This tool was proposed by Scheier et al. (1994) and measures the predisposition of individuals towards generalized optimism and pessimism. The scale was translated into Spanish by Otero et al. (1998). It consists of ten items that are assessed along a five-point Likert scale.
- Humor. Multidimensional Sense of Humor Scale (MSHS). This scale was elaborated by Thorson and Powell (1993) and validated for use in the Spanish context by Carbelo (2006). This study revealed it to be valid and reliable for use with Spanish populations. Sense of humor is described according to three dimensions, namely, "competence or ability to use humor", "humor as a mechanism for controlling the situation" and "social valuation".
- Empathy. Basic Empathy Scale. This tool was conceived by Jolliffe and Farrington (2006) as a means of estimating empathy, which is operationalized as understanding and participation regarding the emotional state or context of a third party. It measures both cognitive and affective empathy via 20 items that are measured along a five-point Likert scale. The scale proposes two dimensions which pertain to cognitive and affective aspects. It was translated and validated for use in the Spanish context by Oliva et al. (2011). The reduced version, the Basic Empathy Scale – Brief (BES-B), evaluates the two affective and cognitive dimensions of empathy via nine items. Cognitive empathy refers to the perception and understanding of others, whilst affective empathy evaluates the emotional response brought about by other people's feelings.
- Coping. Coping Strategies Inventory (CSI). This scale was conceived by Tobin et al. (1989). It represents one of the main reference instruments for measuring coping according to a

hierarchical structure. The purpose of this questionnaire is to identify the types of situations that cause problems for individuals in their daily lives and the way in which individuals deal with these problems. The original instrument consists of 72 items, which are grouped into eight subscales that refer to coping strategies addressing problem solving, cognitive restructuring, social support, emotional expression, problem avoidance, wishful thinking, social isolation and self-criticism. Cano et al., (2007) translated and adapted the instrument for use in the Spanish context. For this version, the instrument was shortened to 40 items but the factor structure of the original instrument was replicated, corresponding to the previously identified eight subscales that measure coping strategies.

Next, instruments used to measure resilience, both directly or indirectly, are presented in Table 1.1.

Table 1.1.

*Assessment instruments for measuring resilience. Source: original elaboration (Cepero, 2024).*

RESILIENT CONSTRUCTS	MEASURING INSTRUMENTS
RESILIENCE: commitment, challenge, control), coping, adaptability/flexibility, sense of purpose, optimism, emotional and cognitive regulation, and self-efficacy.	- CD-RISC (Connor & Davidson, 2003)
1. Creativity: Interpersonal skills	-CD-RISC (Connor & Davidson, 2003) -Social Skills Assessment Scale (Goldstein et al., 1980)
2. Coping	-CD-RISC (Connor & Davidson, 2003) -Coping Strategy Inventory (Tobin et al., 1989)
3. Sense of purpose and future: Educational Goals	-CD-RISC (Connor & Davidson, 2003) -Reduced Questionnaire on Goals for Adolescents (CMA-R, López-Mora et al., 2017) -Teen Goals Questionnaire (Sanz de Acedo Lizarraga et al., 2003).
4. Autonomy	The Lawton and Brody Scale: Assessing Autonomy in Daily Life
5. Heritage: Cultural heritage: Personal ideology	-CD-RISC (Connor & Davidson, 2003) -Coping Strategy Inventory (Tobin et al., 1989)
6. Physical Activity Habits	-IPAQ -SF (Craig et al., 2003)
7. Self-concept: academic, social, exciting, family and physical.	-AF-5 (García & Musitu, 2001)
8. Self-esteem	-Self-esteem scale of Ronserberg (RSE) (Rosenberg, 1965)
9. Depression, anxiety, and stress	Depression, anxiety, and stress
10. Personality factors: extroversion, agreeableness, conscientiousness, neuroticism, and openness to experience	-BIG FIVE-44 (Benet-Martínez & John, 1998)
11. Empathy	-Basic Brief Empathy Scale (Jolliffe & Farrington, 2006)
12. Emotional regulation	-Cognitive Emotion Regulation Questionnaire (CERQ) (Garnefski et al., 2001)
13. Efficacy	-Self-efficacy scale (Baessler & Schwarzer, 1996)
14. Optimism	-Life Orientation Test (Scheier et al., 1994)
15. Sense of Humor	-Multidimensional Sense of Humor Scale (Thorsol & Powell, 1991)

*Source: How to Assess Resilience in the Higher Education? de Padial et al. (2004).*



**Evaluation Instrument used to Assess Resilience in Higher Education Selected for use in the RESUPERES Project.** Finally, it is important to note that the CD-RISC was selected for use within the RESUPERES project. It was administered to assess changes in resilience following all project actions and, specifically, following roll out of project intervention programs. This measure was applied to gather data on five of the core constructs of resilience, namely, creativity, mindfulness (introspection), leadership, teamwork and cultural heritage. Data pertaining to this measure are summarized in the following table (Table 1.2.).

**Table 1.2.**

*Summary table outlining the assessment instruments employed to measure resilience in higher education in the RESUPERES Project (Cepero, 2024).*

RESILIENT CONSTRUCTS		ASSESSMENT INSTRUMENTS
RESILIENCE	Resilience (commitment, challenge, control), coping, adaptability / flexibility, sense of purpose, optimism, emotional and cognitive regulation, and self-efficacy.	CD-RISC 25 (Connor & Davidson, 2003) Copyright and translated versions for all languages relevant to the RESUPERES project.
RESUPERES RESILIENCE SKILLS	Creativity, mindfulness (introspection), leadership, teamwork and heritage cultural	CD-RISC 25 (Connor & Davidson, 2003) Copyright and translated versions for all languages relevant to the RESUPERES project.

*Source: How to Assess Resilience in the Higher Education? de Padial, et al. (2004).*

# CHAPTER 2.

## Building Resilience



## CHAPTER 2. Building Resilience

### 2.1. The seven Cs of resilience

The American Psychological Association defines resilience as “the process of adapting well in the face of adversity, trauma, tragedy, threats, or significant sources of stress—such as family and relationship problems, serious health problems, or workplace and financial stressors” (APA Dictionary of Psychology—<https://www.apa.org/topics/resilience>).

Every individual will experience ups and downs throughout their lives. One cannot possibly prepare for or control every stressor, tragedy, loss or crisis that may come their way. However, individuals can control the way in which they respond to such events. This is where resilience comes in. It is not a personality trait, or something we are born with. Resilience concerns thoughts, feelings and behaviors, all of which can be learned and can help one to bounce back after adversity. The main goal of promoting resilience is to achieve a healthier and more functional society, both in terms of quality and mental health (Matos et al., 2015).

Several models define the factors that help build resilience (Ledesma, 2014). Wolin and Wolin (1993) propose a model that enables parents, teachers, psychologists and other professionals to apply the concept in practical terms. Within this model, problems, dangers and adversities are seen as challenges that present themselves to individuals. According to these authors, nobody is infallible and all individuals are vulnerable

Wolin and Wolin (1993) argue that seven interpersonal resiliencies exist. These represent a set of internal forces that are mobilized by individuals in the fight against adversity. Their model outlines seven pillars of resilience (Figure 2.1.) These are *insight*, *independence*, *relationships*, *initiative*, *humor*, *creativity* and *morality*. They propose that these seven resiliencies can function as instruments that provide the roadmap or guidebook to help human beings in the search for internal forces when facing problems and adversities.

Figure 2.1.  
Wolin and Wolin's model (1993).



A synthesis of the empirical outcomes reported by Wolin and Wolin (1993) in their work on the seven resiliencies brings to light the characteristics inherent to each resiliency at a given life stage.

1.- *Insight*: this describes the mentality of asking oneself difficult questions and answering them honestly.

In children, this skill takes the form of *sensing*, or sensation, and denotes the preverbal intuition that something is wrong. In young people, it is manifested as knowing, or knowledge, which is the systematic and well-articulated awareness of difficulty. In adults, it pertains to the more mature skill of understanding, concretely, understanding, signifying empathy, understanding of others, and tolerance for complexity and ambiguity (Figure 2.2).

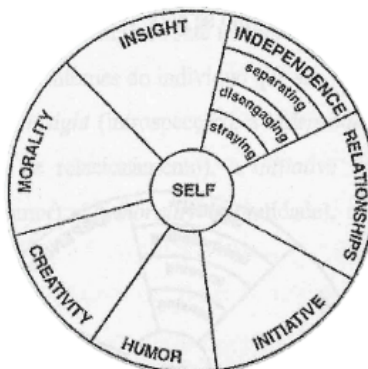
Figure 2.2.  
*Insight by Wolin & Wolin's model (1993).*



2.- *Independence*: this consists of the ability to establish limits between one's own environment and adverse environments, including emotional and physical distancing from problems.

In children, this skill begins with *straying*, in other words, deviating, moving away when difficulties arise. In young people, it is manifested through *disengagement*, detachment, making it possible to remove oneself and stay away from problems. In adults, this skill takes the form of *separating*, which equips individuals to stay away and separate themselves from the sources of problems (Figure 2.3).

Figure 2.3.  
*Independence by Wolin & Wolin's model (1993).*



3.- *Relationships*: this pertains to the ability to relate to others, and maintain stable and healthy relationships.

In children, this skill emerges via *contacting*, in which children make contact with others to enable them to establish superficial bonds with other emotionally available individuals. In young people, this skill is manifested through *recruiting*, in other words, the deliberate tendency to engage with adults or peers who are helpful and supportive. In adults, these skills take the form of *attaching* through personal and mutually rewarding bonds that are characterized by a balance between giving and receiving (Figure 2.4).

Figure 2.4.  
*Relationships by Wolin & Wolin's model (1993).*



4.- *Initiative*: this concerns the ability to self-dominate. It includes problem-solving capabilities and the desire to resolve situations and develop constructive actions.

In children, this skill takes the form of *exploring*, involving exploration through trial and error. In young people, this evolves into *working*, with work entailing problem solving in a wide area of activities. In adults, the skill matures further still into *generating* or creating, in which it is manifested as enthusiasm and a taste for challenging projects and situations (Figure 2.5).

Figure 2.5.  
*Initiative by Wolin & Wolin's model (1993).*



5 & 6 - *Creativity and Humor*: Creativity is the ability to create order, beauty, and purpose out of chaos and disorder, while humor is the ability to find the comical in the tragic. These are interrelated capabilities. In children, both take the form of *play*: play consists of being able to use the imagination to build a world that is in accordance with their desires; in young

people they take the *form of modeling*, that is, art and comedy to give aesthetic form to thoughts; and in adults, each concept matures in a different way, in Creativity is a *composition*, which is related to the ability to make up artistic objects; and in Humor, laughing, resulting in the consequence of how the sense of humor and laughter help to reduce the emotional impact of adversity, providing relief and promoting general well-being (Figure 2.6).

Figure 2.6.  
Creativity & Humor by Wolin & Wolin's model (1993).



7.- *Morality*: this is defined as the ability to act on an informed consciousness, including risk taking in defense of one's ideals and finding pleasure in helping others.

In children, this is manifested as *judging*, that is, the ability to distinguish good from evil. In adolescents, this skill takes the form of *assessing* or using reasoned evaluation as the basis for decision making. In adults, the skill matures into *serving*, with this entailing feelings of obligation in the pursuit of a satisfactory personal life and the sense of committing and contributing to the wellbeing of all (Figure 2.7).

Figure 2.7.  
Morality by Wolin & Wolin's model (1993).



According to this model (Wolin & Wolin, 1993), it is important to promote development of the early manifestations that emerge during childhood, continue into adolescence and mature in adulthood. This model highlights the importance of being attentive to and developing the strengths of young people, regardless of their early life experiences. Young people must be encouraged in order to give them a sense of hope and create services and programs targeted towards the resilience so carefully characterized by the authors.

With this goal in mind, several other authors also propose several guides and models to promote resilience from an early age. According to the pediatrician Kenneth Ginsburg, specialized in building resilience in children (18 months to 18 years), seven qualities exist that can help build resilience. He believes that if the aim is for children to experience the world as fully as possible – with some of its pain and all of its joy – resilience is an essential skill.

♦ The 7 Qualities, 7Cs of Resilience Ginsburg and Jablow (2011): developed the 7Cs model to provide a practical approach for parents and communities to prepare children to thrive:

1.–*Competence*: this refers to the ability to know how to handle stressful situations effectively. One must possess the skills required to face challenges and have the opportunity to practice using these skills in order to feel competent to deal with situations. It concerns much more than vague feelings of not being able to do something. Children become competent by developing skills that allow them to trust their judgment and make responsible choices. Bringing attention to that which young people do well, whilst, at the same time, providing them with opportunities to acquire new skills, increases their feelings of competence. Competence is undermined when young people are prevented from trying new things and from recovering on their own when they fail.

How to help?

- Encourage children to focus and build on their strengths. When they handle a situation competently, acknowledge their accomplishment and the impact this will have on others and themselves.
- Let children make safe mistakes so they have the opportunity to right themselves. Avoid trying to protect them from every stumble.
- Lectures are too complex for young children to understand and too stressful for teens to hear. Instead, break down ideas one step at a time so they can truly understand your points and feel ownership over the lesson being taught.

2.–*Confidence*: the belief in one's own abilities is rooted in competence. Children gain confidence by being able to demonstrate their competence in real situations. It is not built by telling children they are special or precious. Rather, children gain confidence as they demonstrate their competence in real situations. When parents support children in developing competence, children believe they can cope with challenges and gain the confidence they need to try new things. They trust their ability to make sound choices.

How to help?

- Instead of focusing only on achievements, encourage the development of personal qualities like fairness, integrity, persistence and kindness.
- Praise children honestly and specifically. Rather than, "You're a great artist!", say, "I love the colors you used in that painting. Look at the bright red and blue birds!" Specific praise is more believable and your feedback will have more impact.
- Encourage children to strive for goals that are within their capabilities but represent a step beyond what they have already accomplished.



*3.-Connection:* children with close ties to friends, family and community groups are likely to have a stronger sense of security and sense of belonging. Such children are more likely to have strong values and are less likely to seek out alternative destructive behaviors. Empathizing with kids' positive and negative emotions helps them feel known, understood and adored. This emotional safety net gives them the foundation they need to express their feelings and work out solutions to their problems. Connections to civic, educational, religious and athletic groups can also increase a young person's sense of belonging and safety in a wider world.

How to help?

- Allow children to have and express all types of emotions. Do not encourage them to suppress unpleasant feelings.
- Show that relationships matter by addressing conflict directly. Work to resolve problems rather than letting them fester.
- Encourage children to develop close relationships with others. Set an example by fostering one's own healthy relationships.

*4.-Character:* children with "character" enjoy a strong sense of self-worth and confidence. They are in touch with their values and are comfortable sticking to them. They can demonstrate a caring attitude towards others. Every family has its own idea of what constitutes good character. Whatever the specifics, children need a fundamental sense of right and wrong to ensure they are prepared to contribute to the world and become stable adults. This is character. It helps children become comfortable sticking to their own values and demonstrating a caring attitude towards others.

How to help?

- Talk to children about the way in which their behaviors affect other people in positive and negative ways.
- Encourage children to consider right versus wrong when making choices. Help them look beyond immediate satisfaction or selfish desires.
- When making decisions or taking actions, encourage children to express out loud how they have considered the needs of others.
- Work with children to help them clarify and express their own values.
- Be a role model. Actions speak louder than words.

*5.-Contribution:* when children are able to see their own personal contribution to the world, they are able to learn the powerful lesson that the world is a better place because they are in it. When children receive gratitude and praise for their inputs, they become more willing to take action and make choices that improve the world, thereby enhancing their own competence, character and sense of connection. Children and young people gain a sense of purpose by seeing the importance of their contributions, which can, in turn, motivate them to take action to improve the world. They also learn that contributing feels good and become driven by a sense of commitment and responsibility instead of pity. This may help children feel more comfortable turning to others for assistance without feeling embarrassed.

How to help?

- Communicate to children (in a way that is appropriate to their age) to inform them that many people in the world lack the money, freedom and security they need.

- Teach the important value of serving others.
- Model generosity in terms of one's time, energy and resources.
- Create opportunities for children to contribute in a specific way, such as through volunteering.

6.-*Coping*: children who have a wide repertoire of coping skills (social skills, stress reduction skills) are able to cope more effectively and are better prepared to overcome life's challenges. Children who can distinguish between a crisis and a relatively minor setback can avoid unnecessary anxiety. A wide repertoire of positive, adaptive coping mechanisms can also help children steer clear of dangerous quick fixes for stress. When they are in crisis, strategies like exercising, giving back, practicing relaxation techniques, and sleeping and eating well can offer relief.

*How to help?*

- *Assist children in understanding the difference between a real crisis and something that just feels like one at the time it is happening.*
- *Model step-by-step problem solving. Avoid reacting emotionally when one is overwhelmed.*
- *Demonstrate the importance of caring for your body through exercise, good nutrition and adequate sleep. Practice relaxation techniques.*

7.-*Control*: when children realize that they have control over their decisions and actions, they are more likely to understand the form that their decision making should take in order for them to be able to bounce back from life's challenges. When parents make all of the decisions, children may believe that things simply happen to them rather than believe that they make things happen for them. Children who lack a sense of control feel like their actions don't matter. They can become passive, pessimistic, or even depressed. But resilient children know they have internal control. They know they can make a difference.

*How to help?*

- Encourage children to recognize even their small successes so they know they can succeed.
- Reward exhibitions of responsibility with increased freedom.
- Remember that the word "discipline" means to teach, not to punish or control.

Regardless of the proposed model, once each quality or factor has been studied and analyzed individually, it can be concluded that the phenomenon of resilience from a holistic point of view is conditioned by physiological, psychological and sociological factors. The ability to develop an extraordinarily effective and highly qualified response in the face of stressful situations has a positive "rebound effect". Sociological and physiological conditions are all at play and bring about a global response in human beings that are stabilized by physical factors (Ortega & Saavedra, 2014).

## 2.2. The 'Casita' of Resilience

The 'Casita' of Resilience (Vanistendael, 2018; Vanistendael & Lecomte, 2000) is a 'holistic' applicative model created by the Bureau International Catholique de l'Enfance in Geneva. It is especially used by professionals and childcare workers. The 'Casita' is a very useful tool for those who wish to build or strengthen resilience and navigate life events. It is especially suitable for establishing and recognizing resilience processes and paths as it can represent the complexity and multidimensionality of resilience. The Casita is a model that effectively expresses the multifactorial nature and dynamism of the resilience process.

Through its use of autobiography and life stories, the Casita model has the advantage of combining generalizable elements that comprise well recognized resilience factors with the uniqueness of the individual and the situation. In this way, the model addresses two contradictory constraints that are often imposed on the field and enables these two divergent approaches to be organized and combined into a single model, turning them into two complementary parts of the same concept of resilience.

The central purpose of constructing a Casita is to draw our attention to resources while describing or trying to visualize and analyze the concrete condition of both our present and our history in connection with our aspirations, desires and possibilities.

When constructing the Casita, Vanistendael (2018) identifies several resilience criteria that should be applied. However, this author acknowledges that these criteria are not absolute or exhaustive, nor quantitatively measurable or mechanistically determinant of an effective and definitive resolution when it comes to overcoming obstacles:

- A degree of autonomy, the ability to integrate into a community, find positive and realistic solutions to problems, and seek help when needed.
- A positive but realistic self-image.
- The ability to look to the future, and build and complete a project, even when the project is modest and within one's capabilities.
- The ability to develop relationships.
- The ability to engage in something for others or for a cause beyond oneself, with this, where possible, involving a long-term commitment (work, volunteering, realistic altruism, etc).
- The ability to apply previously learned positive skills.

The flexibility of the model offers several advantages. Firstly, it places individuals in a concrete dimension, namely, in their living environment, and immerse them in their network of relationships, which produces an emotional connection that goes beyond a purely intellectual understanding. The image of a Casita (little house) and its dimensions is understandable and relatable to people of all ages, conditions, languages and cultures.

Elaboration of a "Casita" does not require a rigid and standardized blueprint in line with the reference model but can and should adapt, as much as possible, to specific needs and be redesigned based on the lived experience of the user. To this end, various environments and elements can be added to the "Casita". It can represent one's actual home or workplace, school, class, etc. It can be built individually or in a group, can represent a specific experience, or a specific circumstance, such as a work or study project, a journey, a life phase, etc., and, it can address a specific life dimension (work, family, specific activities, specific issues).

Different types of materials can also be used to build the “Casita”, such as simple drawing materials to sketch out an outline of a house and materials such as cardboard or plywood to create a three-dimensional building form, and, even, programs, platforms and applications to create a digital version. Creation of the “Casita” is related to various resilience constructs such as self-knowledge, commitment to personal and interpersonal success, self-assessment, building a democratic climate, inner reflection and introspection, life purpose, mastery of the environment, and empowerment.

An example of a “Casita” model is provided by Paolozzi (2023) and Paolozzi et al., (2023) in relation to the professional sphere and the world of work in a university setting, drawing on insights from labor pedagogy, work psychology and studies on resilience within organizations.

At a pedagogical level, a full consideration of safety training and work-related stress in organizations implies recognition that a traditional training model is not sufficient when it comes to increasing the resistance of individuals to change and promoting real wellbeing over the simple allusion of wellbeing. Models are required that are capable of addressing and learning how to manage negative emotional experiences. Highlighting that ways in which knowledge of the work process is shared between the agents involved in the process cannot be considered as either superfluous or in any way obstructive to proper functioning of the overall organism (Sirignano, 2019; Sirignano et al., 2023).

It is worth noting that there only a scarcity of research has been conducted specifically with university staff compared with that targeting university students and teachers at primary and secondary schools. However, recent studies show that, outside of Italy, work-related stress among university workers is increasing, with general predispositions towards greater stress in the work context appearing to extend to the university sector. Changes, ongoing reorganizations, mergers and divisions of various educational and administrative structures, the introduction of fixed-term contracts, difficulties in obtaining funds, competition with colleagues, and the precariousness of one’s job position have led academic staff to be much more exposed to risks such as work-related stress (WRS) and burnout (Ingusci et al., 2019).

From the perspective of labor pedagogy, for example, work is outlined as a “field of educability”, serving as a “privileged educational and relational context through which to initiate a process of negotiation and attribution of new meanings to the existential journey and, thus, capable of contributing to the democratic development of personality (Dewey) and full realization of the individual” (Dato, 2009, p. 35).

Turning attention to the development and evolution of research in the field of occupational psychology, job demand-control (Karasek, 1979), and job demand-resource models (Demerouti & Bakker et al., 2001), make it possible to observe a progressive shift in attention away from a limited number of categories of variables that are capable of defining a restricted, schematic and, somewhat, mechanistic set of possible scenarios. This marks a shift towards the consideration of a broader set of variables that are outside of the normal rationalization of work and organization, which would typically involve social support (Karasek & Theorell, 1990), the role of the individual in modifying the impact of job demands and resources, motivation, and personal resources (Bakker & Demerouti, 2016), such as confidence in one’s abilities and optimism about one’s future (Xanthopoulou et al., 2007).

Research into organizational resilience is growing, revealing that the need for resilience is often triggered by unexpected events. Adaptability and flexibility can contribute to an organization’s resilience, but neither of these capabilities alone are sufficient to achieve it. Resilience incorporates renewal, transformation and dynamic creativity that stems from

within individuals (Lengnick–Hall et al., 2011). Adaptability, on the other hand, emphasizes the need to adapt to the environment from an external perspective and often assumes that a balance between internal and new external pressures is desired. Existing literature on this subject seems to agree on the existence of a circular relationship between work resources and individual resources, work organization, individual contribution, worker wellbeing and organizational performance. It is considered desirable that universities, as organizations, pay more attention to their employees by promoting training interventions that are oriented, not only, towards learning new knowledge and professional skills but, also, towards enhancing personal resources such as self-efficacy, optimism and resilience, which is crucial for mitigating the risk of work-related stress.

According to Rossi (2013):

Ordinary wellbeing is not the result of fate, destiny, chance, impersonal events, or philanthropic policies, nor is it the result of a rigidly prescriptive ethical code or rigid self-imposition. Instead, it is the result of the intention to oppose, on the part of the individual and the organization, everything that generates discomfort. It results from the intention to change that which currently exists, the desire to see through a project and the use of adequate operational strategies. Here, training occupies a prominent place as it offers, not only, a detoxifying experience but, also, a preventive experience, in the belief that recovery and therapy are long and complex enterprises, with, above all, training ultimately being a promotional experience. (p.8)

For these reasons,

the contribution of training aims to help the person reflectively inhabit the work context, learn to think, experience the pleasure of thinking, adopt a new perspective through which to look at oneself, think about oneself to change oneself, especially through self-narration to become thoughtfully present in the face of many and varied professional events, gain awareness of who one is, why one thinks in a certain way, why one does, why one acts in a certain way beyond the role one plays, acquire knowledge of one's experiences of awareness, one's relational modalities, one's mental functioning mechanisms. (p.30)

The ground on which the "Casita" (Figure 2.8) is built represents the satisfaction of primary needs as expressed in terms of the historical situation, and social and work organization. Crises, wars, pandemics and natural disasters, or, in preferred terms, changes, uncertainties and unexpected events form substantial elements of collective and individual existence. External aspects are important here, such as social insecurity, customer/user demands, available technology, social norms, work culture, economic circumstances, the nature of the labor market, politics and the actions of labor institutions, as well as intrinsic aspects of the organization.

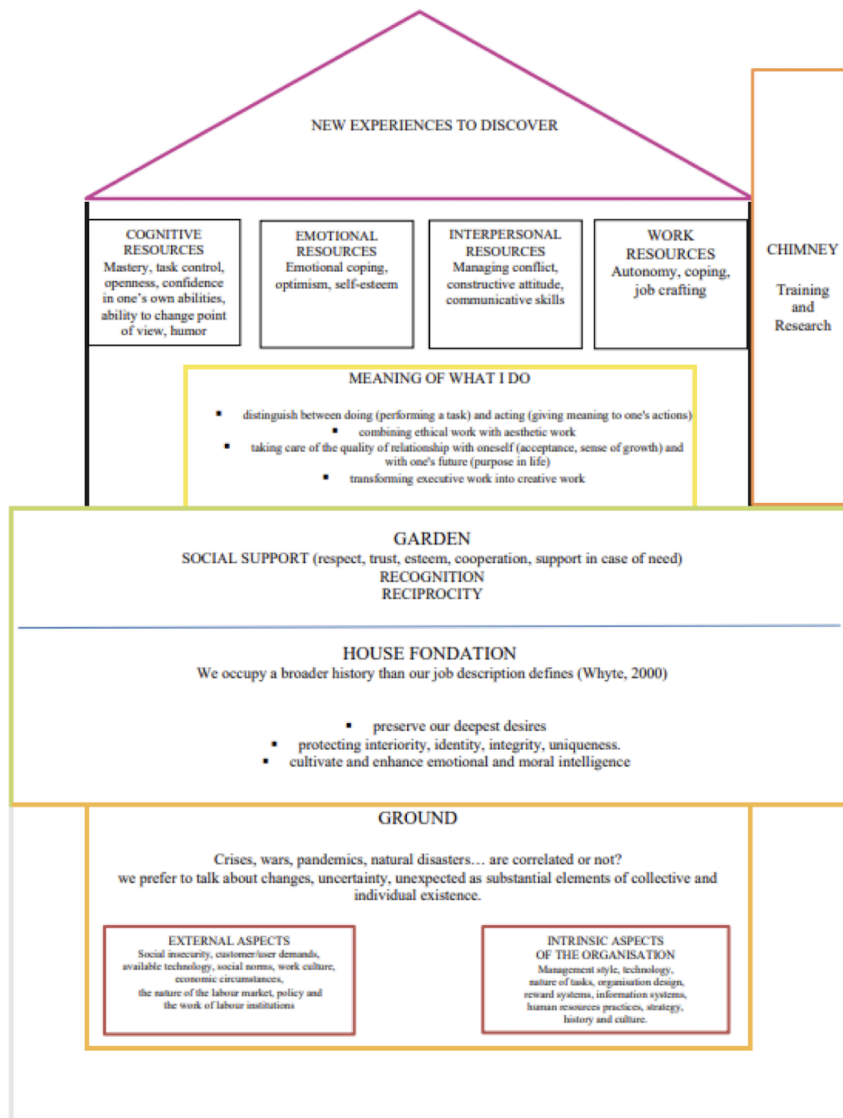
The foundations of the "Casita" represent total acceptance of the person, of their values, not just their actions, from the perspective that 'there is a larger story at play here than the description of their work illustrates.' The function of this part of the "Casita" is to preserve the deepest desires of individuals, protecting their interiority, identity, integrity and uniqueness, and cultivate and enhance emotional and moral intelligence.

In the garden around the house, elements are included that are related to relationships and

social support. These elements include respect, trust, mutual esteem, cooperation, support in times of need, recognition of one's work and function, feedback on work and reciprocity. In the garden, individuals can also identify people and relationships from outside of their work environment, which also, somehow, provide support and assistance (or, conversely, discourage) when carrying out their professional duties.

The first floor of the house is characterized by the meaning attributed to the actions performed by individuals and serves to express the need to give meaning to our actions and our lives. It supports individuals to learn to distinguish between doing (performing a task) and acting (giving meaning to one's actions). In this way, individuals learn to combine ethical work with aesthetic work, nurture the relationship one has with oneself (acceptance, sense of growth) and with one's future (life purpose), and transform executive work into creative work

Figure 2.8.  
The "Casita" model of resilience in the workplace



Source: The "Casita" model of resilience in the workplace (Paolozzi, 2023; Paolozzi et al., 2023) adapted from Vanistendael's Casita of Resilience (2000/2018).

The different rooms of the house represent resources, which are divided schematically but remain interconnected:

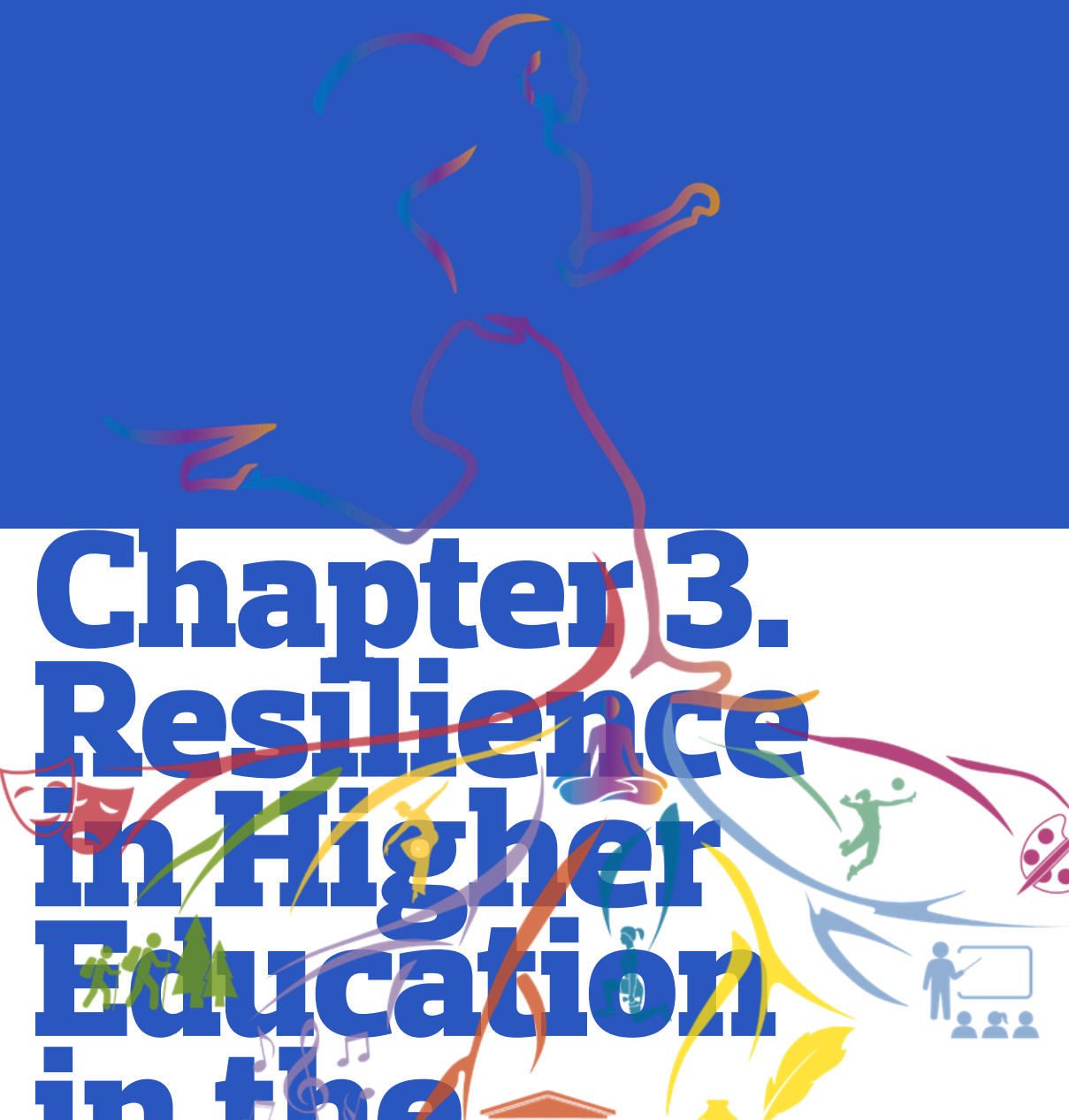
- Cognitive resources: mastery, task control, openness, confidence in one's abilities, ability to change perspective, humor...
- Emotional resources: emotional coping, optimism, self-esteem...
- Interpersonal resources: conflict management, constructive attitude, communication skills...
- Work resources: autonomy, coping, job crafting, learning from experiences...

The roof represents the new experiences that are to be undertaken and discovered. It reveals the complex relationship between the uncertainty that characterizes human life and the positive and productive embrace of this challenge that should, not only, be feared but, also, faced and, as far as possible, governed.


The fireplace, whose function is to warm the house, represents the love for what one does, the pleasure that arises from training and research, and the desire to continue one's training and professional growth.

This section 2.2., corresponds entirely to the authorship of Professor Maria Federica Paolozzi (UNISOB, Naples).





# **Chapter 3. Resilience in Higher Education in the European Context**

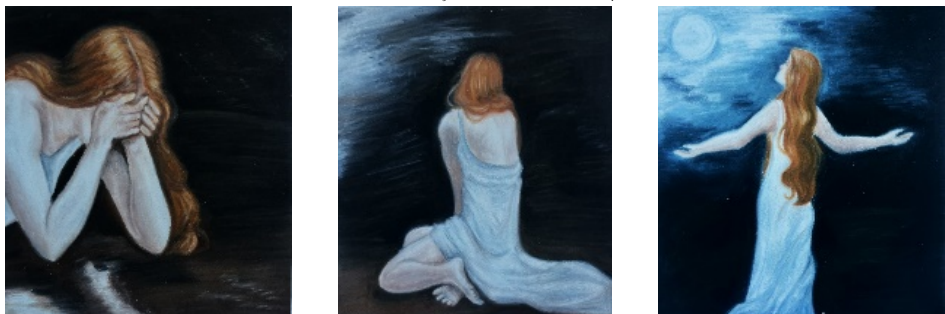


## Chapter 3. Resilience in Higher Education in the European Context

As seen in the previous chapter, resilience is associated with the positive development of individuals in the face of the difficulties they face throughout their lives. Given that resilience is not innate, it must be worked on and developed through a dynamic process that involves the individual, their personal characteristics and personality, the context in which they operate and the situations they experience. It is born out of a differentiated process depending on age, gender, level of psychological development, cultural factors and family relatedness, among other aspects. Authors report that cultural, material and political factors have a differential impact on this process as a function of the different situations faced by families and communities (Sampedro-Mera et al., 2021).

Individuals and groups can become vulnerable when their living conditions are modified through forced changes in their environment. Resilience depends on mutual trust and the strength of bonds within a group. It illustrates one's ability to absorb tension and rebalance rapidly.

Figure 3.1.  
*Moonrise, Mariana Gonçalves, Pastels on Paper (2024).*



### 3.1. Higher Education Students and Resilience

Studies on resilience in higher education reflect the multidimensionality of the concept. This being said, several studies have reported outcomes that suggest that some of the variables considered to make up resilience do not demonstrate high convergence. This has led some authors to highlight the need for greater conceptual and methodological clarification (Brewer et al., 2019; McLafferty et al., 2012; Robbins et al., 2018). Further studies are also encouraged in order to outline more appropriate and effective student interventions and support programs. For example, Morgan (2021) concluded that resilience does not significantly explain academic performance, whilst Silva et al. (2020), uncovered a directly proportional relationship between resilience and academic performance in students. Whilst students with high resilience also exhibited better academic performance, regardless of family income and course time, gender, religion and academic year all emerged as significant mediators of this relationship.

Despite the need for further studies on resilience in higher education in general, findings demonstrate a positive relationship in terms of the transition into higher education. Greater resilience is reflected through the positive processes in which young people adapt to this new reality (Archana & Singh, 2014; Bouteyre, 2010; McLafferty et al., 2012; Robbins et al., 2018; Vara et al., 2017), whilst also being positively linked with academic involvement and

performance. Consequently, this is linked with the mental health and wellbeing of students (Archana & Singh, 2014; Hwang & Shin, 2018; Turner et al., 2017; Yokus, 2015), with this being firmly concluded in the literature review conducted by Brewer and colleagues (Brewer et al., 2019).

Different authors report that when adequate support is given to students, particularly in the early years of higher education, they are more likely to develop the skills needed to deal with adversity and protect them from the stress experienced during this period of life (Donovan & Erskine-Shaw, 2019; McLafferty et al., 2012; Robbins et al., 2018).

In order to successfully finish an academic qualification, the simple desire to obtain an academic degree must be accompanied with the ability to overcome the difficulties associated with life and the demands of academia. This is necessary in order to manage certain factors that arise and are different to those seen in everyday life, such as housing, house sharing or living alone, financial dependence, and access and ability to manage transport (Bouteyre, 2010). Embarking upon university does not only represent a simple event in a student's life, but a cumulative set of "micro-events" which must be responded to simultaneously (Bouteyre, 2010, p. 3). For many, starting university represents the first time they leave the family home and the social and cultural community to which they form a part and within which they feel masterful, comforted and safe (Alla et al., 2014; Bouteyre, 2010; McLafferty et al., 2012; Robbins et al., 2018). Added to these factors is the increasing need for many to have gainful employment as a means of ensuring that they can remain in the higher education. This situation has the repercussion of restricting free time and the possibility of creating networks in which they garner new knowledge and friendships (Bouteyre, 2010). Between "moments of crowd and solitude" (Bouteyre, 2010, p. 3), dealing with the novelty of academic life and autonomous daily experiences, students face a series of changes that can lead some to experience high levels of stress. This, in turn, favors the development of psychological disorders, as highlighted by studies conducted by Bouteyre (2010) and (Bouteyre et al., 2008). In a literature review conducted by McLafferty et al. (2012), it was concluded that anxiety tends to be high in first-year university students, with every one in three UK students in higher education having psychological difficulties and almost a quarter of university students in the UK reporting clinical levels of psychological distress (p. 2). Other studies have report high prevalences of stress and burnout amongst higher education students (Marôco & Asunción, 2020; Nogueira, 2017; Oliveira et al., 2022).

Several studies have identified the existence of a direct and significant correlation between psychological wellbeing (i.e. self-confidence, perseverance and personal satisfaction) and resilience. Concretely, greater psychological wellbeing in students leads to greater resilience, assisting them to tackle and overcome adverse situations in their academic, personal and professional life (Araoz & Uchasara, 2020; Benavente & Quevedo, 2018; Francisco, 2021; Jorge, 2008; Piña, 2017; Vara et al., 2017). Resilience has also been identified to be significantly and positively related with life satisfaction, positive affectivity and all dimensions of personality (Francisco et al., 2022). In addition, Picolli (2022) examined the relationship between resilience and health and wellbeing in higher education students and concluded that multiple factors are at play when it comes to generating health- and wellbeing-associated resilience. Such factors include social, family and romantic support, engaging in pleasure-seeking activities (such as listening to music or playing sports), consuming a healthy diet, and academic performance. This aforementioned study also concluded that resilience and wellbeing were associated with whether or not the examined group had a life purpose, with making others happy and achieving personal fulfillment all being important aspects.

It is imperative to work to develop resilience, alongside emotional intelligence, in higher education, due to the short-term impact of reducing dropout from academic studies and promoting academic success (Allan et al., 2014; McLafferty et al., 2012), in addition to the long-term outcome of increasing maturity in students. Studies indicate that mature students deal better with adversity and progress better along their academic and personal trajectory (Bouteyre, 2010; McLafferty et al., 2012; Robbins et al., 2018). In the words of Bouteyre (2010), "discussion around resilience must . . . recognize the lasting victory of protective factors that enable satisfactory mental health to keep risk factors at bay" (p.1).

Since an exhaustive report of studies on resilience in higher education is beyond the scope of the present chapter, only a few conclusions are presented. However, due to their pertinence, the implications of that found can contribute to the design and implementation of resilience-promoting intervention programs in higher education students, particularly during the early formative years.

Robbins et al. (2018), identified four protective/resilience-promoting characteristics following review of related studies:

- Self-esteem – individuals with high self-esteem are more likely to deal positively with adverse life events (Grills–Taquechel et al., 2010; Li et al., 2020; Kidd & Shahar, 2008);
- Exposure to adverse situations/events – studies indicate that students exposed to adverse situations/events have greater self-confidence, are more self-reliant and have more resilience. That is, exposure to stress factors allows individuals to better assess situations, supporting their decision making regarding how best to manage situations, whilst controlling their emotions and stress responses. All of this contributes to increased resilience (Gonçalves et al., 2017; Robbins et al., 2018; Seery et al., 2010);
- Affective family relationships – the importance of family has also been identified in some studies (Black–Hughes & Stacy, 2013). A study on depression in higher education students during Covid in China concluded that perceived parental support acted as a protective factor that helped to significantly reduce depressive symptoms in university students. The underlying mechanisms pertaining to this outcome involved emotional regulation strategies and resilience (Ye et al., 2022).

Given that the number of students suffering from mental health problems is increasing, it is important that approaches are identified to improve resilience in university students in all areas of training. Research findings can be used to help to design programs and improve those already in operation by making them more effective at promoting resilience amongst higher education students. One such approach could be to target self-esteem, not only, in higher education, but, also, at other levels of education (Robbins et al., 2018).

It is particularly important that students undertaking teacher training courses work on resilience so that they are equipped to operate in complex, difficult and challenging school settings. For this to happen, attention must be paid during their academic training to the development of resilience skills, which might later contribute to their academic success and assist them later on during the exercise of the teaching profession (Angst & Amorim, 2011). Of particular importance are, the ability to create bonds, give affection and support, set boundaries, transmit high expectations and ensure equal participation (Fajardo et al., 2010).

In sporting activities, the wear and tear associated with maintaining high quality performance, high level competition and duels related to engagement have made it increasingly relevant to work on resilience in the field of sports training. In this context, it is

important to train athletes to cope with and, ultimately, overcome such stressful factors (Bretón et al., 2016).

There is also a need to consider the lack of resilience found among students who belong to “non-traditional” contexts associated with challenges when it comes to integration within the institutional culture of higher education and its concomitant repercussions on dropout and academic success (Donovan & Erskine-Shaw, 2019; Reay et al., 2002; Xuereb, 2015). Donovan and Erskine-Shaw (2019) stress, in particular, a lack of cultural capital in students who, reinforced by “invisible pedagogical practices” (Tapp 2015, as cited by Donovan & Erskine-Shaw, 2019, p. 2), are condemned to failure in instances in which no actions are performed within higher education that are consistent with improving academic resilience (Reed et al., 2019) and confidence, with, for instance, “academic literacy interventions” (ALI) (Donovan & Erskine-Shaw, 2019, p. 326) emerging to plug this gap. This type of intervention, through the voluntary participation of students, works on academic socialization skills and addresses other barriers to academic success such as stress, in order to develop achievement, resilience and confidence (ARC). The goal of this approach is to encourage students to become autonomous and create learning habits that improve their self-confidence and resilience. Fundamentally, Donovan and Erskine-Shaw (2019) stress that the most important aspect of developing these skills ‘per se’ is their contribution to the construction and sharing of academic identity amongst all students, which makes them feel that they belong to the university community. The emotional dimension of learning has been highlighted as an important factor in the development of academic literacy. This dimensions must be considered throughout the academic trajectory and, particularly, during the early years when students are confronted with new and unknown contexts (academic context, living away from the family, displaced from their cultural and social community, etc.). In recognition that a “sense of belonging” is essential for academic success, ARC sessions should configure a climate in which students, amongst their peers, internalize, experience and develop the language and practices of academia, building a common sense of belonging. Construction of the “sense of belonging”, as identified in research, helps to control anxiety/distress, suffering and stress, with concomitant repercussions for academic success (Donovan & Erskine-Shaw, 2019; Pennington et al. 2018).

Universities can actively support student wellbeing by implementing alternative policies and procedures and providing resources that support a learning environment that promotes the development of resilience in students. Regardless of the approach taken, the theoretical basis opted for or the methods used, interventions aimed at increasing resilience are primarily intended to improve or strengthen protective factors (Enrique et al., 2019).

Such interventions may be integrated into course structures, learning activities and assessment tasks (Turner et al., 2017), although they can be materialized in other ways.

For example, studies on cognitive reassessment and resilience in the context of higher education have consistently reported that individuals with *high levels of mindfulness* are better at reassessing emotions and are more resilient, with *mindfulness* and resilience being strongly and positively associated (Asthana, 2021; Galante et al, 2018; Zarotti et al., 2020). Higher education institutions should increasingly consider such provision in their formative offer, as studies show that mindfulness training improves the wellbeing and resilience of all students and can be an effective component when integrated into a broader mental health strategy for students (Galante et al., 2018; Zarotti et al., 2020).

Despite the few studies available on the effectiveness of online preventive interventions to promote the psychological wellbeing and resilience of young people, some authors propose

the online modality for the formation of resilience (Baños et al. 2017; Enrique et al., 2019; Herrero et al., 2019). The few studies that do cite the effectiveness of this approach (Abbott et al., 2009; Masselink, 2013; Rose et al., 2013 as cited in Enrique et al., 2019, p. 2) argue that online training can specifically target the prevention of depressive and anxiety disorders amongst students, through the creation of support spaces and resilient communities. Herrero et al. (2019) proposes CORE: Cultivating our Resilience, a six-week prevention program whose main objective is to teach students skills and strategies to deal with stress in everyday life and promote self-esteem and wellbeing in order to foster resilience. This program is based on Riff's wellness model, which considers the following dimensions: Autonomy, self-acceptance, environmental mastery, life purpose, positive relationships and personal growth. The program consists of different modules which comprise various exercises designed to practice the proposed skills. All modules include multimedia elements (videos, audios, vignettes, images) and logs can be made via desktop PC and/or tablets (Herrero et al., 2019). It should be stressed, however, that studies are still needed to assess the effectiveness of these remote interventions in higher education.

A literature review conducted by Brewer and colleagues (Brewer et. al., 2019, p. 1112) identified different approaches to increase resilience in higher education students, organizing these approaches according to three interrelated domains:

- 1) Mastery of intrapsychic resources or protective factors – related to individuals and the way in which they manage their thoughts and feelings. Work broadly focuses, for example, on self-efficacy, self-concept, self-esteem, personality, optimism, emotional intelligence and happiness, and self-care activities (mindfulness, meditation, yoga, recreational activities and guided reflection).
- 2) Mastery of interpersonal resources and strategies – refers to interpersonal relationships and ways of relating in order to obtain resources, rewards, etc. The approach focuses on the development of conflict management and teamwork.
- 3) Contextual resources – interventions are focused on contextual changes, which, in this case, pertain to the academic sphere. The approach focuses on increasing social support by improving and facilitating social connections, developing positive professional relationships, and supervising the emotional health and wellbeing of students. At the pedagogical and curricular level this implies changes that lead students to feel valued and supported when they are unsuccessful by enhancing collaborative learning environments, reducing online communication with students and focusing on the development of teacher-student learning communities. It may also involve the provision of mentoring and support programs and the setting of clear rules and expectations to strengthen student responsibility and the desire of students to fulfil their obligations, manage stress and be proactive in defining their priorities.

According to Brewer et al. (2019), these approaches promise to always add value in the quest to improve wellbeing and resilience in students. However, only a holistic approach involving all three areas will contribute towards improving resilience and preparing students fully for the complexity and challenges awaiting them in both society and the workplace of the 21st century.

### 3.2. Higher Education Teachers and Resilience

The issue of resilience is not only relevant at the level of students. Indeed, this issue must also be considered at the level of higher education teachers. The challenges and demands besieging this new globalized world at a pedagogical, technological, institutional and societal level, in general, have repercussions on the way in which the teaching profession is practiced (Sierra-Molina & Sevilla-Santo, 2021). Overwork, various institutional and academic pressures, lack of autonomy, difficulty in articulating with families and peer conflict have all been indicated as factors that enhance burnout and emotional exhaustion, amongst others (Cardoso et al., 2019; Lee et al., 2021; García & Gambarte, 2019; Prado et al. 2017; Teixeira, 2020).

More resilient teachers not only manage to overcome the adversities and difficulties inherent to the profession today but are also better able to contribute to the resilience of their students (Molina, 2021). These teachers tend to be viewed by students as role models (Noriega et al., 2015).

Molina summarized the contributions of several other authors (Acevedo & Restrepo, 2012; Flores-Espinoza, 2017; Fontaines & Urdaneta, 2009; Jadue et al., 2005 cited in Molina, 2021), who sought to define the characteristics of resilient and higher education teachers, by listing the following key characteristics:

- Motivated in that they confidently manage adverse situations, and possess and express personal values, beliefs and knowledge. Such teachers work well in a team and share their knowledge.
- Such teachers exhibit, inter alia, humor and creativity.
- Highly committed to their individual work but do not refuse to work in a team, especially, to share opinions and experiences that contribute to improving their work. Such teachers often tend to develop their own educational projects to target resilience in their students.
- Mastery of knowledge, skills and capabilities, which they are able to apply in unexpected or unforeseen situations. Such teachers are committed to the development of identity and professional skills in their students.
- Hold an optimistic view of their students, model their own personal resilient personality and are open to change. In this sense, such teachers make themselves available to create spaces that empower students to accept and understand the diverse and adverse situations they may face.

The issue of resilience amongst teachers gained particular relevance following the Covid-19 pandemic. Reyes et al. (2022), coined the phrase "academic resilience" to describe the quality of individuals and groups in academic communities to withstand adversity. This conceptualization affirms the dynamic character of resilience between academics and their environments, which evolves, develops and is transformed as a function of this interaction. Work conducted by Reyes and colleagues, with higher education teachers during the pandemic emphasized their resilience, as they sought to obtain positive outcomes results through change via creative work with insufficient resources (i.e., lack of time, resources and technological knowledge). They also referred to limited institutional and government support, leading resilient teachers to seek alternative forms of external support, such as from professional and community networks. Finally, they highlighted some of the biological and physiological issues capable of interfering with the development and maintenance of resilience.



Work conducted by Reyes et al. (2022), proposed a conceptualization of resilience that, instead of being limited only to the individual, includes interaction with peers and a dynamic interactional process involving the environment. In this sense, resilience is a "dynamic process involving interaction between the academic setting and its constantly changing surrounding environment implying employment of the internal and external resources available to produce positive outcomes that are specific to different contextual, environmental and developmental challenges" (p.51). In this way, academic resilience must develop alongside professional learning opportunities, in concert with the academic, institutional and external environment.

Regardless of whether adversity is present, such as that brought about by the Covid-19 pandemic, attention should be paid to the resilience of higher education teachers due to its impact on the environment, student academic performance, the institution, the teacher themselves (i.e., in terms of their wellbeing and mental health) and the community (Molina, 2021; Sierra-Molina & Sevilla-Santo, 2021). Thus, any intervention targeting resilience in teachers must consider the academic, environmental, affective, personal, physical and emotional dimensions of health (Molina, 2021). Activities should be directed towards increasing confidence and promoting attitudes that drive training around assertive communication and health-related guidance, whether in the promotion of physical activity, psychological support, medical examinations and nutritional guidance, or at the institutional level in order to clarify the rules, rights and obligations governing teachers, as well as available information and support in the administrative area. In accordance with the concept of "academic resilience" proposed by Reyes et al. (2022), actions should also be developed that promote dynamic interaction, the development of collaborative networks between the academic environment and the environment/community, and monetizing internal and external resources in a solidary and cooperative manner.

# Chapter 4. Resilience in Higher Education in RESUPHER Partner Countries

## Chapter 4. Resilience in Higher Education in RESUPERES Partner Countries

This chapter presents the state of the art on resilience in higher education in each of the RESUPERES partner countries (Italy, Norway, Portugal, Serbia and Spain). The chapter emphasizes the contribution of each member to the study and their implementation of programs targeting resilience in students and teachers at the educational level. The main objective of this international project is to provide an up-to-date approach towards resilience in the university context and to share information across European scenarios. The following section will outline the characteristics of each university faculty or department involved in the project, analyzing the concerns, similarities, divergences and current events inherent to each member country.

**Figure 4.1**  
*RESUPERES Team in Learning & Teaching Training activity C3.1. Implementation of the Resuperes Subject, in Granada (Spain, February, 2024).*



### 4.1. Italy: University of Suor Orsola Benincasa (Naples)

In Italy, pedagogy research on resilience has produced a number of theoretical reflections, strategies and paradigmatic elements which inform knowledge and guide the actions and choices of educators and teachers when it comes to facilitating educational pathways aimed at developing the skills and abilities needed to drive processes conducive to resilience development. Studies and reflections have primarily taken place from the perspective of special pedagogy and inclusive processes (Malaguti, 2005, 2020), or from the standpoint of intercultural education. In the case of the latter, resilience is considered an educational dimension that must be considered in multicultural contexts and in integration and inclusion pathways for immigrant students or the children of immigrants (Santerini, 2017; Vaccarelli, 2016).

However, dissemination of targeted educational and training pathways, both at the school and university level, explicitly referring to resilience development as a specific competence (or related skill), specifically training pathways aimed at teachers and educators, has not reached the same volume of pedagogical reflection. Neither national nor local level school regulations

legislate any type of organic or structural criteria for research and experimentation into resilience pathways targeted to the school and university context. In schools, interventions explicitly related to resilience are linked to emergency and post-emergency situations (such as the action-research "Outdoor Training and Citizenship in children from L'Aquila", which was conducted between 2014 and 2015 in schools in the L'Aquila area) or only apply to certain regional territories (as is the case with 'Upright – Universal Preventive Resilience Intervention Globally', which was implemented in schools to improve and promote mental health in teenagers attending secondary schools in the province of Trento).

**Figure 4.2.**  
*RESUPERES Team (Students and Professors) in the Pilot Study Italia, in Suor Orsola Benincasa University (Naples, Italy).*



**Figure 4.3.**  
*Publicación en la revista Investindustrial of the European Project and the activities to be carried out (November, 23, 2023).*



Although the need for an approach to resilience is recognized and promoted in the majority of educational interventions and by most school directors, no specific guidelines or network projects exist to support this, with individual initiatives being integrated within the Italian school model, which falls under School Autonomy law. In 2021, the Ministry of Education hosted an "Educational Care" seminar as part of the series of meetings titled: "Rethinking education in the 21st century: meetings to reflect, propose, act".

Specific pathways related to the dissemination knowledge around resilience are not widespread in the curricula of university degree courses nor in those of lifelong learning delivered by Italian universities (Master's degrees, specialization courses, vocational training, refresher courses). The term "resilience" does not abound in study programs and intentional formal pathways, whilst its relevance to the field is often up for debate in trans-sectoral initiatives from beyond the educational sector, emerging in the third sector and the in spaces relevant to associations, culture and knowledge dissemination. This indicates a perceived need and willingness nationally to unpack and delve into the topic of resilience generally. This need was manifested more vigorously during and immediately after the health crisis brought about by Covid-19, with the word resilience becoming more commonplace. In particular, communication during the global pandemic was sustained with explicit reference to the implementation of strategies and processes to target resilience. It could be argued that, firstly, the crisis due to the pandemic and, secondly, war and economic crisis, prompted the need to develop and promote responses based on the ability to cope with adverse situations and to transform difficulties into resources.

In the school context, the concept of resilience is considered by PISA surveys and is understood in relation to the impact that socio-economic disadvantage and certain student characteristics, such as gender and migratory background, have on academic outcomes and skill development. In relation to this, other research (Alivernini et al., 2017) delves deeper into the topic in order to identify factors associated with compensating for disadvantage as a result of some students' baseline characteristics, whilst, also, striving to reverse predictions in terms of skill development, highlighting the protective factor played by some teaching strategies, student motivation and student self-efficacy beliefs.

Following review of national and international studies and programs examining resilience, the following projects stand out:

- University of Florence – Strategic University Project 2014–2017. This research, coordinated by Professor Simonetta Ulivieri, investigated the role played by institutions and existing norms regarding the rights of foreign children in the Italian and European school system. They conducted a survey on second-generation adolescents residing in the Tuscan territory through qualitative methods, starting from the accounts of 120 second-generation adolescents attending school.
- Horizon-2020 European Project – "ArleKin Project" on social and intercultural mediation. This project aimed to examine educational inclusion of the Roma population in upper secondary education and universities with particular reference to intercultural mediation practices, narratives regarding cultural and identity diversity and conflict management.
- The "Unidiversità" project – funded by the Ministry of the Interior as part of the European Fund for the Integration of Third-Country Nationals (FEI – annual 2013 report). This research was conducted by the University of L'Aquila under the lead of Prof. Alessandro Vaccarelli and constitutes the first systematic study that is pedagogical-intercultural in nature to be conducted with university students of non-Italian citizenship.

- Suor Orsola Benincasa University research project. This project was initiated by Training Pedagogy research group coordinated by Prof. Fabrizio Manuel Sirignano on autobiography use as a training strategy to be applied with immigrant children. Research was carried out in 2005/2006 on the island of Elba.

- The NoOut3 project (Department of Experimental Pedagogy of the University of Perugia, 2018–2019). This study takes a mixed qualitative–quantitative approach to the examination of approaches towards reinvigorating students regarding their education and training path and providing them with tools for them to become more self-guided. At the same time, the project, through specific training actions and mentoring, aims to strengthen the role of the teacher and help develop teaching approaches oriented towards learning, enhancement and inclusion.

In the pedagogical literature, the construct of resilience is conceived from a systemic, ecological and social perspective (Malaguti, 2005, 2020; Cyrulnik & Malaguti, 2005), as opposed to a vision that solely focuses on individual aspects and factors of resilience. Cultural, social and environmental aspects assume particular importance as risk or protective factors. At the core of this articulated construct of resilience lies the epistemological dimension of complexity (Malaguti, 2005; Malaguti, 2020; Vaccarelli, 2016), revealing this concept to be interactive and multidimensional in nature (Sousa, 2016). From this standpoint, the resilience process is characterized by a transformative rather than adaptive dimension, starting from the capacity to generate and regenerate positive elements capable of promoting internal transformation of the individual despite, and through, difficulties and adversities.

The emphasis placed on resilience in this context illustrates a process of transforming the negative into the positive, a dialectical rather than mechanical overcoming that contains within it, through elaboration, the suffering caused by adverse situations, yet manages to extract elements of reorganization and redesign from it. The possibility of constituting a path of positive development despite the fracture caused by a catastrophic, traumatic circumstance relies on certain epistemological aspects such as the concepts of systemic organization, explaining the possibility of the dynamic balance that is always achieved between order and disorder as generational. This aspect allows us to affirm and consider the condition of fragility in which each individual participates, constantly immersed in disorder. It also breeds consideration of the processual dimension of resilience, which must always be continually constructed and the importance of the various multifactorial, environmental and, even, random aspects at play, either favoring or hindering resilience. This is understood as the capacity of individuals to determine themselves along a trajectory of possibility rather than necessity. In this sense, resilience demonstrates its value not only in the reconstruction of individual life but, also, in terms of collective capacity and active citizenship, with the explicit aim of building a fairer and more supportive society, conscious of social co-responsibility and capable of caring for others.

The ability to think about and address dimensions of crisis, instability and intervention in the lives of individuals and groups, responding to the unexpected and unforeseen, with the unforeseen also being considered a category that makes a different type of development possible, an alternative to an already seemingly pre-established destiny, necessitates overcoming the linear, mechanistic and deterministic conception of the cause and effect relationship. This allows us to act as active, free and responsible change makers and to move away from a reductionist representation of disadvantage and vulnerability, enabling us to consider, on even terms, the negative and positive aspects of a given condition, alongside



feelings of fear, anger, despair and hope.

The possibility of learning to live with uncertainty, as emphasized by Edgar Morin on several occasions, is one of the most important dimensions of resilience. Boris Cyrulnik argues that this has more to do with learning to live than merely resisting. Resilience refers to processes of balancing, reorganization, equilibrium, creative generativity and transformation, and cannot arise from a false and illusory representation of invulnerability. Along these lines, it can become an object of learning. In these terms, the dimension of resilience, as an intended learning outcome in educational, school and university contexts, goes beyond being merely being referred to when crises occur to becoming a generalizable path. This makes resilience an ordered construct of meaning that is suitable for meeting the needs of schools, training and contemporary society, such as, inclusion, interculturality, crisis (economic, political, environmental) and migration.

This being said, the concept of resilience lends itself to a perspective that, if not well clarified, can produce a certain ambiguity of meaning. This ambivalence (Burba, 2020) refers to the possibility that it may solicit adaptive solutions that fall short of the ability to question any aspect of present reality, turning into uncritical acceptance. For example, the ability to frame negative experiences using a positive evolutionary change perspective is connected with the ability to recognize suffering, pain, disadvantage, exclusion, fragility and vulnerability and, above all, by activating and implementing resources that generate and can constitute protective factors. Resilience promotes change; it does not entail passive acceptance and endurance. Ambivalence also constitutes another aspect highlighted by a study conducted taking a heuristic model perspective towards examining the underlying mechanisms through which intervention approaches promote resilience. According to this research (Manetti et.al., 2010), the intercultural dimension resilience must seek to promote resilience in individuals with migratory backgrounds. These authors argued that it is necessary to broaden and disseminate a conception of wellbeing that does not, exclusively, correspond to that expressed by the cultural model of developed countries, in the same way that risk and protective factors may be different within different cultural systems. In this sense, in-depth reflection on the construct of resilience, in terms of inclusion and interculturality, serves to multiply, according to new directions and possibilities, available resources that may constitute protective factors and promote a broader and more inclusive response system and awareness of the positive change on offer to everyone.

From this standpoint, it is useful to consider the construct within the concept of community of common destiny, taking an affirmative approach to the consideration of possibilities that strives to overcome a purely negative understanding of sharing dangers, fear, mutual distrust and selfish withdrawal.

#### **4.1.1. Review on resilience in the context of Suor Orsola Benincasa University**

Learning-training and research activities ran by the Department of Educational, Psychological and Communication Sciences at Suor Orsola Benincasa University in Naples have been committed for years to promoting training and advanced specialized training pathways, conferences and research projects. These endeavors are aimed, through various approaches and strategies, at promoting wellbeing, care and attention towards educational vulnerabilities, and social and intercultural inclusion pathways. This department focuses on knowledge linked to promoting resilience processes, particularly those inherent to programs linked to various educational disciplines, notably in the area of special needs education. Resilience is also

explicitly addressed via content on General Pedagogy, Social Pedagogy, Citizenship Pedagogy, Deviance Pedagogy and Gender Pedagogy courses, with Education Sciences and Primary Education courses also touching on the topic.

Within the advanced specialized training framework, programs that most explicitly cover the topic include Masters degree programs on "School Psychopedagogy and Prevention of Youth Discomfort," "Medical Humanities: Expert in Human Sciences Applied to Care in the Socio-Sanitary and Educational Sector," and "Organization and Management of School Institutions in Multicultural Contexts." Notably, outcomes from the latter have already been published (Sirignano & Perillo, 2019). Additionally, a specialization course is ran on narrative teaching: "Autobiographical Trainer: Specialist on Narrative and Autobiographical Methods and Techniques in Educational Contexts." (Sirignano & Maddalena, 2021).

One research project engaged with by Suor Orsola Benincasa University pertains to the National Interest Research Project RE-SERVES. This project is aimed at strengthening educational alliances between formal and non-formal systems in order to develop a community of educational care.

As part of the research activities promoted by the Lifelong Learning Center of Suor Orsola Benincasa University, human resources training has been the focus of work, research, courses and master's degrees and the aim of interventions in specific organizational contexts (Frauenfelder & Sirignano, 2013; Corbi et.al., 2017, 2018, 2021, 2022)

With regards to the organization of training activities, especially those attached to higher education and lifelong learning during the period in which the Covid-19 pandemic emerged (d'Alessandro, 2020; Villani, 2020), from a pedagogical point of view, activities were selected and conceived based on the idea that a just society must promote the development of internal capacities through widespread physical and mental healthcare provision. This stance expresses concern for the weakest in society and necessitates the provision of opportunities for all to enable acquired skills to be put into practice through experience of performing relevant functions as a means of enhancing skills and promoting further personal growth (Vilanni, 2020).

In relation to the theme of resilience and the RESUPERES project, the University of Suor Orsola Benincasa organized the following educational, cultural and training activities:

- A research conference aimed at primary education and educational sciences students titled: "Peace Education as a Resilience Strategy" (1 December 2022);
- The training and lifelong education course, "Learning from Difficulties: Resilience Education in School Contexts" delivered to secondary school teachers in the Campania region. The course was ran during the 2022-2023 academic year.
- Delivery of the 'Emotions, Narratives and Visual Art for Resilience Education' module as part of the Primary Education degree course during the 2023-2024 academic year.

The university research group attached to the RESUPERES project focuses on "Autobiography and Narration as Resilience Strategies in Higher Education and University Training Contexts".

In particular, autobiographical and self-reflective approaches were examined in light of and in relation to the intercultural dimension and education through artistic heritage. In terms of the former, this pertained to:



- a) Promotion of a genuinely intercultural culture, woven from a starting block based on difference and directed at all individuals, not just foreign students, in order to promote assessment of every individual's uniqueness and provide the skills required to meet the needs of the complex society in which each individual is immersed;
- b) Linking with cultural heritage by virtue of an educational strategy that links self-promotion with personal training through cultural experience. This area of pedagogy has been operationalized for some years at the university through the Museum Educator Master's degree.

In terms of interculturality research, resilience is configured as the ability to respond to situations of vulnerability born out of migration, such as pre-migratory experiences in the country of origin, journey experiences, grief related to the loss of a family member during the journey or abandonment of one's own land and family, the condition of minority, cultural and social conditions, and the marginalization that often characterizes people with migratory experiences who are forced to confront stereotypes and forms of prejudice. In relation to individuals who have experienced or are experiencing these "difficult" conditions, educational and training institutions, at an organizational level and through individual teachers when establishing the educational relationship, can act as important protective factors capable of promoting developmental paths that are characterized by resilient processes. Informed and trained teachers and educators can act as resilience tutors, according to the concept elaborated by Boris Cyrulnik.

It is necessary to consider that, in an authentic intercultural dimension, the factors that favor or discourage resilience must be placed in the same plane of cultural decentralization, shaping themselves according to specific cultural and value-based aspects found in an individual's immediate environment. Also, from the perspective of the inclusion of individuals with disabilities, the promotion of a resilient mindset and strategies can only be solidified by overcoming the barriers posed by a closed and monolithic cultural model.

From a pedagogical point of view, consideration of the holistic formation of individuals throughout the life course – especially during the developmental years –, the educational role played by the family, educational and training institutions, and the quality of services provided by training agencies in the territory, appears central in order to meet true needs (even the most hidden and subjective ones) and promote human, individual and social growth. Whilst the link between resilience education and migratory experience may appear to be extremely tight, certainly at an individual level and with this, particularly, being inherent to the existential sphere, we believe that its role in the social dimension of active citizenship and "humanization" is of equal importance. With collective responsibility being a strong determinant of protective behaviors, solidarity and care in a society that seems to currently be geared to move in another direction, one that is more individualistic than solidaristic and more selfish than altruistic.

Teaching resilience, not only as a special intervention for those experiencing adverse situations or as an emergency response in contingent circumstances, seems to adequately address a need that involves everyone's life within a world and a society characterized by the "fluidity" of human and social relationships, the crisis of certainties and the complexity of a globalized and hyper-technological world. In this context, skill development and the implementation of practices aimed at promoting resilient capacities, both in the face of traumatic events and in the presence of the more general need to cope with the unexpected

and the rapid changes that characterize our time as a time of transformation and continuous transition, pursue the fundamental aim of fostering autonomy as a navigational strategy in the absence of fixed points and the practice of narration to outline new horizons of meaning and to reinterpret one's own experience. In this sense, such a model encapsulates prevention and "risk education" and is, therefore, not limited to catastrophic and emergency circumstances.

From this perspective, the use of autobiographical writing and narration could provide a key functional method for the promotion of self-awareness and for equipping individuals to better understand and overcome emergency states. Self-narration has been proven to be a useful educational strategy for developing individuals' reflective and projective capacities.

The target audience of the research consists of teachers working in secondary schools in Naples and Campania and students, trainee teachers and educators enrolled on education sciences and primary education sciences courses. The teacher has an intercultural responsibility that translates into educational actions aimed at promoting reflective practices targeted towards cultural decentralization and the deconstruction of prejudice and stereotype. This serves to make students aware that other forms of thought exist besides their own, increasing their awareness that their own thoughts ascribe to their own cultural model and should, therefore, not be perceived as absolute. The epistemological dimension underlying intercultural discourse approaches in many aspects is the systemic construct of resilience. Some aspects include cognitive deconstruction instead of abstract reductionism and stereotyping; reflexivity and the capacity for reinterpretation according to open and non-deterministic perspectives that open up to the possibility of development along uncharted and non-necessitated trajectories; the ability to conceive of unity in difference and vital momentum (the one and the multiple, good and evil, pain and joy, danger and opportunity); the capacity to learn from suffering as an ethical ability to understand the suffering of others for which we are all responsible as a society; the construction of a place of empathic encounter with the other intended as a possibility of co-construction of value systems towards the construction of a more distributed social justice and greater distribution of opportunities for psychological, existential and social wellbeing participation.

#### **4.2. Norway. Western Norway University of Bergen (HVL, Bergen)**

The desired outcome of teacher training programs pursued by the Norwegian partner university is to develop high-quality graduates who experience job satisfaction and enjoyment in their work, as well as maintain their motivation, commitment and enthusiasm for many years (Mansfield et al., 2016). This is important given that the academic context of higher education can be stressful for many students (Robotham, 2008). Examples of stress-generating situations include switching from high school to higher education, which may involve making new friends, moving to another city and leaving the parents' home, the pressure to obtain good grades to meet educational demands, financial problems experienced by students and/or their families, which can change the standard of living, relationship problems within and outside of the academic context, impostor syndrome related to studying at a high-ranking institution, and the possible external demands that compete with studies such as work and study at the same time (Hurst et al., 2013; Brewer et al., 2019).

**Figure 4.4. and Figure 4.5.**  
*RESUPERES Team (Students and Professors) in the Pilot Study Norway, in Western Norway University (Bergen, Norway).*



Wellbeing and mental health among university students in Norway has been the subject of several recent studies that reveal significant concerns. A study published by the Norwegian Institute of Public Health shows that around 40% of Norwegian university students experience some type of mental disorder, such as depression or anxiety, with a higher prevalence among women than men. This study highlights the need to improve the support systems of offer at universities, especially for first-year students, who appear to be the most vulnerable to developing such disorders.

The SHoT Study (Students' Health and Wellbeing Study) is a national survey conducted regularly with Norwegian university students. In the 2018 SHoT Study, it was shown that a significant percentage of students presented severe symptoms of psychological distress, which is also related to the use of psychotropic medications such as antidepressants and anxiolytics. This research also highlighted gender differences, with a higher proportion of women reporting high levels of psychological stress compared to men (Grøtan et al., 2019).

In the 2022 edition of the survey, it was found that mental health problems were continuing to increase, with high levels of anxiety, depression and stress affecting both academic performance and students' overall quality of life.

Research published by Sivertsen et al. (2023), indicate a sharp increase in mental health problems among Norwegian university students in recent years, although precise estimates of the prevalence of mental health disorders are not available. This study used the National Student Health and Wellbeing Study, a validated psychiatric diagnostic survey, which was administered online for participant self-completion, to examine the prevalence of common mental health disorders in a large national sample of university students in Norway (18 to 35 years). It revealed that a high prevalence of suffering from a mental health disorder in both men and women. The most frequent disorders were major depressive episode and generalized anxiety disorder for female and male students, respectively, with many also meeting criteria for alcohol use disorder. Twelve-month and lifetime prevalence estimates were, as expected, even higher. Interpretation of the findings suggests an alarmingly high prevalence of several mental health disorders amongst Norwegian university students.

Åvitstland et al. (2020), argues that Norwegian students who comply with physical activity recommendations tend to report higher levels of self-efficacy and resilience. Self-efficacy, which refers to a person's belief in their ability to cope with situations, is positively associated with physical activity engagement. However, physical activity engagement is low, particularly

in young women, which can affect their psychological wellbeing. Research suggests that encouraging physical activity in these groups, not only, improves physical health but, also, the ability to manage stress and increase resilience.

Sundgot-Borgen et al. (2021), examined body appreciation and pressure around physical appearance in Norwegian university students by comparing exercise science students with other students. Body image is considered to be a central issue for public health given that it is associated with overall health in university students, with positive associations between exercise engagement and body image. It was hypothesized that students enrolled on an exercise science program might attribute greater value to physical aspects and appearance than other students. A drawback of this is that strong social ideals that gravitate towards bestowing having an athletic body with high value may expose such individuals to the negative pressures of striving for this specific body appearance. This gives rise to a number of unfavorable health consequences. However, there is a lack of research available to have investigated this hypothesis. Thus, the aim of the aforementioned study was to explore outcomes pertaining to body appreciation, body appearance pressure, and mental health constructs related with body image, physical activity and exercise in Norwegian exercise science and non-health-related university students. To this end, a cross-sectional study was conducted with 517 exercise science students and 476 other students from nine major universities in Norway. Key findings were that exercise science students reported higher levels of body appreciation and felt greater pressure regarding their physical appearance. Gyms were the main setting in which respondents experienced pressure pertaining to their physical appearance. Body appreciation was strongly associated with favorable scores in mental health constructs related with body image, whilst physical body appearance pressure was associated with unfavorable scores in the same constructs. A particularly interesting finding for RESUPERES was that physical exercise programs are necessary within educational programs in order to safeguard the health and wellbeing of students.

In conclusion, studies show that mental health problems are a major challenge for Norwegian university students and there is a growing need for interventions, such as the one performed as part of RESUPERES, to target the development of resilience and its constructs in order to support both mental wellbeing and academic progress.

#### **4.2.1. Review of Resilience: Projects at the partner Norway University**

In Norway, the following intervention projects are being or have been run to target resilience:

1. UPRIGHT: A universal preventive resilience intervention to promote mental health in teenagers that has been implemented in schools internationally (<https://uprightproject.eu/the-project/>). UPRIGHT is a research and innovation project funded by the European Union's Horizon 2020 Research and Innovation program under grant agreement No. 754919. The theoretical framework was developed through an innovative and multidisciplinary approach using a co-creation process steered by the UPRIGHT Consortium (involving seven institutions from Spain, Italy, Poland, Norway, Denmark and Iceland). The UPRIGHT program strives to develop 18 skills that correspond to the four components of mindfulness, coping, efficacy, and social and emotional learning.

2.- RESICITIE: Building Resilience through Education for Sustainable, Collaborative and Smart Cities (<https://www.uis.no/en/research/building-resilience-through-education>). The main aim of the project is to create and provide postgraduate students (students enrolled in Master's and doctoral degree programs in the partner countries) with up-to-date educational content pertaining to resilient, smart and sustainable cities through innovative teaching methods and tools. Educational content is provided through a blended learning mobility (BLM) that consists of a series of intensive in-person courses in the classroom setting followed by online classes that are to be made available via the massive open online course platform (MOOC) and rely on interactive and cloud digital tools.

The secondary aim of the project is oriented towards determined academic staff. It strives to foster excellence in teaching and educational content creation. In order to achieve this aim, the consortium provides the academic staff assigned to the task with innovative teaching methodologies and tools and delivers training on how to use such methodologies and tools effectively in physical and virtual classroom settings. The consortium also fosters cooperation with business enterprises from the private and public sector.

Consortium partners: Czech Technical University in Prague (CZ), Porto Business School (PT), the Autonomous University of Barcelona (ES), the University Industry Network (NL) and the University of Stavanger.

3.- ROBUST: Resilient – forskningsprosjekt knyttet til undervisningsopplegget ROBUST. The ROBUST learning program (<https://www.uis.no/nb/laringsmiljosenteret/forskningsprosjektet-resilient>) aims to improve wellbeing, motivation and academic achievement in lower secondary school pupils through social and emotional learning. Throughout the project, participating students will learn, amongst other aspects, what stress is, how it affects us, and how we can cope with it in a good way. With regards to resilience, schools will work systematically to support pupils' social and emotional learning through the ROBUST teaching program, which will provide teachers with further training and learning materials. ROBUST will be delivered using learning materials elaborated based on international research and in close cooperation with school directors and teachers in Stavanger, Sandnes and Jærskulen. It strives to empirically examine whether middle schools can improve youths' social and emotional competencies and, thereby, enhance student wellbeing, motivation and school achievement. A randomized controlled trial (RCT) is scheduled to include at least 100 eighth-grade classrooms (n = 2500 students), in which participating eighth-graders (14 years old) will participate in a social and emotional learning intervention called Resilient. Resilient was co-produced and piloted with users, and consists of a scientifically based curriculum, a web-portal with teacher and student resources and an accompanying ten-credit teacher training module. Based on international empirical research on how to enhance youths' social and emotional competencies, Resilient fosters competencies towards social relationships, emotional regulation, problem solving and motivational enhancement. Intervention effects will be estimated by assessing students' social and emotional competencies, wellbeing, motivation and school achievement at baseline, upon termination of the one-year intervention and one year after the intervention. During the year of intervention implementation, an extensive implementation and process evaluation will be conducted in order to answer questions around whether the intervention was effective or not.

Project managers: Edvin Bru from the Learning Environment Centre, Mari Rege from The University of Stavanger Business School and Nina Nygård Magnussen from Jærskulen.

*Resilient* is a research project funded by the Norwegian Research Council, and is led by The

Norwegian Learning Environment Centre and Behavioral Research in Education Centre, in cooperation with The University of Stavanger Business School.

4.- REDE: (<https://khio.no/en/research/research-in-the-arts/current-projects/resilience-and-ethics-in-dance-education>). Resilience and Ethics in Dance Education (REDE) aims to produce and transfer knowledge and applied research into the field of dance in order to support the development of high quality and sustainable dance education. The resource library provides updated and evidence-based knowledge and links to external relevant resources.

5.- RESILIENT: (<https://www.uia.no/forskning/forskningsprosjekter/bygging-av-robuste-samfunn-gjennom-inkluderende-utdanning-i-oest-afrika-resilient>). RESILIENT aims to strengthen research and capacity building in social work in Rwanda, Tanzania and Uganda. An important goal of the project is to build knowledge that is locally relevant and responds to the needs and challenges of local communities.

The project is carried out in collaboration between the Department of Social Work at the University of Rwanda, the Department of Social Work and Social Administration at Makerere University in Uganda, the Institute of Social Work in Dar es Salaam in Tanzania, and the Department of Sociology and Social Work at the University of Agder in Norway.

6.- BuildERS: [www.enbel-project.eu](http://www.enbel-project.eu) > projects-page > buildersBuildERS: Building European Communities' Resilience and Social. This resilience project is funded by the European Union with the aim of increasing social capital and resilience in European communities. It is also led by the University of Stavanger and focuses on co-designing processes and tools with the input of the general public and first responder organizations. It adopts an inclusive approach that seeks to improve resilience, especially in vulnerable groups (Universitetet i Stavanger).

7.- RiH. Resilience in Healthcare: The University of Stavanger is leading another resilience program in the area of healthcare. The primary goal of the resilience in healthcare (RiH) project is to reform the quality of current healthcare systems by establishing a new and comprehensive resilience in healthcare framework. Research efforts to understand and reduce healthcare-induced adverse events have traditionally focused on healthcare failures. The RiH project strives, through resilience, to shift the focus of research from health failures to the vast majority of health processes with successful outcomes. The purpose of this is to determine the way in which high quality clinical work is achieved on a daily basis in different health systems. RiH will seek to build and support resilient systems and processes in all healthcare services. (Resilience in Healthcare | University of Stavanger ([uis.no](http://uis.no))).

#### **4.2.2. Resilience Projects in the Western Norway University of Applied Sciences (HVL), Bergen, Norway University**

Turning attention to projects being run by the Western Norway University of Applied Sciences (HVL), three in particular stand out, aside from the RESUPERES project which is the focus of the present manual. These projects are the following:

1.- Arts and Mindfulness in Education (AMiE) (<https://www.hvl.no/prosjekt/2474623/>): Conceived by the Institut of Arts and Stetic, under the guidance of Professor Jonas Selås Olsen. This project ran between September 2020 and August 2022. The AMiE project aimed to provide European teachers with inspiring and supportive tools in relation to the introduction of mindfulness in pre-primary and primary education (from three to 12 years old). AMiE used the power of art and creative processes as a starting point for the introduction of mindfulness in a school context. The project was funded by the Erasmus+ Strategic Partnerships for Higher



Education program. The project was financially supported by the Norwegian Agency for International Cooperation and Quality Improvement in Higher Education (DIKU). The University of Applied Sciences of Western Norway is responsible for coordinating the project.

The intellectual outputs resulting from this AMiE Erasmus+ Strategic Partnership (diverse and innovative forms of both theoretical and practice-oriented teaching materials) aim to inspire and support teachers in both teacher training academies and in pre-schools and primary schools to work with the arts and mindfulness in their educational practice. The union of international and interdisciplinary student teams, in which the teachers involved take on the role of coach, takes place both at the project level during the various intensive program and through the form of collaborative international online learning. With the aim of co-creating intellectual outputs and supporting their wider dissemination, the AMiE consortium organizes both international training activities aimed at teachers and international learning activities aimed at students.

Each school focuses working on the arts and mindfulness with specific target groups (children from culturally diverse backgrounds, children of refugees, children with mental disabilities, children from socioeconomically vulnerable families). In this way, AMiE contributes to the European Commission's objectives in terms of equity, diversity and inclusion.

A lot of attention is paid to outreach activities that gather together a much wider group of international higher education partners and European primary and pre-school schools in order to introduce mindfulness into their educational practice through the arts. The intended long-term impact of AMiE, therefore, is sustainable integration of the arts and mindfulness within the European educational context. The first steps towards this is to incorporate this form of educational innovation into the curricula delivered by all AMiE consortium partners and create an ambassador role in relation to arts and mindfulness in the European context.

Some of the most important outputs from this project can be consulted via the following links:

- <https://www.youtube.com/@IrmaSmegen/videos>
- [http://www.project-case.eu/wp-content/uploads/2020/EXTRA\\_CASES/CASE\\_LearningScienceThroughDance.pdf](http://www.project-case.eu/wp-content/uploads/2020/EXTRA_CASES/CASE_LearningScienceThroughDance.pdf)

2.- The RegResir project (<https://www.rypestol.com/l/en-regresir/>): RegResir stands for regional resilience and sustainable industrial restructuring. The project is supported by NRF and has a budget of 5 million NOK. The project is led by Professor Stig-Erik Jakobsen out of the Western Norway University of Applied Sciences. The project examines the way in which the Covid-19 pandemic affected investments, market orientation, technological development and job creation in resource-based industries in Norway. The project will end in December 2023. Material from the project cannot be shared as of yet.

3.- Physical Activity and Resilience through Ageing (<https://www.hvl.no/prosjekt/683632/>): this project is coordinated by Maria Nordheim Alme and is set to run from November 2019 to October 2025. Material from the project cannot yet be shared. The aim of this project is to promote good health and resilience throughout the ageing process. Given the complex nature of health, the idea of the project is to develop and analyze public physical activity programs targeting older adults according to newly available population data, advances in biomedical research, and social and structural factors. The aims of the project are to understand the way in which physical activity and retirement are related with biological factors, and the way in which public actions may be designed and implemented to improve the

health of the elderly population. Physical activity is a key behavior that promotes good health. Research evidence on the benefits of physical activity and exercise with regards to fitness, physical and mental health, and longevity is well established. Nonetheless, acceptance of this evidence in the general public is low.

Thus, more knowledge is needed about the factors that are important for the uptake of physical activity in the older population. Likewise, knowledge regarding the dose-response relationship between physical activity and biological responses is required in order to understand the way in which physical activity affects the elderly population. During aging, the immune system changes, increasing the risk of serious infections, however, the specific nature of such changes varies greatly within the population. It is, therefore, convenient to refer to the concept of immunological age, which refers to the functions of the immune system. Similarly, biological age refers to physiological functions (such as walking speed, muscle strength, heart rate). Physical activity has a clear effect on biological age and on the immune system. As a result, knowledge is needed in order to design public actions capable of increasing physical activity engagement and producing positive effects in terms of both biological age and immunological age. In this regard, it is critical to understand the way in which societal structures can promote better health.

#### 4.3. Portugal. University of Algarve (UAlg, Faro)

The following images are from the RESUPERES team at different moments of their activities at the University of Algarve, Faro.

Figure 4.6 and Figure 4.7.

*Reception of the governing team of the University of Algarve, to the RESUPERES team, in the Learning, teaching Training Activity C3.2.Portugal.*





Figure 4.8. Collage

RESUPERES Team in Learning & Teaching Training activity C2.2. Pilot Study Portugal, in Faro (February, 2023).



#### 4.3.1. Review on Resilience in Portugal: A Multifaceted Analysis

Resilience is increasingly recognized as a crucial element for wellbeing and success in various areas of life, including education, the workplace and mental health. In this way, an analysis was performed of several studies on resilience in Portugal with the aim of providing a more in-depth understanding of this concept and its practical implications. In this regard, a comprehensive literature review was conducted, analyzing different perspectives and contexts, with a particular focus on the importance of resilience in higher education students. The relevance of resilience for students' academic and emotional performance was emphasized, and its relationship with factors such as social support, academic integration and stress management was discussed. Additionally, studies on resilience and its impact across various contexts, from the educational environment to challenging situations like the COVID-19 pandemic, were highlighted.

One of the pertinent studies included in this literature review was conducted by Afonso (2020, p. 5), who argues that "the COVID-19 pandemic and the confinement it imposed seem to have caused consequences for mental health during a stage of development marked by richness and intimacy – emerging adulthood." Based on this principle, Gonçalves' (2021) Master's dissertation addressed higher education student perceptions of strong family traits, considering the impact of individual resilience, alongside sociodemographic and family-related variables, and response to confinement (COVID-19). This study examined the impact of various sociodemographic variables (e.g., age of students), family characteristics (e.g., family size) and responses to confinement on perceptions of family traits (e.g., family conflict management), whilst shining a spotlight on emerging adulthood during the COVID-19 pandemic. The study also sought to analyze the mediating role of individual resilience with regards to the relationship between whether or not an individual returned home during

confinement (March–May 2020) and perceived family strengths (Gonçalves, 2021, p. 5). A total of 156 Portuguese higher education students aged 18 to 38 were recruited to the study. Questionnaires were administered to gather data on individual resilience and family strengths. Findings indicated that individual resilience did not significantly mediate the relationship between whether or not one returned home during confinement and perceived family strengths. This highlights the importance of focusing more directly on family strengths, whilst also considering different sociodemographic and family characteristics in order to promote a sense of family unity during challenging periods such as that caused by the pandemic.

Francisco's (2021) study highlighted the relationships between personality, resilience and psychological wellbeing in higher education students, exploring the contribution of resilience towards predicting personality dimensions. The sample included 197 participants of both sexes aged 18 to 29. Some of the questionnaires administered included the Big Five Inventory (BFI), Satisfaction with Life Scale (SWLS), Positive and Negative Affect Scale (PANAS) – short version, and Brief Resilience Scale (BRS). No statistically significant outcomes were produced as a function of gender or whether one left home. However, correlations were found between negative affect and neuroticism, resilience and extroversion, life satisfaction and agreeableness, and conscientiousness and resilience. Positive affect was correlated with resilience, life satisfaction and all personality dimensions except neuroticism. These findings suggest that personality is a strong predictor of wellbeing, whilst resilience is positively related with life satisfaction and positive affect and negatively related with negative affect.

In support of these outcomes, during the turbulent period of the COVID-19 pandemic, health education research conducted by Piccoli (2022) examined resilience, health and wellbeing in first-year higher education students enrolled on the Social Gerontology course at the University of Coimbra. This study was descriptive and qualitative in nature. Sociodemographic questionnaires and interviews were completed with 11 students both before and after the intervention. Outcomes revealed evolving perceptions of the essence of resilience and the factors that promote it. Upon finalization of the project, participants highlighted the importance of resilience for dealing with the challenges of higher education, particularly when it came to the transition to online classes during the pandemic. Personal and professional fulfilment, as well as happiness, were also outlined as being important in relation to the educational interventions. The study concluded that educational projects of this nature are useful for steering perceptions of resilience, health and wellbeing in higher education students, especially during challenging times like those caused by the pandemic.

Agrela (2020), citing authors such as Seligman and Csikszentmihalyi (2000) and Yunes (2003), argues that "in positive psychology, creativity and resilience are considered fundamental tools for healthy individual development" (p. ii). Based on this premise, this author conducted a study, as part of her Master's dissertation in educational psychology, which analyzed the association between creativity, resilience and psychological wellbeing in the higher education context, encompassing teachers, students, staff and researchers based on Madeira Island. To this end, the Creative Personality Scale – Short Form conceived by Pocinho et al. (2019) and Measuring State Resilience tool adapted for use in the Portuguese population by Martins in 2005 (Teixeira, 2014) were used. Outcomes revealed a positive association between creativity and resilience, with female participants demonstrating greater resilience and older participants exhibiting greater resilience and creativity. Furthermore, participants with higher education qualifications demonstrated greater creativity. Teachers were more resilient and creative than students and more resilient than researchers. Thus, creativity and gender were found to be determining factors with regards to resilience.

Based on the premise that “different life contexts, particularly the academic context of higher education, expose young people to demands and risks [and] therefore, their resilience is fundamental” (Vara et al., 2018, p. 115), Vara et al. (2018) presented research at the 12th National Congress of Health Psychology on the relationship between resilience and satisfaction with social support in higher education students. This author and her collaborators investigated the relationship between social support, resilience and life satisfaction in higher education students, recognizing the unique challenges these students face. Standardized questionnaires were used to assess the aforementioned constructs, including the Resilience Scale (RS) (Oliveira & Machado, 2011) and the Satisfaction with Social Support Scale (ESSS) (Ferreira et al., 2004). Scales were administered to 293 students. Outcomes revealed moderate levels of resilience and satisfaction to be associated with social support, with rural students demonstrating greater resilience and satisfaction born out of social support than those from urban areas. Additionally, female participants showed greater resilience and satisfaction in the presence of family support, whilst male participants exhibited greater satisfaction when they had support from friends. The positive correlation found between resilience and satisfaction in the presence of social support suggests that these factors may be important for alleviating stress during this life stage.

These same authors, previously conducted a longitudinal study (Vara et al., 2018), which investigated perceived stress levels and resilience in first-year higher education students, in recognition of the challenges inherent to this transition. Data were collected at the start of the 2015 academic year from two different institutions (IPB and FPCEUP), with a sample of 270 students. The Perceived Stress Scale (Cohen et al., 1983) and the Resilience Scale (Wagnild & Young, 1993; Oliveira & Machado, 2011) were used. Outcomes revealed that most participants had moderate levels of resilience and low levels of stress. Self-acceptance and life satisfaction were identified as good predictors of stress. The study highlights the importance of reflecting on the resilience of university students, the influence of academic contexts on these levels and the way in which the accumulation of life experiences can affect overall individual response (body-mind).

In summary, resilience plays a crucial role in the wellbeing and academic success of higher education students. The transition to this academic environment often represents a period of great challenge. However, the ability to adapt to adversity emerges as a determining factor in how students cope with these demands. The COVID-19 pandemic further highlighted the need for resilience, particularly for those who had to balance multiple roles, such as studying and working. Findings from studies conducted by various authors underline that social support, coupled with emotional management skills and creativity, are essential elements in mitigating the impact of stress and depression in this context.

Other studies reveal a significant relationship between resilience and various psychological factors, such as emotional intelligence, wellbeing and creativity, showing that students with higher levels of resilience tend to achieve better academic results and experience greater personal satisfaction. Moreover, some intervention programs, such as professional development for teachers and certain psychological support strategies, have proven effective in promoting resilience skills, both for students and teachers.

Studies also highlight the importance of validated measurement tools for assessing resilience in the Portuguese academic context. Such scales include the Wagnild and Young Resilience Scale, whose adaptation to the national reality has provided a better understanding of the dynamics involved.

Thus, it is imperative that higher education institutions develop and implement programs and strategies that promote resilience among their students, providing them with the necessary support to cope with academic demands and personal challenges. Resilience, as the ability to positively adapt to adversity, not only contributes to academic success but also to the personal development and long-term wellbeing of students.

#### 4.4. Serbia. University of Belgrade (UB, Belgrade)

The following images are from the RESUPERES team at different moments of their activities at the University of Belgrade.

Figure 4.9. Collage

RESUPERES Team in Learning & Teaching Training activity C2.2.Pilot Study Serbia, in Belgrado, Serbia (April, 2023).



We live in a time of constant and accelerated change, increasing demand and rising daily challenge. Students, particularly, are a group that are subjected to daily stress due to university obligations, as well as private obligations and challenges. Resilience can be seen as adaptability to change and the ability to successfully adapt despite various challenges and difficult circumstances. Resilience is what allows us to overcome and transform all adversity in difficult situations to use it for further growth.

In Serbia, resilience as an area is relatively unknown to the general public and relatively unrepresented. The concept of resilience and similar psychological constructs has been investigated in different terms and settings, including economy, engineering, healthcare, vulnerable groups and of course various levels of education.

Considering its importance, the very concept of resilience in the context of higher education is, unfortunately, insufficiently investigated in Serbia. It took the global pandemic caused by Covid-19 that affected every aspect of our lives, higher education (HE) included, to move resilience up the list as a priority research topic. Nevertheless, both during the pandemic and in the aftermath, students and young people in general need support and guidance that will help them master a variety of study material, organize their time and deal with stress and the various challenges that await them both in their studies and in further life and development. Resilience can help with this. It seems that the importance of resilience has yet to be fully acknowledged amongst researchers and practitioners. Indeed, a search of scholarly articles, projects, initiatives and organizations that promote resilience development or similar concepts returned only few results. Specifically, the search was conducted using the following keywords: "rezilijentnost", "otpornost na stres", "psihološko dobrostanje", "psihološko blagostanje", "wellbeing", "self-esteem", "samopoštovanje".

#### 4.4.1. Review on Resilience Projects and Handbooks in Serbia

During the first months of the pandemic, universities and HE organizations had to find ways to equip their students with the knowledge and skills required to minimize the negative impact of confinement on their learning. From this perspective, it seems that the transition to online teaching platforms and the need for teachers to possess certain levels of digital education and digital security culture turned the attention of teachers and research to focus on resilience. The lack of sufficient “institutional technical support for the implementation and organization of new teaching and e-learning solutions (e-platforms, tools and resources) and systemic support for maintaining the mental health of students in these conditions” has been recognized by a group of researchers from Serbia, Poland and Italy. These researchers gathered together around the idea of developing “procedures to support a larger number of students, alongside connectivity and specific socialization, social digital networking, and e-psychotherapy and e-counselling procedures”. This forms the core of the DigiPsyRes project (DigiPsyRes, n.d.), housed within the Erasmus + Program, which strives to address the issue of the growing need for psycho-social support in times of crisis by enhancing digital and psychological resilience through peer networking in the digital setting (DigiPsyRes: <https://digipsyres.kg.ac.rs/>). The project is being led by the University of Kragujevac, with project partners also based at Kazimierz Wielki University (Poland) and the University of Foggia (Italy).

To the best of our knowledge, aside from the RESUPERES project, in which the University of Belgrade is a partner organization, the DigiPsyRes project ran by the University of Kragujevac is the only other project that examines resilience in the pedagogical and educational context. This three-year project started in February 2022 and, according to the DigiPsyRes website, is expected to result in the following outputs:

- Guide for digital and psychological resilience via support networking
- Training programs, teaching materials and e-courses: Training for peer support to improve psychological and digital resilience via networking.
- Manual for a step-by-step training program to convert trainees into trainers: Training for peer support to improve psychological and digital resilience via networking.
- Establishing a student network and peer support team to enhance psychological and digital resilience.

The “questionnaire for analysis of psychological and digital resilience of students” will be administered to examine student needs for psycho-social support in times of crisis ([https://digipsyres.kg.ac.rs/wp-content/uploads/2022/06/R1\\_DigiPsyRes-Questionnaire-SERBIAN-fin.pdf](https://digipsyres.kg.ac.rs/wp-content/uploads/2022/06/R1_DigiPsyRes-Questionnaire-SERBIAN-fin.pdf)). It serves to highlight that, in the same way as with the RESUPERES project, DigiPsyRes will produce a manual, however, the DigiPsyRes manual will provide a step-by-step guide for supporting resilience building in a digital world.

During the pandemic, a group of volunteers consisting of staff and students from the Faculty of Philosophy (Department of Psychology) at the University of Belgrade reached out to students, offering them counseling services for free to help them overcome the sudden pandemic crisis. Such services served to address emotional and mental stress, focus, panic attacks, suicidal thoughts and many more aspects. Almost three years since the pandemic was declared to have ended, this volunteering center is still available to students who can schedule a 30-min session via e-mail, Skype, Facebook or Instagram (<https://www.oblakoder.org.rs/psiholosko-savetovaliste-studenata-za-studente/>).



We have identified only one research project that has investigated students' needs for psychological counseling services ("Kosovo and Metohija between national identity and European integration" funded by the Ministry of Education, Science and Technological Development in the Republic of Serbia). The project was partly based upon and related to a pilot project led by the University of Niš. This saw the opening of a psychological counseling center for students in 2007 (<https://savetni.org/savetodavni-sektor/>) and remains one of the largest and longest running projects of this type at any university throughout Serbia. The project has been active since 2007 and, to the best of our knowledge, still stands alone as the only university counseling center in Serbia. Several articles have already been published on this topic and their findings will be presented later on in this chapter.

Finally, we believe that "The Equalizer" project ("Do uspeha, zajedno") is also worth mentioning, not because of the target population (school children) but because of the methods applied to develop resilience (educational workshops and sports activities), which makes it similar to the current RESUPERES project. The Equalizer was supported by the OSCE and the Embassy of Israel in Serbia, as well as through donations from the Israeli company Big Fashion. It was implemented in cooperation with three ministries – the Ministry of Education, the Science and Technological Development, the Ministry of Health, and the Ministry of Youth and Sports of the Republic of Serbia. The project consisted of educational workshops, which were conducted by final-year university students and free football sessions as a means of preventing risky behaviors among elementary school students (<https://www.facebook.com/ddouspehazajedno/>). The workshops were aimed at strengthening and developing personal qualities, social skills and values that increase student resilience to risky behavior. The aim of sports sessions was to boost student development and the acquisition of healthy lifestyle habits, whilst, educational workshops were held to equip students with social skills and values. This empowers students to refuse or back down from risky situations when subjected to negative peer pressure.

In terms of manuals, both printed and online material that can serve to guide resilience development in higher education students are scarce. Moreover, we were able to identify only two manuals that involve education, but both are targeted towards earlier stage of education. The "Manual for Schools – Planning, Implementation and Monitoring Measures to Prevent Students' Attrition from the Educational System" can be accessed through the Center for Educational Policies in partnership with the Ministry of Education, Science and Technological Development of the Republic of Serbia and UNICEF. This important contribution is targeted, above all, towards employees of primary and secondary schools in order to help them comply with legal obligations related to the prevention of student dropout and provide them with concrete guidelines and inspiration for activities they can run within their own school ([http://www.cep.edu.rs/public/Prirucnik\\_zasphecavanje\\_osipanja\\_ucenika2.pdf](http://www.cep.edu.rs/public/Prirucnik_zasphecavanje_osipanja_ucenika2.pdf)).

The second manual was produced following the project "Together to High School – Support for Children from Vulnerable Groups in the Transition to High School", which aimed to facilitate student transition from primary to secondary school. In order to achieve this goal, a complex school support model was created which relied on empowerment and mentoring processes in relation to several different work areas to be developed together with both students and teachers (<https://www.mpn.gov.rs/wp-content/uploads/2020/02/Prirucnik-za-skole-sa-primerima-dobrih-praksi.pdf>).

Although not a manual, the Career Development Centre at the University of Belgrade (<http://www.razvojkarijere.bg.ac.rs/>) provides a good example of good practice with provision of a free webinar (<http://www.razvojkarijere.bg.ac.rs/node/1371>). This webinar helps students

find answers to questions such as:

How to keep students motivated for learning?

Why is it important to have a career plan?

What does a good study plan look like?

What disrupts focus for learning and how can this be prevented?

What are the elements of effective learning?

What learning techniques can be used?

Which learning supports are useful and how can they be provided?

It should be noted that the primary purpose of the Career Development Centre is to help students prepare themselves for interviews with potential employers and facilitate their job search. Amongst the many activities on offer, the Centre strives to provide students with advice around persistence with their education and strategies to facilitate their learning process.

#### **4.4.2. Review on Resilience: Articles**

Wellbeing in adolescents and schoolchildren is a topic of hot interest to researchers and the general public. Less interest has been shown in the context of higher education students. Nonetheless, several relatively recent studies are available that may shed light on this concept in relation to students in Serbia. Lim et al. (2017) outlined patterns of wellbeing pertaining to young people (15–24 years of age) in five Eastern European countries (Belarus, Bosnia and Herzegovina [BiH], the Former Yugoslav Republic of Macedonia, Serbia and Ukraine), whilst also investigating associations between demographic factors and wellbeing. The study was based on data from five UNICEF-backed Multiple Indicator Cluster Surveys (MICS). Almost 75% of young people reported being optimistic, with close to 40% considering themselves to be very happy or very satisfied with their life overall. However, wellbeing was found to be country-specific, with young people from BiH and Ukraine reporting lower levels of wellbeing. Being married, greater wealth, higher education, having a rural residence and not having children were associated with greater wellbeing.

In an effort to support the transition of subjective wellbeing measurement “from research to intervention”, Lietz et al. (2018) conducted a pilot study in which they examined multidimensional wellbeing (MWB) in Serbian and Italian university students and explored its relationship with the pursuit of life goals. Participants responded to measures of self-perceived MWB, wellbeing (life satisfaction and eudaimonic wellbeing), and commitment and stress pertaining to the pursuit of personal goals. Higher MWB and control scores were reported by Serbian students than their Italian counterparts. According to the authors, this contradicts findings reported by representative national surveys on young people (18–30 years old) in both nations. In contrast with that found in general population surveys, when it comes to young adults, Italians would certainly not appear to be neither happier nor healthier than Serbians. Unsurprisingly, the most frequently reported goals were to complete one's studies, obtain a job position and be healthy.

Sakač and Marić (2018) outlined the importance of psychological wellbeing as a significant determinant of mental health and success in the future professional practice of classroom and preschool teachers. Their study explored the contribution of personality traits, self-esteem

and locus of control in predicting the degree of subjective wellbeing in trainee classroom and preschool teachers (418 students). The aforementioned traits were assessed using the Short Subjective Wellbeing Scale (KSB), the Big Five Plus Two questionnaire (VP+2), Rosenberg's Self-Esteem Scale and the Scale for Measuring the Locus of Control (LOK IM-2). Based on their findings, the authors concluded that students preparing for class and preschool work would benefit from various developmental and educational strategies and support programs as part of their curriculum (e.g., in the field of mental health), as well as from continuous encouragement of certain individual characteristics that were found to contribute to psychological wellbeing (emotional stability, social competence, perseverance, self-esteem and internal locus of control). According to the authors, these qualities contribute to better mental health in trainee teachers and will help them to adequately face a number of challenges in their professional role. This research also argued that punctilious and sensitive young people may be in need of special attention. This could come in the form of encouraging positive emotional experiences and taking a positive approach to life, self-confidence, realistic expectations for themselves and others, and proactive coping with obstacles, in order to prevent emotional difficulties, excessive exhaustion and mental health impairment.

Another, more recent study examined subjective wellbeing and positive expectancy in undergraduate college students (Jovanović et al., 2021). Two types of positive expectancy (dispositional optimism and general self-efficacy) and four indicators of subjective wellbeing (life satisfaction, positive affect, negative affect and depression) were assessed three times over a period of two years. Students reporting very high school satisfaction had higher levels of wellbeing and lower levels of emotional distress than their peers with lower school satisfaction. However, findings must be treated with caution given that the cross-sectional nature of the research precludes any conclusions regarding causality from being made.

#### Psychological Counselling and Psychotherapy

Boldness, positive emotion, self-improvement, sense of meaning and purpose all contribute to resilience. Thus, resilience must be considered in light of many different aspects, entailing both personal factors and the social environment (family, school, social circumstances) and global factors (Pavičević, 2015). Student attitudes and needs for counselling or other types of support impact their need for resilience. This is of interest to some researchers, such as Fazlagić and Rakić-Bajić (2011), who conduct research that is based on daily contact with students. These researchers have discovered that students who talk often about their problems, of which some are highly destabilizing, tend to experience learning issues, lack of concentration, difficulties in adjustment and failure. Students also spoke about the need for an expert to help them deal with their problems. In order to further delve into the issues, these researchers gathered data from 105 female and 65 male students from Novi Pazar regarding their attitudes towards psychotherapy. Psychological wellbeing was assessed according to socio-demographic traits, life satisfaction and attitudes towards psychotherapy. Findings revealed that students are mostly satisfied with their lives, regardless of gender, and that 90% of students wish they could have a psychologist at university to meet with when needed. Despite this, participants reported mostly neutral or slightly negative attitudes towards psychotherapy, although this was not significantly correlated with life satisfaction. It serves to highlight that, at the time this study was published, a degree of stigma still existed about visiting a psychotherapist and taking care of one's mental health.

Interestingly, Randelović et al. (2015), highlight that the outcomes reported by studies published over the past 15 years suggest that adolescents in Serbia, at least according to their own self-assessments, have poor mental health and high rates of behavioral disorders,



addiction, depression and suicide. As part of a greater research project, these authors published several papers on student mental health and counselling needs. One such study, published in 2012, presents an analysis of mental health pertaining to 988 students from the universities located in Southern Serbia (Niš and Kosovska Mitrovica) (Dimitrijević & Randelović, 2012). Findings revealed greater susceptibility to stress and primary aggression in students when compared with the general population. The authors urged the need put preventive actions in place to help preserve and improve the mental health of young people. An example of this can be seen in the psychological counselling center for students at the University of Niš. Subsequently, Randelović et al. (2015) published additional data on objective (primary aggression and susceptibility to stress) and subjective (student attitudes) indicators of students' need to use psychological counselling services. Students' needs for psychological counselling services were assessed using Bensabin's General Stress Test contained within SIGMA KON6. Similarly to that reported by Fazlagić and Rakić-Bajić (2011), a large proportion of students (81%) reported that they believed there to be a need for a free-of-charge psychological counselling center for students, with more than half of respondents (60%) stating that they would probably use its services. Despite the fact that almost the same proportion of students reported that they had felt the need for counselling on at least one occasion, only a very small proportion of these students would actually ask for help. Interestingly, students who stated that they had never felt the need to talk to a psychologist actually exhibited higher levels of primary aggressiveness and susceptibility to stress than their counterparts who reported that they would seek out help. Nonetheless, students expressed willingness and interest in attending seminars and forums with topics on mental health preservation.

When the Covid-19 pandemic forced universities to close their doors, students were faced with feelings of insecurity and anxiety which may have had a negative impact on their learning and mental health. Lecturers from the Faculty of Political Sciences at the University of Belgrade (Burgund et al., 2020) came up with the idea of turning a pre-examination task of writing reflective diaries into a form of therapy. This task, delivered on social politics and social work courses, challenged students (80) to "identify, but also recognize and raise awareness of reactions and experiences related to the pandemic and encourage introspection" in relation to two subjects, namely, Counseling and Socio-therapy, and Social Work with Children and Youth. Specifically, students were requested to respond to the following questions:

1. How do you feel with respect to the whole situation (physically, psychologically, socially)?
2. What is your greatest impression for the day?
3. What are your plans with regards to the feelings/impressions that you experienced today?
4. What will you do?

Analysis of students' reflection journals yielded a number of topics, of which the following particularly stood out: attitudes towards writing diaries, understanding the good aspects of the state of emergency, family relationships, mood swings, attitudes towards eating and food preparation, creating structure, developing creativity, anxiety, depression, anger and fear. Findings from this study support those discussed above by outlining the importance of nurturing and preserving mental health to individual wellbeing. It also raised the important question of what universities and other educational institutions can do to help students and employees preserve their wellbeing and improve their work and development capacity. The

authors also suggested some potential pathways for improving provision at educational institutions in crisis situations (online consultations, alternatives for pre-examination tasks and labs, workshops on mental health).

Self-esteem can be seen as part of resilience and is most often defined as an "individual's overall subjective evaluation of their own worth, which can be related to a feeling of personal competence, success and pride, or to a feeling of despair and shame" (Rosenberg, n.d.). Milošević and Ševkušić (2005), from the Institute for Pedagogical Research, Belgrade, wrote about student self-esteem and academic achievement. In contrast to self-esteem, they speculate that "academic achievement and other teaching and learning-related experiences are considered to exert a significant influence on self-esteem. Students should be successful at school, first, so as to develop a positive self-image and academic abilities". These authors identified the need to educate teachers on this topic, arguing that self-esteem and responsibility must be incorporated as key content within the curriculum. Teachers are expected to be sensitive to students' needs and to apply cooperative learning methods when working with those who are most at risk of being unsuccessful. Unlike traditional teaching methods, such methods should help students' to either sustain or increase their self-esteem, improve self-image linked with academic abilities and boost social interactions. Positive feedback and peer support also lead to a general increase in self-esteem and promote feelings of competence. In addition, self-esteem seems to affect students' ability for emotional, social and academic adaptation (Selimović et al., 2019). Although research on this topic comes from 808 students attending the University of Tuzla (Bosnia and Herzegovina), we believe that these findings can be applied to Serbia due to the similar, if not identical, social and psychological landscape of inhabitants of this area of the Western Balkan. In this aforementioned study, general self-esteem was estimated through the Rosenberg Self-Esteem Scale (RSE) and adaptation to college was operationalized through the Student Adaptation to College Questionnaire (SACQ). This latter questionnaire assesses adaptation to college according to four dimensions which reflect emotional, social, academic and institutional aspects. Study findings reveal that students with higher self-esteem exhibited significantly better adaptation to college than students with lower self-esteem. In this way, self-esteem may help protect individuals from the burden of life challenges, reducing failure and maladaptive behavior. However, the authors emphasized that it is not possible to determine whether self-esteem determines adaptation to study or is simply a cog in the machine that drives it.

Of the many factors that predict self-esteem in students, physical self-efficacy i.e., perception of one's body and physical abilities, stand out. Lazarevic et al. (2017) explored the predictive capacity of physical self-efficacy, social physique anxiety and physical activity with regards to student self-esteem. Findings were presented both overall and as a function of gender. A total of 223 university students were assessed using Rosenberg's Self-Esteem Scale (SES), the Physical Self-Efficacy Scale (PSES), the Social Physique Anxiety Scale (SPAS) and a short physical activity questionnaire. Generally speaking, students were found to be moderately active (2.75 times a week on average) and have moderately high self-esteem, moderately high physical self-efficacy and low social physique anxiety. No gender differences were detected for self-esteem but were found in favor of males for other variables. This study revealed self-esteem to be positively related with physical self-efficacy and physical activity, and negatively related with social physique anxiety. Furthermore, self-esteem could be predicted according to physical self-efficacy, social physique anxiety and female gender. The authors concluded that "adequate exercise intervention programs targeted at achieving higher physical self-efficacy and lower social physique anxiety would lead towards more

positive self-esteem”.

As stated earlier, research data on resilience in Serbia and the pedagogical university context are scarce. Research interest appears to be mainly focused on children and adolescents, as revealed by the dozens of articles available on resilience in the pedagogical field in various contexts of pertaining to primary and secondary. Only three articles could be identified in which resilience was examined in terms of coping with stress.

Genc et al. (2013) examined the contributions of coping mechanisms, optimism and general self-efficacy towards predicting psychophysical health. These same predictor variables were also applied to specific aspects of physical health-related psychophysical health, fear and anxiety, depressive response, tiredness, and social behavior. Study constructs were assessed in 269 students from the University of Novi Sad using the Psychophysical Health Scale, Life Orientation Test-Revised for measuring dispositional optimism, General Self-Efficacy Scale, and Brief COPE for analyzing coping mechanisms. Analysis of the factor structure pertaining to the Brief COPE identified three factors, namely, social support seeking, problem-focused coping strategy use and avoidance-focused coping strategy use. Significant predictors of overall psychophysical health were avoidance-focused coping strategy use, optimism and general self-efficacy. In other words, students who rely less on avoidance-focused coping strategies, and exhibit higher optimism and better self-efficacy will tend to have better psychophysical health.

In a similar way to the previous study, research conducted by Panić et al. (2013), examined the relationships between personality, coping styles and psychosomatic disease. The aim of this was to establish whether students who were found to have psychosomatic tendencies differed from students who were not prone to psychosomatic conditions in terms of personality traits and coping styles, whilst also whether certain personality traits were linked with coping styles in these two student groups. Psychosomatic tendencies in students were assessed using the HI test for measuring efficiency of regulation and control systems. Personality traits were assessed according to the shortened version of the Zuckerman-Kuhlman Personality Questionnaire (ZKPQ-50-CC), whilst coping styles were determined using the Coping Inventory for Stressful Situations (CISS). Students prone to psychosomatic conditions differed from those who were not in terms of the personality traits of neuroticism-anxiety and aggressiveness-hostility. In the case of coping styles, a significant outcome only emerged in relation to emotion-focused coping. Neuroticism-anxiety, aggressiveness-hostility and emotion-focused coping were positively correlated in both groups of students. In contrast, activity- and problem-focused coping were only correlated in the group of students prone to psychosomatic conditions, whereas correlations between aggressiveness-hostility, impulsive sensation seeking and avoidance coping only emerged in the group of students without psychosomatic conditions. Findings reported by this research suggest the need to conceive specific strategies that serve students who have a propensity towards suffering from psychosomatic conditions. Such approaches should support authentic expression of one's personality in order to boost resilience to numerous stressors and improve mental health.

Lastly et al. (2020) recently examined the mediational effects of positive lateral generalization, perceived social support and self-compassion pertaining to the association of resilience with depression and anxiety. To this end, six different hypothetical single mediator models of this relationship were examined in 147 students (108 females and 39 males). The aforementioned variables and traits were assessed using the self-compassion and lateral generalization subscales of the DASS21-SER (Eisner et al., 2008), the Multidimensional Scale

of Perceived Social Support and the Brief-Resilience Scale. Anxiety was related with perceived social support, although this relationship was not statistically significant. Findings reported by this study indicate that self-compassion acts has a powerful influence, in the presence of depression and anxiety, on resilience and wellbeing, although the directionality of this effect is impossible to discern due to the cross-sectional nature of the research.

#### 4.4.3. Resilience Intervention Programs

According to Randelović et al. (2015), various pilot projects that aim to establish psychological counseling centers for students have been set up in the Republic of Serbia. However, such initiatives are largely driven by individual faculties (e.g., the Faculty of Philosophy at the University of Belgrade and the Faculty of Philosophy at the University of Novi Sad) and, therefore, lack institutional governance when it comes to primary prevention in the field of mental health. The University of Niš's Student Association and the Association of Psychology "PsihoN", also at Niš, in recognition of the need and urgency for institutional support, helped to establish the Psychological Counselling Centre for Students, which has now been dedicated to helping students for more than 15 years (<https://savetni.org/savetodavni-sektor/>). The Centre serves to help students "strengthen their individual capacities, improve their social skills, adopt problem solving skills, and channel anxiety and aggressiveness, whilst also raising awareness of university and secondary school students and wider society on mental health prevention issues". According to their website, services provided by the counseling center are completely free. Actions are undertaken via three departments: Counseling, Education and Research. It should be noted that counseling services are implemented by trained psychotherapists (cognitive behavioral, psychoanalytic and Gestalt orientation), with SOS-teleapel (offering counseling services over the phone to students) and internet counseling (students' questions about their psychological problems/dilemmas are responded to via email) services also being used. The Counseling Center also delivers different outreach activities to students including seminars, round table discussions and panel discussions on various topics related to mental health in young people.

A study conducted by Blanusa et al. (2018), confirmed the importance of developing positive psychology programs due to their influence on the cognitive component of subjective wellbeing. Specifically, this research examined the efficacy of a six-week positive psychology intervention on satisfaction with life, subjective wellbeing and negative affectivity among 24 college students. Outcomes were assessed at baseline and two and six weeks after the intervention through the Serbian versions of the Satisfaction with Life Scale (SWLS) and Depression, Anxiety and Stress Scale (DASS-21). Subjective wellbeing was assessed using the Short Scale of Subjective Wellbeing conceived by Jovanović and Novović (2008). The program consisted of six interventions, which worked on writing about stressful events, writing about emotions, changing one's perspective of negative events, keeping a gratitude journal and focusing on positive events. Topics were worked on in the form of homework tasks. The first-week homework task was to record all stressful situations immediately following their occurrence, describing the event using a diary technique and rating the intensity of stress. The same task was performed in week two but expanded to encourage students to categorize stressors according to their source (e.g., chronic stress, stress at university, stress in the family, etc.). Participants were re-assessed using the same instruments applied for baseline testing. In the third week, participants were introduced to expressive writing. Specifically, participants wrote about their negative emotions during 20 minutes over four days. On the remaining three days on week three, students were tasked with writing about events from the

perspective of another person who was also implicated in the situation. The aim of the fourth task was to encourage a change in perspective. Each time participants thought about a negative event, they were charged to write, for five minutes, about their feelings and attempt to understand the reason for the event from the perspective of another person. This obliged them to write about themselves in the third person. On week five, students were tasked with writing down three good things that happened to them every day for ten minutes. The sixth task was to keep a gratitude journal three times a week for 15 minutes. Over the course of research, participants also attended lectures on mental hygiene, where they received additional information about mental health in children, young people and adults, mental health disorders, stress and psychological wellbeing. After the sixth week, participants were subjected to final assessment. This revealed that the intervention had a significant effect on life satisfaction and positive attitude towards life, whilst limited effects were produced for anxiety and no effects emerged for any of the other negative affectivity scales.

The Center for Resilience Development is a privately-owned counseling center that was founded in 2011 as the first of its kind in the Western Balkan region. This center is focused on providing support to vulnerable groups, education professionals and families through seminars, workshops and projects. In response to a gaping need, an expert team based at the centre created an online resilience course for students (<http://edu.iserbia.rs/onlajn-kurs-rezilijentnost-za-studente/>). Unfortunately, detailed description of the methods used to develop resilience is lacking and so no further information can be provided here.

The Child Protection Hub is a regional project/interactive platform. However, as stated in the name, this hub does not target university students but, instead, focuses on child protection practices and policies (<https://childhub.org/en/child-protection-multimedia-resources/helping-children-develop-resilience-manage-stress-and-strong>). This initiative “promotes continuous improvement of child protection practices and policies in South East Europe through a participatory approach and community of practices. This initiative is permanently growing through cooperation with the sharing of ideas online, particularly, via the web platform [www.childhub.org](http://www.childhub.org)”, but also offline. Although the main aim of this project is focused on “bring a positive change into the lives of children and families in South-East Europe by empowering and equipping practitioners, academics and policy makers in child protection with tools, resources and opportunities” as opposed to building resilience, explicitly, the project does a good share of work developing resilience with children from the Western Balkan including Ukraine and Moldavia.

The Child Protection Hub provides some open-access reading material, including the article “Helping Children Develop Resilience, Manage Stress and Strong Emotions using the 90 Second Rule” (found at: <https://www.alustforlife.com/mental-health/children-and-adolescents/helping-children-develop-resilience-manage-stress-and-strong-emotions-using-the-90-second-rule>). The “rule” referred to in the title represents a strategy to help children deal with stress and strong emotions called NABB. This acronym denotes four actions that can be performed by a child as a means of allowing 90 seconds to pass without negative thought interference (Figure 4.10.). The four actions are:

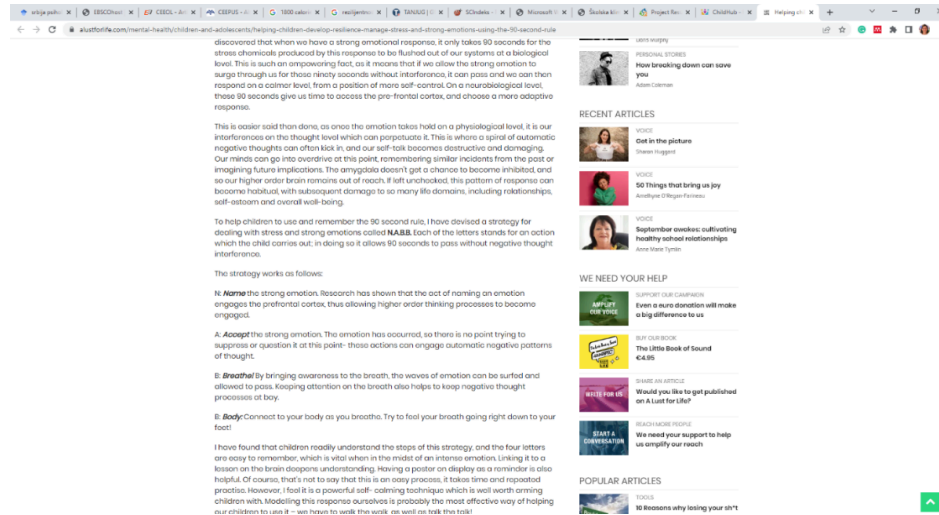
N: Name the strong emotion. Research has shown that the act of naming an emotion engages the prefrontal cortex, thus allowing higher order thinking processes to become engaged.

A: Accept the strong emotion. The emotion has occurred, so there is no point trying to suppress or question it at this point as these actions will likely engage automatic negative patterns of thought.

**B: Breathe!** By bringing awareness to one's breathing, waves of emotion can be surfed and allowed to pass. Placing attention on breathing also helps to keep negative thought processes at bay.

**B: Body:** Connect to your body as you breathe. Try to feel your breath going right down to your feet!"

Figure 4.10.  
The Child Protection Hub article *Helping Children Develop Resilience, Manage Stress and Strong Emotions using the '90 Second Rule' shared on the Hub webpage.*



In conclusion, resilience as a concept has not been studied or practiced as such within the Serbian research and teaching community. The topics considered mostly pertain to related issues such as wellbeing, self-esteem, psychotherapy and psycho-counseling. Nonetheless, these terms describe important factors that can be related to academic achievement at different levels of education (from primary school to higher education). Further research on this topic is, therefore, desperately required as such knowledge could help to empower students to more easily overcome challenges placed before them throughout the process of higher education. We hope that the proposed initiatives within RESUPERES will contribute to better understanding and recognition of the importance of the concept of resilience itself but, also, greater application of methods to develop it in the context of higher education.



#### 4.5. Spain. University of Granada (UGR, Granada)

The following images are from the Resuperes team at different moments of their activities at the University of Granada.

Figure 4.11. (Collage)

*Photos of the RESUPERES Team in the different Learning & Teaching Training activities, in Granada.*



##### 4.5.1. Review of Resilience: Research Studies, Articles and Resilience Development Programs in Higher Education in Spain

Research on resilience in university students in Spain has revealed important findings about how the way in which young people face and overcome adversity and academic stress.

The transition to university entails important changes, which can lead to health problems and impinge academic performance in students (Castañeda-García et al 2022; Jardim et al., 2021; Tipismana, 2019; Yuste et al., 2021). Added to this, COVID-2019 brought with it an array of additional challenges, which had a strong impact on all areas of life. In this sense, recent studies on university students have confirmed emotional, psychological social and academic impacts (García et al., 2024; Hurtubia-Toro et al., 2022; Lozano-Díaz et al., 2020; Save the Children, 2022).

In view of this, both the OECD (2020) and the United Nations (2020) have highlighted the need for teaching resilience as a strategy to help overcome contemporary changes (Hurtubia-Toro et al., 2022). Thus, resilience is considered essential to the development of university students and educators, as it is associated with health and wellbeing (Vizoso, 2019).

Castañeda et al. (2022), state that resilience is a key factor for predicting positive adaptation to the university setting, especially, in first-year students who face the greatest amount of change with the greatest consequences. In this way, resilience is essential for favoring academic skill development and tackling the pressures of studying, work and life (Caruana et al., 2014; Yuste et al., 2021). Studies are now starting to call for the need to work on resilience in the university setting (Brewer 2019; Lozano-Díaz et al., 2020; Vizoso, 2019).

The present chapter has sought to compile research published in the last 10–5 years in Spain, which considers resilience both from the point of view of the characteristics that define it in university students and the usefulness of interventions when it comes to developing it in the higher education setting. Findings from the review of intervention programs and studies carried out on resilience in Spain in the university context are presented below. Contributions are grouped according to the competence, capacity or strategy they seek to measure or develop.

#### ❖ *Coping Strategies*

Coping strategies encompass a set of techniques and approaches that can be employed by students to effectively manage academic and personal demands. These include time management, stress management, improved self-esteem and adapting to new environments (Cuberos et al., 2020). These skills, not only, improve resilience and emotional wellbeing but, also, enhance academic performance and promote satisfactory adaptation to university life, and they become even more important in sports practice, as a relevant strategy to achieve success (Bretón et al., 2016).

#### ❖ *Time and Stress Management*

Time management and its influence on the resilience and wellbeing of university students has been studied by López-Cortón (2015) at the University of A Coruña. Two relevant studies including 343 students from various disciplines examined the way in which effective use of free time and proper stress management contributed to the development of resilience in students.

In the first study, administration of the Connor–Davidson Resilience Scale (CD-RISC) and the Holmes and Rahe Stress Scale revealed that engagement in extracurricular activities, alongside effective stress management, played a crucial role in strengthening resilience. In addition, a significant relationship between student use of online social networks and their ability to handle stressful situations was highlighted, arguing that networks can serve as support tools and not just as distractions (Ubago et al., 2023).

In subsequent research, López-Cortón further expanded examination of the topic by including a questionnaire on leisure time activities, alongside the same resilience scale and “Holmes and Rahe Life Events Scale” used in previous research. Their findings reaffirmed the importance of effective time management skills and proactive coping strategies. This study underscored the need to prepare students, not only academically, but, also, in their ability to manage stress, highlighting that education around time management techniques and relaxation strategies should be an integral part of university education.

Furthering this research, Morales (2020) explored empathy and prosocial coping strategies in 200 students undertaking an Education Sciences and Psychology degree in Andalusia, using the “Inventory of Coping Strategies” and the “Cognitive and Affective Empathy Test”. Findings underscored the importance of equipping students to manage academic stress and creating a cooperative educational environment.

Further, Brando–Garrido et al. (2020), recruited 128 nursing students studying in Barcelona and examined the effect of academic procrastination on emotional wellbeing and suicide risk. Through the “Procrastination Scale,” “Reduced Oxford Happiness Questionnaire” and “Plutchik Suicide Risk Scale,” procrastination was identified to have detrimental effects on resilience and psychological wellbeing. This study underscores the need to address procrastination, not only, to improve academic performance but, also, to strengthen students’ mental and emotional



health, highlighting the importance of integrating time management strategies and stress reduction techniques into educational programs.

In the post-pandemic context, Romero-González et al. (2021), administered the "Revised 90 Symptom Scale", "Perceived Stress Scale" and "CD-RISC" to 83 students in Andalusia. Outcomes underscored the urgent need to develop intervention strategies to improve resilience and manage academic stress, especially during periods of lockdown. Suggestions from this study include the adoption of proactive measures that promote stress management and resilience, making it easier for students to better cope with the challenges posed by the pandemic.

In addition, Robledo-Martín et al. (2023) administered the "Zung Self-Rating Anxiety Scale" and "Stanford Acute Stress Reaction Questionnaire" to 92 nursing students. Findings highlighted the emotional challenges faced by students, such as managing stress stemming from excessive responsibilities and academic uncertainty. This indicated the need for stress management strategies tailored to meet the specific demands of nursing students.

#### ❖ *Improved Self-esteem, Self-concept and Self-efficacy*

At the University of Barcelona, Montes-Hidalgo and Tomás-Sábado (2016) researched 186 nursing students, assessing aspects such as self-esteem, resilience and suicide risk. Their findings suggested that strengthening resilience and self-esteem can contribute significantly to suicide risk reduction, highlighting the importance of developing robust coping strategies as a means of improving mental health in this group of students.

Following on from this, Finez and Morán (2017) explored these same dimensions in a larger group of 620 students residing in León and Salamanca. They revealed that students with higher levels of resilience exhibited a more robust emotional balance and healthy self-esteem. This relationship underscores the role of resilience as a critical mediator in mental health and student wellbeing.

In addition, Vázquez and Risso (2022) examined a sample of 512 students enrolled on courses relating to various disciplines in Galicia. They employed a multidimensional scale to examine self-concept and its impact on resilience. Specific dimensions of self-concept were identified that are crucial for transition to the world of work, with the need to improve self-esteem and perceived competence in students being of particular importance.

Also in the Galician context, Ferradás and Freire (2020) administered the "Ryff Psychological Wellbeing Scales" and "General Self-Efficacy Scale" to 630 students from various specialties in order to gather information regarding the impact of perceptions of personal competence and meaningful relationships on academic success and personal satisfaction. Findings of this study reinforce the idea that self-efficacy is an essential component of psychological wellbeing and resilience.

Finally, Brando-Garrido et al. (2020) investigated 237 nursing students using the "Tuckman Procrastination Scale" and other instruments in order to determine the effect of procrastination and perceptions of personal competence on resilience. Findings highlighted the crucial role of positive attitudes in mitigating procrastination and promoting resilient coping strategies.

#### ❖ *Academic Performance*

At the University of Salamanca, Moreno and Saiz (2014), carried out a study with 315 primary school students in order to examine their adaptation to university life. Following

administration of the "College Student Resilience Questionnaire (CRE-U)," they found coping strategies and resilience to be crucial for adaptation and academic success. Findings suggest that the implementation of intervention programs designed to foster resilience may improve, not only, academic performance but, also, overall wellbeing, urging a more holistic approach to be taken in higher education.

Subsequently, research conducted by Vizoso-Gómez and Arias-Gundín (2018) provides an important insight into the prevalence and causes of academic burnout among Early Childhood, Primary and Social Education students in León. Following administration of the "Maslach Burnout Inventory-Student Survey" and "10 item CD-RISC", alongside other instruments, the researchers analyzed the interactional effect of resilience and optimism on the phenomenon of academic burnout.

Similarly, a study carried out by Sánchez-De Miguel et al. (2023) at the University of Alicante with 789 students provides a valuable perspective of the interaction between motivation and academic resilience. Using the Brief Resilience Scale (BRS) and Perceived Locus of Causality Scale, the researchers revealed a direct effect of perceived control and motivation on students' ability to adapt and overcome academic challenges.

Finally, a study carried out by López-Aguilar et al. (2023) in the Canary Islands offers crucial insights into the relationship between resilience and student retention. With a sample of 412 Education Sciences students, the "Resilience and University Dropout Intention Questionnaire" was administered to explore the dynamics between resilience and university dropout intentions. Findings revealed a significant association with higher resilience meaning that students were less likely to consider dropping out.

#### ❖ *Life Satisfaction*

At the University of Almeria, Salvador et al. (2014) evaluated 174 Social Work and Psychology students via Diener et al., "Life Satisfaction Scale" and Wagnild and Young's "Resilience Scale". Findings of this study emphasized that both life satisfaction and resilience are fundamental for personal and academic development, suggesting that educational approaches should promote the holistic wellbeing of students. This perspective supports the idea that education should, not only, focus on academic learning but, also, on the development of robust emotional and psychological wellbeing.

Moving on, Malonda and Módenes (2018), in Salamanca, investigated the relationship between resilience, anxiety and meaning of life in 215 university students according to the "CD-RISC" and State-Trait Anxiety Questionnaire. They identified a negative relationship between resilience and anxiety, and a positive relationship between resilience and meaning of life. These findings highlight the importance of resilience, not only, for anxiety management but, also, for fostering a deeper sense of purpose and direction in life, which is crucial for personal and academic development.

San Román et al. (2019) examined resilience capacity according to religious disposition and gender in university students. For this, they obtained a sample of 597 Spanish university students, with the aim of describing levels of resilience and its relationship with gender and religious disposition. They employed the CD-RISC questionnaire as the main measurement instrument (Connor and Davidson, 2003). Findings revealed that males reported higher indices of optimism and adaptation to stressful situations, whilst females exhibited higher levels of spirituality. It was also observed that Christians and atheists/agnostics reported higher scores for challenging action-oriented behavior, whilst Muslims exhibited greater spirituality.

Finally, Valverde-Janer et al. (2023) carried out a study with 386 Education Sciences students in several Spanish cities. They administered the "CD-RISC" and other tools to measure emotional intelligence and personality. Findings underlined the importance of emotional intelligence and personality characteristics to resilience, with statistically significant differences also emerging according to gender. Authors of this study suggest that educational programs should consider these differences and personalize approaches towards strengthening student resilience.

#### ❖ *Social Isolation*

A study conducted by Lozano-Díaz et al. (2020) analyzed 343 students in Andalusia using the "Life Satisfaction Scale", "Resilience Scale" and "Online Social Capital Scale". Findings highlighted the importance of emotional wellbeing and social support networks to maintain resilience during social isolation. This underscores the need to promote strategies, including digital strategies, that strengthen social connections as a means of supporting student mental health.

In addition, Gutiérrez-Lozano et al. (2022), evaluated 567 Education Sciences students in Andalusia, focusing on emotional intelligence and coping strategies. This study highlighted the crucial role played by emotional intelligence and effective coping tools in managing stress, anxiety and depression, generally, and adaptation during lockdown.

Finally, Losa-Iglesias et al. (2023) investigated 140 nursing students in Madrid using the "Rosenberg Self-Esteem Scale" and other tools to assess self-esteem, resilience and psychological wellbeing. Findings revealed a higher prevalence of depression among students who received their education entirely online, which could be attributed to their lack of face-to-face interaction.

#### ❖ *Adaptation to University Life*

A study carried out by San Roman et al. (2019), in Andalusia examined 597 Social Sciences and Health students according to the "CD-RISC". Findings highlighted resilience as a key factor supporting positive adaptation to university life. In addition, this study revealed notable differences as a function of gender and religious tendencies, indicating that the experience of adaptation can vary widely between different groups of students. These findings suggest the importance of personalizing student support programs through consideration of determined sociodemographic factors in order to optimize the university experience of any given individual.

### **4.5.2. Review of educational research approaches that promote the integral wellbeing of students and teachers conducted by the Spanish University**

Research in the field of education has consistently shown that promoting psychological wellbeing is critical to academic success (Cepero, 2023a, 2023b). Various studies carried out at Spanish universities have revealed that different approaches can significantly contribute to the integral wellbeing of students.

At the University of Barcelona, Suriá (2015), evaluated 96 psychology students, concluding that resilience is essential for psychological wellbeing. This finding highlights the need to implement educational and support strategies that foster resilience development, thereby improving students' overall wellbeing.

On the other hand, Cejudo et al. (2016), conducted research in Castilla-La Mancha with 432 Education students to examine the relationship between emotional intelligence and life satisfaction. Following administration of the "Trait Meta-Mood Scale-24" and "Wagnild and Young Resilience Scale", they revealed that emotional intelligence contributes significantly to resilience and life satisfaction, underscoring the importance of integrating emotional intelligence training within educational programs.

At the University of Huelva, Álvarez (2017), studied 605 students and found that mindfulness practices were associated with lower levels of stress, depression and anxiety, and higher levels of resilience and life satisfaction. This emphasizes the relevance of incorporating mindfulness techniques into educational programs to promote psychological wellbeing and academic performance.

Suárez and Marrero (2020) conducted a study with 62 students in the Canary Islands and that interventions can effectively strengthen wellbeing and resilience, even when applied remotely. The study also highlighted the need to tailor these interventions to the specific characteristics of students in order to maximize their effectiveness.

In addition, Finez and Astorga (2015), in León and Salamanca, administered 256 students with the "Academic Resilience Scale" and "General Health Questionnaire" and found academic resilience to be closely linked to general health and anxiety. This suggests that strengthening resilience may have a knock-on effect on psychological wellbeing and academic success.

Research conducted by Melguizo et al. (2023), revealed that the only training process available in Spain with an exit into permanent teaching roles in the public sector is an overly complex and tedious process that can lead to disruptive mental states in candidates. Further, they examined resilience, stress, burnout syndrome and hours of study among candidates who opted for public teaching positions at different educational levels (pre-school, primary and secondary education) through a structural equation model using data from 4117 candidates. Findings revealed that candidates for pre-school and primary education teaching had higher levels of stress and burnout syndrome than candidates applying to teach at secondary schools, with the latter having higher levels of resilience and dedicating more hours to studying. In conclusion, levels of burnout, stress and resilience can vary depending on the educational stage at which the aspire to teach, with resilience being fundamental to helping them prevent and channel the negative states derived from stress and burnout syndrome.

The presence of burnout syndrome in the teaching context has grown exponentially over the last decade. This growth makes the negative impact of burnout in this group undisputable. In this sense, resilience is a factor that has become increasingly relevant in research, given that it constitutes a tool to successfully tackle adversity in the workplace. Some research has sought to identify the main variables associated with burnout syndrome and resilience in the teaching ambit, whilst also establishing the effects of these relationships. In this sense, González et al. (2021), performed a review of the relationship between resilience and burnout syndrome, gathering information from scientific outputs published and made available through Web of Science between 2016 and 2019. This review revealed these psychosocial constructs to have an important effect on the mental and social wellbeing of teachers, whilst also impacting the teaching-learning process.

Finally, Hurtubia-Toro et al. (2022), in Catalonia, examined postcards as a creative tool to collect data on resilience in Master's degree students. This innovative approach, not only, provided new perspectives on resilience but, also, promoted emotional connections and empathy strategies.

We're going to now group the research studies by content or constructs:

#### ❖ *Family Climate and Social Support*

Family climate and social support are crucial aspects in the development of resilience, especially in the university context. Several studies have explored the positive influence of these elements on students' adjustment and overall wellbeing.

Caamaño (2016), at the University of Santiago de Compostela, examined 39 Pedagogy students by administering the "Wagnild and Young Resilience Scale". Findings highlighted the importance of a positive family environment to the development of resilience in the university context, suggesting that a harmonious family environment contributes significantly to psychological robustness in students.

On the other hand, Madariaga et al. (2016), at the University of the Basque Country, administered 117 Social Education students with the "Wagnild and Young Resilience Scale" and "Family APGAR" to assess family functionality. Findings underscored that a functional family environment is essential for fostering resilience, highlighting a symbiotic relationship between family wellbeing and individual resilience, and indicating that healthy family dynamics are critical to ensure that students are emotionally and psychologically supported.

Lozano-Díaz et al. (2020) examined the impact of COVID-19 confinement on life satisfaction, resilience and online social capital in 343 students in Andalusia, via application of the "Life Satisfaction Scale" and "Resilience Scale". This research concluded that, especially during periods of social isolation, emotional wellbeing and social support networks are vital to maintaining resilience.

In the Canary Islands, Castañeda-García et al. (2022) recruited 100 Psychology students to examine the influence of social support on the development of resilience and adaptation to university life. Following administration of the "CD-RISC" and "Family and Friends Social Support Scale", it was revealed that robust social support, and support from both family and friends, plays a crucial role in this process. This study concludes that a supportive environment, not only, reinforces resilience but, also, facilitates a smoother and more fulfilling transition to university life, thus improving students' emotional and academic wellbeing

Finally, Ferradás and Freire (2020), in Galicia, analyzed 630 students from various specialties via administration of the "Ryff Psychological Wellbeing Scales" and "General Self-Efficacy Scale". Their findings suggested that meaningful relationships and perceptions of personal competence are key elements for academic success and personal satisfaction, reinforcing the idea that social support and a positive family climate are essential for students' wellbeing and resilience.

#### ❖ *Teacher and Student Resilience in the Sport Setting*

A study carried out by Jerez and Cabrera-Fernández (2021) in Andalusia provides an important perspective on the impact of the sports setting on the development of resilience in university students. The "Perceived Motivational Climate in Sport Questionnaire" and "CD-RISC" were administered to 571 students undertaking various degrees, including Social Education, to explore the relationship between motivational climate in sport and student resilience. This research revealed that development of different resilience-related factors favored intrinsic manifestations of motivation. In other words, components of a task climate were facilitative, whilst factors inherent to an ego climate were detrimental. These findings also considered differences in the age of research participants

Sevil et al. (2017) conducted a study at the University of Zaragoza that explored perceived barriers to physical activity engagement in university students, with significant differences emerging according to gender and physical activity levels. Findings indicated that women perceived more barriers to engaging in physical activity, with concomitant negative impacts on resilience and general wellbeing. It was concluded that resilience and self-efficacy (belief in one's own ability to overcome challenges) mediated the relationship between physical activity and stress management in university students. Students who engaged in more physical activity also tended to exhibit greater resilience and were more able to handle stress, which is crucial for their mental and academic wellbeing.

Sánchez and Ortín (2022), conducted a review of articles published between 2018 and 2020 on resilience in athletes. Findings revealed that athletes exhibit higher levels of resilience compared to non-athletes. Resilience was also observed to be negatively related with stress, anxiety and sports injuries, and positively related with level of commitment. In addition, personal characteristics such as intrinsic motivation, frustration tolerance and self-efficacy were found to increase resilience. The coach and sport environment was also highlighted to have a meaningful impact on athletes' personal and sporting development. Finally, it was concluded that sport engagement encourages the development of protective factors in athletes, which allows them to overcome difficult situations, such as pressure, injury and defeats, both on and off the field of play, whilst also reducing anxiety and stress.

Findings reported by Reche et al. (2020a), unveil that resilience also predicts risk of dependence on physical exercise, with differential effects also emerging as a function of sex and level of competition (amateurs vs. elite) (Reche et al., 2013). After evaluating 387 athletes of various modalities, of which 281 were men and 106 were women, outcomes indicated that 8.3% of participating athletes were at risk of exercise dependence, whilst 24.8% exhibited high levels of resilience. No significant differences were found according to sex and level of competition, with both female and elite athletes demonstrating greater personal competence, including aspects such as self-confidence, independence, decisiveness, invincibility, power, ingenuity and perseverance. On the other hand, males and amateur athletes tended to cut back on other non-exercise activities and train for longer than initially planned. These findings suggest that intervention programs aimed at improving the resilience profile of athletes should also target, where relevant, physical exercise dependence, due to its potential implications for psychological health.

A study by Fernández-García et al. (2024) in response to the high risk of psychological malaise within the teaching profession, as shown through the large number of teachers showing high levels of anxiety, depression and stress examined the role of physical activity engagement regarding emergence of these disruptive states. They examined the effect of anxiety, depression and stress on psychological wellbeing, as a function of weekly physical activity engagement in a sample of 4117 teachers. Findings revealed that leading an active lifestyle helps to reduce the effects of anxiety, depression and stress on wellbeing. It was concluded that physical activity helps to reduce the effect of disruptive states on wellbeing and, therefore, contributes positively to resilience formation.

#### ❖ *Development of Personal Strengths via University Curricular Content*

Integration of content targeting the development of personal strengths within university curricula has proven crucial to supporting students' academic and personal resilience and success. Several studies carried out at different universities in Spain highlight the importance of this educational approach.

Ovejero (2014), at the Complutense University of Madrid, carried out an extensive study with 1,274 students from various disciplines employing the "VIA Inventory of Strengths". This study promoted inclusion of personal strength development through university curricula content, arguing that such an approach may facilitate students' academic and personal success by enhancing their resilience.

For their part, Quevedo-Aguado and Benavente-Cuesta (2018), in Salamanca, analyzed 458 Nursing and Psychology students, linking resilience with psychological wellbeing and the perception of illness. This study underscores the relevance of incorporating resilience training into the education of health professionals, highlighting how these skills are fundamental for their professional and personal development.

In Andalusia, Díaz et al. (2021) investigated 253 nursing students using the "CD-RISC" to explore how training and practical experiences contribute to resilience, a key aspect in facing professional challenges. This study highlights the importance of resilience in practical contexts and how it can be cultivated through targeted training experiences.

García (2022) focused on the field of Social Work and, although he did not specify the sample, used open questionnaires and meeting minutes to emphasize the importance of resilience in practical educational contexts, especially in disciplines oriented toward social service, where facing challenges is essential.

Finally, Mayor-Silva et al. (2022) explored resilience in 370 Nursing and Physiotherapy students in Madrid, using the "Positive and Negative Affect Schedule" and other scales. The findings highlight the relevance of positive emotions and coping skills for the development of resilience. This study suggests the need to implement robust emotional and psychological support strategies to prepare future health professionals to effectively manage the challenges inherent in their careers.

Ravina et al. (2022) focused on the relationship between the personal and academic happiness of 76 Business Administration students in Andalusia, using a structured online questionnaire. The study concludes that a higher level of personal happiness, directly related to resilience, is associated with higher academic satisfaction. This underscores the importance of educational institutions contributing to the holistic wellbeing of their students, promoting an environment that favors both academic success and personal happiness.

Finally, Hervás-Torres et al. (2022), based on the fact that institutional variables play a crucial role in the development and wellbeing of university students, analyzed 54 students from various disciplines in Andalusia using the "Questionnaire of Academic Commitment of University Students" and a mentor workbook. This study highlights the importance of mentorship and academic engagement in strengthening student resilience. The results emphasize the essential role of institutional support and mentoring relationships in developing effective coping strategies, showing how guidance and ongoing support can help students better manage academic and personal challenges.

In conclusion, regarding the studies, programs, or interventions in Spain in higher education, it should be noted that:

- ✓ The test most used by researchers to measure resilience was the CD-RISC by Connor and Davidson (2003).
- ✓ Few studies relate resilience to university teachers.
- ✓ The results indicate that resilience capacity is an essential element for the positive



adaptation of university students (San Román-Mata et al., 2019), and that university efforts are necessary (Díaz et al., 2021).

- ✓ Andalusia leads scientific production on resilience in Spain, with the largest number of publications in the last 10 years, of which 75% of them were conducted at the University of Granada by members of the RESUPERES team.
- ✓ Regarding the degrees collected in branches of knowledge, studies in Social and Legal Sciences, and Health Sciences stand out. Notably, there has been an increase in studies from 2020 onwards in the Nursing degree due to the emotional impact, in the form of stress, caused by uncertainty, lack of material resources, excess responsibility, and the possibility of transmitting diseases to relatives during academic internships in hospitals (Robledo-Martín et al., 2023).
- ✓ Students and future professionals must possess the academic and personal skills necessary for resilience (Valverde-Janer et al., 2023). This need became more relevant after the pandemic, with university students who experienced confinement due to COVID-19 currently showing less resilience (Romero-González et al., 2021). These lower rates correspond to students who only had virtual teaching, which may be due to the lack of face-to-face interactions with professors or classmates (Losa-Iglesias et al., 2023) and/or a lack of family and social support (Ramos-Martín et al., 2023). These data highlight the importance of personal and emotional factors in the educational trajectories of students.
- ✓ Regarding performance, the results show a lower intention to drop out when students have higher resilience indexes, and vice versa. This intention to drop out increases when resilience indexes are low, reflecting a positive relationship between resilience and academic performance.
- ✓ The studies analyzed conclude that resilience protects against stress and anxiety in the university environment (Gutiérrez-Lozano et al., 2022; Malonda & Módenes, 2018; Morales, 2020; San Román-Mata et al., 2019; Vizoso-Gómez & Arias-Gundín, 2018, etc.).
- ✓ In the field of physical activity, although few studies have been found, a positive relationship between the practice of physical activity and sports and the ability to overcome adversity in university students was noted during the analyzed period (Bretón et al., 2016; Jerez & Cabrera-Fernández, 2021; Reche et al., 2020b; Zurita et al., 2017, etc.).

For these reasons, the study of resilience has become an important topic in the context of higher education in Spain (López-Aguilar et al., 2023). Future education university professionals must possess the academic and personal skills necessary for resilience, since will face difficult situations, and the development of resilient skills is an important part of their training (Valverde-Janer et al., 2023). Likewise, and for the same reasons, training and guidance actions are needed to improve this competence during training of students, such as the RESUPERES Project.

#### **4.5.3. Review of resilience research and Resilient constructs in university context, in Granada University**

The publications found at the University of Granada related to Resilience represent a high percentage of the publications in Spain, and more in Andalusia, they are also almost all

belonging to authors integrated in the RESUPERES team, or collaborators. It are presented, the articles and research found on resilience or the constructs that form it and in a university context, in chronological order and with an active link that will take it directly to the publication:

♦ 2024:

- Análisis de la resiliencia y el clima motivacional en deportistas de combate y artes marciales. Cuadernos de psicología del deporte, 24(3), 182–196.
- Development and validation of a mental hyperactivity questionnaire for the evaluation of chronic stress in higher education. BMC Psychology, 12(1).
- Impact of Physical Activity and Bio–Psycho–Social Factors on Social Network Addiction and Gender Differences in Spanish Undergraduate Education Students. Behavioral Sciences, 14(2).
- Impact of emotional intelligence and academic self-concept on the academic performance of educational sciences undergraduates. Heliyon, 10(8).
- Physical activity as a mediator of stress, anxiety and depression on well-being in physical education teachers. Journal of Human Sport and Exercise: JHSE, 19(1), 117–129.
- Physical activity time, alcohol consumption, mediterranean diet, and anxiety in education science students. EJIHPE: European Journal of Investigation in Health, Psychology and Education, 14(1), 87–102.
- Relationship between Mediterranean diet, physical activity and emotional intelligence in Spanish undergraduates. Retos: nuevas tendencias en educación física, deporte y recreación, 55, 307–316
- Violent behaviour and emotional intelligence in physical education: the effects of an intervention programme. EJIHPE: European Journal of Investigation in Health, Psychology and Education, 14(7), 1881–1889.

♦ 2023

- An explanatory model of the relationships between sport motivation, anxiety and physical and social self-concept in educational sciences students. Current Psychology, 42(18), 15237–15247.
- Analysis of academic performance according to levels of physical activity and life satisfaction. A systematic review. Sportis: Revista Técnico–Científica del Deporte Escolar, Educación Física y Psicomotricidad, 9(3), 610–636.
- Analysis of the psychometric properties of the five-factor self-concept questionnaire (AF-5) in Spanish students during the COVID-19 lockdown. Current Psychology, 42(20), 17260–17269.
- Análisis del autoconcepto, inteligencia emocional y violencia según la modalidad deportiva practicada en educación superior. Apunts: Educación física y deportes, 154, 61–70.
- Burnout Syndrome, Stress and Study Hours in the Selection Process for Educational Teaching Staff: The Role of Resilience–An Explanatory Model. Social Sciences, 12, 4.
- Burnout, estrés y resiliencia en el proceso de oposición a cuerpos educativos. Revista de educación, 402, 31–54.
- Could the complying with WHO physical activity recommendations improve stress, burnout syndrome, and resilience? A cross-sectional study with physical education teachers. Sport Sciences for Health, 19, 1, 349–358.

- Inteligencia emocional en el perfil formativo y psicosocial de los estudiantes universitarios: una revisión sistemática. *Educatio siglo XXI: Revista de la Facultad de Educación*, 41(2), 147–164.
- Mass media pressure on psychological and healthy well-being. An explanatory model as a function of physical activity. *Journal of Public Health (Germany)*, 31(10), 1663–1671.
- Practice of physical activity its association with violence, emotional intelligence, and self-concept development in undergraduates. *Cuadernos de psicología del deporte*, 23(1), 53–62.
- Sports motivation, anxiety and diet in education students. *Revista Internacional de Medicina y Ciencias de la Actividad Física y del Deporte*, 23(92), 1–13.
- Study of the relationship between motivation towards physical activity and its relationship with anxiety and self-concept in the educational setting: a systematic review. *Ansiedad y estrés*, 29(1), 34–44.

❖ 2022

- Explanatory Model Based on the Type of Physical Activity, Motivational Climate and Adherence to the Mediterranean Diet of Anxiety among Physical Education Trainee Teachers. *Applied Sciences (Switzerland)*, 12(24).
- Motivational Climate, Anxiety and Physical Self-Concept in Trainee Physical Education Teachers—An Explanatory Model Regarding Physical Activity Practice Time. *International Journal of Environmental Research and Public Health*, 19(19).

❖ 2021

- Basic psychological needs, emotional regulation and academic stress in university students: a structural model according to branch of knowledge. *Studies in Higher Education*, 46(7), 1421–35.
- Importancia de la actividad física sobre la inteligencia emocional y diferencias de género. *Retos: nuevas tendencias en educación física, deporte y recreación*, 42, 636–642.
- Intervención para la promoción de resiliencia en docentes y estudiantes universitarios: fundamentación y protocolo de investigación del proyecto RESUPERES. *Metodologías activas con TIC en la educación del siglo XXI (Dykinson)*, 2615–2644.
- Relación de efecto del Síndrome de Burnout y resiliencia con factores implícitos en la profesión docente: una revisión sistemática. *Revista de educación*, 394, 271–296.
- Study of psychosocial and academic indicators in young adults from andalucía, Spain. *International Journal of Environmental Research and Public Health*, 18(2), 1–12.

❖ 2020

- A predictive study of resilience and its relationship with academic and work dimensions during the COVID-19 pandemic. *Journal of Clinical Medicine*, 9(10), 1–11.
- Autoconcepto multidimensional según práctica deportiva en estudiantes universitarios de Educación Física de Andalucía. *Retos: nuevas tendencias en educación física, deporte y recreación*, 37, 174–180.
- Bienestar social en la etapa universitaria según factores sociodemográficos en estudiantes de educación. *REDIE: Revista Electrónica de Investigación Educativa*, 22.
- Emotional intelligence in the educational field: a meta-analysis. *Anales de psicología*, 36(1), 84–91.

- Impact of physical activity practice and adherence to the mediterranean diet in relation to multiple intelligences among university students. *Nutrients*, 12(9), 1–12.
  - Relación entre la inteligencia emocional y los niveles de ansiedad en deportistas. *Journal of sport and health research*, 12(1), 42–53.
  - Relationship between leadership and emotional intelligence in teachers in universities and other educational centres: A structural equation model. *International Journal of Environmental Research and Public Health*, 17(1).
  - Índices de liderazgo educativo en función de la responsabilidad asumida en el deporte. *Journal of sport and health research*, 12(1), 54–63.
- ❖ 2019.
- Analysis of motivational climate, emotional intelligence, and healthy habits in physical education teachers of the future using structural equations. *Sustainability (Switzerland)*, 11(13).
  - Análisis psicométrico y relaciones de diagnóstico de la inteligencia emocional y liderazgo en docentes de enseñanzas regladas. *Revista de investigación educativa, RIE*, 37(1), 201–216.
  - Association of Motivational Climate With Addictive Behaviors Depending on Type of Sport in University Students: Structural Equation Analysis. *SAGE Open*, 9(3).
  - Autoconcepto, actividad física y sustancias nocivas: Un modelo de ecuaciones estructurales. *Revista Internacional de Medicina y Ciencias de la Actividad Física y del Deporte*, 19(75), 505–520.
  - Capacidad de resiliencia según tendencia religiosa y género en universitarios. *REDIE: Revista Electrónica de Investigación Educativa*, 21.
  - Estudio descriptivo de los niveles de ansiedad en deportistas según modalidad practicada. *Journal of sport and health research*, 11(3), 241–250.
  - Estudio descriptivo del clima motivacional percibido hacia el deporte según el sexo de los futuros docentes de Educación Física. *Sportis: Revista Técnico-Científica del Deporte Escolar, Educación Física y Psicomotricidad*, 5(1), 85–100.
  - Influence of emotional intelligence and burnout syndrome on teachers well-being: A systematic review. *Social Sciences*, 8(6).
  - Relationship between academic stress, physical activity and diet in university students of education. *Behavioral Sciences*, 9(6).
  - Use of meditation and cognitive behavioral therapies for the treatment of stress, depression and anxiety in students. A systematic review and meta-analysis. *International Journal of Environmental Research and Public Health*, 16(22).
- ❖ 2018
- An explanatory model of emotional intelligence and its association with stress, burnout syndrome, and non-verbal communication in the university teachers. *Journal of Clinical Medicine*, 7(12).
  - An exploratory model of psychosocial factors and healthy habits in university students of physical education depending on gender. *International Journal of Environmental Research and Public Health*, 15(11).

- CO-374. Análisis de la percepción emocional y autoconcepto de los futuros docentes en su proceso de formación. 6th International Congress of Educational Sciences and Development: proceedings.
- Relación entre autoconcepto, consumo de sustancias y uso problemático de videojuegos en universitarios: un modelo de ecuaciones estructurales. Adicciones: Revista de sociodrogalcohol, 30(3), 179-188.
- Relationship of resilience, anxiety and injuries in footballers: Structural equations analysis. PLoS ONE, 13(11).
- Revisión conceptual de la conexión entre inteligencia emocional y autoconcepto físico. Sport TK: revista euroamericana de ciencias del deporte, 7(1), 139-144.

❖ 2017

- Análisis de la resiliencia, autoconcepto y motivación en judo según el género. Revista de Psicología del Deporte, Vol. 26, Núm. (1), 71-81.
- Análisis de la resiliencia, ansiedad y lesión deportiva en fútbol según el nivel competitivo. Cultura, ciencia y deporte, 12(35), 135-142.
- Análisis de los constructos de autoconcepto y resiliencia, en jugadoras de baloncesto de categoría cadete. Revista de Psicología del Deporte, 26, 127-132.
- Autoconcepto y ansiedad en estudiantes de Educación Física vs estudiantes de Enfermería. Alcance de la Investigación en la Educación Física: Camino hacia la calidad de vida (Facultad de Ciencias de la Educación), 320-328.
- Clima motivacional e inteligencia emocional en la promoción de hábitos saludables: Una revisión narrativa. EmásF: revista digital de educación física, 49, 108-117.
- La actividad física como promotora de la inteligencia emocional en docentes. Revisión bibliográfica. Trances: Transmisión del conocimiento educativo y de la salud, 9(1), 261-276.
- Panorama motivacional y de actividad física en estudiantes: una revisión sistemática. Education, Sport, Health and Physical Activity (ESHPA): International Journal, 1(1), 41-58.
- Relación entre el rendimiento académico y autoconcepto en jugadoras de baloncesto de categoría cadete en competición nacional extraescolar. Sport TK: revista euroamericana de ciencias del deporte, 6(2), 75-80.
- Resiliencia, un elemento de prevención en actividad física. Sportis: Revista Técnico-Científica del Deporte Escolar, Educación Física y Psicomotricidad, 3(1), 50-62.
- Validation of Resilience Scale (CD-RISC) in elite athletes through a structural equation model. Retos: nuevas tendencias en educación física, deporte y recreación, 32, 96-100.

❖ 2016

- Abordando la exclusión social y educativa desde el área de educación física: panorámicas y perspectivas. Trances: Transmisión del conocimiento educativo y de la salud, 8(1), 331-344.
- Associations of motivation, self-concept and resilience with the competitive level of Chilean judokas. Archives of Budo, 12, 201-209.
- Estudio de la resiliencia en función de la modalidad deportiva: fútbol, balonmano y esquí. Retos: nuevas tendencias en educación física, deporte y recreación, 29, 157-161.

- La resiliencia como factor determinante en el rendimiento deportivo. Revisión bibliográfica. E-Balonmano.com: Revista de Ciencias del Deporte, 12(2), 79–88.
- Niveles de resiliencia en base a modalidad, nivel y lesiones deportivas. Retos: nuevas tendencias en educación física, deporte y recreación, 29, 162–165.
- Influencia de la capacidad resiliente en etapas de formación de baloncesto femenino, como indicador de mejora en el rendimiento. Granada University (Bretón, S., Doctoral Phd, 2015).

As a conclusion to Chapter 4, and after the presentation of the large number of research carried out both in the Spanish university (in Granada) specifically, and in university contexts, as well as in all the RESUPERES universities and partner countries, Italy, Norway, Portugal and Serbia, the interest, and in turn the concern for the development of resilient training in Higher Education is demonstrated.

RESUPERES (<https://resuperes.eu/>), based on this theoretical framework, has shown that initiatives that are based on developing and improving resilience in university contexts, and including them in the curriculum, are initiatives to foster this capacity have a significant positive impact on students' mental health and academic achievement (Cepero, 2023a, 2023b, 2024; García-Pérez et al., 2024; RESUPERES, 2022–2025).



# **Chapter 5. RESUPERES Areas, Contents and Activities for Developing Resilience in Higher Education**



## Chapter 5. RESUPERES Areas, Contents and Activities for Developing Resilience in Higher Education

Our last chapter contains both theoretical and practical knowledge on the development and improvement of resilience in the areas of knowledge that we consider, based on all our research and experience, to be the most suitable for this (Cyrułnik, 2018), framed within higher education.

After conducting an exhaustive review of research on the concept of resilience in previous chapters, exploring how it manifests in the university context and, finally, capturing the European landscape of the state of the art, research findings and projects regarding resilience in Europe (RESUPERES consortium countries), Chapter five presents the justification, content review, and specific proposals for intervention and activities in each priority area for the development of resilience, which form part of the RESUPERES program.

To this end, we provide a justification for the contents to be developed in each area, a review of programs and research on resilience, and proposals for activities aimed at developing resilience constructs, such as coping, self-concept, self-esteem and others. The main constructs selected in RESUPERES, however, include leadership, teamwork, mindfulness (focus), creativity and cultural heritage. These are drawn from the areas of physical activity and health (body expression and dance, indoor gymnastics, mindfulness, yoga, breathing exercises, fitness, and physical and sports activity in natural environments), as well as communication, culture, and the performing and visual arts (art, music, photography, culture, literature and narrative). These activities generate resilient behavior patterns, as they are considered essential areas for the development of this construct. Selection of these areas is based on the work and experience of higher education institutions in project partner countries (Cepero 2023a, 2023b, 2024).

**Figure 5.1**

*Students in the Implementation of the subject RESUPERES in Italy (Module: Autobiographic Training, Profs. Maddalena, S. & Paolozzi, F.)*

**Figure 5.2.**

*Students in the Implementation of the subject RESUPERES in Portugal (Module Art & Creativity, Prof. Mártires M.).*



## 5.1. Art and Creativity

One of the goals of this project is the creation of several art-based activities or creative tasks that can provide students with the necessary skills and tools to help them cope when faced with adversities

"How can creativity and art make us more resilient; one might ask? In response to this question, Aguilar states that "there's another way we can cultivate resilience that's often overlooked, which is to boost our creativity" (Aguilar, 2018). She goes on to say that "creativity and play unlock inner resources for dealing with stress, solving problems, and enjoying life. When we are creative, we are resourceful, and we problem-solve in new and original ways, which fuels our courage. Our thinking expands, as does our connection with ourselves and others" (Aguilar, 2018, p. 247).

Figure 5.3.  
*State of Soul, Mariana Gonçalves, age 16, Oil Pastels on Paper (2022).*



### 5.1.1. Research review on Art and Creativity in Resilience

There are several studies that support the approach of using artistic activities as tools for resilience. Berman points out that "the arts enable... They also promote agency and resilience" (2017, p. 18). Similarly, Metzl mentions that creative thinking and production support resilience in response to adverse situations (2009). Kaimal and her team have conducted several studies in this field and argue that the aesthetic information collected from subjects leads to a greater knowledge about them. In agreement, Mártires declares that by analyzing students' drawings, it is possible to confirm personal aspects related to their personalities, as evidenced in their artwork, she reinforces this idea by stating that art is essentially the expression of oneself (Mártires et al., 2015). In this sense, Kaimal refers to research based on artistic approaches that shows these types of activities promote self-awareness, new perspectives and a sense of action to imagine new possibilities (Kaimal et al., 2014; Kaimal et al., 2016a).

Biological studies related to creative self-expression also support this idea. Dysfunction in the hypothalamus-pituitary-adrenal axis, which is involved in the stress response, is typically associated with increased cortisol levels. In addition to several other studies, Kaimal et al. (2017a, 2017b) conducted experiments in this context and obtained results showing a

decrease in cortisol levels in about 75% of their sample after performing artistic activities (2016b). Furthermore, according to Sylwester, cited by Kaplan (2000), creativity produces increased serotonin levels in the brain, which, in turn, triggers higher self-esteem and consequently reduces impulsivity and irritability.

In the cultural domain, Mártires explains that the search for identity in subjects, as seen in their drawings, is as visible as it is in their way of dressing. "The search for students' identity can be reflected in the way they dress, with different styles according to certain social groups that share common tastes. In this way, they also tend to draw similarly, based on drawing styles or cultures with which they associate or identify. ... In this multicultural age in which we live, and in which we are increasingly connected through the internet and the media, we suffer cultural influences from all over the globe and acquire different cultures depending on interest groups and ways of thinking" (Mártires et al., 2015, p. 63). Thus, in the multicultural educational context in which we live, the practice of artistic creation is even more meaningful, as it can capture cultural narratives important to our communities (Dissanayake, 1992).

Kaimal et al. (2014), discusses the effectiveness of the arts in serving as a bridge for mutual understanding through collaborative artistic practices as well as the sharing of artistic experiences.

Art has the ability to help one be resilient by providing a sense of autonomy, self-esteem, and self-expression. These are skills that help when facing adversities by enabling the processing of emotions and thoughts, allowing one to resume normal functioning despite difficult situations. The outcome of art-making activities, the process of creating, and the creative process itself can facilitate healing and growth (Art Therapy Resources, 2022). Reinforcing this concept, Prescott states that creative thinking is essential for problem-solving (Prescott et al., 2008).

Autonomy, a sense of purpose, problem-solving skills and social skills are personal traits that can be enhanced through art and are fundamental for resilience (Art Therapy Resources, 2022). Malchiodi found that creative individuals tend to be more autonomous, self-reliant, independent, assertive, self-accepting, resourceful, emotionally sensitive, and more willing to take risks. Thus, their involvement in creative activities helps them develop these qualities, thereby enhancing their resilience (Malchiodi, 1998).

Silva and Motta go even further, stating that the skills of a creative person include: innovation, flexibility, a good self-image, the ability to associate ideas in different ways, persistence and the ability to become resilient (Silva & Motta, 2017).

### **5.1.2. Activities to develop resilience through Art**

Considering all of the above, we propose a review of the literature of art that helps resilience from practice, since at a scientific level it is not very numerous, so we present art-based creative activities that can help equip students with the necessary skills and tools to cope when faced with adversities.

## 1.- **Self-Portrait:** Introspection, self-acceptance.

- Art Medium/Technique: Collage or Mixed Media.

Figure 5.4.  
Paul Klee – Senecio



Figure 5.5.  
Marcel Duchamp – Self-portrait



Figure 5.6.  
Pablo Picasso – Girl Before Mirror



- Resilience constructs: Resilience Skills Intervention: Self-image, self-acceptance, self-esteem, self-expression, resourcefulness, and problem-solving in new and original ways: unlocking inner resources for dealing with stress.
- Process: Start with a brief outline of the activity to be developed and show various artworks (portraits/self-portraits) created by well-known artists as examples. These will serve as references for constructing a self-portrait in collage. Explain that a self-portrait can represent not just the physical aspects of oneself, such as resemblance, but also psychological aspects. The examples provided will be non-realistic in nature, which is beneficial because no specific art skills are required to achieve a satisfying outcome. This also applies to the medium/technique used in the activity.

Students will have the opportunity to reflect on which colors, lines, shapes and elements to use, relating them to their emotions, personal traits, physical characteristics, desires, etc., whether positive or negative. At the end of the activity, students will write a descriptive reflection about the task performed, guided by questions focusing on resilience factors. They will also reflect on the results and outcomes of their artwork.

- Duration: 1 hour 30 minutes
- Materials Needed for Activity: Magazines/newspapers, various types of paper/cardboard in different colors, wood glue, scissors, paintbrushes, pencils, markers, etc.
- Examples of Student Artwork

Example 1. Descriptive Memory Text: "With the introspective part of my self-portrait I wanted to show a side of me that is not visible, the broken side, insecure and sad, the vulnerable side of me that hides behind a smiling and happy mask and that no matter how much I try to hide it and push it away, it is, and will always be a part of me. My self-portrait is in a mirror because, in part, it is a reflection of what I am and what I feel." (Figure 5.7.)

Example 2. Descriptive Memory Text: "In this drawing, inspired by Picasso, I represented myself with the style and colors related to cubism, with geometric shapes and deformed figures. In the center of the drawing, I used cutouts for the glasses. In the three mirrors I am visible from different angles. In the mirror on the upper right, I am reflected from behind, in the lower right, with different colors representing different emotions, and in the lower left corner, with clock clippings to show the passage of time".

**Figure 5.7.**  
*Self-Portrait / Introspection, Mariana Gonçalves, age 16, Oil Pastels on Paper, 2022.*

**Figure 5.8.**  
*Self-Portrait / Introspection, Lia Palma, age 15, Oil Pastels on Paper, 2022.*



## 2.- Upps! (Ink Splatter)

- Resilience constructs: Embracing chance, the accidental, or the unintended.
- Art Medium/Technique: Painting, drawing or mixed media.
- Description: Create an artwork in which a “mishap” is the starting point. Accept the error and roll with it. Learn to turn a mishap into something positive because accidents happen. Examples come from Jackson Pollock (dripping/action painting) and Fernando Brizio (A Viagem)

“We don’t make mistakes -- we just have happy accidents.” Bob Ross

**Figure 5.9.**  
*Example of Starting Point*



- *Resilience Skills Intervention:* Resourcefulness, problem-solving in new and original ways, dealing with stress, creative thinking, new perspectives and a sense of action to imagine new possibilities. Accepting our faults and mistakes.
- *Process:* Start with a brief outline of the activity to be developed and show various artworks created by artists and designers as examples that will serve as references. Explain that accidents, disasters and misfortunes happen, and no one is immune to them. What matters is how we deal with them. Students will have the opportunity to reflect on how they can turn a negative outcome into a positive one and come to terms with their failures and frustrations. This will also help them understand how the “unexpected” can play a positive role in this change.



This activity is beneficial because no specific art skills are required to achieve a satisfying result, as is the case with the medium/technique used. At the end of the activity, students will write a descriptive reflection on the task performed, guided by questions that focus on the resilience factors to be addressed and reflect on the results and outcomes of their artwork.

- *Duration:* 1 hour 30 minutes
- *Materials Needed for Activity:* Watercolor paper/white Canson paper, Indian ink, paintbrushes, colored pencils, markers, watercolors, etc.

Figure 5.10.  
Fernando Brizio – The Journey



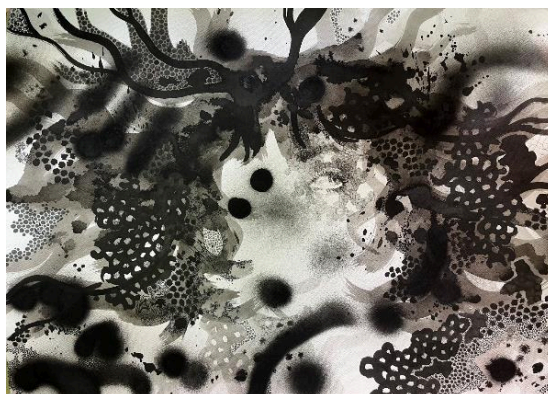
Figure 5.11.  
Jackson Pollock – dripping/action painting



### · Examples of Students Artworks

*Example 1.* Descriptive Memory Text: "Mistakes are part of any painting. It all depends on the perspective."

Figure 5.12.  
Ink Splatter, Dária Bashkistrova, age 18, Ink on Paper.



*Example 2.* Descriptive Memory Text: "The drawing of the stain is a reference to a character from a Japanese work by Tatsuki Fujimoto, my main inspiration lately. The character is the Darkness Devil, a demon that represents fear since the dawn of humanity – the demon of darkness. In the drawing, I exaggerated the amount of black ink, so I had the idea to flip the paper to the side with less ink. I then decided to draw this character. I took advantage of the darkness of the ink stain to depict the actual demon of darkness. The drawing might have turned out better in my view, but it came out decently. A curious detail: the demon of darkness appears as a black drop!"

### 3.- Surrealist Dream

- **Resilience constructs:** Out of the box / crazy drawing. Go beyond the status quo. Representation of yearnings, fears, prospects for the future, dreams, etc...
- **Art Medium/Technique:** Mixed media.
- **Description:** Create an out-of-the-box / crazy artwork. Go beyond the status quo. Representation of one's yearnings, fears, prospects for the future, dreams, etc... Examples that can be used include Salvador Dali (surrealist movement).

Figure 5.13.  
João Custódio, Ink  
Splatter Starting point



Figure 5.14.  
Ink Splatter, João Custódio, age 16, Ink  
and Pens on Paper, 2022



Figure 5.15.  
João Custódio, Descriptive  
Memory Text



- **Resilience Skills Intervention:** Self-image, self-acceptance, self-esteem, self-expression, resourcefulness, problem-solving in new and original ways, unlocking inner resources for dealing with stress, creative thinking, new perspectives and greater knowledge about oneself.
- **Process:** Start with a brief outline of the activity to be developed and show various artworks created by well-known artists as examples that will serve as references. Explain that sometimes we worry about the future and what is expected of us. Often, we are expected to do things in a certain way that conforms to the norm, and anything that doesn't fit the norm is frowned upon. The liberation of a crazy, nonsensical drawing can highlight the uniqueness of each individual, which is a mixture of fears and dreams, hopes and anxieties, making each one of us exceptional. Participants will have the opportunity to reflect on this through artistic representation. They should feel free, as no judgment will be made, and the notion of craziness is a requisite. This activity is also beneficial because no specific art skills are required to achieve a satisfying result, as is the case with the art medium/technique to be applied. At the end of the activity, participants will write a descriptive reflection about the task performed, guided by questions directed toward the resilience factors to be addressed. They will reflect on the results and outcomes of their artmaking. They can reflect on their creative process and the symbolism in their artwork. Encourage them to share how their artwork represents their journey of resilience and the emotions they experienced during the process.
- **Duration:** 1 hour 30 minutes
- **Materials Needed for Activity:** Water color paper/white Canson paper, Indian ink, paintbrushes, color pencils, markers, water colors, magazine cuttings, glue, scissors, etc.



**Figure 5.16.**  
Salvador Dalí – *The Burning Giraffe*



**Figure 5.17.**  
Salvador Dalí – *The Persistence of Memory*



**Figure 5.18.**  
Salvador Dalí – *Sleep*



#### · Examples of Participant Artwork

**Example 1 (Figure 5.19.).** Descriptive Memory Text: "In my drawing I tried to incorporate a confusion, just like in my dreams. Each element in the design has a meaning:

- Clocks: distorted time in dreams;
- House: escape (way of waking up);
- Skeleton: fears that haunt me;
- Moon: a form of light, something that illuminates the "path";
- Eyes: attracted to the light of the moon and show that it indicates the right place.

To create the remaining elements, mostly in the scenery (but also in the clocks), I used Salvador Dalí as inspiration."

**Figure 5.19.**  
*Surrealist Dream, Mariana, Oil Pastels on Paper.*



**Figure 5.20.**  
*The Dream, Dária, Pens on Paper.*

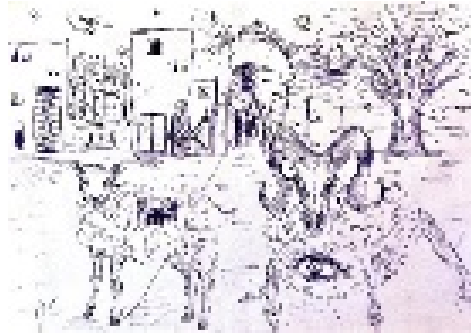


**Example 2 (Figure 5.20.).** Descriptive Memory Text: "The Dream – The three creatures represent the past, present and future. They are in dominant poses and seem intimidating as they are glaring at the spectator. The holes in their torsos are the void I have been feeling lately while reflecting about my life so far, my insecurities, worries and fears."

**Example 3 (Figure 5.21.).** Descriptive Memory Text: "For me, this drawing is a reflection of a part of my mind, madness, and my flaws. The sheep symbolize dreams. When you were younger, were you ever told to count sheep? Well, not only that—the word 'sheep' has another meaning. It is used to refer to people who take orders and are easily influenced, something I need to overcome, as I am easily deceived and doubt myself. I don't trust my own compass. The background confusion and disorganization symbolize my own confusion, my lack of attention. Everything in my mind is a mix of concrete and abstract ideas, constantly in conflict, with no real conclusion emerging from them."

The huge tree represents my childhood, and soon it will be completely covered by the city or become just a fleeting thought, much like the various trees in the sky. The people in the windows, on the paths, and on the stairs—faceless shadows—along with the great eye in the sky, represent my constant feeling of being watched, judged, and ridiculed. The stairs that lead nowhere represent the fact that I'm following a path that doesn't exist, endlessly, without a clear goal. It has no colors or great volume because my mind perceives everything as obfuscated, without color."

Figure 5.21.  
*Surrealist. Dream, João, Pens on Paper*



#### 4. – Fado Emotion

- Resilience constructs: Evoke an emotional response / unlock emotion
- Art Medium/Technique: Mixed media
- Description: Explore the relationship between music and art by reflecting on the way in which music impacts us, in addition to its intangible quality. The symbiosis that exists between the two reflects the influence of one medium on the other. One can express these feelings through color, patterns, shapes, etc... Examples are found in work by Wassily Kandinsky (Yellow-Red-Blue), Piet Mondrian (Boogie Woogie), Paul Klee (Polyphony) and Henri Matisse (Jazz Suite).
- Resilience Skills: Memory trigger, mood-altering, emotional unlocking, source of comfort and inspiration, fostering creativity.
- Intervention: Memory trigger, mood-altering, emotional unlocking, source of comfort and inspiration, fostering creativity.
- Process: Start with a brief outline of the activity to be developed and show various artworks created by well-known artists as examples that will serve as references. Explain

Figure 5.22.  
*Wassily Kandinsky (Yellow-Red-Blue)*



Figure 5.23.  
*Piet Mondrian (Boogie Woogie)*



that both art and music have the ability to evoke an emotional response in us, and that together, they can trigger memories, alter our mood, or even unlock emotions. They can also be used as a source of comfort and inspiration.

While listening to Portuguese Fado, participants will have the opportunity to reflect on the music they are hearing and think about how it makes them feel. They can express their emotions using colors, patterns, shapes, etc. They may express a mood, a memory, or even how the music inspires them. Different music can lead to different outcomes and can be chosen to suit specific needs.

This activity is also beneficial because no specific art skills are required to achieve a satisfying result, as is the case with the art medium/technique to be applied. At the end of the activity, participants will write a descriptive reflection about the task performed, guided by questions addressing the resilience factors to be considered. They will reflect on the results and outcomes of their artmaking. They can reflect on their creative process and the symbolism in their artwork. Encourage them to share how their artwork represents their journey of resilience and the emotions they experienced during the process.

- Duration: 130 minutes

- Materials: Fado music, watercolor paper/white Canson paper, Indian ink, paintbrushes, colored pencils, markers, watercolors, etc.

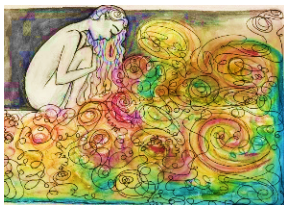
#### · **Examples of Participant Artwork**

*Example 1 (Figure 5.24.). Descriptive Memory Text: "Listening to fado I felt an unbearable rush of emotions, both good and bad, but in a way too much for one person to handle alone. This experience was reminiscent of the ocean, my sanctuary when I feel lonely. The sea, much like the waves, is an unstoppable force and always welcomes my emotional turmoil and replenishes me with peace and hope."*

*Example 2 (Figure 5.25.). Descriptive Memory Text: "We are all alone and we are together."*

*Example 3 (Figure 5.26.). Descriptive Memory Text: "Fado conveyed to me, above all, the revolt that arises from the pain caused by negligence. At first sad and pleading, throughout the song, the singer uses this pain to free himself and, in the end, stops fighting."*

**Figure 5.24.**  
*Fado Emotion, Marina,  
Mixed Media on Paper.*



**Figure 5.25.**  
*Fado Emotion, Federica, Mixed  
Media on Paper.*



**Figure 5.26.**  
*Fado Emotion, Inês, Mixed  
Media on Paper.*



#### **5.- Be Like Frida**

- Resilience constructs: Introspection, self-acceptance.
- Art Medium/Technique: Collage or mixed media.
- Description: Despite enduring lifelong physical and emotional pain as a result of a severe bus accident, Frida Kahlo channeled her experiences into her art, creating deeply personal and evocative works that explore themes of identity, suffering and resilience. Her ability to

find beauty and strength in the face of adversity continues to resonate with audiences today. Create an artwork, based on Frida Kahlo's paintings, representing one's most inner feelings – worries, sorrows, fears, heartbreaks, regrets, anxieties, etc... as Frida did. Examples that can be used include *The Two Fridas* (1939), *Tree of Hope Remain Strong* (1949), *Memory, The Heart* (1937), *Without Hope* (1945), *Henry Ford Hospital (The Flying Bed)* (1932), *The Broken Column* (1944) and *The Dream (The Bed)* (1940).

Figure 5.27.  
*The Two Fridas, 1939*



Figure 5.28.  
*Tree of Hope Remain Strong, 1949*



Figure 5.29.  
*Henry Ford Hospital (The Flying Bed), 1932*



- Resilience Skills Intervention: Self-image, self-acceptance, self-esteem, self-expression, resourcefulness, problem-solving in new and original ways, unlocking inner resources for dealing with stress.

- *Process:* Start with a brief outline of the activity to be developed and show various artworks created by Frida Kahlo as examples that will serve as references. Optionally, show the film *Frida* (2002 version), which will take an extra 123 minutes. Explain that art can serve as a vehicle to convey our innermost feelings—our worries, sorrows, fears, heartbreaks, regrets, anxieties, etc. Art can be used to externalize these emotions that sometimes repress us, and by acknowledging and accepting them, we can experience a sense of liberation or release. Participants will have the opportunity to reflect on this through artistic representation.

They should feel free, as no judgment will be made, and the art of Frida Kahlo is a good example of that. This activity is also beneficial because no specific art skills are required to achieve a satisfying result, given the naivety in Frida Kahlo's art, where the subject takes center stage and the art merely serves as the vehicle for expression. This applies to the medium/technique used as well.

At the end of the activity, participants will write a descriptive reflection about the task performed, guided by questions focused on the resilience factors to be addressed. They will reflect on the results and outcomes of their artwork. Participants can also reflect on their creative process and the symbolism in their work. Encourage them to share how their artwork represents their journey of resilience and the emotions they experienced during the process.

- *Duration:* 1 hour 30 minutes

- *Materials Needed for the Activity:* Magazines/newspapers, various types of paper/ cardboard in different colors, wood glue, scissors, paintbrushes, pencils, markers, etc.

### · Examples of Student Artwork

**Example 1.** Descriptive Memory Text: "Since I was little, my legs haven't allowed me to do much exercise, which has influenced my choice of hobbies. Over time I lost my vision because I drew at night, which brought me comfort. Nowadays, it's not possible for me to strain my eyes too much because the headaches and pain around my eyes are unbearable."

Figure 5.30.  
*Fado Emotion, Marina, Mixed Media on Paper.*



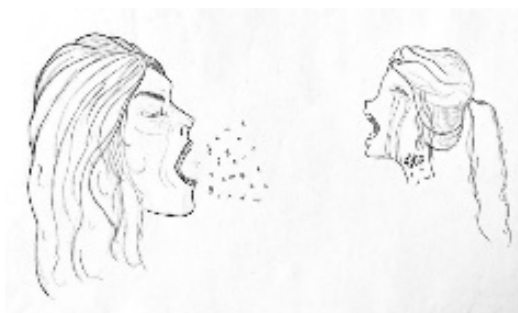
**Example 2.** Descriptive Memory Text: I would receive nasty comments about my body from people in my class/other people at school. It made me feel bad, even today.

Figure 5.31.  
*Sorrows, Catarina, Oil Pastels on Paper.*



**Example 3.** Descriptive Memory Text: "My idea is to represent my pain, which is not being able to express myself in words and putting out everything I feel while many people shout at me and say whatever they want just because they know I'm not going to do anything and I'm not going to defend myself."

Figure 5.32.  
*Sorrows, Leticia, Pen on Paper.*





*Example 4. Descriptive Memory Text: "My sorrows, as they have been since last year, are psychological problems that changed me a lot, especially at the time when they were stronger, they brought up a fear in me, a fear of losing my identity (nameless) and my essence (soulless). The person in the drawing has no eyes or eyebrows so as to be unrecognizable and I made them in such a way that it is not possible to distinguish between whether or not they are a man or a woman, precisely as a means of representing their lack of identity."*

Figure 5.32.  
*Sorrows, Jesus, Charcoal on Paper.*



*Example 5. Descriptive Memory Text: "Facial Dysmorphia – Mental health condition in which a person has a distorted perception of the appearance of their face".*

Figure 5.34.  
*Sorrows, Mariana, Oil Pastels on Paper.*



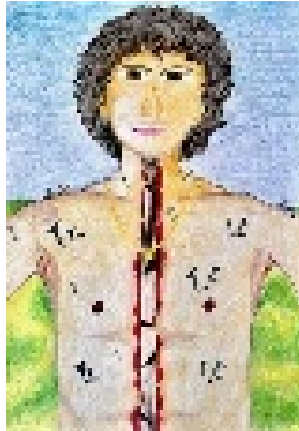
*Example 6. Descriptive Memory Text: "This drawing represents loneliness, being in an isolated space. The roots stemming from their body show that the person has not left that space for a long time. It also represents the fear of growing which is symbolized with the sun reflecting on me, which would make the plants grow more."*

Figure 5.35.  
*Sorrows, Lia, Oil Pastels on Paper.*



Example 7. Descriptive Memory Text: "The idea represented is the backpain I feel after staying in the same position for a long time or lifting weights."

Figure 5.36.  
*Sorrows, Diogo, Colour Pencils on Paper.*



#### 6.- Rip, Tear and Cut It

- Resilience Constructs: Overcoming challenges and finding strength in adversity.
  - Art Medium/Technique: Cutting (Destructive Art) with painting, drawing or mixed media.
  - Description: Activity that provides participants with an opportunity to explore the concept of resilience through creative expression. By incorporating symbolic cuts and vibrant colors, participants can visually represent their journey of overcoming challenges and finding strength in adversity, inspired by the innovative techniques of Lucio Fontana.
- Examples can be found in work by Lucio Fontana.

Figure 5.37.  
*Lucio Fontana at work.*

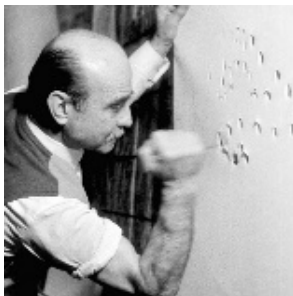


Figure 5.38.  
*Lucio Fontana,  
Piastrella (1959)*



Figure 5.39.  
*Lucio Fontana, Concetto  
Spaziale*



- Resilience Skills Intervention: Overcoming adversity, challenges and obstacles.
- Process: Start with a brief outline of the activity to be developed and show various artworks created by artists as examples that will serve as references. Discuss the concept of resilience with the participants. Explain that resilience is the ability to bounce back from adversity and overcome challenges. Share examples of resilience from art, literature, or personal experiences to inspire participants.

Provide each participant with a canvas or sturdy paper. Explain that they will be creating artwork that symbolizes their journey of resilience, inspired by Lucio Fontana's



techniques. Encourage them to think about the challenges they have faced and how they have overcome them. Invite participants to make deliberate cuts or slashes on their canvas using a cutting tool. Explain that these cuts represent the challenges and obstacles they have encountered in their lives. Encourage them to reflect on the depth and direction of the cuts, which can symbolize the resilience they have shown in overcoming these challenges.

Once the cuts are made, participants can begin painting or adding color to their artwork. Encourage them to use vibrant colors to symbolize strength, hope, and perseverance. They can also incorporate textures or patterns to represent the complexity of their journey.

Optionally, provide participants with inspirational quotes or affirmations related to resilience. They can incorporate these into their artwork by painting them on the canvas or adding them as textural elements around the cuts.

This activity is beneficial because no specific art skills are required to achieve a satisfying result, as is the case with the art medium/technique to be applied.

At the end of the activity, participants will write a descriptive reflection about the task performed, guided by questions related to the resilience factors to be addressed. They will reflect on the results and outcomes of their artmaking. They can also reflect on their creative process and the symbolism in their artwork. Encourage them to share how their artwork represents their journey of resilience and the emotions they experienced during the process.

- *Duration:* 1 hour 20 minutes

- *Materials Needed for the Activity:* Canvas, watercolor paper, or white Canson paper, Indian ink, paintbrushes, colored pencils, markers, watercolors, cutting tool (such as an X-Acto knife or scissors), etc.

- *Optional:* Inspirational quotes or affirmations

### **7.– *Starry Night Resilience Painting***

- *Resilience Constructs:* Overcoming challenges and finding strength in adversity.

- *Art Medium/Technique:* Creative expressive painting

- *Description Activity Overview:* Exploring resilience through Vincent van Gogh's *Starry Night*

Figure 5.40.  
*Starry Night – Vincent Van Gogh*



- *Objective:* This activity introduces participants to Vincent van Gogh's *Starry Night*, highlighting his struggles with mental health and financial hardships and his persistence in creating art. Participants reflect on the painting's elements and their personal resonance, then create their own interpretations, focusing on van Gogh's use of color, texture, and movement to convey resilience. The activity emphasizes creative freedom and experimentation, culminating in a reflective text about the creative process and the symbolism of their artwork in their personal journey of resilience.

- *Resilience Skills Intervention:* Core focus areas: Perseverance, emotional expression, adaptability, hope and optimism, process

- *Introduction to *Starry Night* and Resilience:* Begin by introducing participants to Vincent van Gogh's masterpiece, *Starry Night*. Discuss how van Gogh faced significant challenges, including mental health struggles and financial difficulties, yet persevered to create works of enduring beauty and significance. Explain that resilience, like creative expression, can provide strength during challenging times.

Provide participants with images of *Starry Night* and invite them to reflect on the painting. Encourage them to consider aspects of the painting that resonate with them personally and the way in which van Gogh's use of color, texture and movement conveys resilience and beauty amid darkness.

- *Guided Creative Process:* Invite participants to use their reflections and emotions as inspiration to create their own interpretations of *Starry Night*. Provide the following guidance:

- Basic painting techniques, such as blending colors, creating textures, and applying brushstrokes.
- Encourage experimentation with different brush sizes and techniques to capture the swirling movement and dynamic energy characteristic of van Gogh's work.
- Emphasize that there are no strict rules—participants should feel free to express themselves authentically. Remind them that resilience, like the stars in the night sky, can shine brightest during moments of darkness. Encourage the incorporation of themes such as hope, strength, and perseverance into their paintings.

- *Reflection and Sharing:* Conclude the activity by asking participants to write a reflective text about their creative process. Prompt them with questions about the resilience factors explored:

- How does their artwork symbolize their personal journey of resilience?
- What emotions did they experience during the creative process?
- How does their interpretation connect to their reflections on *Starry Night*?
- Invite participants to share their artwork and reflections, fostering a supportive environment for discussion and mutual inspiration.

- *Duration:* 1 hour 20 minutes

- *Materials Needed:* Canvas or sturdy paper, paints (acrylic or watercolor), brushes of various sizes, palette for mixing paints

- *Optional:* Inspirational quotes or affirmations related to resilience

## 8.– Resilience Graffiti Wall

- *Resilience Constructs:* Overcoming challenges and finding strength in adversity.
- *Art Medium/Technique:* Graffiti and Stencil
- *Description:* Banksy's graffiti art often conveys strong social and political messages, and his works can serve as powerful symbols of resilience in the face of adversity. This activity provides participants with an opportunity to express themselves creatively while exploring the theme of resilience through graffiti art. By drawing inspiration from Banksy's style and messages, participants can create a visually striking and emotionally resonant artwork that promotes resilience and solidarity.

Figure 5.41.  
Banksy Graffiti Art 1



Figure 5.42.  
Banksy Graffiti Art 2



- *Resilience Skills Intervention:* Encourage creativity, collaboration and expression while conveying powerful messages of strength, perseverance and hope.
- *Process:* Begin by introducing participants to Banksy's graffiti art and discussing how his works often convey messages of resilience, protest and hope. Show examples of Banksy's art that resonate with themes of resilience and discuss the impact of his art on public discourse. Facilitate brainstorming where participants can discuss ideas for their graffiti art piece. Encourage them to think about what resilience means to them personally and how they can convey this message through their art. Provide participants with a large sheet of paper or cardboard to serve as the "graffiti wall." Encourage participants to use spray paint, markers, stencils, and other graffiti art supplies to create their own unique contributions to the wall.

They can incorporate symbols, imagery, and text that convey messages of resilience, strength, and hope. Remind participants to be mindful of the space and to respect each other's contributions to the wall. Encourage participants to search for inspirational quotes related to resilience. They can incorporate these into their graffiti art by stenciling them onto the wall or writing them in bold lettering. Participants could incorporate interactive elements into their graffiti art, such as QR codes that link to stories of resilience in the community, or spaces where passersby can add their own messages of hope and encouragement.

At the end of the activity, participants will write a descriptive memory text about the task performed, led by questions directed to the resilience factors to be addressed and reflect on the result/outcome of their artmaking. They can reflect on their creative process and the symbolism in their artwork. Encourage them to share how their artwork represents

their journey of resilience and the emotions they experienced during the process.

- *Duration:* 1h 20min
- *Materials Needed for the Activity:* Large sheets of paper or cardboard, assorted graffiti art supplies (spray paint, markers, stencils, etc.).
- *Optional:* Inspirational quotes or affirmations related to resilience.

### 9.– Guernica Expressive Art Response

- *Resilience Constructs:* Empathy and solidarity in the face of trauma and conflict.
- *Art Medium/Technique:* Painting, drawing and collage.
- *Description:* This activity provides participants with an opportunity to explore the theme of resilience through art, drawing inspiration from Picasso's "Guernica" and expressing their own emotions, ideas and experiences in a supportive and creative environment.

Figure 5.43.  
*Guernica, Pablo Picasso, 1937*



*Resilience Skills Intervention:* Gaining perspective on how resilience can be demonstrated in the face of trauma and conflict.

- *Process:* Begin by introducing participants to Pablo Picasso's powerful anti-war painting, *Guernica*. Discuss the historical context of the painting and how it serves as a symbol of resilience and resistance in the face of violence and oppression. Emphasize Picasso's use of art as a tool for social commentary and advocacy. Provide participants with images of *Guernica* and invite them to reflect on the themes and emotions conveyed in the painting. Encourage them to consider how individuals and communities can demonstrate resilience in the aftermath of trauma and conflict.
- Instruct participants to create their own expressive art response inspired by *Guernica*. They can choose to depict themes of resilience, resistance, hope, or solidarity, drawing on their own experiences or those of others. Encourage participants to experiment with different drawing and painting materials, as well as collage techniques, to convey their message effectively. They can use symbolism, color, and composition to evoke emotions and provoke thought. Remind participants that their artwork doesn't need to be literal or realistic – the goal is to express themselves authentically and communicate their ideas and feelings.

- At the end of the activity, participants will write a descriptive memory text about the task performed, led by questions directed to the resilience factors to be addressed and reflect on the result/outcome of their artmaking. They can reflect on their creative process and the symbolism in their artwork. Encourage them to share how their artwork represents their journey of resilience and the emotions they experienced during the process.
- *Duration:* 1h 20min
- *Materials Needed for the Activity:* Large sheets of paper or canvases, drawing and painting materials (pencils, charcoal, markers, paints, etc.), collage materials (newspapers, magazines, fabric scraps, etc.).

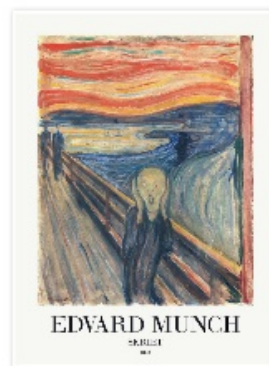
### 10.- **Scream!!!**

- *Resilience Constructs:* Introspection, acceptance and expression of inner strength.
- *Art Medium/Technique:* Creative expressive painting and drawing
- *Description:* This activity provides participants with an opportunity to explore the theme of resilience through art, drawing inspiration from Edvard Munch's *The Scream* and expressing their own emotions and experiences in a supportive and creative environment.

**Figure 5.44.**  
Edvard Munch, *The Scream*,  
Lithograph (1895)



**Figure 5.45.**  
Edvard Munch, *The Scream* (1893)



- *Resilience Skills Intervention:* Fostering a deeper understanding and acceptance of one's emotions and experiences.
- *Process:* Begin by introducing participants to Edvard Munch's iconic painting, *The Scream*. Discuss how the painting expresses feelings of anxiety, fear, and existential dread, while also serving as a powerful symbol of resilience in the face of inner turmoil. Emphasize that art can be a meaningful way to explore and cope with difficult emotions.

Provide participants with images of *The Scream* and invite them to reflect on the emotions and themes conveyed in the painting. Encourage them to consider times in their own lives when they have felt overwhelmed or distressed, as well as moments of strength and resilience.

Instruct participants to create their own expressive self-portrait inspired by *The Scream*. They can choose to depict themselves in a moment of anxiety, fear, or frustration, while also incorporating elements of resilience and inner strength. Encourage participants to



experiment with different drawing materials and techniques to convey their emotions effectively. They can use bold lines, exaggerated expressions, and vibrant colors to capture the intensity of their feelings. Remind participants that their self-portraits don't need to be realistic or perfect – the goal is to express themselves authentically and explore their emotions through art.

At the end of the activity, participants will write a descriptive memory text about the task performed, led by questions directed to the resilience factors to be addressed and reflect on the result/outcome of their artmaking. They can reflect on their creative process and the symbolism in their artwork. Encourage them to share how their artwork represents their journey of resilience and the emotions they experienced during the process.

- *Duration:* 1h 20min.

- *Materials Needed for the Activity:* Paper or canvas, drawing materials (such as pencils, charcoal, pastels, or markers).

### **Evaluate Resilience Achievements**

**Reflection and Discussion:** At the end of each activity, participants will write a descriptive memory text about the task they performed, guided by questions related to the resilience factors being addressed. They will reflect on the result or outcome of their artmaking, considering their creative process and the symbolism in their artwork. Encourage participants to share how their artwork represents their journey of resilience and the emotions they experienced during the process.

**Exhibition and Sharing:** Resilience is sharing, empathizing, teamwork, creating, ..., what better way to develop it que create a gallery space where participants can display their artwork and share their stories of resilience with one another, a common space with different groups, different capacities, opinions, which will help to enrich the activity, etc... Encourage them to celebrate their strengths and support each other in their ongoing journey of resilience.

Figure 5.46.

*Art and Creativity RESUPERES Module Different capacities, opinions,... (The emotion of the art).*



### 5.1.3. RESUPERES Activities for developing Resilience through Art and Creativity

RESUPERES Portugal Team (UAlg), by Professors Mártires, M., and Santos, J., have created a program of activities for the development and improvement of resilience in university students and teacher based on the techniques of Art and Creativity based in the emotion and, specifically, although resilience is addressed as a global concept. The RESUPERES project is designed to work on the following resilience skills:

- Creativity (seven sessions delivered via degree modules will target this resilience skill).
- Mindfulness (awareness, focusing attention on the present moment), (three sessions delivered via degree modules will target this resilience skill).

Development and procedure pertaining to the intervention:

As a means of developing resilience in higher education through art and creativity, RESUPERES has created a specific module, delivered via the interactive platform Resuperes Module 1. Art and Creativity (Link: [Course: Module 1 – Art and Creativity | resuperesLMS](#)). This module is structured in the following way:

- Programming: 12 sessions (this number of sessions was selected because existing literature suggests that, in university students, between eight and 16 sessions are effective at bringing about improvement).
- Target audience: students and university staff.
- Content of the art and creativity sessions:
  - Session 1: Introduction: “Do all human beings have an artistic instinct?”
  - Session 2: Evidence of the universality of artistic expression.
  - Session 3: Exploration of music and movement.
  - Session 4: Listening and observing.
  - Session 5: Introduction to self-portrait collage.
  - Session 6: “Upps! (Ink Splatter)” activity.
  - Session 7: Out-of-the-box art.
  - Session 8: “Fado Emotion” activity.
  - Session 9: Exploring Frida’s Life and Art.
  - Session 10: “Be Like Frida” art workshop.
  - Session 11: “Rip, Tear and Cut It” Activity.
  - Session 12: Reflection and evaluation.



**Figure 5.47.**  
Implementation of the RESUPERES subject in Portugal (Module Art & Creativity, Mártires, M).



**Figure 5.48.**  
Collage. RESUPERES Team, and Projects carried out in the Pilot Study Portugal (Module Art & Creativity working the Emotion, Prof. Mártires).



## 5.2. Autobiographical training

This section is debated jointly by Fabrizio Manuel Sirignano and María Federica Paolozzi, but the writing and authorship of the sections is individual, with sections 5.2.1 and 5.2.2 corresponding to Fabrizio Manuel Sirignano and sections 5.2.3 to 5.2.7 to María Federica Paolozzi (UNISOB).

### 5.2.1. Research Review on Autobiography and Life Stories in relation to Resilience

The method of life stories was developed in the 1920s in the United States within the field of classical sociological research. Since then, it has been utilized by various disciplines, gaining prominence in pedagogical reflection as an innovative didactic and methodological tool. Today, it is recognized as an established international school, active for approximately fifty years, with prominent figures such as Duccio Demetrio (1996, 1998), Pierre Dominicé (2000), Peter Alheit (2018, 2022), and Gaston Pineau and Legrand (2013).

At the core of the autobiographical approach and methodology are studies conducted by Jerome Bruner, who supplements traditional scientific thinking with narrative thought (Bruner, 1986). Narrative thinking is regarded as a cognitive modality that structures experience and social interactions by imbuing them with meaning and significance. According to Bruner, narration serves as an interpretative and cognitive tool that enables individuals to better understand the beliefs and values shaping their lives and, consequently, their identities (Bruner, 1990, 1996). This positions narrative thinking as an educational and formative approach, transcending historical, cultural, territorial, gender, and social class distinctions. The narrative and autobiographical method, within a formative and self-formative context, is applicable throughout life and to everyone. It is thus a preferred method for accessing a form of truth and education relevant to all age groups and cultural backgrounds, serving as a privileged qualitative tool for intercultural education (Sirignano, 2002, 2019).

Figure 5.49.  
*Autobiography and Life Stories in relation to Resilience, Life Story Tree (RESUPERES Module).*



Narrative and autobiographical dimensions have long been associated with the broader concepts of education and self-formation, inherently containing formative aspects. They are closely tied to pedagogical traditions, particularly the teachings of John Dewey, who emphasized reflective thought as a key model of educational competence, especially from a professional perspective.

Autobiography and life stories are qualitative methodologies that view education as a life project and a process of sense-making. These approaches stimulate capacities for reflection and self-reflection, enabling individuals to actively intervene in their projective tendencies (Sirignano et al., 2016). Duccio Demetrio (1996) identifies the act of narrating one's autobiography as a self-care tool, framing autobiographical thought as a collection of memories that enables individuals to feel and continuously live their lives. This process transforms a passion for one's past into a passion for future living, giving meaning to life itself. Narrating one's biography serves not only an artistic but also a therapeutic function, closely tied to processes of self-education and self-formation. Through this, individuals learn from themselves while simultaneously opening up to others (Demetrio, 1996). Reflecting on one's experiences fosters a perspective that allows for greater self-awareness, offering insight into actions, mistakes, misfortunes, joys, and other facets of life. This reconciliation with oneself ultimately enhances understanding of others.

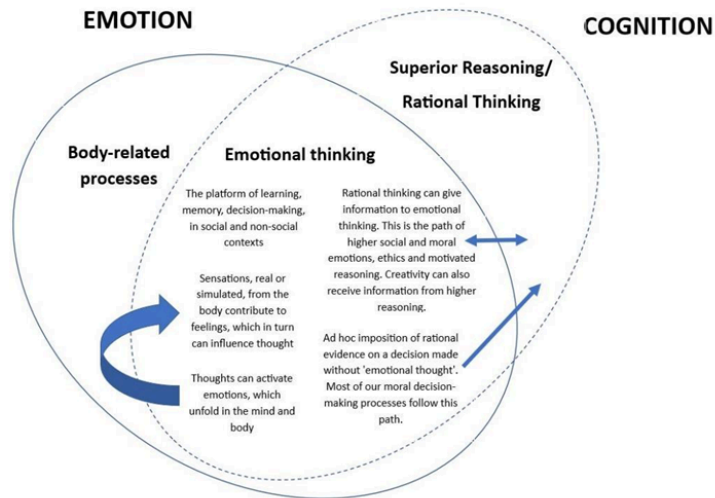
Franco Cambi (2002) describes the narrative process of the self as a formative journey in which individuals assume self-care as a personal task and structure. Autobiographical narration enables individuals to trace the red thread that constitutes their sense of self. The resulting self-model prevents dispersion in the myriad channels of lived events and imbues one's story with meaning. This identity is open, complex, problematic, generative, and above all, formative.

Key aspects related to autobiographical education and life stories are highlighted below:

- Facilitates achievement of cognitive and educational objectives as the approach is based on the enhancement of individual subjectivity.
- Appropriately responds to the procedural and transformative dimension underlying every authentic educational journey.
- Reconnects with the construction of a horizon of meaning within which the life design dimension can be situated.
- Facilitates the acquisition of self-awareness and offers the opportunity to reinterpret life paths and events that have shaped and continue to shape individual lives.
- Emphasizes understanding a phenomenon over providing abstract or purely quantitative explanations.
- Highlights cognitive mechanisms and uncovers the implicit "theories" and knowledge individuals carry, enabling the transformation of mental attitudes.
- Assists individuals in recognizing the dynamic interplay between the cognitive, affective, moral and emotional dimensions of knowledge.
- Promotes emancipation by empowering individuals to express themselves and assert their existence within the social context.
- Enables individuals to fully develop their sense of self, providing a narrative framework that bridges the past and present while equipping them with the cognitive tools to shape their future.

Educational paths that incorporate self-narration facilitate the holistic development of cognitive abilities, as well as emotional and relational skills. This approach supports the integral growth of the individual through knowledge that is continuously negotiated within an open, critical and dynamic communicative relationship. In this context, individuals are not afraid to engage with and open themselves up to others, and then return within themselves, knowing that they are accepted for who they really are (Sirignano, 2019; Sirignano & Maddalena, 2021).

Figure 5.50.  
*The interconnection between emotion and cognition: Emotional thinking*



Source: Adapted by Immordino-Yang & Damasio (2007).

One of the key purposes of autobiographical and narrative work is closely linked to the relationship between how we think, represent reality, and experience emotions. Thought processes play a decisive role in shaping emotional, psychological, and social wellbeing (Rossi, 2013). The way we interpret and represent the world significantly influences how we feel and guides our choices and actions. An analysis of positive thinking suggests that our mindset is not solely determined by the specific situations we experience. For instance, we can maintain a positive outlook even in challenging circumstances, while it is also possible to harbor negative thoughts in the absence of difficult or dramatic conditions. The terms happiness and unhappiness are not direct equivalents of physical reality; they are representations shaped by perception (Cyrulnik, 2007). The sense of happiness, therefore, depends more on how our brain interprets and perceives it than on external circumstances. Often, happiness is not directly correlated with tangible existential conditions or specific events in personal biographies. Instead, it is influenced by the unique ways we narrate, interpret, and explain our experiences (Rossi, 2013).



Figure 5.51.

*RESUPERES team building your Emotions Tree, in the Pilot Study Italy (Module Autobiographical Training, Profs Maddalena, S. & Paolozzi, F.).*



Narrative techniques provide a valuable contribution to strengthening awareness of thought mechanisms and mentalization processes, enabling individuals to recognize and manage their mental states, both negative and positive. Self-narration fosters the development of narrative thinking, which embraces complexity and non-linearity. This process involves a non-linear mental journey that employs metaphor as a central tool. As Edgar Morin (2000) suggests, metaphor is a fundamental aspect of narrative thinking an indicator of non-linearity that allows openness to multiple interpretations or reinterpretations.

Through the act of narrating, individuals can establish interconnections that facilitate a deeper understanding of events, lived experiences, and emotions. In this context, the use of abductive reasoning, metaphors, allegories, and analogies enriches these interconnections, making them more meaningful: "Often, it is only through metaphor that one can grasp the uniqueness and inestimable value of a life experience, recognizing that it can be more challenging and problematic when approached solely through its direct description, expressed in neutral, logical, prosaic language" (Formenti, 1998, p. 151).

When applied in educational group contexts –such as classes, training courses, or workplace environments– the autobiographical and life story method offers an opportunity to achieve shared interpretations, enhance self-esteem and strengthen interpersonal relationship-building skills (Sirignano & Maddalena, 2012) through:

- Listening to different stories on a given topic or segway of life leads to construction of a "shared truth" that develops critical awareness, the ability to listen, dialogue and co-constructed meaning.
- Sharing experiences, representations and interpretations can enhance self-esteem through the "reassessment of one's own past."
- Engaging with others to share one's story, feelings and worldview enables reflection on the way in which one establishes interpersonal relationships.

Essentially, three pivotal moments can be identified in the educational journey facilitated by the autobiographical and life story method. In these moments, the transformative dimensions

promoted by this approach become evident:

- Moment of self-reflection: The narrator reflects on the events of their own life.
- Moment of explanation: The narrator attributes meaning to the events introduced above.
- Moment of meta-explanation: The narrator repositions themselves within the various spheres of their existence.

The sense-making dimension facilitated by the autobiographical method refers to the ability to structure one's subjectivity through reflection and mentalization. Mentalization connects cognitive and emotional states, enabling individuals to reflect on their own mental states as well as those of others. Recalling one's life story through the autobiographical method is not merely a chronological recounting or linear review of past events. Instead, it is an active engagement with memory, allowing for new perspectives and projective visions of the future.

Figure 5.52.  
*Narrating Emotions with Clay (Students in the Implementation of the RESUPERES subject in Italy).*



Autobiographical practice involves the development of paradigms, patterns, and structures (Sirignano & Maddalena, 2012) that make individual subjectivity visible, communicable and shareable. In this sense, subjectivity "needs to be interpreted and structured to express itself; structure without subjectivity is an empty, static, fixed schema and, above all, it is useless on an educational level" (Formenti, 1998, p. 145).

### 5.2.2. Why use Autobiography in Education

In recent years, the autobiographical approach in education has gained increasing prominence in academic settings, with its applications expanding across various contexts, including the workplace, community, socio-educational settings and schools. Utilizing autobiography in education provides a vital opportunity to foster the cognitive, emotional and social development of individuals. The autobiographical approach offers a structured framework for critical reflection on personal experiences, facilitating the construction of meaning and self-awareness. Through this process, learners can gain a deeper understanding of themselves, enhancing their awareness of skills, personal values and relational dynamics.

The image of a seashell aptly symbolizes various aspects of self-narration. When one holds a seashell to the ear to hear the sound of the sea, they adopt a listening posture—essential for self-learning, learning from others and understanding the world around them. Inner growth, stemming from recalling one's past, analyzing the present and envisioning the future, resembles a spiral journey around an imaginary axis, much like the shape of a seashell. Each person's identity is akin to this imaginary axis, revolving around the choices made or avoided, in alignment with their essence. At the same time, identity is like the seashell itself, with its intricate formations shaped by the encounters and experiences along life's path: pebbles, seaweed, environments, people and ideas. Revisiting one's life, particularly its significant milestones and pivotal encounters, involves embarking on a journey of self-awareness—a process that can provide profound insights, shape mental and relational attitudes, and guide future life choices.

When self-narration is expressed through writing, the formative aspects are magnified. Writing autobiographically fosters self-analysis, focusing on one's inner world and self-learning, facilitated by what is termed "cognitive bilocation." This concept refers to the ability to observe oneself from an external perspective, as if from another's point of view. As someone writes about themselves—here and now—they project themselves into a different space and time—there and then. This duality brings forth two figures: the one writing and the one being observed. Through this reflective process, similarities or differences across time and perspective emerge, generating new self-knowledge.

The act of writing allows one to indulge in the pleasure of recollection—reliving past emotions, recalling tactile, auditory, and olfactory sensations, savoring pleasant memories, or tending to old wounds. Using another marine metaphor, this process is like immersing oneself in the depths of one's experiences, exploring wreckage, discovering hidden treasures, and then resurfacing to breathe anew. It can feel like a "second birth," bringing renewed energy, a desire to live more intensely and greater awareness.

Finally, writing leaves a lasting trace—for oneself and for others. Posterity can gather these testimonies, learning from one's life, identifying with or diverging from one's choices, reflections, and emotions. Above all, self-writing allows us to reread and reinterpret our own stories, drawing valuable insights from our past.

The educational purposes of the autobiographical method in education can be summarized as follows:

- Heuristic purpose: Discover new meanings of one's life by reconstructing it from memory.
- Self-formative purpose: Learn from one's own experiences and shape one's identity, clarifying personal life projects.



- Transformative purpose: Uncover "unlived" lives and reopen possibilities for new choices.
- Motivational purpose: Restore the desire to learn, evolve and improve.
- Metacognitive purpose: Understand one's own way of thinking and learning.

The primary dimensions involved in this method are the following:

- Cognitive dimension: Memory, language and narrative abilities are developed based on personal experiences, which heightens emotional involvement and reinforces learning.
- Emotional dimension: Self-esteem, self-awareness in younger individuals and identity acquisition in older individuals are promoted through the narration of accounts of one's life and self-reflection.
- Relational dimension: Listening to and respecting others are integral aspects of the autobiographical process, which occurs in a playful and pleasant atmosphere and, consequently, facilitates their internalization.

**Figure 5.53.**

*The tree of life (RESUPERES Team in the Pilot Study Naples, Module Autobiographical training, Profs Maddalena, S. & Paolozzi, F.)*



### 5.2.3. Building a Collaborative Atmosphere

Educational and work environments that prioritize social-relational aspects and emotional support tend to achieve the best and most effective outcomes, even from a learning perspective. McCombs and Pope (1994) proposed a methodological framework known as the Reciprocal Empowerment Model, which emphasizes that the ability to learn is closely tied to motivation and the development of self-esteem. From this perspective, individuals cultivate skills and competencies through interaction with others within a supportive relational climate.

The goal is to create a social environment that fosters reciprocal and supportive relationships, enabling individuals to build greater self-confidence and effectively address the challenges presented by their context. The type of relationships encouraged in this framework is rooted in a cooperative model—a specific approach to working collaboratively to achieve shared objectives.

In order to promote an effective cooperative learning experience, five guiding principles should be considered, shown in the Table 5.1.:

Table 5.1.  
Guiding principles for structuring a cooperative training course

Positive interdependence	Setting of a shared goal means that there can be no individual success without group success.
Individual and group responsibility	Each member of the group is responsible for the achievement of shared goals.
Constructive interaction	The importance of mutual confrontation, negotiation of knowledge and viewpoints, and mutual help and support is understood.
Teaching of or reflection on interpersonal skills	One learns how to move on from competitive and individualistic coping styles and to manage and mediate, sometimes inevitable, conflict.
Group assessment	Feedback is necessary to understand and compare one's own and others' choices and actions, and enables one to understand the theories and perspectives that guide actions.

Source: Structure Adapted from Johnson et al. (1994).

#### 5.2.4. Autobiography and Professional Life

Autobiography is a valuable tool for reflecting on the dimensions of professional life, including actions taken, significant events, relational dynamics, and professional planning. It offers meaningful insights into the connection between professional and personal life, helping professionals uncover the deeper motivations behind their work experiences. By fostering greater self-awareness, autobiography enhances the ability to plan and sustain motivation.

The journey with educators aims to create a space for reflecting on one's professional epistemology, which extends beyond technical skills to include emotional, affective and relational factors. Professional training and development are understood in two dimensions: vertically, through an explicit educational path that integrates initial and ongoing training, and horizontally, through the interplay of educational practice and the workplace, viewed as both a learning and training environment and a space for professional growth.

In the implementation of narrative thinking, dialogue, mutual understanding and the objectification of experiences open the way to new perspectives. This potential for transformation underscores the epistemological value of autobiographical practice in adult education, which views adults as individuals capable of learning, growth and change.

Autobiography can serve as a transformative path for individuals, enabling them to explore their lived experiences deeply, seek meaning in their actions, recognize connections between different aspects of reality, and evaluate the choices they have made. The autobiographical approach, while embracing all forms of knowledge, aims to identify the individual's foundational knowledge, guiding them to reflect on the experiential paths through which they have acquired what they know.

By revisiting defining moments in their life, individuals can reflect on their learning processes, the challenges they have faced, and the personal capacities they have developed. The practice of narrating life stories becomes a functional tool, allowing the integration of various dimensions of the self, fostering balance, and helping to overcome frustrations and dissatisfactions.

Acknowledging and sharing emotions, continuously seeking meaning, and attributing significance to one's actions are central elements of the training process. These elements bring

order, coherence and self-awareness, enabling individuals to establish connections and make informed choices that reshape both personal and professional planning.

The following table (Table 5.2.) is an outline for a self-training workshop:

Table 5.2.  
*Self-training workshop for professional autobiographical storytelling*

Step I	Retrospection and introspection	Spontaneous writing, free flow of thoughts	Setting of a shared goal means that there can be no individual success without group success.
Step II	Re-enactment	Recollection of memories	Emotions, objects, places, people, colors, smells ...
Step III	Professional memories	Reconstruction of professional identity	Crucial meetings and events
Step IV	Self-observation diary	Reflection on one's professional career and socialization of one's history	Narration of episodes from one's professional career and attribution of meaning
Step V	Professional chronography	Ordering and making connections between events	Narration of key turning points in one's career path
Step VI	The view from above	Mentalization and detachment	Drawing a map of professional life by associating symbols with each stage
Step VII	The existential spiral	Recognition and empowerment	Events from the most distant past are placed at the center of the spiral, gradually extending outward to more recent events.
Step VIII	The Goose Game (The Snakes and Ladders)	Personal history, socialization and getting to know each other	Group activity enabling construction of a collective autobiography
Step IX	Memory chest	Taking stock of one's professional career and attributing profound meaning to one's professional history	Narration of valuable elements such as things learned, efforts made, professional satisfaction

Source: Outline adapted from Anzaldi & Gedhini (1999).

### 5.2.5. Autobiography and Resilience

Reflecting on the concept and meaning of resilience in recent discussions, particularly in the pedagogical context, underscores its procedural and complex nature. Being resilient or acting resiliently means having the ability to overcome adversities. This involves navigating the interplay between negative and positive aspects in an active process of overcoming challenges—a process that is rarely conclusively defined and often remains an ongoing endeavor.

A favorable attitude toward resilience or its related constructs (e.g., self-esteem, coping skills, positive thinking, sense of humor) and the ability to engage in resilience-building processes are aspects that can be cultivated throughout life. While some individuals may possess fortunate personal dispositions, resilience can also be learned and developed.

In the literature, resilience processes are often associated with shocks, traumatic experiences, conflicts, disorientation, frustration, or crises. These challenges, to varying degrees, are part of every individual's life. Negative events create disruptions in an individual's

or group's developmental trajectory, risking stagnation or disorganized progression. Resilience involves escaping these deterministic outcomes and, despite adversities, positively constructing one's life.

Given the multitude of variables that influence human lives —biological, existential, social, historical, and contingent— resilience cannot be viewed solely as an innate or fixed trait. It is also a quality that can be cultivated through personal willpower, social support, and specific circumstances.

Resilience is closely tied to education, giving rise to what can be termed a "pedagogy of resilience." Developing resilience does not occur in isolation or through spontaneous, automatic processes. Studies by Manciaux et al. (2001), highlight that certain personal characteristics, along with cultural, social, and environmental factors, play crucial roles in developing resilient pathways. This multifactorial nature underscores the difficulty of isolating specific elements that independently determine resilience without considering their interactions.

Autobiographical narratives and life-story methodologies offer valuable tools for engaging with the multidimensional aspects of resilience. These practices emphasize the individual's unique history as the central element that weaves together the myriad variables influencing their life. By reconstructing personal experiences and emotions, individuals gain insight, self-awareness, and reflective capabilities.

Beyond the generative capacity inherent in all living systems lies the "re-generative" capacity—the ability to reorganize and restructure after a crisis. This process does not involve returning to a prior state but rather adopting new forms, initiating change, and transforming oneself. Transformability is a core aspect of resilience, transcending the mere removal of obstacles to include regeneration and the creation of new meaning and purpose. Pain and suffering are not negated but become integral to this transformative process. Resilience, in this context, involves absorbing the dimension of crisis and choosing to embark on a new path.

Understanding resilience as a complex phenomenon means recognizing that it cannot be objectified or reduced to a formula. There is no universal "recipe" for resilience; it is a lifelong process influenced by individual and contextual factors. Traumatic events, crises, or unexpected disruptions can create a paralyzing short circuit between a past devoid of meaning, a wounded present, and an unimaginable future. Resilience, however, reconnects these threads by re-signifying past experiences, confronting the present, and envisioning the future.

Elena Malaguti (2020), highlights strategies for positively addressing adversity, suggesting that it can be helpful to:

- Offer an understandable framework for events or acknowledge the meanings individuals attribute to them.
- Propose activities and experiences that are meaningful, motivating, and capable of restoring a sense of efficacy.
- Create spaces for narration, personal initiative, and group sharing.
- Promote flexible thinking that can adapt perspectives on reality.
- Support changes and encourage experimentation.
- Recognize and validate the process of change as a potential solution.

**Figure 5.54.**  
*Students of UNISOB in the Implementation RESUPERES Subject (Module Interpretation Heritage)*



Research by Pennebaker and colleagues (Pennebaker, 1990, 1993, 1998; Pennebaker et al., 2001), emphasizes the therapeutic benefits of writing about emotional experiences. Their “Written Disclosure” paradigm suggests that expressing emotions through writing fosters a gradual shift in perspective, allowing individuals to distance themselves from the problem. Writing creates a timeline, facilitating an examination of the causes and effects of events.

Studies demonstrate that writing about traumatic or painful emotional experiences can significantly improve physical and psychological health (Pennebaker & Susman, 1988). Conversely, suppressing such emotions can negatively impact wellbeing. According to the theory of cognitive change (Pennebaker & Seagal, 1999), writing helps reorganize thoughts and feelings, enabling individuals to construct coherent and meaningful narratives.

Additionally, King and Miner (2000), found that writing about the positive aspects or benefits of a negative experience can yield similar health benefits, offering a less distressing alternative to focusing exclusively on pain and trauma.

From a therapeutic or self-therapeutic perspective, autobiographical narration aligns with the principle of “Utilization” from Erickson’s system (1959). This principle emphasizes leveraging an individual’s unique resources to identify or resolve challenges. By reflecting on personal experiences and emotions, individuals can foster resilience and transform their lives, creating new meaning and direction.



### 5.2.6. Deconstruction and Understanding through the Autobiographical Approach

Autobiography and life stories represent a qualitative approach that seeks not merely to explain facts, as the natural sciences do, but to foster understanding. Morin (2001) describes human understanding as the capacity to recognize both the unity and complexity of the human experience, ultimately learning what it means to be human. Understanding is an intersubjective process in which the other is perceived as a subject with whom one identifies, projects, and empathizes. In this sense, human understanding fosters ethical understanding and addresses a fundamental need in the development of resilience from a social and ecological perspective (Malaguti, 2005): the construction of a network of supportive relationships and a caring society, which serves as a key protective factor, as evidenced by numerous resilience studies.

Mutual understanding is intricately linked to self-understanding. According to Morin, misunderstanding oneself is a significant source of misunderstanding others. He states: *"One masks one's own shortcomings and weaknesses, which makes one merciless towards the shortcomings and weaknesses of others"* (Morin, 2000, p. 101).

Self-deception, which involves hiding reproachable aspects of one's own history, and self-serving biases, whereby successes are attributed to oneself and failures to external factors or others, are common errors in self-understanding. These tendencies lead to mutual incomprehension and undermine the ethical and moral foundations necessary for communal living.

Through the narration of one's autobiography, individuals can gain greater self-awareness and understanding of themselves and others—their knowledge, experiences, emotions, and the mental processes that influenced decisions and choices. This is achieved through a hermeneutic and interpretative process of assigning meaning and significance. Narrating, whether freely or through guided exercises, allows for a deeper and more nuanced understanding of events and situations, transcending rigid categorizations and schematizations. This is particularly important in the context of the "individualization of life paths" (Sirignano & Maddalena, 2012). Categorization, while intellectually convenient, often results in stigmatization, prejudice, and exclusion, especially when it diminishes appreciation for the differences and diversity that characterize individuals.

In constructing the "social self," Linville (1987) emphasizes the value of self-complexity—he extent and qualitative differentiation of various aspects of the self in relation to roles, relationships, activities, and dimensions of existence. Greater self-complexity helps individuals maintain balance in their relationships with themselves and others, shielding them from fluctuations in self-esteem and mood. This is because a single event, whether positive or negative, impacts only specific aspects of the self rather than the entirety of one's identity. In contrast, reductionism—the tendency to reduce a person or event to a single characteristic—coupled with excessive rationalization of social roles, cultural stereotyping, and stigmatization (e.g., being defined solely by gender, ethnicity, or social roles), inhibits individuals' ability to autonomously develop the multifaceted dimensions of their identity and realize the richness inherent in their lives.

In this context, a pedagogical and educational model that emphasizes structured training centered on the recursive relationship between knowledge, metacognition, and reflexivity is essential (Perillo, 2010). Reflective rationality should function as an "emancipatory



rationality,” enabling individuals to interpret and navigate the uncertainty and disorientation inherent in the learning process—for both students and trainers (Frauenfelder, 2010).

Manciaux (1999) uses the metaphor of the “broken doll” to illustrate the multifactorial nature of resilience in responding to a shock or adverse event. The extent of the damage to the doll depends on at least three factors: the nature of the ground on which it falls, the material it is made of, and the intensity of the impact. But how can the extent, force, or intensity of a “blow” be measured?

Trauma itself is inherently complex. Even in cases involving the same potentially traumatic event, responses vary based on an infinite number of variables. Cyrulnik (2002) identifies three fundamental aspects influencing these responses: personal temperament, cultural significance, and social support. According to Cyrulnik, the representation of a disadvantageous situation is one of the primary components in the formation of trauma. He stresses the importance of recognizing the impact of individual, social, and cultural representations—or the “absence of representation, the emptiness of meaning, the absurdity of reality...” (Cyrulnik, 2002, p. 11)—in exacerbating the incomprehensibility and perceived insurmountability of a traumatic condition.

The representation of pain does not arise mechanically from an evident cause; it exists within a symbolic, discursive, linguistic, and creative universe. Understanding and addressing trauma, therefore, require acknowledging the complex interplay between these representational dimensions, which influence how individuals interpret and respond to adverse experiences.

### 5.2.7. Resilience Constructs inherent to Autobiography

The method of autobiographical narration and the development of life stories fosters competencies closely tied to the ability to become resilient.

#### · Social Competencies

Listening to various stories on a specific topic or life experience contributes to the construction of a “shared truth,” which develops critical awareness, the ability to listen, engage in dialogue, and co-construct meanings. Sharing experiences, representations, and interpretations can enhance self-esteem through the “reassessment of one’s own past.” Engaging with others by sharing one’s story, feelings, and worldviews helps reflect on interpersonal relationship dynamics.

The perspective within which resilience is situated seeks to transcend negative bonds—those characterized by shared dangers and feelings of fear—and instead foster affirmative bonds focused on building a sustainable future.

In the workplace and professional contexts, developing social competencies involves: *“Living a relationship with colleagues characterized by an atmosphere of mutual understanding and trust is one of the fundamental factors in acquiring competencies. Experiencing a positive class or work environment means perceiving a space where one’s opinions and interests are taken seriously, and where one’s participation is welcomed as a resource and a value for the entire community”* (Sirignano, 2012).

Figure 5.55.

Resilience Plots, activity in the Implementation RESUPERES Subject in Italy (Module: Autobiographical training, Prof. Maddalena, S.).



#### · Coping and Problem-Solving

The narrative and autobiographical method also strengthens awareness of thought mechanisms and mentalization processes. By making mental states—both negative and positive—more evident, individuals can exert greater control over them. This approach fosters a cognitive style of interpreting events that encourages the development of positive thinking and proactive coping strategies.

Coping, while an important component, does not fully encompass the resilience process or define a person's resilient personality. However, resilient individuals tend to develop an active coping style more readily. Coping is more directly linked to specific situations, which play a significant role in determining adaptive responses and the strategies implemented.

Coping style is closely tied to the appraisal of a situation, which is not merely an objective evaluation but also influenced by how the situation is perceived. This appraisal strongly affects coping processes and is shaped not only by rational evaluation but also by the emotions evoked by the circumstances.

During autobiographical narrative activities, the exercise of memory and recall triggers a process of reappraisal, which can strengthen coping abilities. These narrative and autobiographical exercises can intentionally aim to foster positive reappraisal and help attribute meaning to events. The metaphor of a balance provides a useful framework for achieving positive thinking:

*"One must balance the ingredients placed on the two plates: if on one side there is fear, security, certainty, control, power, division, competition, it is necessary to balance with hope, joy, trust, humor, simplicity, uncertainty, doubt, discovery, experimentation, lightness"* (Malaguti, 2005).

Writing, by encouraging individuals to focus attention on specific elements for analysis, can help reduce intrusive thoughts. This, in turn, frees up and enhances working memory, increasing the ability to focus on problem-solving (Klein, 2002; Klein & Boals, 2001).

#### · Autonomy

Developing autonomy involves gaining self-knowledge by recognizing one's abilities and

limits, activating personal resources, practicing cultural decentering, and cultivating critical and self-critical thinking. It includes reflecting on one's epistemic assumptions, discovering authenticity, and grounding oneself in personally and rationally motivated judgments that transcend cultural and external influences.

- Sense of Purpose and Future

Through remembering and attributing meaning to life experiences, analyzing the perspectives that have guided us, and recognizing our aspirations and resources, it becomes possible to trace a continuous narrative connecting the past, present, and future. This narrative provides a sense of meaning and direction.

### 5.2.8. RESUPERES activities for developing resilience through Autobiographical training

RESUPERES Italy Team (UNISOB), by Professors Sirignano, F.M., Paolozzi, M.F., Maddalena, S. have created a program of activities for the development and improvement of resilience in university students and staff that is based on the techniques of Autobiographical training, specifically, with resilience being targeted as a global concept. The project is designed to work on the following resilience skills:

- Creativity (four sessions delivered via modules will target this resilience skill).
- Mindfulness (awareness, focusing attention on the present moment) (four sessions delivered via modules will target this resilience skill).
- Leadership (four sessions delivered via modules will target this resilience skill).
- Teamwork (four sessions delivered via modules will target this resilience skill).
- Cultural heritage (four sessions delivered via modules will target this resilience skill).

#### Intervention Development and Procedure:

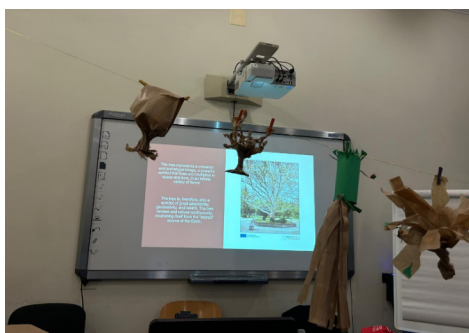
In order to develop resilience in higher education using art and creativity, RESUPERES conceived a specific module that was made available via the interactive platform RESUPERES Module 2. autobiographical training (Link: [Course: Module 2 – Autobiographical Training | resuperesLMS](#)). This module had the following structure:

- Programming: 12 sessions (this number of sessions was selected because existing literature in university students suggests that between eight and 16 sessions are sufficient to bring about improvement).
- Target audience: students and university staff.
- Content of sessions employing Autobiographical training:
  - Session 1: Introduction: "Overcoming Adversity through Autobiography training"
  - Session 2: Self-portraits.
  - Session 3: Art, autobiography and self-acknowledgement.
  - Session 4: Changes and metaphors.
  - Session 5: Cadavre exquis.
  - Session 6: Emotional control.
  - Session 7: The Casita of Resilience.
  - Session 8: Narratives and creativity.

- Session 9: Memorial.
- Session 10: Narrating emotions.
- Session 11: The Casita in the workplace.
- Session 12: Module evaluation and assessment. Achievement of learning objectives. Learning progression.

Figures 5.56.

Collage Teachers and Students RESUPERES in the implementation of the subject Italy (Autobiography training module).



## 5.3. Breathing

### 5.3.1. Research review on Breathing and Resilience

In recent years, breathing techniques have gained interest for their ability to reduce stress, regulate emotions and improve mental health, key factors for the development of resilience.

Breathing exercises are a cornerstone of practices aimed at developing psychological resilience due to their profound impact on the mind-body connection. The scientific rationale for their effectiveness involves key physiological and psychological mechanisms, making them essential in resilience-building programs. This approach includes the following:

- . Autonomic Nervous System Regulation: The autonomic nervous system (ANS) controls unconscious bodily functions, including heart rate, digestion, respiratory rate, and more. It is divided into the sympathetic nervous system (SNS), responsible for the "fight or flight" response, and the parasympathetic nervous system (PNS), responsible for "rest and digest" functions. Breathing exercises can stimulate the PNS, reduce SNS activity, promote relaxation and lower stress levels (Inasaridze, 2021).

Figure 5.57.  
*Module Beathing (RESUPERES Pilot Study Serbia)*



- . Reduction of Stress Hormones: Chronic stress leads to elevated levels of cortisol and adrenaline, hormones that can be harmful over time. Breathing exercises have been shown to reduce the production of these stress hormones, mitigating their negative effects on the body (Pal et al., 2004).
- . Mindfulness and Present-Moment Awareness: Breathing exercises often require focused attention on the breath, enhancing mindfulness. This present-moment awareness can interrupt patterns of rumination and worry, common in anxiety and depression, fostering a state of mental calmness (Brown & Gerbarg, 2009; Brown & Gerbarg, 2020; Kabat-Zinn & Santorelli, 2021; Seppälä et al., 2021)
- . Improved Oxygen Exchange: Slow, deep breathing increases oxygen exchange, improving blood quality by efficiently removing carbon dioxide. This process can lead to enhanced



physical and mental energy levels, promoting overall wellbeing (Finchman et al., 2023).

. **Brain Function and Neuroplasticity:** Research suggests that regular breathing exercises can influence brain regions involved in emotion regulation, such as the prefrontal cortex and limbic system. This may enhance the ability to manage stress and recover from negative emotions more quickly (Liang et al., 2023).

. **Enhanced Heart Rate Variability (HRV):** HRV, a measure of the variation in time between heartbeats, indicates the body's resilience to stress. Practices incorporating breathing exercises have been linked to improved HRV, suggesting a greater capacity to handle stress (Lehrer & Gevirtz, 2022).

. **Psychological Benefits:** Engaging in breathing exercises can increase feelings of control over one's mental state, reducing anxiety and depression. This sense of self-efficacy is crucial for developing psychological resilience (Banushi, 2023; Bentley et al., 2023; DeGraves et al., 2024; Finchman et al., 2023)

The effectiveness of breathing exercises can vary based on the individual and the specific techniques used. However, their broad range of benefits for both mind and body makes them a valuable tool for building resilience, managing stress, and improving overall mental health. Regular practice can help cultivate a more resilient mindset, enabling individuals to face challenges with greater equanimity.

As for resilient intervention programs, which specifically use conscious breathing techniques in a university context, we have found very few and we detail them below:

#### 1. Learning to Breathe (L2B) Program

- **Description:** This mindfulness program is designed for teens and young adults, focusing on mindfulness and emotional regulation.
- **Application in university students:** A pilot study in students who began their university studies showed that participation in the program significantly reduced depression and anxiety, as well as an increase in resilience and self-concept.
- **Results:** Participants experienced improvements in their ability to adapt to the changes and challenges associated with the transition to university life.

#### 2. Physical Activity Program "Healthy Pills". RESUPERES Project (García et al., 2024)

- **Description:** This program combines physical activity with breathing and relaxation techniques, aimed at the prevention of mental health problems and the strengthening of resilience in university students (Implementation of the RESUPERES subject at the UGR).
- **Application in university students:** Implemented in university contexts, it has proven to be an effective strategy to improve the mental health and resilience of students.
- **Results:** Participating students reported a reduction in academic stress levels and an improvement in their overall well-being.

#### 3. Mindfulness-Based Interventions to Reduce Academic Stress

- **Description:** We found several programs that incorporate mindful breathing and meditation techniques to help students manage stress related to academic demands (Banushi, B, 2023; Bentley et al., 2023; Finchman et al., 2023).
- **Application in university students:** These studies have shown that these interventions can significantly decrease academic stress and improve mindfulness in university students.



- Results: Participants reported an increased ability to concentrate and a reduction in anxiety and emotional well-being, related to the studies (Zurita-Ortega, 2023).

The results of these programs are clearly positive, and from them we conclude with some recommendations for the Implementation of Programs in Universities

- Curricular Integration: Incorporate mindfulness modules and breathing techniques into the academic curriculum to promote student well-being.
- Workshops and Seminars: Offer practical workshops where students can learn and practice breathing and mindfulness techniques.
- Mobile Apps: Facilitate access to apps that guide students in breathing and meditation practices, such as "micalmbeat," which helps improve the ability to manage stress through slow breathing.
- Practice Spaces: Create spaces on campus where students can participate in meditation and guided breathing sessions.

The implementation of these programs can significantly contribute to the development of coping skills and resilience in university students, improving their well-being and academic performance.

In conclusion, breathing exercises play a significant role in developing psychological resilience by improving autonomic function, reducing symptoms of anxiety and depression, enhancing mindfulness and improving physical health markers associated with stress. These benefits collectively contribute to an individual's ability to withstand, adapt to, and recover from stress and adversity.

### **5.3.2. Activities focused on strengthening Resilience using the contents of Breathing**

These activities are designed to be practical, accessible, and adaptable, ideal for workshops, groups, or individual sessions. Its main objective is to strengthen resilience through breathing techniques that help regulate emotions, reduce stress and improve general well-being.

#### **1. Diaphragmatic Breathing Exercise: The Foundation of Resilience**

Objective: Learn how to use the diaphragm for deep and relaxing breathing.

Duration: 10 minutes.

Materials: None.

Instructions:

- Participants sit comfortably or lie on their backs.
- Place one hand on the abdomen and the other on the chest.
- They inhale deeply through the nose, allowing the abdomen to rise (the chest should remain still).
- They exhale slowly through their mouths, noticing how the abdomen descends.
- Repeat the cycle for 10 minutes, concentrating only on breathing.

Benefit: Promotes a sense of calm and regulates the physiological response to stress.

## 2. Coherent Breathing: Emotional Stability

Objective: To stabilize emotions and increase resilience through controlled breathing.

Duration: 10 minutes.

Materials: Stopwatch or metronome (optional).

Instructions:

- Participants inhale for 5 seconds and exhale for 5 seconds, maintaining a steady pace.
- They are encouraged to close their eyes and visualize a gentle wave rising and falling with each breath.
- This breathing pattern is maintained for 5–10 minutes, adjusting according to the participant's comfort.

Benefit: Improves emotional regulation and increases heart rate variability (HRV), a marker of resilience.

## 3. 4–7–8 Breathing for Rapid Stress Reduction

Objective: Quickly calm the nervous system in times of stress.

Duration: 5 minutes.

Materials: None.

Instructions:

- Inhale deeply through the nose for a count of 4.
- Hold your breath for 7 seconds.
- Exhale completely through the mouth for a count of 8.
- Repeat the cycle 4 times.

Benefit: Induces a state of deep relaxation and improves the ability to handle acute stress.

## 4. Body Scan with Guided Breathing

Objective: To promote self-awareness and the body–mind connection.

Duration: 15 minutes.

Materials: Audio or meditation guide (optional).

Instructions:

- Participants close their eyes and start with slow, deep breaths.
- Guided by an instructor, they focus their attention on different parts of the body, starting at the feet and working their way up to the head.
- With each breath, they imagine that they inhale calm and exhale tension from the focused area.
- They end with a few deep breaths to integrate the experience.

Benefit: Helps reduce accumulated stress and increases emotional self-awareness.

## 5. Breathing in Motion: Yoga and Resilience

Objective: To link breathing with physical movement to strengthen the body and mind.

Duration: 20 minutes.

Materials: Yoga mats.

Instructions:

- Guide participants to perform simple yoga postures (example: child's pose, cat-cow).
- Each movement is coordinated with breathing (inhale as you extend, exhale as you contract).
- It ends with the corpse pose (Savasana) and deep breathing.

Benefit: Strengthens the connection between mind and body, improving the ability to face challenges.

#### 6. Controlled Breath Technique for Visualization

Objective: Use breathing to reinforce confidence and resilience through positive images.

Duration: 15 minutes.

Materials: Visualization guide (optional).

Instructions:

- Participants close their eyes and begin with slow, deep breathing.
- Guided by the facilitator, they envision a safe place or a situation in which they felt successful and resilient.
- With each inhalation, they imagine that they absorb positive energy; With each exhalation, they release insecurities.
- They reflect on how this visualized experience can influence their daily lives.

Benefit: Reinforces self-confidence and the ability to overcome adversity.

#### 7. Breath and Resilience Journal

Objective: To raise awareness about the effects of breathing on the emotional state.

Duration: Daily (5 minutes per day).

Materials: Notebook or note application.

Instructions:

- Each day, participants spend 3 minutes practicing a learned breathing technique.
- They record how they felt before and after exercise.
- At the end of a week, they reflect on the changes observed in their emotional well-being.

Benefit: Strengthens emotional self-management and encourages the habit of breathing practice.

#### 8. Group Breathing: Synchronization and Mutual Support

Objective: To foster group connection while strengthening resilience skills.

Duration: 10 minutes.

Materials: None.

Instructions:

- Participants sit in a circle and coordinate their breathing with a guided rhythm (e.g., with a metronome).
- The group works on synchronizing their inhalations and exhalations, promoting cohesion.

- It reflects on how respiratory synchronization can represent interdependence in times of adversity.

Benefit: Reinforces social support and a sense of unity in challenging situations.

Figure 5.58.

Group Breathing, activity in RESUPERES Implementation subject in Serbia (module Breathing, Prof. Knezevic, O.)



These activities can be adjusted according to the characteristics of the group or the context in which they are implemented, and will be used in the RESUPERES module that we present below

### 5.3.3. RESUPERES Activities to develop Resilience through Breathing

RESUPERES Serbia Team (UB), by Knezevic, O., Mirkov, D., Aleksic, J., & Ristovski, A., have developed a program of activities designed to enhance resilience in university students and staff. This program utilizes breathing techniques, focusing on resilience as a global concept while targeting specific resilience skills:

- Creativity (four sessions delivered via modules are targeted towards this skill).
- Mindfulness (awareness and focusing attention on the present moment; four sessions are target this skill).
- Leadership (four sessions target this skill).
- Teamwork (four sessions target this skill).
- Cultural heritage (four sessions target this skill).

Intervention Development and Procedure:

In order to develop resilience in higher education through Breathing or Breath control techniques, RESUPERES conceived a specific module that was made available on the interactive platform RESUPERES Module 3. Breathing (Link: [Course: Module 3 – Breathing | resuperesLMS](#)). This module followed the blueprint presented below:

- Programming: 12 sessions (this number of sessions was selected because existing literature in university students indicates that between eight and 16 sessions are sufficient to bring about improvement).

- Target audience: students and university staff.
- Content of breathing sessions:
  - Session 1: An introduction to the module and explanation of aspects relevant to breathing are provided.
  - Session 2: Foundations of mindful breathing (mindfulness).
  - Session 3: Deepening mindfulness and awareness (mindfulness).
  - Session 4: Creativity – fostering innovative thinking (creativity).
  - Session 5: Fostering creativity (creativity).
  - Session 6: Connecting with roots (cultural heritage).
  - Session 7: Embracing cultural stories (cultural heritage).
  - Session 8: Building focus and clarity (leadership).
  - Session 9: Enhancing resilience and emotional intelligence (leadership).
  - Session 10: Enhancing communication and empathy (teamwork).
  - Session 11: Building resilience and collective problem-solving (teamwork).
  - Session 12: Module evaluation and assessment.

**Figure 5.59.**  
*Teachers and Students RESUPERES in the implementation of the subject Serbia (Breathing Module, Prof. Knezevic, O.)*

**Figure 5.60.**  
*Implementation of the RESUPERES Subject in Serbia (Module Breathing, Prof. Ristovski, A.)*



## 5.4. Canoeing: Physical Activity in the Natural Environment

### 5.4.1. Review on Resilience and Activities in the Natural Environment

The relationship between engaging in sports in nature and resilience has been studied across various disciplines, including psychology, physical education and ecology. Research suggests that engaging with the natural environment through sports can significantly enhance personal resilience. Below is a review of key authors and studies in this field of Sport in the Natural Environment and Resilience:

- Kaplan (1995), explores how natural environments have restorative effects on mental and emotional health. His Theory of Environmental Restoration suggests that exposure to nature can improve individuals' ability to cope with stress and enhance resilience.
- Barton and Pretty (2010), investigate the benefits of "green exercise," which involves physical activity in natural settings. Their study demonstrates that exercising in nature positively impacts mental wellbeing, including the enhancement of resilience.
- Hartig et al. (2014), review the literature on the effects of nature on health, including resilience. Their work emphasizes how interacting with natural environments can improve stress management and recovery from difficulties.
- Godbey and Mowen (2010) examines how recreational activities in nature, including sports, benefit child development and resilience. It details how such experiences help children develop coping skills for life challenges.
- Pretty et al. (2007), analyzes the effects of outdoor recreational activities, including nature sports, on resilience and psychological strength. The study provides an in-depth look at how contact with nature contributes to personal resilience.
- Kuo and Taylor (2004), explore how contact with nature benefits mental health, focusing on children with ADHD. While their work centers on ADHD, the findings highlight nature's broader positive effects on psychological resilience.
- White et al. (2019), this study highlights the association between spending time in nature and improved health and wellbeing. While it does not focus exclusively on sports, it provides evidence that exposure to natural environments supports the development of resilience; they found that individuals who spent 120 minutes in nature during the previous week were significantly more likely to report good health and wellbeing than those who had not. This included older adults and people with persistent health problems.

The aforementioned studies provide a solid basis for understanding the way in which playing sports in natural environments can influence resilience. The combination of physical activity and contact with nature seems to have a positive impact on people's ability to face and overcome adversity.

### 5.4.2. Review on Resilience and Activities in the Natural Environment: Canoeing

Canoeing provides an opportunity to be outdoors and thrive in simple conditions, which are intrinsic normative values of traditional Norwegian lifestyles (Sageidet et al., 2020). In their third year, approximately 30 ECTE students and two teachers from physical education (PE) and science education at HVL participated in a canoeing field course on a lake north of the



coastal city of Bergen. The course aimed to practice basic skills in outdoor education (e.g., tying knots, making bonfires, using an axe and knife), develop paddle techniques, and build scientific knowledge in areas such as botany, zoology and limnology.

For all these reasons, canoeing offers a unique opportunity to develop resilience, as it combines physical and psychological challenges in a natural environment. Below is a rationale for how canoeing can contribute to the development of resilience, supported by relevant research and theories, given the scarcity of specific literature on these constructs:

1. Challenge and Adaptation, Martens (1977) studied how sports, in general, help individuals face and adapt to challenging situations. In canoeing, the challenges of handling the boat in varying conditions (calm or fast waters, adverse weather) require participants to develop adaptability and problem-solving skills, which are essential for resilience.
2. Overcoming Fear and Stress, Weinberg and Gould (2018), among others, have explored how sports help individuals manage stress and overcome fears. Canoeing, especially in unpredictable water environments, teaches participants to control their fears and manage stress, thereby fostering resilience.
3. Teamwork and Communication, Carron and Hausenblas (2006), analyzed how teamwork in sports enhances group cohesion and resilience. In team canoeing, effective communication and coordinated effort are critical, strengthening collaboration and mutual support, which are vital aspects of resilience.
4. Connection to Nature, Kaplan (1995) discussed the mental and emotional restorative benefits of nature. Canoeing, practiced in natural settings, provides immersion in nature that enhances mental wellbeing and strengthens the ability to face and overcome adversity.
5. Resilience and Self-Efficacy, Bandura (1997) explored the concept of self-efficacy –the belief in one's ability to handle challenges–, and its impact on resilience. Canoeing, by requiring technical skills and the ability to overcome obstacles, enhances self-efficacy, contributing to greater resilience.
6. Development of Self-Discipline and Persistence, Duckworth et al. (2007) emphasized the role of perseverance and passion in achieving long-term goals. Canoeing, conducted in unpredictable and challenging environments (e.g., fluctuating weather conditions), requires significant self-discipline and persistence. Unlike controlled indoor activities, this fosters qualities fundamental to building resilience.
7. Psychological Benefits of Sport in Nature, Hartig et al. (2014) reviewed how engaging in sports within natural environments improves psychological wellbeing. Canoeing offers psychological benefits by enabling participants to cope with and adapt to physical and emotional demands, thus supporting resilience development.

Although there is limited documented scientific literature on how canoeing specifically improves resilience or mental health, there are numerous videos and documentaries that provide insights into its benefits:

1. ["Mental Health Benefits of Canoeing and Kayaking"](#). British canoeing and paddling ability. Posted on February 21, 2017 / Posted by CANI, [Mental Health Benefits of Canoeing and Kayaking \(youtube.com\)](#) <https://www.youtube.com/watch?v=26R8TwZn-jc>

2. "Time to Talk Day: *"Canoeing and Mental Health"*. The benefits of canoeing and kayaking to mental health have long been a reason for many people to take up the sport, regardless of age and ability. The ability to get out on the water for a relaxing paddle, or run river rapids after

a stressful day, provides many people with an escape from everyday life. You can read more about health in the documentary: <https://cani.org.uk/bc-time-to-talk-day-canoeing-and-mental-health/>

3. Paddle-ability series: “Canoeing for mental health and sociability”. Exeter Canoe Club. British canoeing and paddle ability. The final episode in our Paddle-Ability series focuses on three marathon paddlers from Exeter Canoe Club. These three paddlers found canoeing was the sport for them after a series of health issues including a heart attack and triple heart bypass. They found canoeing gave them much more than increased fitness but, also, helped with their mental health. <https://youtu.be/Ya9Etu7rEfk>

4. “Recreational canoeing as the perfect mental and physical challenge” (Enca.com). The desire to live a healthy and active lifestyle has become more prevalent and, the more adventurous, the more likely one is to feel enriched and uplifted afterwards. eNCA sports reporter Amy Samuels took to the waters to explore the extremes her body could be pushed to (February 2016) [https://youtu.be/F4PVp\\_W8-0](https://youtu.be/F4PVp_W8-0)

The best way to understand how canoeing and similar sports contribute to improving resilience is through the example of dragon boat canoe engagement (Figure 5.61). This globally renowned activity, planned as a sports initiative in the RESUPERES pilot study activities in Serbia (<https://resuperes.eu/LTActivities.C2.4.Serbia.html>), is especially recommended for breast cancer survivors. It addresses a wide range of physical and emotional challenges, including scars, mastectomies, dorsal reconstruction, and the threat of lymphedema, while also helping to prevent lymphedema.

Figure 5.61.

RESUPERES Pilot Study in Serbia (Module Physical activity in the natural environment: Dragon Boat), and RESUPERES Pilot Study in Bergen (Module Canoeing).



Dragon boat canoeing, an ancient practice originating in China, has characteristics that make it an ideal sport for breast cancer survivors, regardless of whether they have lymphedema ([https://www.elespanol.com/mujer/actualidad/20210203/dragon-boat-terapia-combatir-cancer-medicacion-prioritaria/553695225\\_0.html](https://www.elespanol.com/mujer/actualidad/20210203/dragon-boat-terapia-combatir-cancer-medicacion-prioritaria/553695225_0.html)). This practice has grown exponentially and now includes over 140 specific teams within the breast cancer survivor (BCS) category. Its benefits are numerous and include:

1. Improving Physical Strength and General Wellbeing: it enhances muscle strength, physical fitness and overall wellbeing.
2. Promoting Teamwork: participants row together, fostering a sense of unity and allowing individuals to temporarily set aside personal challenges to focus on the group.
3. Encouraging Focus: the sport requires concentration, which helps participants stay

mentally engaged in the moment, providing psychological relief and a sense of wellbeing.

4. Diversity and Inclusivity: It is suitable for people of different ages and physical conditions.

5. Endurance and Repetition: the repetitive and enduring nature of rowing makes it ideal for preventing and improving lymphedema.

6. Supporting Post-Surgery Recovery: it benefits individuals recovering from a variety of surgeries, from less invasive procedures to those involving lymph node removal. The sport strengthens muscles, including the pectoral, dorsal and scapular groups, which are particularly affected.

7. Scientific Evidence: studies show that dragon boat canoeing improves lymphedema and serves as an effective practice to prevent its development.

8. Boosting Self-Perception and Self-Esteem: participants report improved self-image and confidence.

9. Addressing Psychological, Physical, and Social Challenges: the practice alleviates the effects of post-cancer sequelae by providing support, companionship and joy, enhancing psychological, physical and social wellbeing.

10. Empowering Participants: survivors regain a sense of control over their recovery, transforming challenges into opportunities for growth.

11. Nature Connection: practicing this sport outdoors improves emotional states, reducing anxiety and depression.

12. Global Competitions: Dragon boat events offer opportunities to travel, meet new people and enjoy life-enhancing experiences, significantly improving quality of life.

13. Specialized Categories: the sport features categories such as BCS (breast cancer survivor) and ACS (any cancer survivor), making it inclusive and highly supportive for individuals recovering from cancer.

These benefits highlight the importance of dragon boat canoeing as an ideal activity for breast cancer survivors. By promoting health and improving the quality of life on physical, emotional and social levels, this sport exemplifies resilience in action, providing a clear message of hope and empowerment.

#### **5.4.3. Canoeing Activities focused on strengthening Resilience**

This section will share additional canoeing activities designed to strengthen resilience, which will be found within the RESUPERES teaching module.

##### **1. Paddle in Pairs or in a Group**

- Objective: To encourage collaboration, effective communication, patience, and adaptability to others' skills and styles (Figure 5.62.).
- Activity: Participants paddle together, coordinating their movements. Leadership roles in the canoe can be rotated, allowing everyone to experience both leadership and teamwork.

Figure 5.62.  
*Paddle in pairs, activity in RESUPERES Pilot Study Norway (Module Canoeing)*



## 2. Obstacle Course

- Objective: To face unforeseen challenges, encourage quick problem-solving, and develop the ability to stay calm under pressure.
- Activity: Create a circuit with obstacles (e.g., buoys, branches, or marked points) in the water. Participants must maneuver the canoe around these obstacles, solving problems and adjusting their strategy as they encounter difficulties.

## 3. Canoeing in Changing Conditions

- Objective: To adapt to challenging, difficult, and unpredictable situations, strengthening resilience.
- Activity: Conduct the activity on a day with windy or current-filled conditions, if safe. Alternatively, simulate weather or environmental changes, such as paddling in rougher waters, requiring participants to adjust to the new conditions.

## 4. Rowing Blindfolded (Trust in the Team)

- Objective: To promote trust, communication, teamwork, the ability to delegate, and empathy.
- Activity: Divide participants into pairs. One team member is blindfolded while the other provides verbal instructions to guide the canoe. Roles are then reversed so both experience mutual trust.

## 5. Rescue Simulation

- Objective: To practice problem-solving and crisis management, and to develop skills for staying calm and making rational decisions under stress.
- Activity: Simulate an emergency, such as capsizing the canoe. Teams must coordinate to rescue each other, flip the canoe, and return to normal paddling conditions.

## 6. Relay Races

- Objective: To encourage teamwork, persistence, motivation to overcome challenges, and the ability to sustain energy over the long term.
- Activity: Organize relay races where teams paddle to a specific point, pass an object (such as a paddle) to the next team member, and continue the race.

## 7. Exploration Day

- Objective: To promote autonomy, exploration, decision-making, and adaptability when facing the unknown.
- Activity: Organize a canoe expedition to a natural location where participants must navigate and find their own way. Along the journey, they encounter pre-established challenges, such as changing routes or completing small tasks, simulating unforeseen events.

In conclusion, we reaffirm that the sport of canoeing fosters resilience through a combination of physical challenges, the need for adaptation, exposure to natural environments, teamwork, and the development of self-efficacy. These elements collectively contribute to strengthening personal and psychological skills essential for facing and overcoming adversity. Integrating canoeing within the context of resilience highlights how sports, both in natural and other settings, serve as effective tools for personal development.

### 5.4.4. RESUPERES Activities for developing Resilience through Canoeing

RESUPERES Norway team (HVL), by Professors Lundhaug, T., Nybakken, T., Hausmann, F., & Falcó, C., conceived a program of activities for developing and improving resilience in university students and staff, which were based on the techniques of Canoeing, specifically and worked on resilience, globally. The program was designed to work on the following resilience skills:

- Creativity (two sessions delivered via modules will target this resilience skill).
- Mindfulness (awareness, focusing attention on the present moment) (two sessions delivered via modules will target this resilience skill).
- Leadership (two sessions delivered via modules will target this resilience skill).
- Teamwork (two sessions delivered via modules will target this resilience skill).
- Cultural heritage (two sessions delivered via modules will target this resilience skill)

#### Intervention Development and Procedure:

- Programming: 12 sessions (this number of sessions was selected because existing literature indicates that, in university students, between eight and 16 sessions are sufficient to bring about improvement).

In order to develop resilience in higher education through teaching the sport of canoeing, RESUPERES conceived a specific module that was made available on the interactive platform RESUPERES Module 4. Canoeing (Link: [Course: Module 5 Canoeing | resuperesLMS](#)). This module was structured in the following way:

- Target audience: students and university staff.
- Contents of Canoeing Sessions:
  - Session 1: An introduction is given to the module "Overcoming Adversity through Canoeing" and relevant aspects explained.
  - Session 2: Safety.
  - Session 3: Rowing technique: Individual.
  - Session 4: Rowing technique: Team.



- Session 5: Planning.
- Session 6: Buddy rescue.
- Session 7: First aid.
- Session 8: Still water.
- Session 9: Choppy waters.
- Session 10: Overnight.
- Session 11: Overnight.
- Session 12: Module evaluation and assessment.

Figure 5.63.  
*RESUPERES Team Norway (Module Canoeing)*



Figures 5.64., 5.65. and 5.66.

*Collage. Teachers and Students in the RESUPERES Pilot Study Norway (Module Canoeing, Prof. Lundhaug, T.).*





## 5.5. Corporal Expression and Dance

### 5.5.1. Review on Corporal Expression as a tool for developing Resilience. The importance of comprehensive student development

Learning is not limited solely to the cognitive domain but also encompasses emotional, physical and social dimensions. Comprehensive education promotes harmonious development, enabling students to acquire not only knowledge but also essential life skills such as resilience and collaboration.

The inclusion of artistic and physical activities, such as dance, in the school curriculum emerges as a powerful tool for fostering holistic development. Studies by Mundet et al. (2015) and Connolly et al. (2011), demonstrate the significant benefits of these practices, not only for students' physical wellbeing but also for their mental and emotional health. These studies reveal improvements in self-esteem, motivation and attitudes toward learning.

Figure 5.67.

*RESUPERES Team in the Implementation of the RESUPERES subject Spain (Module Corporal Expression and Dance, Prof. Martín, C.)*



Artistic expression and physical movement provide young people with opportunities to explore and express their emotions and thoughts constructively. According to Cyrulnik (2009) and Del Río (2009), these activities enhance self-awareness and contribute to the construction of a positive self-image, which are key elements of personal development.

In the social domain, dance and other artistic expressions foster cooperation, integration and effective communication among students. Authors such as Molina et al. (2009) and Moreno (2010) highlight how these practices promote empathy and respect for diversity, preparing students to engage in society in a healthy and constructive manner.

Holistic education recognizes and values the complexity of the human experience, striving to develop all aspects of an individual's potential. By integrating these dimensions, an educational approach ensures the formation of not only academically competent individuals but also well-rounded individuals capable of facing life's challenges with creativity, resilience and social sensitivity.

### 5.5.2. Corporal Expression and Dance as tools for holistic development

In the realm of holistic education, the body and corporal expression emerge as fundamental pillars for the comprehensive development of the individual. The study by Vargas and Casallas (2020) emphasizes the importance of recognizing the body not only as an instrument with measurable physical capabilities but also as an essential means of relating to the world. Through corporal expression, individuals can communicate and experience daily life, fostering greater self-awareness and promoting reflection. This process extends beyond the individual sphere, facilitating the exchange of ideas, opinions, and experiences within a social context.

This perspective, supported by the research of Mundet et al. (2015), underscores the need for balanced development that harmonizes the body, thoughts and emotions. Traditionally, educational focus has prioritized cognitive development, relegating emotional and bodily aspects to a secondary position. However, corporal expression, particularly dance, emerges as a powerful avenue for expressing feelings, emotions, sensations, and experiences, offering a unique opportunity for personal and social development.

Cyrulnik (2009) has highlighted how art, including dance, significantly contributes to health and wellbeing by fostering processes of internalization, self-awareness, self-confidence and expression. Dance, as a form of corporal expression, enables individuals to sensitize their bodies and recognize them as a crucial element of interaction and communication with the world (Munevar & Díaz, 2009).

Montoya et al. (2007), suggest that engaging in corporal expression and dance encourages individuals to be more physically active, overcoming sedentary lifestyles and improving emotional states such as depression, stress and resentment. Additionally, the emotional component is strengthened through bodily work, enhancing the perception and acceptance of one's own body (Fructuoso & Gómez, 2010).

In the social context, artistic activities, including dance, promote processes of socialization, integration and cooperation. These activities facilitate relationships with other people, objects and the environment while providing personal benefits such as communication, cultural knowledge, creativity, expressiveness, self-esteem and self-awareness (Molina et al., 2009; Moreno, 2010).

Dance, as an element of corporal expression, not only serves to transmit traditions and knowledge but also plays a crucial role in social construction and development by conveying essential human values (Wulf, 2008). Ospino (2006) considers corporal expression and dance activities as opportunities to connect with others, engage in exchange activities and belong to a community, learning through new and enjoyable experiences.

Figure 5.68.  
*Students in the Implementation RESUPERES subject (Popular Dance, Prof. Padial, R.)*



Furthermore, research has demonstrated that dance interventions increase levels of perceived quality of life and overall wellbeing (Bohn, 2021; Fong Yan et al., 2024; Moula, 2020; Re, 2021; Shao, 2021).

In conclusion, the implementation of educational projects focused on corporal expression is crucial for the comprehensive development of young people, improving their health and wellbeing while fostering processes of socialization, integration and cooperation (Padial & Puga, 2023,2024). Within this framework, dance not only enhances the quality of life at physical, mental, communicative and social levels but, also, strengthens resilience, which is a fundamental tool for personal growth.

### 5.5.3. Conceptualization of Corporal Expression tools and their benefits for the development of Resilience

In the pursuit of holistic student development, various tools have proven effective in enhancing resilience, with dance being one of the most prominent. Dance, in its various forms, such as dance therapy, exergames, folk dances and expression through dramatization, has demonstrated positive impacts on individuals' physical emotional and social wellbeing.

#### *Dance Therapy*

Based on the Satir Model, dance therapy is a form of psychotherapy that utilizes body movement as a means of communication and expression. This approach focuses on promoting change, recognizing personal resources, and enhancing positive experiences. It helps individuals better understand themselves, increase their self-esteem, and promote internal harmony and balance. By allowing individuals to express themselves through body movements, dance therapy can effectively alleviate tension, foster life satisfaction and enhance psychological resilience, thereby improving mental health (Seo & Kim, 2015; Yildirim, 2017).

Figure 5.69.

*Inclusive Dance Workshop in the RESUPERES Pilot Study Spain (Module Corporal expression and Dance by Vinculados Company, Granada)*



#### *Folk Dances*

Folk dances, such as "Latin Active Hip Hop," are used to encourage physical activity and foster self-esteem and creativity, particularly among youth. These interventions illustrate how dance can be an effective tool for socialization, cultural expression and personal development, contributing significantly to resilience (Romero, 2012).

### *Dance Exergames*

Dance exergames are active video games that combine physical exercise with dance. These games require participants to perform dance moves in sync with on-screen instructions, often to the rhythm of music. Examples include Dance Revolution and Just Dance. Dance exergames provide an innovative way to promote physical activity. While studies have shown mixed results regarding their impact on overall physical activity, significant improvements have been noted in anthropometric measures and certain aspects of health-related quality of life. These findings suggest the potential of dance exergames for fostering resilience (Azevedo et al., 2014).

### *Expression and Dramatization*

Expression and dramatization, particularly when combined with dramatized play, have been shown to improve communication skills and foster tolerance, creating an atmosphere of friendship and camaraderie (Lara & Castellanos, 2018). Such interventions encourage social interaction and empathy, both of which are key components of resilience.

As *conclusion*, these tools not only offer physical benefits but also promote emotional and social wellbeing, which are essential for resilience development in students. By integrating these practices into the educational framework, schools can provide a more holistic education, equipping students to face challenges more effectively and with greater resilience.

## **5.5.4. Analysis of intervention programs using Corporal Expression tools**

After analyzing the scientific literature, research is scarce in number scientific level and university contexts, we identified the following intervention programs that incorporate elements of collective expression and dance:

The first study, conducted in 2012 by Romero in the United States, aimed to increase self-efficacy and decrease neighborhood barriers to breakdancing among adolescents. The specific objective was to analyze the way in which the "Latin Active" program might influence physical activity frequency (PA), self-efficacy for breakdancing, and perceptions of neighborhood barriers to exercise. Variables studied included PA frequency, self-efficacy for breakdancing and perception of neighborhood barriers. The intervention consisted of a five-week program featuring 30-minute breakdancing sessions, ten-minute individual practices and five-ten minutes of freestyle. Findings indicated significant increases in vigorous physical activity and self-efficacy among girls, whilst boys experienced decreased perceptions of neighborhood barriers, highlighting the positive impact of dance on promoting physical activity and wellbeing amongst adolescents.

In 2015, two significant studies were conducted. Mundet et al. (2015) in Spain, explored the educational benefits of artistic and corporal strategies in positively constructing personal identity. Specifically, the study investigated how artistic mediation focused on body expression could influence personal identity development and resilience. A qualitative approach was employed through case studies and interviews. Variables included the development of personal identity and resilience. The program involved activities such as creating a body map, where participants drew life-sized representations of their bodies and wrote sentences related to resilience. Sessions followed a structure of welcome, corporal activity, and communicative reflection, emphasizing "the body of strengths." The study concluded that artistic activities significantly improved the quality of life of young people across physical, mental, communicative and social dimensions.

Simultaneously, Azevedo et al. (2014), in the United Kingdom, examined the impact of dance exergames over 12 months with a sample of 497 students. The study aimed to investigate whether using dance mats in schools influenced physical activity, psychological wellbeing, autonomy and parent-adolescent relationships. Variables included physical activity, psychological wellbeing, autonomy and parental relationships. The intervention allowed free use of dance exergames during physical education, recess and extracurricular activities. Findings, based on Kidscreen-27 data, revealed beneficial effects on psychological wellbeing, autonomy and parent-adolescent relationships, demonstrating the effectiveness of exergames in promoting physical activity and improving adolescents' health-related quality of life.

In 2017, in Peru, Velásquez and Villagarcía implemented a two-month intervention program to strengthen resilience factors among in students. The program, also named "Latin Active", aimed to enhance self-esteem, empathy, autonomy, humor, creativity and resilience. The intervention featured ten one-hour sessions focused on specific resilience factors, utilizing techniques such as role-playing, dance and crafts. Findings revealed significant improvements in self-esteem, autonomy and creativity, with resilience increasing in 53% of participants. This highlighted the program's effectiveness in fostering students' holistic development.

In Bogotá, Colombia (2018), Lara and Castellanos designed a pedagogical proposal using dramatic play to enhance interpersonal skills in students at República de Guatemala Middle School. The program aimed to develop communication skills and tolerance through eight sessions focused on dramatic play and eight on communicative skills. Activities progressed from individual to group-based tasks. Findings indicated significant improvements in communication and tolerance, emphasizing the effectiveness of dramatic play in developing interpersonal skills in children.

Moula et al. (2020), in the United Kingdom, investigated the impact of an eight-week dance therapy intervention on health indicators in students. The study, involving 62 participants, examined effects on quality of life, wellbeing, emotional and behavioral functioning, and sleep. Weekly one-hour sessions demonstrated significant improvements in quality of life, emotional health and behavioral outcomes, emphasizing the role of dance therapy in children's healthy development.

In Bogotá, Colombia (2020), Vargas and Casallas explored the efficacy of a one-month virtual program aimed at enhancing insight and interaction qualities in six participants. The program featured activities such as representing sounds from nature and rhythmic bodily movements in time with music. Findings highlighted improvements in participants' creativity and interpersonal interactions, showcasing the value of body expression as a resilience-building tool.

Two studies conducted in 2021 addressed mental wellbeing during the COVID-19 pandemic. In Florida, USA, Bohn and Hogue implemented an eight-week virtual dance program to mitigate fear, anxiety and depression among isolated participants. The intervention used creative dance sessions to foster confidence, creativity and hope, demonstrating reduced anxiety and improved mental health. In China, Shao investigated an eight-week dance therapy program based on the Satir Model delivered. Findings revealed that the program reduced anxiety and depression, and improved life satisfaction and psychological resilience.

Lastly, a 2021 study conducted in Italy examined a nine-week online creative dance and dance/movement therapy (DMT) program's effects on wellbeing and social relationships in 105 participants aged 3-85 years. The intervention included creative dance activities

emphasizing contrasts (e.g., big/small, slow/fast). Findings demonstrated significant improvements in participants' wellbeing and social connections, even amidst COVID-19 restrictions (Re, 2021).

Roiek Lazier Leão et al. (2023), in a cross-sectional study on the association between resilience, self-efficacy and motivation in 135 dancers from the Guaíra Theatre Dance School, of university age, found that resilience was positively associated with self-efficacy and controlled, autonomous motivation, and in the sense of achieving self-efficacy, and negatively with demotivation, concluding that resilience seems to play a protective role against demotivation, in addition to promoting both controlled and autonomous motivation, and self-efficacy in dancers.

### 5.5.5. Specific Corporal Expression and Dance Intervention Programs

The following are examples of specific dance and corporal expression intervention programs, which were found after a thorough review of dance and/or corporal expression interventions for resilience-building, 11 studies and intervention programs were highlighted:

- Contemporary Dance for Adolescents:
  - Variables: Upper body strength, flexibility, aerobic fitness, self-esteem, intrinsic motivation, attitudes towards dance and physical activity (PA).
  - Objectives: Evaluate the physiological and psychological impact of contemporary dance classes on adolescents.
  - Contents: Contemporary dance.
  - Activities: Warm-up (5–10 min), structured exercises (25–30 min), improvisation and choreography exercises (15–20 min), cool-down (5–10 min).
  - Duration: Six weeks.
  - Conclusions: Dance significantly improved fitness components and psychological wellbeing. Participants showed positive attitudes towards dance.
- Breakdance for Increasing PA:
  - Variables: MVPA, self-efficacy, neighborhood barriers.
  - Objectives: Increase PA frequency and self-efficacy for break dancing, and decrease perceptions of neighborhood barriers to exercise.
  - Contents: Breakdance and Latin Active program.
  - Activities: Latin Active program and breakdance session (30 min), individual practice (10 min), freestyle (5–10 min).
  - Duration: Five weeks (100 min/week).
  - Conclusions: The program significantly increased vigorous PA and dance, boosted self-efficacy amongst girls, and decreased perceptions of neighborhood barriers amongst boys.
- Artistic Mediation regarding Personal Identity and Resilience
  - Variables: Personal identity, resilience.
  - Objectives: Explore educational benefits in relation to construction of a positive personal identity based on artistic and corporal strategies.



- Contents: Artistic mediation focused on body expression. Development of personal identity. Body map.
  - Activities: All sessions followed the same structure: welcome, physical activity using the body and cognitive process through communicative reflection. "The Body is a Fortress." The activity consisted of participants drawing their bodies in life size and writing or placing comments in relation to resilience, as described Grotberg.
  - Duration: One session (one hour).
  - Conclusions: Artistic activities are ideal tools for socio-educational action. The intervention improved quality of life in young people on a physical, mental, communicative and social level.
- PA Exergames in Schools
- Variables: PA, weight, height, body fat, self-efficacy, health-related quality of life, aerobic fitness.
  - Objectives: Examine the effect of providing 11-13-year-olds with dance mats in public secondary schools during PA classes.
  - Contents: Exergames.
  - Activities: Freedom to use dance mats at school during physical education class, breaktime and extracurricular activities.
  - Duration: 12 months.
  - Conclusions: The intervention had beneficial effects on psychological wellbeing, autonomy and parent-child relationships.
- Strategies to Strengthen Resilience in Primary School Students
- Variables: Self-esteem, empathy, autonomy, humor, creativity, resilience.
  - Objectives: To apply strategies to strengthen resilience factors in primary school students.
  - Contents: Role-playing, dance, and manual art.
  - Activities: The program included 10 learning sessions, each lasting one pedagogical hour, conducted in the tutoring area. Two strategies were employed per resilience factor, along with assessment techniques and tools. Relevant to this chapter, we highlight role-playing, dance, and manual art. In role-playing, dramatizations were used to explore different perspectives and solutions to problems. In the dance and manual art sessions, artistic and movement activities were performed to express emotions and encourage creativity.
  - Duration: 2 months.
  - Conclusions: The program effectively strengthened self-esteem, autonomy, and creativity, resulting in increased resilience in 53% of participants. The strategies applied in the program proved effective in fostering the integral development of students, enabling them to face and solve problems successfully.
- Corporal Expression for Insight and Interaction
- Variables: Insight, interaction.
  - Objectives: To enhance the qualities of insight and interaction, which are inherent in the capacity for resilience, using corporal expression as the most suitable medium for fostering resilience in human beings.

- Contents: Body schema, body language.
- Activities: Virtual program involving the representation of daily tasks through the reproduction of associated sounds. Representation of nature sounds (e.g., water, fire, air). Movement to the rhythm of music to express the emotions evoked by these sounds.
- Duration: One month.
- Conclusions: The program effectively improved the qualities of insight and interaction among participants.
- Dramatic Play for Communication Skills
  - Variables: Interpersonal skills.
  - Objectives: To create communication spaces for students in the Republic of Guatemala School through a pedagogical proposal based on dramatic play as a form of body expression.
  - Contents: Dramatic play. Body communication skills, including body schema, exploration of the environment, exploration of relationships, non-verbal communication, laterality, relaxation, and spatial and temporal notions.
  - Activities: Eight sessions of dramatic play focused on the expressive dimension. Eight sessions on communication skills (speaking and listening), starting individually, progressing to pairs and, finally, working in groups.
  - Duration: Four months.
  - Conclusions: The program successfully improved communication skills and tolerance among participants.
- Dance Therapy for Health and Wellbeing
  - Variable: Health-related quality of life, wellbeing, emotional and behavioral difficulties, sleep duration.
  - Objectives: Examine the efficacy of an art therapy intervention on a range of quantitative and qualitative health indicators.
  - Contents: Dance therapy.
  - Activities: Eight weeks of movement and dance therapy, with one-hour sessions each week.
  - Conclusions: Art therapies significantly improved the quality of life, sleep, and emotional and behavioral difficulties of the participating children. Additionally, participants in movement and dance therapy demonstrated a greater improvement in their CORS scores.
- Virtual Dance Program for Mental Health
  - Variables: Overall wellness and health, synchronization, connection and purpose.
  - Objectives: Buffer feelings of fear, anxiety and depression; Promote emotional revitalization, especially for those living in isolation; Foster confidence, creativity and hope.
  - Contents: Psychological intervention based on the iceberg theory. Virtual dance
  - Activities: Virtual line dance program
  - Dance selection: Recognize the learning speed of beginner dancers (focus on gradation: slow, medium, fast)

- Diversity of online dance patterns: Focus on simpler patterns first and build in more complicated patterns
- Synchronization of music selections: Adaptation of musical tempo to suit the complexity of dance patterns
- Diversification of online dance patterns: Synchronization of music choices
- Adaptation of musical tempo to suit the complexity of dance patterns
- Diversification of the musical genres used.
- Duration: Eight weeks (two hours/week).
- Conclusions: The program served to strengthen mental wellbeing and reduce anxiety in the face of the isolation experienced during a time of extreme stress and disruption during the COVID-19 pandemic.
- Creative Dance for Social Relationships
  - Variables: Overall wellbeing, social relationships.
  - Objectives: Mitigate pandemic trauma and promote wellbeing and relationships.
  - Contents: Creative dance, dance show with characters (animal song)
  - Activities: Dance/movement (DMT) on-line program. Creative dance movements using projections of different images, colors and movement focusing on opposites and the transference between them (big/small between them (big/small – vertical/horizontal – slow/fast – near/far) and animal representations.
  - Duration: Nine weeks.
  - Conclusions: Improved overall wellbeing and social relationships.
- Dance Therapy for Mental Health in Adolescents with Depression during the COVID-19 Pandemic.
  - Variables: Life satisfaction, anxiety/depression and psychological resilience
  - Objectives: Investigate the intervention effect of dance therapy, based on the Satir Model, on the mental health of adolescents with depression during the COVID-19 pandemic.
  - Contents: Dance therapy
  - Activities: Warm-up with free movements, positive and creative body language, relaxation movements and positive peer feedback.
  - Duration: Two-hour weekly sessions for eight weeks.
  - Conclusions: Findings revealed that the program effectively improved mental health in adolescents, alleviated anxiety and depression, increased satisfaction with life, and promoted psychological resilience.

The studies presented above collectively highlight the diverse applications and benefits of dance and movement-based interventions across various age groups and contexts, these emphasizes the significance of a comprehensive and holistic approach to student development, recognizing that education extends beyond the acquisition of cognitive knowledge to encompass emotional, physical and social dimensions.

The inclusion of activities such as dance and body expression, ranging from dance therapy, exergames and popular dances to expression and dramatization, enhances students' physical and emotional wellbeing. These activities also improve psychological resilience, self-awareness and self-confidence, enabling more effective emotional management.

Furthermore, these practices contribute to overall wellbeing and strengthen social relationships, equipping students to engage constructively in society. This holistic educational approach, which prioritizes the development of all facets of the human experience, is essential for preparing individuals to face life's challenges with creativity, resilience and social sensitivity.

The chapter underscores the importance of continuing to develop resilience programs, starting from an early age, through dance and body expression. Such initiatives are vital for fostering the comprehensive development of young people, enhancing their quality of life and wellbeing across physical, mental and social dimensions.

### **5.5.6. Activities focused on strengthening Resilience using the contents of Corporal expression and Dance**

Corporal expression and dance It is an effective tool for building resilience as it fosters emotional, social and physical skills through movement, and there are many benefits that its work helps participants to recognise and manage their emotions, strengthen self-esteem and self-confidence, work as a team and make meaningful social connections and adapt to changing situations and overcome physical and emotional challenges.

The key contents that contribute to the strengthening of resilience, and that are included in the program of activities, according to the literature consulted (Padial & Puga, 2023, 2024), are:

#### **1. Games and expressive dynamics**

- Objective: To promote trust, teamwork and emotional connection.
- Imitation and mirrors: Couple activities where one participant imitates the movements of the other.
- Role-playing: Representation of different characters to explore emotions and challenging situations.
- Group dynamics of trust: Such as controlled group falls (trust falls) or support exercises.

#### **2. Expression of emotions through the body**

- Objective: To facilitate the recognition and management of emotions.
- Symbolic movements: Using the body to express emotions such as joy, sadness, or anger.
- Body stories: Narrating real or fictitious situations through gestures and postures.
- Exploration of space: Relating emotions to the use of space (wide movements to express freedom, closed for introspection).

#### **3. Conscious and fluid movement**

- Objective: Reduce stress and connect with the present moment.
- Dynamic yoga: Integrate gentle postures with fluid movement sequences.
- Somatic exploration: Focusing on how each movement feels in the body.
- Free movements with music: Allowing the body to flow according to rhythms and emotions.

#### **4. Group contact and interaction**

- Objective: To promote empathy, mutual support and collaborative work.

- Contact improvisation: Dance or move as a partner exploring points of physical contact.
- Group union dynamics: Synchronized movements or creation of collective figures.
- Cooperative games: Activities that require synchronization and non-verbal communication.

### 5. Theatre and body dramatisation

- Objective: To simulate and overcome situations of adversity in a safe environment.
- Staging challenges: Acting out everyday challenges and looking for creative solutions as a group.
- Theatrical improvisation: Reacting to unexpected stimuli through movement.
- Creation of collective stories: Using corporeality to narrate shared experiences.

### 6. Creative Dance

- Objective: To facilitate self-exploration and emotional release.
- Improvisation of movements: Stimulate creativity through spontaneous movements according to music or emotions.
- Thematic dance: Representation of situations of adversity and overcoming through movement.
- Group choreographies: Encourage cohesion and shared achievement by creating team routines.

### 7. Improvisation and creativity

- Free exploration: Allowing participants to move spontaneously according to music or emotional stimuli (Figure 5.70.).
- Creative responses to challenges: Use instructions such as "represent the rain with your body" to encourage adaptation and creativity.
- Group improvisation: Creating collaborative movements in response to specific emotions or topics.

**Figure 5.70.**

*Corporal expression: Improvisation & Creativity, activity of RESUPERES Pilot Study (Module Corporal Expression and Dance, Profs. Martin, C. & Padial, R.).*



## 8. Thematic choreographies

- Stories of overcoming: Design choreographies based on narratives of confrontation and overcoming adversity.
- Emotional expression: Choreographies that represent emotions such as fear, hope or joy.
- Collective creation: Group construction of choreographies, favoring communication and team cohesion.

## 9. Dance therapy and emotional awareness

- Movements associated with emotions: Represent how emotions affect the body and vice versa.
- Mind-body connection: Using gentle, rhythmic movements to relax and focus the mind.
- Emotional release: Dancing to release accumulated tensions and strengthen the ability to manage stress.

## 10. Group dance and cooperation

- Synchronized movements: Dance together in synchrony to strengthen the sense of belonging.
- Collective rhythms: Create group choreographies based on simple rhythmic patterns.
- Support dynamics: Movements in pairs or groups that require trust, such as carrying or holding others.

## 11. Specific Dance Styles

- Contemporary dance: Ideal for expressing emotions and personal narratives.
- Folk or traditional dances: They reinforce cultural identity and the sense of community.
- Urban dances: They promote personal expression and creativity within structured rhythmic frameworks.

## 12. Narrative and dance

- Body Story Creation: Using movements to tell stories of resilience.
- Symbolism in movement: Explore how certain movements represent key emotions or moments.
- Dramaturgy in dance: Integrate theatrical elements to give narrative depth to the movement.

The body language and dance content help students develop greater self-esteem, empathy and coping skills, essential for resilience. By allowing them to explore and express emotions through movement, they improve their ability to adapt to adverse situations and strengthen their integral well-being, resulting in an integrating tool, allowing the body, mind and emotions to work together, promoting the development of integral resilience.

### 5.5.7. RESUPERES Activities for develop Resilience through Corporal Expression and Dance

RESUPERES Spain Team (UGR), by Professors Padial, R., García-Pérez, L., and Cepero, M., have developed a program of activities aimed at improving resilience in university students and faculty through techniques rooted in Corporal Expression and Dance, while resilience is



approached as a global concept, the program specifically targets the development of key resilience skills (two sessions for each one):

- Creativity.
- Mindfulness.
- Leadership.
- Teamwork.
- Cultural heritage.

**Intervention Development and Procedure:**

- Programming: 12 sessions (this number of sessions was selected because existing literature suggests that, in university students, between eight and 16 sessions are sufficient to bring about improvement).

In order to develop resilience in higher education through art and creativity, RESUPERES conceived a specific module that was made available via the interactive platform RESUPERES Module 5. Corporal Expression and Dance (Link: [Course: Module 5 - Corporal Expression & Dance |resuperesLMS](#)). This module follows the structure outlined below:

- Target audience: students and university staff.
- Content of Corporal Expression and Dance Sessions:
  - Session 1: Introduction "Module Corporal Expression and Dance".
  - Session 2: "Introduction to dance and personal self-awareness"
  - Session 3: "Learning and creating movement. Knowing the space!"
  - Session 4: "Learning and creating movement. Feeling the rhythm!"
  - Session 5: "Movement, expression and emotions"
  - Session 6: "Feeling emotions"
  - Session 7: "Dance theater and resilience"
  - Session 8: "Dances from around the world"
  - Session 9: "Urban dances".
  - Session 10: "New forms of movement. Animal flow".
  - Session 11: "Exergames: Just Dance and Dance Revolution".
  - Session 12: Module evaluation and assessment.

**Figure 5.71**

*RESUPERES Team in the RESUPERES Pilot Study Spain in the Professional Conservatory of Dance Reina Sofía of Granada (Module Corporal expression and Dance., Prof. Martin, C.)*



**Figure 5.72.**

*Implementation of the RESUPERES Subject in Master's students at Granada University (Module Corporal expression and Dance, Prof. Martin C.).*



**Figure 5.73.**

*Implementation of RESUPERES Subject in students at Granada University (Module Corporal expression and Dance, Prof. García, L.).*



## 5.6. Heritage Interpretation

### 5.6.1. Research Review on Resilience and Cultural Heritage

Museums and cultural settings are valuable educational contexts (Sarracino, 2014; 2015; Ercolano, 2021a, 2021b, 2022, 2024). These are places of memory, narration and experience, offering opportunities for social and cultural growth to a diverse audience.

Every culture, through its museum collections of intentionally preserved objects, constructs a system of connections between humanity and its past.

The role of the museum has evolved: from the traditional view of a place solely dedicated to preservation, it now assumes a dynamic role driven by its cognitive and educational functions. This transition redefines the museum's purpose, moving from being merely an asset to be protected, primarily for archaeological and artistic interests, to a cultural resource regarded as a historical fact and a testimony to the past.

Today, museums are envisioned as spaces that open their doors to the broader community, promoting an inclusive and democratizing educational perspective. They serve as engaging environments for personal experience and self-education, embracing the principles of lifelong, life-wide, and life-deep learning (Integrated Training System).

Heritage education activities include:

- identification and analysis of the educational-learning potential of cultural heritage;
- analysis of the characteristics and needs of actual and potential visitors;
- identification of methods and instruments to ensure accessibility;
- planning of activities, strategies, tools and work phases;
- planning of educational-didactic interventions;
- implementation of educational services;
- assessment and monitoring of the educational services provided.

Figure 5.74.

*The history of Naples: Visit to the San Gennaro Catacombs (RESUPERES Team, Pilot Study Naples, Heritage Cultural).*



*The history of Naples: Visit to the San Gennaro Catacombs (RESUPERES Team, Pilot Study Naples, Heritage Cultural)*

The educational function of the museum can be understood in relation to the individual's experience with cultural objects. Educators and mediators, through their interventions, must

support users in defining connections between experience and abstraction, between action and knowledge, to foster a dialogue between the world of experience and the world of knowledge.

In *Art as Experience* (1934/1951), Dewey emphasizes the intrinsic connection between art and life, highlighting the importance of restoring continuity between works of art and everyday experiences, actions, and emotions.

As an educational space, the museum should move beyond simply transmitting isolated notions disconnected from experience. For meaningful learning to occur (Ausubel, 1995), museum activities must always be contextualized. Generating motivation to learn is challenging when facts or theories are presented in an abstract space disconnected from real life.

Dewey (1934/1951) recognizes the role of art in social life, even in its most private and mundane forms, as fulfilling fundamental human needs. When a work of art attains the status of a classic, it often becomes detached from the human conditions under which it was created and from its potential impact on contemporary life. There is a need to restore the continuity between the refined forms of human experience—embodied in works of art—and the events, struggles, and emotions of everyday existence. Art, in contrast to society's hierarchical and ordering tendencies, reveals the most emotional, mysterious, and profound aspects of human life when integrated with daily experiences.

The educator's role is to bridge the gap between visitors and works of art by encouraging reflection and a desire for knowledge. The educator aims to weave subtle connections that unite fragments of personal and collective memory. Art provides insight into how we perceive and process emotional experiences and daily life, illustrating the way in which this organization varies across cultures.

Cultural mediation can promote resilience by fostering the ability to respond to trauma and challenges, restore psychological balance through internal resources, and reorganize life positively, even in adverse circumstances.

Heritage interpretation is a dialogue that enhances the visitor experience by establishing meaningful connections between the implicit messages conveyed by a museum's collections and the visitor's intellectual and emotional world. The pursuit of dialogue and the use of storytelling to foster conversational learning are integral to effective educational practices. For example, an educator's use of stimulating questions invites curiosity, interest and reflection, allowing diverse voices and perspectives to emerge (Cunningham, 2012).

**Figure 5.75.**  
*Visit to the Polo Museal at Suor Orsola Benincasa University in Naples (RESUPERES Team).*



**Figure 5.76.**  
*Visit to the National Archaeological Museum in Naples (RESUPERES Team).*





Interplay between the personal dimension of private contemplation, which is central to each individual's process of understanding the world, and the relational and dialogical dimension contributes to:

- The educational foundation of cultural heritage interpretation.
- The formative function of contemporary society as a space for processes of identity construction, resilience, transformation and emancipation within the broader context of an educating community.

This section 5.6.1., was written entirely by Fabrizio Manuel Sirignano (UNISOB).

### **5.6.2. Activities focused on strengthening Resilience using the contents of Heritage Interpretation**

We present types of *tasks and activities* with which you develop resilience from the Heritage Interpretation Area (Resuperes Team Italy by Paolozzi, M.F. & Maddalena, S. ), such as:

1. Cultural stories and narratives, with the aim of reinforcing cultural identity and learning from the past, fostering resilience through connection with the community's history and identifying cultural strengths passed down from generation to generation. Tasks where participants share traditional stories of their communities or families. Stories can focus on how previous generations overcame adversity, such as economic challenges, displacement, or social change.
2. Traditional craft workshops, with the aim of preserving traditional skills and promoting self-expression, building resilience by learning skills that require concentration and perseverance, while connecting with cultural heritage. Tasks or workshops where you can learn to create traditional crafts, such as weaving, ceramics, carving or embroidery. Throughout the process, the values and teachings that crafts transmit, such as patience, dedication and teamwork, can be discussed.
3. Community rituals and ceremonies, with the aim of creating community cohesion and keeping traditions alive, fostering a sense of belonging, and providing a space to process and overcome difficulties collectively. Tasks or events that celebrate traditional rituals or ceremonies, such as festivities, dances, religious ceremonies or thanksgiving to nature. These events help people stay connected to their roots and find strength in their community and shared practices:
4. Traditional cooking workshop, with the aim of encouraging the transmission of intergenerational knowledge, and reinforcing the connection between generations and the sense of continuity, while teaching practical skills and encouraging collaboration. Workshops where the elders of the community teach the younger ones how to prepare traditional meals. During meal preparation, participants can share stories about the importance of these dishes in times of crisis or family celebrations.
5. Cultural resilience conversation circles, with the aim of reflecting on the role of cultural heritage in overcoming challenges, strengthening emotional and mental resilience by connecting personal experiences to wider cultural histories and traditions. Conversation circle assignments where participants discuss how their community's cultural heritage has been a source of strength during difficult times. These gatherings can be facilitated by community leaders or local wise men sharing lessons about resilience.

**Figure 5.77.**

*Resuperes students and teachers in Pilot Study Portugal Cultural Heritage activity: "What happened in this place?" (Module Heritage interpretation).*



6. Exploration of cultural heritage sites, with the aim of reconnecting with history through physical places, strengthening the sense of belonging and appreciation of cultural legacy, providing a framework of reference to face current challenges. Routes or workshops for visits to historical sites, monuments, ruins or natural places of cultural value. During these visits, participants can learn about the historical significance of these places and how previous generations used them as sources of strength and protection.
7. Traditional music and singing, with the aim of using music as a tool for healing and strength, and by connecting with cultural roots through singing or music, participants can find comfort and strength. Organize sessions where traditional songs are sung or traditional music is played. Music can be used to tell stories of struggle and overcoming or to bring the community together in times of crisis.

**Figure 5.78.**

*RESUPERES students and teachers in Pilot Study Naples. Cultural Heritage activity (Module Heritage interpretation).*





8. Intergenerational projects on cultural heritage, aim to foster intergenerational learning and a sense of community, and promote resilience by connecting generations and encouraging the transmission of knowledge, while reinforcing cultural identity and social cohesion. Create a project or assignments where young people work alongside older people to document cultural traditions, such as stories, songs, recipes, or legends. These projects may culminate in the creation of a book, recording, or presentation for the community.
9. Exploration of cultural symbols of resilience, with the aim of identifying symbols of resistance and overcoming in culture, reinforcing personal and community resilience by identifying examples of strength in culture, providing a model for coping with adversity. Tasks of researching and sharing symbols or figures of their cultural heritage that represent resistance and overcoming, such as national heroes, mythological figures or natural elements (mountains, rivers, etc.). Later, they can create works of art or stories about those symbols.

Figure 5.79.

*Symbols of the Belgrado history (RESUPERES Pilot Study Serbia: Module Heritage Cultural)*



10. Documentaries or short films on cultural resilience, with the aim of reflecting on how culture has been a source of strength through visual media, and inspiring participants to see their culture as a source of strength, by connecting visual narratives with their own history and experience. Organize the creation or viewing of documentaries that highlight how communities have used their cultural heritage to cope with crises or difficult times. Afterwards, discussions can be organized to reflect on the lessons learned.

In conclusion, cultural heritage is an invaluable resource for the development of resilience, that there are proposals for practical application in university contexts, as a cultural revitalization in urban areas, rural contexts, universities, communities, etc., since through cultural identity, social support, the transmission of values and wisdom, and coping practices, cultural heritage provides a solid foundation for facing and overcoming challenges. Connection to cultural heritage strengthens the ability of individuals and communities to adapt and thrive, highlighting the importance of preserving and valuing cultural traditions as an essential pillar for personal and collective well-being and strength.

### 5.6.3. RESUPERES Activities for Developing Resilience through Heritage Interpretation

RESUPERES Italy Team (UNISOB), by Professors Sirignano, F.M., Paolozzi, M.F., and Maddalena, S., have conceived a program of activities aimed at developing and improving resilience in university students and staff that was based on the techniques of autobiography and life stories and heritage interpretation methods, specifically, although resilience is addressed as a global concept. The program is designed to work on the following resilience skills:

- Creativity (four sessions delivered via modules will target this resilience skill).
- Mindfulness (awareness, focusing attention on the present moment) (four sessions delivered via modules will target this resilience skill).
- Leadership (four sessions delivered via modules will target this resilience skill).
- Teamwork (four sessions delivered via modules will target this resilience skill).
- Cultural heritage (four sessions delivered via modules will target this resilience skill)

Intervention Development and Procedure:

- Programming: 12 sessions (this number of sessions was selected because existing literature suggests that, in university students, between eight and 16 sessions are sufficient to bring about improvement).
- In order to develop resilience in higher education through art and creativity, RESUPERES conceived a specific module that is available via the interactive platform RESUPERES Module 6. Heritage interpretation (Link: [Course: Module 8 – Cultural Heritage Narrative | resuperesLMS](#)). This module follows the structure outlined below:
- Target audience: students and university staff.
- Content of Heritage Interpretation Sessions:
  - Session 1: Introduction: "Overcoming Adversity through "Heritage Interpretation"
  - Session 2: Art and universal feelings.
  - Session 3: The herbarium of my existence.
  - Session 4: Sense of humor.
  - Session 5: Narrating emotions with clay.
  - Session 6: Promoting heritage.
  - Session 7: The tent.
  - Session 8: Komorebi: appreciating life through lights and shadows.
  - Session 9: My emotions gallery.
  - Session 10: Locus amoenus.
  - Session 11: Seeing and looking. Between narration and mythobiography.
  - Session 12: Module evaluation and assessment.

**Figure 5.80**

*Collage of photos of students and teachers in RESUPERES Pilot Study Belgrado, Bergen, Faro, Granada, Naples. Cultural Heritage activity (Module Heritage interpretation)*



## 5.7. Inner Gymnastics: Mindfulness

Mindfulness is a teaching rooted in Buddhism, a philosophical doctrine that dates back to 2500 BCE. It is believed to have originated in Kapilavastu, a location that today lies on the border between India and Nepal. This region has been the birthplace of many Eastern teachings about humanity and consciousness, which later spread across the globe. It appears that this practice initially arose within a palace setting.

The first historical reference to mindfulness comes from Siddhartha Gautama, a descendant of Suddhodana, King of the Sakyas. Mindfulness is essentially pure Buddhist philosophy adapted to the Western world. Over time, and in response to social demand, it has become one of the most widely accepted tools for enhancing wellbeing and mental activity.

### 5.7.1. Review on Mindfulness

The practice of mindfulness is defined as the state of being attentive and accepting of what is happening in the present moment (Brown & Ryan, 2003). In modern psychology, mindfulness has been adopted as a technique to enhance awareness and improve mental health (Bishop et al., 2004). This practice involves accepting thoughts and feelings without judgment, which helps manage stress, develop emotional regulation skills, and facilitate healthier decision-making (Viciano et al., 2018).

According to Kabat-Zinn (2003), mindfulness is the awareness that arises from deliberately paying attention to present experiences without judgment. This skill has proven to be a significant tool for improving wellbeing across diverse populations (Roberts & Danoff-Burg, 2010). Regular meditation, rooted in Eastern spiritual traditions such as Buddhism and Hinduism, is a common method for cultivating mindfulness (Greeson et al., 2014; Smit & Stavoulaki, 2021).

Figure 5.81.  
*Students and professors in the RESUPERES Pilot Study Norway (Module Mindfulness).*



Lama Tashi Lhamo (2017), explains that mindfulness, referred to as "shamata" in Sanskrit or "shiné" in Tibetan, has been adapted to the Western context. Despite its commercialization in the West, mindfulness remains a universal mental function inherent to all human beings, allowing us to maintain focus on the present moment. While often translated into Spanish as "atención plena," the English term "mindfulness" is preferred to avoid ambiguity (Simón, 2006; 2011).



Mindfulness is based on self-awareness achieved through mental concentration. It involves two essential components: awareness and acceptance (Cardaciotto et al., 2008). Awareness refers to attention to present experiences, while acceptance involves maintaining an open, non-judgmental attitude toward them. Conscious acceptance has been shown to correlate negatively with perceived stress and positively with wellbeing (Moses et al., 2016).

Siegel (2011) provides the example of a sniper to clarify mindfulness. While a sniper exhibits intense focus, mindfulness adds acceptance, warmth, and compassion to this focus. This broader understanding of mindfulness is widely recognized among researchers. The term "mindfulness" derives from the Pali word "sati," meaning awareness, attention and remembrance. In Buddhist vipassana meditation, mindfulness alleviates suffering and enhances coexistence by mastering negative emotions such as anxiety, anger and depression (Miró, 2006).

In order to practice mindfulness, two fundamental premises must be met: being aware of what is happening in the immediate present and recognizing emotional experiences in the moment. Siegel et al., (2009), identify three key attitudes for mindfulness: non-judgment, acceptance, and compassion. Kabat-Zinn (2012), expands on these, proposing ten qualities, including deep listening, sensitive language use, intentional focus, curiosity, equanimity, and the ability to teach and inspire compassion. Shapiro et al. (2016), highlight that mindfulness-based stress reduction improves psychological functioning, allowing individuals to adopt a more objective perspective on life experiences. This enhanced self-regulation reduces the power of the stress response, leading to better stress management and reduced burnout (Kabat-Zinn, 2013).

Mindfulness is primarily cultivated through introspective meditation, with vipassana meditation being the most common approach. It can also be practiced through informal meditation and intensive retreats (Siegel, 2011). Gunaratana (2012), warns that mindfulness cannot be forced; it requires continuous and conscious effort to stay present and accept all experiences.

In summary, mindfulness is a self-awareness practice focused on the present, cultivated through meditation and characterized by an attitude of acceptance and compassion. This practice offers significant benefits for mental health and overall wellbeing, making it a valuable tool in modern psychology and everyday life.

### ***Benefits of Mindfulness***

Since Kabat-Zinn (2012), a pioneer in mindfulness research, introduced meditation as a psychotherapeutic approach, numerous studies have examined its neurobiological and behavioral effects. Among the key benefits of practicing mindfulness are the following:

- **Living in harmony with change:** In a world of constant transformation, mindfulness helps us focus on the present, enabling us to accept reality as it is and recognize that we cannot always control outcomes (Siegel, 2011).
- **Enhanced concentration:** Mindfulness improves the ability to focus on the present moment, allowing us to organize and prioritize our thoughts more effectively (Siegel, 2011).
- **Brain health and preservation:** Practicing mindfulness activates the prefrontal cortex, enhancing memory retention and reducing gray matter loss over time (Siegel, 2012; Simón, 2006).

- **Support in psychotherapy:** Mindfulness is effective in managing stress, anxiety, and depression. By learning to accept and face negative emotions, practitioners experience behavioral and neurobiological changes that help prevent and alleviate these conditions (Lutz et al., 2007; Miró, 2006; Siegel, 2012).
- **Strengthened immune system:** Mindfulness activates the left prefrontal cortex, boosting brain activity and increasing the production of neurotransmitters, while lowering cortisol levels during stressful situations (Lutz et al., 2007; Siegel, 2012).
- **Improved task performance:** Mindfulness enhances the ability to focus and maintain attention on specific activities, improving overall productivity (Kabat-Zinn, 2012; Siegel, 2012).
- **Relief from chronic pain:** By reducing anxiety and stress, mindfulness promotes relaxation and decreases the perception of pain. It also teaches acceptance of physical and psychological discomfort, reducing the associated suffering (Germer, 2017; Siegel, 2012).
- **Enhanced interpersonal connections:** Mindfulness fosters a greater sense of connection with others, strengthening interpersonal relationships (Lutz et al., 2007; Siegel, 2011).
- **Personal growth and self-awareness:** Practicing mindfulness encourages self-reflection and facilitates improvements in various aspects of life (Germer, 2017; Kabat-Zinn, 2012).

Figure 5.82.  
Mindfulness Session. Implementation of RESUPERES subject in Granada University (Module Inner Gymnastic, Prof. Collado, D.)



While mindfulness offers many benefits, Lama Tashi Lhamo (2017) cautions against its over-commercialization and materialistic interpretation. In some contexts, mindfulness is used to optimize efficiency and automate processes rather than promote holistic personal development. Although its popularity and benefits are well-documented, there is a risk of turning mindfulness into a consumer product, attributing excessive claims to its practice. Authentic mindfulness, aimed at spiritual awakening and rooted in an altruistic attitude, can become diluted in this commodification. It is important to recognize its limitations and avoid presenting mindfulness as a universal solution to all challenges.



## 5.7.2. Mindfulness Research in the University Setting

### · Main Problems faced by University Students

There is limited specific, rigorous research on how college affects students' health and wellbeing, although the mental health debate has gained prominence in recent years. Recent studies have identified factors contributing to psychological distress, including academic workload, the desire to succeed and poor academic performance (Dvorakova et al., 2017; Sheikhzadeh & Khatami, 2017; Stallman, 2008). Ryan and Deci (2001) emphasize that psychological wellbeing goes beyond the absence of distress, highlighting the need to explore the positive aspects of student functioning. De Vibe et al. (2013) underscore the importance of interventions aimed at improving coping skills and preventing burnout.

In Spain, university education is intended to prepare students for a productive life, but it often fails to achieve this goal universally. Academic and work overload lead to stress, dissatisfaction and high failure rates (Garcés de los Fayos, 1995; 2012). For decades, students have reported experiencing disorientation, demotivation, uprooting and personal problems that impact their academic performance and general wellbeing (García et al., 1998; Vicianá et al., 2018). The lack of information on career opportunities and job search techniques remains a challenge (Sánchez & Gil, 2003).

Stress, anxiety, depression and burnout are common among students (González, 2008; Lindsay et al., 2015). Burnout, often manifesting as emotional exhaustion, negatively impacts students' expectations of completing their studies (Caballero et al., 2007). Excessive alcohol consumption and unhealthy lifestyle habits further exacerbate mental health problems (Moure-Rodríguez et al., 2014; Moses et al., 2016). The COVID-19 pandemic has intensified these challenges, increasing the prevalence of depression and anxiety. According to the INE (2021), nearly three million people in Spain have been diagnosed with depression and suicide is the leading cause of unnatural death in the country.

Mental health issues in college are influenced by psychological and social factors, and stigma often prevents students from seeking proper treatment. A comprehensive approach that includes psychological support and strategies to promote resilience and wellbeing among university students is essential.

### · Mindfulness: a Tool for Resilience in University life

To address the challenges faced by university students, it is necessary for educational systems to promote tools that develop socio-emotional competencies alongside academic skills. Educational research highlights the importance of motivational and affective variables, such as the action-emotion style, as modulators of academic performance (REICE, Ibero-American Journal on Quality, Efficacy and Change in Education). Mindfulness practices have gained increasing interest as a means to foster personal growth and enhance the wellbeing of university students by cultivating awareness and self-understanding (Dvorakova et al., 2017).

This issue affects not only students but also educators, who often experience high levels of work-related stress due to low social recognition, multiple responsibilities and bureaucratic burdens (Antoniou et al., 2013). However, teacher training programs rarely include stress-reduction techniques (Franco et al., 2011). As a result, many institutions are incorporating mindfulness practices to improve efficiency and productivity among educators and staff by reducing stress and tension. Mindfulness promotes attention control and emotional stability, allowing individuals to engage constructively with their emotions rather than suppressing them (Águila, 2020).

Figure 5.83.

*Breathing as a relaxation technique: Implementation of RESUPERES subject in Granada University (Module Inner Gymnastic, Prof. Collado, D.)*



Mindfulness emerges as an effective tool for fostering resilience in both students and teachers. Its benefits include reducing emotional fatigue, teaching effective stress management techniques, and improving emotional regulation. These skills contribute to a better teaching and learning process.

#### · Mindfulness in University Students

We will highlight the following studies due to their importance and relevance to resilience in higher education or university settings related to Mindfulness.

A systematic review by Viciana et al. (2018), highlights the growing popularity of mindfulness-based interventions in the mental health field (Baer, 2006; Baer et al., 2011; Singh, 2010). Common approaches include mindfulness-based stress reduction (MBSR) (Kabat-Zinn, 2003) and mindfulness-based cognitive therapy (MBCT). Research demonstrates that mindfulness enhances mental health and wellbeing, fostering self-esteem, empathy, and the ability to approach tasks with enjoyment and without fear (Kuyken et al., 2013; Franco et al., 2011). Dvorakova et al. (2017) found that mindfulness programs significantly increase life satisfaction, and reduce depression and anxiety in university students, but not only these aspects but also that Mindfulness practices have been shown to improve emotional intelligence, knowledge retention, academic performance, and even sleep quality (Nelis et al., 2009; Ramsburg & Youmans, 2014; Bakosh et al., 2016).

Álvarez (2017) in Girona, which aimed to analyze mindfulness in the university context and its relationship with variables such as depression, anxiety and resilience. The study involved 602 university students with a mean age of 22.45 years. A quantitative methodology was employed using various questionnaires (sociodemographic ad hoc scale, Resilience Scale, Five Facets Mindfulness Questionnaire, Mindful Attention Awareness Scale, Life Satisfaction Scale, and the Depression, Anxiety and Stress Scale). Findings revealed that most students practicing mindfulness had lower levels of stress, anxiety and depression, along with higher resilience and life satisfaction. The study concluded that promoting mindfulness techniques among students is crucial for enhancing resilience and mindfulness.

In 2017, Canales-Lacruz and Rovira conducted a study in Huelva to analyze the benefits and challenges students face when engaging in introjected motor practices. The study population included 42 Early Childhood Education students aged 19 to 25 years. A qualitative methodology was used in which participants filled out engagement diaries over six sessions.

Most participants reported relief from tension and improved sensitivity and self-regulation. The study concluded that engagement in mindfulness promoted tension relief, self-awareness (attention to the present moment), and increased empathy and emotional regulation.

Zumalde et al. (2019), evaluated the effects of a mindfulness-based program on reducing anxiety and depressive symptoms during the transition from high school to university. The study included 114 Sports Science and Psychology students with a mean age of 17 years. A quantitative methodology was used, implementing the "Learning to Breathe" (L2B) program and administering questionnaires over six sessions. Findings indicated that participants experienced decreased anxiety and depressive symptoms, as well as improved resilience and self-concept. The conclusion emphasized that mindfulness programs are effective tools for adapting to life changes.

In 2020, Moore et al. conducted a study in Australia to assess the effectiveness of an online mindfulness training program for medical students. The study involved 47 students over eight weeks, with sessions lasting five to ten minutes each. A mixed methodology was employed using quantitative questionnaires and qualitative reflective trials. Findings showed significant reductions in stress and increased self-compassion among participants. The study concluded that mindfulness is a valuable tool for personal growth and addressing workplace challenges.

Senker et al. (2020) conducted a study in Germany to teach participants to understand inter- and intrapersonal differences when facing motivational conflict. The study involved 56 university students who attended eight sessions. A quantitative methodology was used with data collected through questionnaires. Outcomes suggested that mindfulness is particularly beneficial for managing everyday motivational conflicts, which is a key aspect of self-regulation. The study concluded that mindfulness enhances resilience and emotional self-regulation in daily conflicts.

Martín and Luján (2021), in La Rioja, analyzed the relationship between mindfulness and its effectiveness in managing intrapersonal and interpersonal conflicts. The study population included 117 university students. A mixed methodology was employed, combining a mindfulness intervention program with personal interviews. Findings indicated a strong relationship between emotional variables and mindfulness, enabling effective conflict resolution and promoting personal and social wellbeing. The study concluded that professionals should be knowledgeable about these variables to facilitate conflict resolution and negotiation.

Recently, García et al. (2024), published an action protocol as part of the RESUPERES pilot study. Titled "Healthy Pills: A Physical Activity Program for Mental Health Prevention and Resilience Improvement in University Students," the study employed a quasi-experimental design with a control group and an experimental group. The sample comprised 136 fourth-year primary education students aged 21 to 25. The intervention included weekly 40-minute physical activity sessions such as aerobic exercises, yoga and mindfulness sessions over 12 weeks. Expected outcomes will inform promotion of comprehensive health and wellbeing in higher education.

Additionally, mindfulness practices in secondary education have been highlighted. López (2013) conducted a study in Castelldefels (Barcelona, Spain) to compare two interventions based on the TREVA Program (Experiential Relaxation Techniques Applied to the Classroom). The study involved 420 secondary school students and eight teachers. A quantitative methodology was used, applying the TREVA Evaluation Questionnaire. Findings indicated improved relaxation competence, emotional self-control, and classroom climate. The study

concluded that relaxation techniques are essential psycho-pedagogical tools for stress management.

In another study, López et al. (2018) examined personal, academic and family habits related to relaxation and their impact on classroom climate and academic performance. The study involved 420 secondary and high school students aged 12 to 18. A quantitative methodology was employed, using the Brief Class Climate Scale and the Brief Scale of Relaxation Habits. Findings demonstrated that relaxation habits positively influenced academic performance, mediated by classroom climate. The study emphasized encouraging relaxation techniques to enhance cognitive and emotional awareness.

Amutio et al. (2020), in Barcelona, evaluated the psychometric properties of the Social Validity Scale of Mindfulness Programs for Adolescents (EVSPM-A). The study included 512 secondary school students and used a quantitative methodology within the TREVA program. Outcomes supported the psychometric viability of the scale and highlighted its effectiveness in assessing mindfulness program impacts. The study concluded that the scale could enhance program implementation and long-term effectiveness.

Finally, Baena et al. (2021), in Granada (Spain), investigated the impact of mindfulness on attention and stress reduction in primary and secondary school students. The study involved 320 students and employed a quasi-experimental design. Findings unveiled that mindfulness programs improved attention and reduced stress, with significant differences observed as a function of sex, educational center and age. The study concluded that mindfulness is effective in fostering attention and stress management in classrooms.

As conclusion, the quality of life and mental health of university students are emerging issues with international relevance. These factors significantly influence the training of future professionals and citizens. Mindfulness offers promising results as a tool to improve emotional wellbeing, learning capacity, and physical and mental health. Given its growing importance in the social sciences, mindfulness should be further explored and integrated into educational systems to enhance resilience, wellbeing, and academic success among university populations (Viciano et al., 2018), since:

- The evolution of scientific production (2007–2017), scientific production addressing the relationship between mindfulness and university students has grown significantly, especially since 2014. Articles exploring mindfulness as an influential factor in the development of university students have increased over the last decade. However, there are significantly fewer studies dedicated to university students compared to other educational stages, which aligns with the objective of our research.
- Common characteristics of studies on mindfulness and university students. The sample of This systematic review analyzed a sample of 23 articles involving a total of 3,835 university students. The countries with the highest number of studies linking mindfulness and universities are the United States (5), Australia (5), and Turkey (5). Additional research has been conducted in Scotland, Spain, China, the Netherlands, and Norway, with at least one study from each country.
- Most of the studies focus on the relationship between mindfulness and the health and psychological wellbeing of university students, comprising 18 articles. These studies are the most frequently cited by other researchers. Additionally, four studies explore the relationship between mindfulness and improved academic performance. Finally, two studies propose incorporating mindfulness into university curricula.

By way of summary, the ideas collected throughout the review we group them into into three main categories based on the areas of improvement they address:

1. Improving Health and Psychological Wellbeing: the majority of research falls into this category, with 18 articles primarily from English-speaking countries. These studies prioritize the psychological wellbeing and mental health of students over academic performance. The rising number of studies linking mindfulness to mental health and psychological wellbeing underscores its growing importance in this area.
2. Enhancing Academic Performance and Outcomes: a positive influence of mindfulness on academic results has been confirmed. However, the number of studies dedicated to improving academic performance through mindfulness is minimal compared to those focused on mental health.
3. Proposing the Inclusion of Mindfulness in University Curricula: due to the demonstrated importance of mindfulness as a strategy for emotional regulation and academic improvement, some studies advocate for its inclusion in the university curriculum.

Most of the research from the last decade highlights mindfulness as a vital tool for improving the mental health and psychological wellbeing of university students. However, significantly fewer studies focus on its role in enhancing academic performance or its integration into university curricula. This disparity suggests the need for more interventions exploring the influence of mindfulness in the university context.

The current university landscape requires educational agents to go beyond the mere transmission of academic content. They must adopt new approaches that prioritize the holistic wellbeing of students, addressing both their mental health and academic success.

Internationally, universities in the United Kingdom and Australia have integrated mindfulness into their curricula to support student wellbeing (Nixon et al., 2016; Lindsay et al., 2015). These programs aim to enhance self-acceptance, personal fulfillment and the quality of teaching.

Based on the results, implementing mindfulness programs within universities is recommended as an institutional-level intervention strategy to improve psychological wellbeing and academic performance. Such programs should aim to enhance personal regulation skills and provide better support and guidance for students

### **5.7.3. Inner Gymnastics as a Tool for developing a deep connection with Inner Self and Resilience Capacity**

Inner Gymnastics, is a concept created by Professor Diego Collado (Collado, D., 2024, 2025) from the University of Granada, that combines the principles of yoga and mindfulness into a comprehensive approach for holistic wellbeing. Collado, a teacher and yoga professional (Collado, 2019, 2023), coined the term "inner gymnastics" to describe an activity broader in scope than traditional mindfulness. Drawing from the definition of gymnastics as activities aimed at strengthening and maintaining the body's physical condition, and adding the term "inner" to represent the spiritual and profound aspects of human existence, inner gymnastics emerges as a concept that encompasses exercises, activities, or therapies aimed at physical, emotional, mental and spiritual wellbeing.

Figure 5.84.  
*Implementation of the subject in Spain (Module Inner Gymnastic: Collado, D.)*



This cultivation of interiority is fundamental for developing resilience and is closely tied to personal growth. It nurtures an innate capacity for transcendence through self-awareness and heartfelt reflection. Maintaining health and wellbeing is essential for a balanced life, yet adversity often challenges this equilibrium.

Collado emphasizes that educators play a crucial role in fostering students' socio-emotional competencies alongside their academic skills. This involves helping students connect with their inner world, recognize and manage emotions and thoughts, and build resilience. Mindfulness serves as an effective tool for achieving these goals. As Águila (2020) asserts, mindfulness does not suppress emotions but transforms them, encouraging conscious and constructive actions.

The university education process should incorporate strategies that enhance emotional competencies, thereby improving communication and adaptability among students. Mindfulness programs reduce emotional exhaustion and enhance stress management, leading to more effective learning. Research, such as the findings by Dvorakova et al. (2017), demonstrates the positive impact of mindfulness on student development, though further studies are needed to deepen understanding in this emerging field.

Teachers, like students, also experience high levels of stress due to factors such as low social recognition, excessive workloads, and bureaucratic demands (Antoniou et al., 2013). Unfortunately, teacher training programs often fail to include techniques for managing stress (Franco et al., 2011). However, many institutions are beginning to incorporate mindfulness practices to enhance efficiency and reduce tension.

In a fast-paced, high-stress world, values such as silence, active listening and self-awareness are increasingly critical. Patanjali (250 B.C.) aptly observed: "Whoever looks outward dreams; whoever looks inward awakens." Addressing interiority in education is essential for helping individuals navigate adversity. Both students and teachers lack adequate preparation in this area. Understanding and managing one's emotions and thoughts is crucial for developing resilience.

Western education systems have historically emphasized knowledge and technical skills while neglecting the essence of education, fostering the student's passion for being. An education that inspires students to discover their true selves and build resilience is urgently needed. In order to achieve this, teachers must receive training in socio-emotional and



mindfulness exercises during their professional preparation. Only then can they equip students with the tools necessary for personal development and resilience, ensuring that learners not only gain academic knowledge but also cultivate a deep connection with their inner selves and the strength to confront life's challenges

#### 5.7.4. Personal or Third-Generation Development Tools that Contribute to Improving Resilience

It is crucial to understand personal or third-generation development tools that enhance resilience. Among these, Collado has created a comprehensive classification that combines all possible approaches, including:

**Relaxation Techniques:** Essential for physical, emotional and mental wellbeing. Below are several techniques that can help reduce stress and promote a state of deep relaxation.

- . **Progressive Relaxation Technique:** Progressive relaxation involves systematically tensing and then relaxing muscle groups in the body to reduce tension. The Jacobson technique is a classic method that involves tensing the muscles for a few seconds and then relaxing them completely. Variants can target specific areas such as the shoulders and back.
- . **Autogenic Relaxation Technique:** Autogenic relaxation uses verbal prompts to induce sensations of heat and heaviness in the body, promoting deep relaxation.
- . **Breathing as a Relaxation Technique:** Techniques include:
  - . Clavicular breathing: Focused on the upper chest
  - . Rib breathing: Expansion of the ribs when inhaling
  - . Abdominal breathing: Using the diaphragm to fill the lungs
  - . Complete breathing: Combines all of the above
  - . Yogic breathing: Synchronizes breathing with movement.
- . **Meditation as a Relaxation Technique:** Meditation focuses the mind on an object or thought to achieve clarity and calm. Can be guided or self-guided (Figure 5.85.).

Figure 5.85.  
*Meditation session in RESUPERES Pilot Study Spain (Module Inner Gymnastic, Prof. Collado, D.).*



- . **Mindfulness:** Mindfulness involves being present in the moment without judgment. Techniques such as body scanning help one take notice of sensations without changing them.

- . **Biofeedback:** Biofeedback uses electronic devices to measure bodily functions, helping to control responses and reduce stress.
- . **Laughter Therapy:** Laughter therapy uses laughter to reduce stress and improve wellbeing through activities and games that provoke laughter.
- . **Other Relaxation Techniques**
  - . **Eurythmy:** Rhythmic movements to improve physical and emotional health.
  - . **Eutonia:** Body awareness and adjustment of muscle tone.
  - . **Sound Therapy:** Use of sounds and music to induce relaxation.
  - . **Tai Chi:** Slow, controlled movements with deep breathing
  - . **Yoga:** Physical postures, breathing techniques and meditation for wellbeing.
  - . **Visualization Techniques:** Imagining a totally calm state.

**Mindfulness:** Being fully present in the moment without judgment. Techniques such as body scanning and conscious breathing help reduce stress and improve wellbeing.

- . **Emotional Intelligence Techniques**
  - . **Positive Thoughts:** Replacing negative thoughts with positive affirmations to improve mood and resilience.
  - . **Imagination/Visualization:** Visualize positive and calming scenarios to induce relaxation and strengthen the mind.
  - . **Cognitive Restructuring:** Identifying and changing negative thought patterns to improve emotional response and wellbeing.
  - . **Problem Solving:** Approaching problems in a structured way to find effective solutions and reduce anxiety.
  - . **Specific Techniques for Coping with Criticism:** Use of empathy to understand criticism and assertiveness to respond constructively.
  - . **Improve Self-Esteem:** Practice self-care, self-compassion and recognition of personal accomplishments to strengthen self-esteem.
  - . **Negative Emotion Control:** Identify and manage negative emotions through breathing and mindfulness techniques.
  - . **Stress and Anxiety Management:** Use of relaxation and mindfulness exercises to reduce stress and anxiety.
  - . **Conflict Resolution:** Employing negotiation to find mutually beneficial solutions and manage conflicts effectively.
  - . **Conscious Relaxation:** Combination of yoga, meditation and body posture to induce relaxation. Attitude during practice is crucial to maximizing benefits.
  - . **Yoga and Meditation:** Learning to relax through physical postures and meditative practices to improve holistic wellbeing.
- . **Stress**
  - . **Mindfulness-Based Stress Reduction Program:** Incorporate mindfulness into daily life to manage stress and improve quality of life.

#### . **Cognitive and Self-Control Techniques and Procedures**

- . **Problem Solving:** Develop skills to address and solve problems effectively, reducing anxiety and stress.
- . **Obsessive Thought Treatment:** Use the thought stopping technique to manage obsessive thoughts and improve mind control.
- . **Coping with Stressful Experiences:** Develop strategies to cope with and overcome stressful experiences, increasing resilience.
- . **Habit Busting:** Work on eliminating negative habits and establishing positive habits for a healthier lifestyle.
- . **Cognitive Visualization Technique:** Using visualization to change patterns of thinking and behavior, thus promoting a positive mindset.
- . **Social Skills Training:** Develop assertiveness and effective communication skills to improve interpersonal relationships.

#### . **Psychotherapy and Mindfulness**

- . **Emotional Control:** Work on emotional regulation through psychotherapy and mindfulness to improve mental and emotional health.
- . **Work on Emotions in Psychotherapy:** Addressing emotions in the therapeutic context to promote emotional wellbeing.
- . **Positive Psychology and Transpersonal Therapy:** Focus on personal growth and spiritual development to improve quality of life.
- . **Bodily Approach to Emotions:** Use body techniques to understand and manage emotions effectively.
- . **Mindfulness Applied to Psychotherapy:** Integrating mindfulness within therapy in order to improve mental and emotional health.

#### . **Emotional Intelligence Techniques**

- . **Positive Thoughts:** Fostering a positive mindset to improve emotional intelligence and resilience.
- . **Imagination/Visualization:** Use visualization to enhance emotional skills and reduce stress.
- . **Self-Control:** Develop self-control to manage emotions effectively and improve wellbeing.
- . **Cognitive Restructuring:** Changing negative thought patterns to improve emotional response and emotional intelligence.
- . **Problem Solving:** Develop skills to solve problems efficiently and in an emotionally intelligent way.

Finally, after analyzing the research, programs and literature reviewed, it is evident that implementing mindfulness programs within the university context can significantly enhance psychological wellbeing and academic performance. These programs serve as an effective intervention strategy at the institutional level by improving and expanding resources for student support and guidance, particularly in developing personal regulation skills.

The current university landscape demands that the involvement of various educational stakeholders extends beyond the mere transmission of academic content. Indeed innovative

approaches must be incorporated in order to promote the comprehensive wellbeing and personal growth of university students (Viciano et al., 2018)

### 5.7.5. RESUPERES Activities for Developing Resilience through Inner Gymnastics and Mindfulness

RESUPERES Spain Team (UGR), by Professor Collado, D, has conceived a program of activities for the development and improvement of resilience in university students and staff that was based on mindfulness and inner gymnastics techniques, specifically, although resilience is targeted globally. The program was designed to target the following resilience skills:

- Creativity (two sessions delivered via modules will target this resilience skill).
- Mindfulness (sessions delivered via modules will target this resilience skill).
- Leadership (two sessions delivered via modules will target this resilience skill).
- Teamwork (two sessions delivered via modules will target this resilience skill).
- Cultural heritage (two sessions delivered via modules will target this resilience skill)

Intervention Development and Procedure:

- Programming: 12 sessions (this number of sessions was selected because existing literature indicates that, in university students, between eight and 16 sessions are sufficient to bring about improvement).
- In order to develop resilience in higher education through art and creativity, RESUPERES conceived a specific module that was made available via the interactive platform RESUPERES Module 7. Inner Gymnastic (Link: [Course: Module 7. Inner Gymnastic | resuperesLMS](#)). This module was structured in the following way:
  - Target audience: students and university staff.
  - Contents of Inner Gymnastic Sessions:
    - Session 1: Introduction "Overcoming adversity through Inner Gymnastics"
    - Session 2: "I learn to concentrate and pay attention".
    - Session 3: "We become aware of our breathing".
    - Session 4: "I learn yogic breathing".
    - Session 5: "Jacobson's progressive relaxation".
    - Session 6: Asanas I – Hatha Yoga".
    - Session 7: "Asanas II – Hatha Yoga".
    - Session 8: Asanas III – Hatha Yoga".
    - Session 9: "Mindfulness techniques to develop perceptual sensitivity and attention"
    - Session 10: "Attention through mindfulness".
    - Session 11: "Meditation".
    - Session 12: Module evaluation and assessment. Achievement of learning objectives. Learning progression.

Figure 5.86. and 5.87.

*RESUPERES Team in the Implementation of the subject Granada University (Module Inner Gymnastic, Prof. Collado, D.).*



## 5.8. Musical and Emotional Awareness

Health and life skills are one of the three main interdisciplinary topics included in the new European (Norwegian) National Curriculum for primary and secondary schools. The Core Curriculum defines life skills as “the ability to understand and influence factors that are important for mastering one’s own life” (Utdanningsdirektoratet, 2019a). Relevant areas within this topic include lifestyle habits, physical and mental health, and “the ability to deal with thoughts, feelings and relationships” (Utdanningsdirektoratet, 2019a).

The music curriculum integrates this interdisciplinary topic by emphasizing self-expression through playing, singing, and dancing. By focusing on the aesthetic and practical dimensions of music, it is recognized as a resource for building a positive self-image and for “recognizing, naming, and dealing with thoughts and emotions.” Opportunities for artistic expression in music “allow individuals to better understand their own emotions and those of others, forming the basis for good health” (Utdanningsdirektoratet, 2019b).

The “Musical and Emotional Awareness” module within the RESUPERES project is designed to enhance individuals’ sense of autonomy and resilience through engagement with their personal thoughts and feelings. This research review examines findings that support both the claims in the national curriculum and the framework of the “Musical and Emotional Awareness” module.

### 5.8.1. Review on Emotional intelligence and Music

The relationship between emotional intelligence (EI) and music has gained considerable attention in recent years. Music, as a universal language, has profound effects on human emotions, making it an effective tool for enhancing emotional awareness, regulation, and social interactions. Emotional intelligence, defined as the ability to perceive, understand, regulate, and express emotions, aligns closely with the intrinsic emotional nature of music. That is why we present a review on music and resilience explores how cognitive, emotional and social factors contribute to wellbeing and improving resilience.

Figure 5.88.

*Music band included, music is a social and inclusive art, two constructs that develop resilience and EI (Module Music and Emotional Awareness)*



#### • **Emotional Intelligence**

Building on research about cognition and mood (Mayer, 1986; Mayer et al., 1988), Mayer and his colleagues introduced the concept of “emotional intelligence” (Mayer et al., 1990; Salovey & Mayer, 1990). Salovey and Mayer defined emotional intelligence (EI) as “a set of skills hypothesized to contribute to the accurate appraisal and expression of emotion in oneself and in others, the effective regulation of emotion in self and others, and the use of feelings to motivate, plan, and achieve in one’s life” (Salovey & Mayer, 1990). Mayer, DiPaolo and Salovey further elaborated that “emotional intelligence involves the accurate appraisal and expression of emotions in oneself and others and the regulation of emotion in a way that enhances living” (Mayer et al., 1990).

In his widely acclaimed book *Emotional Intelligence*, psychologist Daniel Goleman argued that EI might be more important than IQ for academic, social and interpersonal achievements. A key aspect of EI is self-awareness, which Goleman describes as the ongoing attention to and observation of experiences, thoughts and emotions. This involves stepping back from experiences to be “aware of what is happening rather than being immersed and lost in it” (Goleman, 1995, p. 42). Self-awareness also includes the ability to detect and name emotions. According to Goleman, being self-aware requires understanding emotions and their triggers. This awareness of both one’s emotions and thoughts about those emotions provides a degree of freedom over emotional reactions, which Goleman asserts is essential for emotional wellbeing (p. 50).

Numerous studies confirm the link between EI and “enhanced living” or wellbeing. Schutte et al. (2002) found that higher EI is associated with a positive mood and higher self-esteem, stating that “individuals high in emotional intelligence have a greater ability to perceive, understand, regulate, and harness emotions” (Schutte et al., 2002, p. 780). Kranzler et al., (2016) demonstrated that low emotional awareness could predict symptoms of depression and anxiety in children and adolescents, suggesting that emotional awareness training could benefit youth by preventing and treating anxiety and depression.

Self-awareness is central to research on EI, in the same way that is pivotal to mindfulness research. EI involves heightened emotional awareness and a deeper understanding of emotions and their origins. Klusman et al. (2022) noted that self-awareness fosters a vital



connection with oneself for wellbeing. Their understanding of self-awareness includes mindfulness, defined as "awareness of and attention to one's current experiences, from moment to moment" (Klussman et al., 2022, p. 122). This aligns with Goleman's view that mindfulness is integral to self-awareness: "In short, their mindfulness helps them manage their emotions" (Goleman, 1996, p. 43).

Using self-awareness to reinterpret an event or situation is termed "cognitive reappraisal." When cognitive reappraisal leads to more adaptive emotions, it correlates positively with resilience (Hopp et al., 2011). Zarotti et al. (2020) found that mindfulness strengthens the relationship between cognitive reappraisal and resilience in university students, recommending mindfulness training programs in higher education.

#### · **Research on Music and Resilience**

Research on music and resilience explores how cognitive, emotional and social factors contribute to wellbeing. Schäfer et al. (2013) identified three main reasons people listen to music: (1) to regulate arousal and mood, (2) to achieve self-awareness, and (3) to express social relatedness. In a study by de la Torre-Luque et al. (2017), listening to relaxing music resulted in higher levels of positive affect and lower levels of negative affect, depression and self-reported anxiety. Similarly, McFerran et al. (2018) demonstrated that music interventions reduced psychological distress in adolescents.

In a diary study by van Goethem and Sloboda (2011), music aided affect regulation, contributing to relaxation and happiness. Leung and Cheung (2020) found that music engagement predicts better wellbeing, emphasizing that awareness of both positive and negative emotions enhances overall wellbeing (Leung & Cheung, 2020, p. 108).

#### · **The Role of Empathy in Emotional Intelligence**

Empathy is a central component of emotional intelligence. It involves "understanding, being aware of, being sensitive to, and vicariously experiencing the feelings, thoughts, and experiences of another" (Empathy, 2022). Goleman stated, "Empathy builds on self-awareness; the more open we are to our own emotions, the more skilled we will be in reading the feelings of others" (Goleman, 1996, p. 86).

Empathy is also key to interpreting art, including music. Mayer et al. (1990) found that perceiving emotional content in visual stimuli, such as faces and abstract designs, relates to empathy. Similarly, Kreutz et al. (2008), and Garrido and Schubert (2013) found empathy to be positively correlated with enjoyment of sad music. Wu and Lu (2021) demonstrated that musical training enhances empathy and prosocial behaviors.

Figure 5.89.  
*Student listening and feeling well with the music (Module Music and Emotional Awareness)*



### ***Implications for the Norwegian Curriculum***

The findings above support claims in the Norwegian curriculum that music serves as a “resource for recognizing, naming and dealing with thoughts and emotions.” Emphasizing the emotional content of music in education could strengthen empathy, self-awareness and wellbeing.

### ***Emotional Mechanisms engaged through Music***

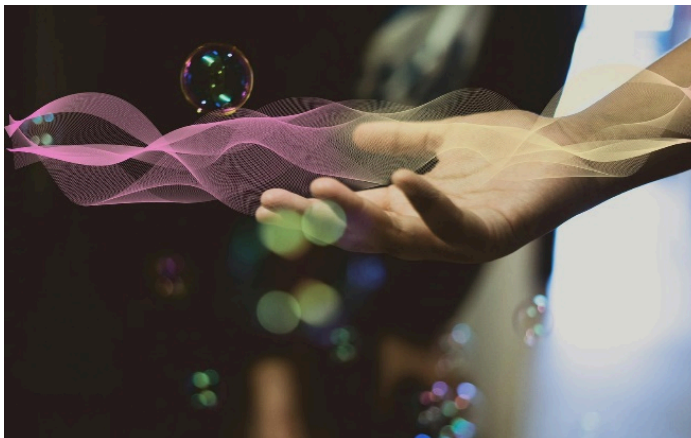
The “Musical and Emotional Awareness” module in the Resuperes project incorporates research by Juslin and colleagues (Bharucha & Curtis, 2008; Eerola et al., 2013; Juslin, 2013, 2019). The BRECVEMA framework (Juslin, 2013, 2019), categorizes emotional mechanisms in music, including brainstem reflex, rhythmic entrainment, evaluative conditioning, contagion, visual imagery, episodic imagery, musical expectancy and aesthetic judgment.

Here is a brief overview of these mechanisms:

- Brainstem Reflex: Sudden, loud, or dissonant sounds signal danger.
- Rhythmic Entrainment: Repeating rhythmic patterns can synchronize with our inner bodily rhythms, affecting arousal and creating pleasurable sensations.
- Contagion: Our capacity for empathy allows us to recognize and empathize with sounds and patterns in music that mimic human expressions.
- Evaluative Conditioning: Music can evoke emotions through associations with more or less unrelated events, formed through repeated occurrences between music and external stimuli.
- Episodic Memory: We may have emotional reactions to music linked to specific events in our lives, creating positive or negative emotions regardless of the music’s content.
- Visual Imagery: Music can evoke visual images through metaphorical projections, such as associating an upward melody with climbing or flying.
- Musical Expectations: Emotional arousal can arise from confirming or deviating from expectations, linked to our learning of musical patterns.
- Aesthetic Judgment: This involves a subjective evaluation of the music’s aesthetic value based on individual criteria.

Figure 5.90.

*Visual imagery used in Implementation of the subject in Norway (Module Music an Emotional Awareness).*



The “Musical and Emotional Awareness” module will include examples and exercises related to each of the emotional mechanisms described above. However, the mechanism of aesthetic judgment has been excluded due to its complexity and less accessible nature, making it less suitable for the project’s scope and objectives.

In summary, by using these emotional mechanisms as a foundation for training in emotional recognition, the module promotes emotional insight through mindful and non-judgmental observation of emotions. This approach helps individuals navigate challenges with a calm and reflective mindset. A comprehensive understanding of emotions, developed through the study of music and active listening, can enhance emotional intelligence, self-awareness, social connections and overall wellbeing. Together, these skills contribute to greater resilience when facing life’s challenges.

### 5.8.2. Resilience constructs developed using Music

#### • *Active listening*

In today’s tech-driven world, constant information overload has impaired our ability to focus, particularly affecting skills like active listening. Active listening involves understanding both the content and the underlying emotions of a message. Engaging in slower, more reflective thinking can enhance this skill. Research shows that the ability to slow down and reflect on thoughts and emotions is crucial for emotional and psychological wellbeing.

Figure 5.91.  
*Active listening of Music and Emotions (Module Music an Emotional Awareness)*



#### • *Emotional Awareness*

Because music is often experienced as an expression of emotion, engaging in active listening allows us to explore various emotional expressions and our responses to them.

This module serves as a guided tour, offering diverse learning experiences focused on both musical content and its expressive mechanisms. It includes developing an awareness of music and its elements, such as pitch, dynamics, melody, harmony and rhythm, whilst also understanding how these elements combine to create different songs, genres and emotional expressions.

Listening for typical traits, similarities and differences across musical genres trains our ability to focus and listen attentively. More importantly, learning how music evokes emotions can provide a pathway to understanding our own feelings. The module aims to offer insights

through experiences with different emotional mechanisms, such as:

- **Fear Response:** Recognizing how music uses sudden or loud sounds and dissonance to evoke fear – similar to evolutionary fear responses – helps us understand our emotional reactions to music.
- **Rhythm and Psychological States:** Humans are inherently rhythmic beings and music's tempo can influence psychological states, promoting either relaxation or arousal. Sensitivity to rhythm, whether through movement or listening, enhances social bonding and emotional experiences, making us feel more present and connected.
- **Empathy and Social Bonding:** The contagious nature of emotions, such as smiling due to mirror neurons, highlights empathy and social bonding. Music amplifies these emotional expressions, often surpassing the impact of the human voice.
- **Visual Imagery:** Understanding how music evokes visual imagery and mimics life increases our awareness of the various ways music affects us, thereby strengthening emotional awareness.
- **Memory Triggers:** Music's connection to significant life events makes it a powerful trigger for memories and emotions. Recognizing this link helps us understand our reactions to certain songs.

#### · **Self-Awareness**

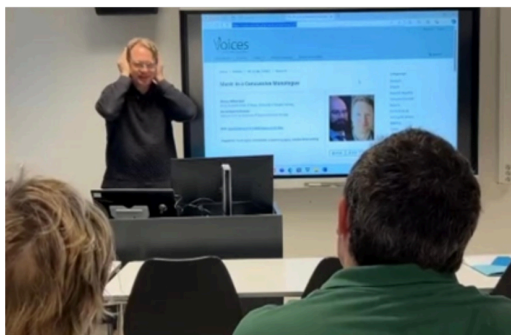
Differentiating between instinctive, biased judgments and active listening can improve emotional regulation. It also enhances our understanding of universal human emotions expressed through music. Most importantly, this differentiation helps us comprehend why we feel the way we do.

### 5.8.3. RESUPERES Activities for developing Resilience through Music

The RESUPERES Norway Team (HVL), by Professor Furnes, O.T., has conceived a program of activities for the development and improvement of resilience in university students and staff that is based on music techniques and serves to enhance resilience as a global concept. The module of RESUPERES activities based on Music, promotes emotional insight through mindful, non-judgmental observation of emotions. This approach helps individuals navigate challenges with a calm, reflective mindset. A comprehensive understanding of emotions, developed through studying music and active listening, can enhance emotional intelligence, self-awareness, social connections and wellbeing. Together, these skills foster greater resilience in facing life's challenges.

Figure 5.92.

RESUPERES Team in the Implementation of the Subject Norway (Music an emotion, Prof. David Hebert, D.).



· General Objective

Build resilience through emotional and self-awareness.

· Competence: Mindfulness

- Train attention.
- Enhance self-awareness and improve the ability to manage emotions.
- Improve wellbeing.

· Resilient constructs:

- Creativity
- Mindfulness (awareness, focusing attention on the present moment)
- Leadership
- Teamwork
- Cultural heritage

· **Intervention Development and Procedure:** In order to develop resilience in higher education through art and creativity, RESUPERES conceived a specific module that was made available on the interactive platform RESUPERES Module 8. Musical and emotional awareness (Link: [Course: Module 8.- Musical and Emotional Awareness | resuperesLMS](#)). This module is structured in the following way:

· Programming: 12 sessions (this number of sessions was selected because existing literature suggests that, in university students, between 8 and 16 sessions are sufficient to bring about improvement).

· Target audience: students and university staff.

· Contents of Music Sessions:

- Session 1: An introduction to the module "Overcoming Adversity through Music"
- Session 2: "Tune In".
- Session 3: "Musical Content".
- Session 4: "Being Alert".
- Session 5: "Catching the Rhythm".
- Session 6: "Emotional Contagion".
- Session 7: "Visual Imagination".
- Session 8: "Musical Memories".
- Session 9: "Musical Expressiveness".
- Session 10: "Self-Awareness".
- Session 11: "Stay Tuned".
- Session 12: Module evaluation and assessment.

**Figure 5.93.**  
*Students and Professors in RESUPERES Pilot Study Norway (Module Music an Emotional Awareness, Prof. Furnes, O.).*





## 5.9. Physical Conditioning

### 5.9.1. Research Review on Resilience and Physical Conditioning

Engaging in physical education and sports from and during childhood and adolescence serves as a vital platform for cultivating lifelong habits of physical activity and healthy living. Such involvement is crucial for managing weight, boosting fitness, endurance, strength and flexibility, and mitigating the risks associated with chronic conditions often referred to as modern-day illnesses. Beyond offering protection against these diseases and obesity, regular exercise enhances cognitive function and psychological resilience (Ozkara et al., 2016), highlighting the positive impact of physical activity on psychological and social challenges, emphasizing its significance in boosting self-efficacy, particularly among educators.

Figure 5.94.

*Warm-up game to group cohesion. RESUPERES Pilot Study Serbia (Module Physical Conditioning).*



#### . Benefits between fitness level and resilience

The relationship between fitness level and resilience is a lot of interest in research that explores how physical fitness, and health can influence a person's ability to face and overcome adversity. Physical fitness refers to the body's ability to perform physical activities, and is often assessed in terms of cardiovascular endurance, muscle strength, flexibility, and body composition, and here are the main benefits in which fitness level can be related to resilience:

##### 1. Psychological Benefits of Physical Exercise

- **Reduced Stress and Anxiety:** regular physical exercise is associated with a reduction in stress and anxiety levels. Physical activity promotes the release of endorphins and other neurotransmitters that improve mood and reduce the perception of stress. These effects improve the ability to handle adverse situations and contribute to greater resilience (Craft & Perna, 2004; García et al, 2024).
- **Improved Mood:** proper physical condition positively influence mood. Studies have shown that people with a good level of fitness tend to report fewer symptoms of depression and a greater sense of well-being (Salmon, 2001). A positive mood help someone face challenges with a more resilient attitude.

##### 2. Physical and Mental Adaptation Mechanisms

- **Physical Resilience:** a good level of fitness can improve the body's ability to recover from

physical exertion and stress. This physical resilience may be correlated with increased mental and emotional resilience (Rejeski & Mihalko, 2001).

- Resilience to Stress: Regular exercise can help regulate physiological responses to stress, such as the release of cortisol. Better control of physical stress can translate into a greater ability to handle emotional stress, thus contributing to greater resilience (Kremer & Williams, 2001).

### 3. Aspects Related to Self-Efficacy

- Self-efficacy and confidence: improvement in physical fitness is often associated with greater self-efficacy and confidence in one's abilities, Bandura (1997) highlights that self-efficacy, or confidence in one's ability to face challenges, is a crucial factor for resilience. People who see improvements in their fitness often feel more able to face and overcome adversity.

### 4. Influence of Physical Activity on Social Resilience

- Social Support Networks: participation in physical and sports activities includes social interactions that strengthen support networks. Social connection is an important factor in resilience, as support networks can offer emotional and practical help in times of difficulty (Eime et al., 2013).
- Sense of Belonging and Achievement: participation in physical and sports activities provide a sense of belonging and accomplishment, these factors increase resilience by providing a source of motivation and a sense of purpose, making it easier to adapt to difficult situations (Strong et al., 2005). Namely, students who participate in regular exercise tend to report a better mood and a greater ability to manage academic stress (Reed and Buck, 2009).

It is important to highlight that assuming these benefits between fitness levels and resilience, it should also be noted that, a lack of Physical Activity can lead to adverse consequences such as generalized body pain, difficulty falling asleep, irritability, aggressiveness, difficulty concentrating on tasks, memory loss, among others (Costa et al., 2024). therefore, the combination of psychological and physical benefits of exercise contributes to greater resilience, facilitating better adaptation to life's challenges, and is always beneficial in any age range and in different populations (Blumenthal et al., 2007; Lubans et al., 2016), but there are situations in which it becomes more important, including in the university population, as we will see in this chapter.

### . Research studies about Physical Condition & Resilience

A recent review of studies investigating such as improving fitness through practice of physical exercise in developing resilience constructs is presented chronologically, and specifically in university students:

- Ozkara et al. (2016) demonstrated a history of physical activity is positively associated with better resilience. Their study examined the influence of lifelong physical activity on the psychological resilience of education faculty students in Turkey. The research, involving 331 final-year students, used questionnaires to assess past physical activity levels and current psychological resilience, revealing a strong positive correlation between the two. Simple activities like brisk walking, outdoor pursuits such as kayaking, or even something as basic as focused breathing can be transformative.

- Morris and Rogers (2017) found that students with higher levels of physical activity experience less stress and have better academic performance, that is, improvement in physical fitness may be associated with greater resilience in the face of academic demands.
- Smith and Johnson (2018), in their research on the Relationship between Physical Fitness, Self-efficacy and Resilience in university students, confirmed that students with better physical fitness tend to have higher levels of self-efficacy, which, in turn, it contributes to greater emotional resilience.
- Kumar and Kumar (2020) were interested in at studies that relate this level of condition of university students to their resilience and effect on the stress caused by academic performance, who associated greater physical condition with a lower perception of academic stress and a better quality of life. Research suggests that students with a good level of physical fitness are more resilient to academic pressures and have a greater ability to balance their responsibilities.
- Pengpid and Peltzer (2020) found the practice of physical activity as inversely related to anxiety, depression, and stress scores and is even negatively associated with suicidality (Grasdalsmoen et al., 2020). On the contrary, there are positive relationships with self-esteem (Shang et al., 2021), resilience (Xu et al., 2021), well-being, and quality of life of the university population (García-Pérez et al., 2024; Herbert et al., 2020).
- Sampedro-Piquero & Moreno-Fernández (2021) investigated how the different types of Physical exercise could influence depending on intensity, and load. For instance, aerobic exercises typically involve low or medium intensities, such as brisk walking, where one can walk and talk simultaneously, unlike the high-intensity activities like sprinting or heavy-load exercises such as weightlifting, aerobic exercises are thought to enhance resilience by modulating the stress-response system, suggesting a potential treatment method for mood disorders.
- Lee and Hsu (2021), noted that structured physical activity programs improve the resilience and psychological well-being of university students to a greater extent, compared to those who do not participate in such programs. In addition, this effect increases if exercise is done on a regular basis, that is, it is adopted as a lifestyle habit. Indeed, students who regularly participate in physical exercise have higher levels of well-being and emotional resilience, and their ability as students to face and overcome emotional challenges associated with university life.
- Lancaster and Callaghan (2022), about of impact of varying levels of physical activity during the COVID-19 pandemic on resilience among the UK general population, found that exercise strongly correlated with resilience and became a mechanism for enhancing resilience, even when accounting for sleep quality and mental health.
- Martínez & González (2022) in the study "Physical fitness, coping strategies, and resilience in university students during the COVID-19 pandemic", the results show that students with a better level of physical fitness employ more effective coping strategies and report higher levels of resilience. The research highlights the importance of maintaining good physical condition as a protective factor against the additional challenges imposed by the pandemic.
- Nguyen & Wu (2023) in "Impact of physical activity on resilience and mental health among college students: a longitudinal study", examined how physical activity influences

college students' resilience and mental health over time. The results indicate that an increase in physical conditioning is associated with significant improvements in resilience and a reduction in symptoms of anxiety and depression. The study suggests that promoting physical activity may be an effective strategy to improve resilience and psychological well-being in this population.

- Santos & Pereira (2023) in "The role of physical fitness in enhancing psychological resilience among university students: a cross-sectional study", the findings suggest that a better level of fitness is associated with higher levels of psychological resilience. The study also identifies self-efficacy and overall well-being as key mediators in this relationship.
- Thomas & Smith (2024) in "Exercise, mental health, and resilience in college students: insights from a multi-method study", the researchers combine surveys, interviews, and fitness measures to get a comprehensive view of the relationship between exercise and resilience, and the results indicate that students who participate in regular exercise report greater resilience and better mental health.

After this review, it is evident that the improvement of the overall condition through the practice of physical activity is presented as an essential ally to promote the psychological balance of students, causing generalized well-being (Gibelli et al., 2024). Being physically active and meeting physical activity recommendations is linked to physical, social, and mental well-being. It is no surprise, then, that Andrew Heffernan highlighted what many considered "the most memorable moment of the Tokyo Olympics" when star gymnast Simone Biles decided to withdraw from competition (Heffernan, n.d.). When Biles later returned to win bronze on the balance beam, news coverage focused on one word: "resilience", Headlines such as "Simone Biles Gives Lesson in Resilience" and "Resilience Is the Most Important Trait of a Champion" captured the essence of her journey.

Figure 5.95.  
*RESUPERES Team in the Pilot Study Serbia (Module Physical Conditioning, Task: Pre-sports games).*



## . Projects

Regarding projects aimed at using physical exercises to promote and develop resilience, to the best of our knowledge, only three have been identified: one in Canada and two in Europe.

1.– The Canadian project, titled "**Sport as a Platform for Resilience**," is part of the Ever Active Schools community based in Edmonton, Canada ([Ever Active Schools](#)).

This initiative was implemented during the COVID-19 crisis, beginning in the spring of 2020. Hundreds of households and school communities received “Resource Drops”—boxes containing physical activity and sports equipment designed to enable and support physical activity at home. These resource kits included skipping ropes, sports equipment, and bicycles.

Additionally, the project organized several events to connect sports enthusiasts and foster resilience. For instance:

- . The 3rd Annual Tri-Treaty Track Meet, which involved 400 students from 22 school communities.
- . Winter Traditional Games, attended by over 1,000 students.
- . The First Annual 3-on-3 Basketball Tournament, which brought together participants from 12 communities. Notably, this event resulted in two young players being selected for the Canadian basketball team.

2.– “**Resilience as a Key Skill for Education and the Workplace**” ([link](#)), is a European project aimed at increasing resilience through a variety of exercises, which can be explored using the “Selection Box” link ([Selection Box](#)). Of the 59 exercises in this “Box,” several are related to physical activity.

One example is the Icebreaker, which involves participants forming a circle, holding hands, and performing arm and upper body movements to keep a balloon in the air. Another exercise, Progressive muscle relaxation, is designed to reduce overall body tension through a two-step process:

- . Individuals make themselves comfortable, either lying down or sitting in a quiet place, close their eyes tightly, and tense their facial muscles for eight seconds.
- . They then exhale and completely relax.

This cycle is repeated for various muscle groups, starting with the facial muscles and moving progressively to the chest, abdomen, right arm, forearm, hand, left arm, and so on, ending with the left foot. However, it should be noted that this project primarily focuses on adult education and counseling.

3.– The second European project, named “**Mental Health and Resilience Project**” ([link](#)), is organized through Dance Action Zone Leeds (DAZL), an inclusive community dance organization based in Leeds, UK, which engages around 2,000 young dancers. DAZL’s main motto is to improve the mental and physical health and resilience of young participants. To achieve these goals, DAZL organized three programs:

- . Four months of weekly 45-minute dance classes for adolescent girls aged 12 to 16 years, conducted during school physical education time. Most participants were new to dance and came from low socio-economic areas.
- . Six months of weekly 30-minute dance classes for care-experienced young people aged 18 to 25 years. All participants were new to dance and from low socio-economic areas.
- . Nine months of contemporary dance classes in collaboration with the “Fall into Place Theatre Group,” culminating in the production of a final performance piece for young people aged 15 to 25 years. This group consisted of existing DAZL dancers.

The overall findings highlight that the DAZL dance programs provide measurable psychosocial benefits to young people who typically disengage from health and physical activity programs.

### **Programs of intervention for the development of Resilience in University populations through the improvement of physical condition.**

In recent years, we highlight the following intervention programs that have been designed and evaluated to improve resilience and well-being in university students through physical activity chronologically. These programs seek not only to increase the level of fitness, but also to strengthen students' ability to cope with the stresses and challenges of college life.

- "Program of Yoga for students of rural areas": Karmalkar and Vaidya (2017) analyzed students who had moved from rural areas to cities for educational purposes. These students engaged in 40 yoga sessions, held daily except Sundays, using the Connor-Davidson Resilience Scale, the authors reported significant increases in resilience and related factors, such as personal competence, trust in one's instincts and a sense of control.
- "Dance/movement therapy program for individuals with chronic pain": Shim et al. (2017) developed a dance/movement therapy program for individuals with chronic pain, aiming to build resilience through 10 weekly sessions. Each session included a semi-guided warm-up, a main dance/movement activity, a cool-down with breathing and stretching, and a closing group ritual. The program's effectiveness, measured using the Response of Stressful Experience Scale, showed significant improvements in active coping, meaning-making, cognitive flexibility, self-efficacy, and spirituality.
- Elstad et al. (2020), in the study about the "Effects of yoga on student mental health", set out to determine whether yoga, a popular and widely available mind-body practice, can improve student mental health, with 202 healthy university students in the Oslo area. The findings suggest that yoga has a moderately large and lasting effect, at least for some months, reducing symptoms of distress and improving sleep quality among students.
- Samsudin et al. (2021), in the "Effects of physical exercise interventions on resilience among higher education students", investigated the impact of a 14-day outdoor education camp, which included camping and sea kayaking. Using the Connor-Davidson Resilience Scale, they found significant resilience improvements post-camp. They concluded that the program, designed to challenge participants and address adversities, increased resilience within just 14 days.
- Williams & Roberts (2022), in a "Mindfulness and exercise program for resilience in university students, combined mindfulness practices with regular physical exercise to improve resilience in college students. Participants attended weekly mindfulness sessions followed by physical exercises, including yoga and functional training. The results indicated improvements in stress management skills, reduced anxiety symptoms, and an increase in emotional resilience. This integrated approach helped students develop both mental and physical skills to cope with challenges.
- "Exercise program for the prevention of academic burnout" (Chen et al, 2022): this program was designed to prevent academic burnout by promoting regular exercise among college students. The program included supervised exercise sessions and education about the importance of exercise for mental and physical well-being. The results showed that students in the intervention group experienced a lower incidence of academic burnout and an improvement in resilience in the face of academic demands.
- "Exercise intervention and social support in university life" (Worsley et al., 2022): this study evaluated a program that combined regular physical exercise with social support-



building activities, such as team training groups and sports-related social events. The results showed that students who participated in this program experienced increased resilience, better coping skills, and greater satisfaction with their college experience.

- "Effects of regular physical exercise on resilience and academic performance in college students: A randomized controlled trial" (Lee & Chen, 2023): this randomized clinical trial investigates how regular physical exercise affects resilience and academic performance in college students. The results indicate that students who participated in a structured exercise program showed significant improvements in resilience and better academic performance compared to a control group. The study underscores the importance of integrating exercise into university life to promote both emotional well-being and academic success.
- "College student exercise and wellness program" (Johnson & Lee, 2023): this intervention program focused on the implementation of a structured exercise regimen for college students during an academic semester. The program included physical exercise sessions three times a week, combining cardiovascular and resistance training. The results showed a significant improvement in resilience, mood, and stress reduction among participants. Students also reported improvements in their quality of life and academic performance.
- "Physical activity program for stress management" (Martínez & González, 2023): this program included several components: physical training sessions, workshops on stress management techniques, and nutrition counseling. The program lasted 12 weeks and showed significant improvements in students' ability to manage stress and improve their overall fitness. Participants reported a reduction in stress levels and an improvement in their overall well-being and resilience.
- "Physical activity intervention and coping skills training" (Brown & Evans, 2023): this program combined physical activity with coping skills training to help college students better manage stress and improve their resilience. It included workshops on coping techniques, such as problem-solving and emotional regulation, along with regular exercise sessions. The results indicated significant improvements in participants' resilience and mental health, as well as their ability to cope with challenges.
- "Healthy pills: a physical activity program for the prevention of mental health and improvement of resilient capacity in university students. action protocol" (García-Pérez et al., 2024): this intervention program is based on a structured 12-week program, with Physical Activity practices that introduce meditation activities, physical training (strength), and aerobic activities, and show positive results in the Mental Health levels of university students at the University of Granada.

In conclusion, the results proven that the integration of structured physical activities have a significant positive impact on students' overall well-being and ability to manage academic and personal stress, therefore work must be create programs of implementation among university, main objective of the RESUPERES Project.

Figure 5.96.  
Students and Professors in RESUPERES Pilot Study Serbia (Module Physical Condition "Popular Dance").



### 5.9.2. Fitness activities focused on strengthening resilience

In the recently published literature, and included in the previous section, the following fitness-specific activities have been identified as more used and effective in improving resilience, especially in university and similar contexts (García-Pérez et al., 2024). Below are of the most outstanding contents:

1. *Aerobic exercise*: activities such as running, swimming, biking, and brisk walking, have been shown to be effective in reducing stress and anxiety, and in improving overall mood. A study by Jones and Smith (2023) showed that regular aerobic exercise contributes significantly to emotional resilience in university students by reducing symptoms of depression and anxiety, facilitating better management of academic stress.
2. *Strength training*: exercises that involve working with weight, external or own body, the use of resistance bands, etc., to strengthen the muscles. Strength training not only improves fitness, but it can also increase self-efficacy and self-confidence, among others a study by Paluch et al. (2023), found that strength training can improve resilience by providing a sense of accomplishment and control, which is important for facing academic and personal challenges.
3. *Yoga and relaxation techniques*: practices that combine stretching, breathing exercises and meditation, such as Yoga, Pilates, Mindfulness, Breathing, Tai chi, etc., have been widely studied for their effects on stress reduction and improved resilience (García-Pérez et al., 2024), among others Kim et al. (2023) found that yoga helps improve students' ability to manage stress and anxiety, promoting greater emotional resilience.
4. *Group exercise and social activities*: physical activities performed in a group such as dance (Borowski, 2021), team sports or any group fitness classes, can strengthen social networks and offer a sense of belonging, which contributes to development of resilience (Figure 5.9.2.1.), evidenced that students who participate in team sports experience an increase in resilience and a better ability to handle stress due to the social support received during activities, besides enhance social connections and resilience (Nguyen & Thomas, 2022).

**Figure 5.97.**

*Outdoor physical activity and Group exercise, RESUPERES Team in the RESUPERES Pilot Study Serbia (Module Physical Condition)*



5. *High-Intensity Exercise (HIIT)*: workouts that alternate between periods of high intensity and periods of rest, such as high-intensity interval training (HIIT), has shown benefits in improving mood and stress management ability, HIIT can be especially effective in improving resilience by providing a rapid release of endorphins and by increasing resilience under pressure (Atakan et al., 2021; Borrega-Mouquinho et al., 2021).
6. *Outdoor activities and contact with nature*: exercises and physical sports activities, carried out in natural environments, such as hiking, mountain biking or running in parks, canoeing, etc., these mean contact with nature and engaging in outdoor activities has been associated with an improvement in psychological well-being and resilience (Figure 5.9.2.1.). Marselle et al. (2019), who explored how group walks in nature can promote resilience by buffering the negative effects of stressful life events on mental health. Their research suggests that engaging in nature-based activities like group walking has positive effects on mental well-being and helps counteract the impact of stress and depression (Hofman-Bergholm, 2024; Jackson et al., 2021; Nguyen & Thomson, 2022).
7. *Adapted exercise and rehabilitation programs*: exercises designed to adapt to the specific needs of individuals, such as rehabilitation programs or low-impact exercises. These programs can be especially useful for students with physical limitations or recovering from injuries, Buecker et al. (2023), showed that adapted exercise programs can improve resilience by providing a personalized approach to physical activity, which helps maintain motivation and overall well-being (Figure 5.98.).



Figure 5.98.

Implementation of the RESUPERES subject in Spain (Module Physical Condition, task of adapted sports, Prof. García, L.)



For all these reasons and as in the previous section, we emphasize that it is of utmost importance the Incorporating structured physical activities into university life, within the University curriculum, as RESUPERES proposes, the following must have programs designed to promote physical activity effectively support students in managing academic and personal stress, offering a pathway to improved wellbeing and resilience.

### 5.9.3. RESUPERES Activities for the Development of Resilience through Physical Conditioning

RESUPERES Serbia Team (UB), by Professors Knezevic, O., Mirkov, D., and Aleksic, J., have a program of activities for the development and improvement of resilience in university students and staff through physical conditioning. Although resilience is targeted as a global concept, this intervention is designed to work on the following resilience skills:

- Creativity (two sessions).
- Mindfulness (Focus) (two sessions).
- Leadership (two sessions).
- Teamwork (two sessions).
- Cultural heritage (two sessions).

#### Intervention Development and Procedure:

In order to develop resilience in higher education through art and creativity, RESUPERES conceived a specific module that was made available via the interactive platform RESUPERES Module 9. Physical conditioning (Link: [Course: Module 9 – Physical Conditioning | resuperesLMS](#)). This module was structured in the following way:

- . Programming: 12 sessions (this number of sessions was selected because existing literature indicates that, in university students, between eight and 16 sessions are sufficient to bring about improvement).
- . Target audience: students and university staff.
- . Content of Physical Conditioning Sessions:
  - . Session 1: Introduction "Overcoming Adversity through Physical Conditioning"
  - . Session 2: "Mindful strength training (Mindfulness)".
  - . Session 3: "Mindful cardio and flexibility training (Mindfulness)".
  - . Session 4: "Team building through cooperative challenges (Teamwork)".
  - . Session 5: "Team building through cooperative challenges (Teamwork)".
  - . Session 5: "Team persistence and strategy (Teamwork)".
  - . Session 6: "Exploration through movement (Creativity)".
  - . Session 7: "Obstacle course and problem solving (Creativity)".
  - . Session 8: "Leadership through challenge and endurance (Leadership)".
  - . Session 9: "Communication and team dynamics" (Leadership)".
  - . Session 10: "World dance fitness (Cultural Heritage)".
  - . Session 11: "Cultural sports and games (Cultural Heritage)".
  - . Session 12: "Evaluate your physical condition".

Figure 5.99.

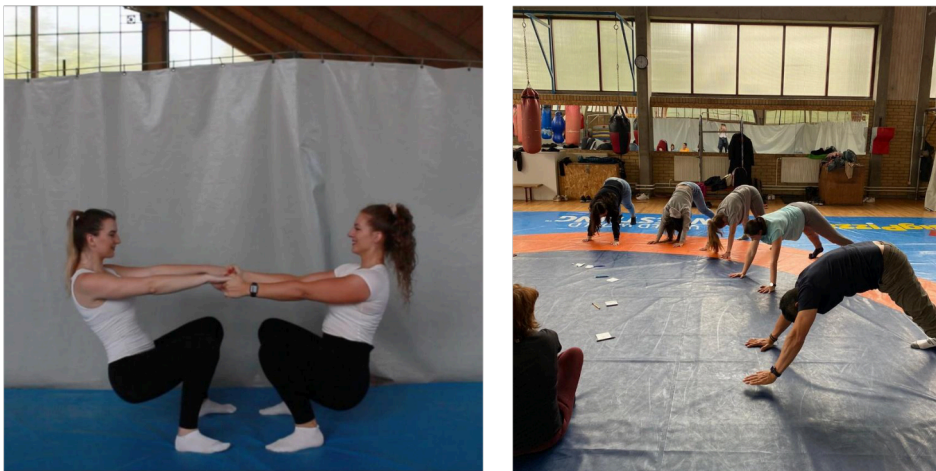
*Fitness circuit. RESUPERES Pilot Study Spain (Module Physical Conditioning, Trainer Lamas J.L.).*



**Figure 5.100.**  
*Cooperative challenges session in the RESUPERES Pilot Study Serbia (Module Physical Conditioning, Prof. Mirkov, D.)*



**Figure 5.101. & 5.102.**  
*Session on Fitness in the RESUPERES Pilot Study Serbia (Module Physical Conditioning, Prof. Aleksic, J.).*





## 5.10. Photography and Communication

### 5.10.1. Research review on Developing Communication and Resilience through Photography

Photography, as a form of visual communication, plays a significant role in building resilience by offering a powerful tool for self-expression, personal reflection and social connection. A review was conducted to examine the way in which photography contributes to resilience from various perspectives, highlighting its impact on communication, self-expression and social support.

#### • Self-Expression and Personal Reflection

Photography allows individuals to express their emotions, thoughts and experiences in a visual way. This form of self-expression can contribute to the development of resilience by allowing individuals to process and understand their experiences in a profound way. Gergen (2009) explores the impact of self-expression and self-reflection on wellbeing. Photography offers a means for self-exploration and personal reflection, helping individuals understand and process their emotions and experiences, which is key to developing resilience.

Figure 5.103.  
*Monk Photographer in Kandy, Sri Lanka. Source: Calado P. (2023)*



#### • Creating Personal Narratives

Through photography, individuals can create and share personal narratives that reflect their unique experiences and perspectives. This visual storytelling process can strengthen resilience by providing a way of integrating and making sense of difficult experiences. Holliday and Kraftl (2010) discuss the influence of visual narratives on the perception and management of personal experiences. Photography allows individuals to construct and communicate their own personal stories, helping them to face and overcome personal challenges.

Figure 5.104.  
*Sunday Morning News, Olhão, Portugal. Source: Calado, P. (2020)*



### • Fostering a Sense of Community and Social Connection

Photography can serve as a means of strengthening social connections and sense of community. Through the sharing of images and participation in collective photographic projects, individuals can find social support and a sense of belonging, both of which are crucial aspects of resilience. Wang and Burris (1997) explored the use of the Photovoice technique, in which people use photography to express their realities and participate in social change. This approach fosters community connection and support, contributing to collective resilience.

Figure 5.105.  
*Costaleros. Seville. Spain. Source: Calado, P. (2023)*



### • Documenting Resilience and Change

Photography can also document resilience and change over time, providing visual evidence of overcoming adversity and personal progress. This visual record can serve as a reminder of strength and growth, supporting continued resilience. Sontag (1977) stated that "living the experience becomes identical to taking a photograph of it". They analyzed the impact of photography on the way in which experiences are perceived and remembered. The ability to capture and review important moments can offer valuable insights into resilience and personal development.

Figure 5.106.  
*Priests. Rome. Source: Calado, P. (2017)*



### • Therapy and Rehabilitation through Photography

Photography is used in therapy and rehabilitation programs to help individuals cope with trauma and emotional challenges. Photo therapy programs allow individuals to explore and express their feelings through photography, facilitating the healing process and strengthening resilience. Cameron (1992) discusses the way in which creativity, including photography, can be a tool for self-help and emotional recovery. Photo therapy can support resilience by offering a way in which to explore and express difficult experiences.

Figure 5.107.  
*Underground Trip. Milan. Italy. Source: Calado, P. (2019)*



### • Education and Empowerment

In educational contexts, photography can be a powerful tool to empower students and communities by allowing them to explore and communicate their realities. This empowerment can strengthen resilience by fostering self-efficacy and confidence in personal skills. Rappaport (1984) explored the way in which empowerment strategies can promote resilience. Photography, as an educational and communication tool, can contribute to individual and community empowerment, supporting the development of resilience.

Figure 5.108.  
*Monk Lecturing. Bangkok. Thailand. Source: Calado, P. (2018)*



### 5.10.2. Projects and studies and contents that address Photography as a tool for the development of resilience

The scientific evidence regarding photography and the development of resilience is not yet very numerous, but we collect the projects and studies that reflect them.

One significant example is Janel Lee Photography's Survivor's Portrait of Resilience project, which documents the journeys of cancer survivors like Amy Wullenweber. This series captures the emotional strength and empowerment of individuals through portrait photography, showcasing their resilience and highlighting the vital role of community support in their recovery ([Janellee Photography](#)).

Another powerful initiative is the Six Feet Photography Project, which emerged during the pandemic. It features interviews with photographers worldwide, exploring how they used their cameras to express experiences of isolation and survival during the COVID-19 crisis. These personal stories underscore the therapeutic role of photography in processing emotions during challenging times ([Six Feet Photography Project](#)).

A different kind of resilience is emphasized in the ReFOCUS Media Labs project, where refugees on the Greek island of Lesbos use photography and filmmaking to share their stories. This initiative empowers displaced individuals to document their experiences, helping them process trauma while raising awareness of the refugee crisis ([Pulitzer Center](#)).

Another relevant study is the work of Tiffany Fairey (2018), conducted with elderly individuals experiencing memory problems. Photography was used as a tool for participants to express their experiences, strengthening their resilience through self-expression and collaboration. This project demonstrated how visual storytelling can contribute to emotional and social resilience by offering creative outlets and enhancing individuals' sense of control and identity.

Fullerton et al. (2021) explored how participatory photography visualizes resilience processes and encourages active engagement with the environment and community. This methodology enables participants to meaningfully capture responses to stressful situations, fostering a deeper understanding of resilience in personal and collective contexts.

In higher education, Kirstin Beart and her collaborators (2015) designed a project focusing on teaching mental health and illness through visual methodologies. University students explored visual tools to overcome obstacles in learning and gain a holistic understanding of mental health. This insightful process not only improved their conceptual understanding but also fostered ongoing reflection on their perceptions of mental health through the use of imagery.

Erdner and Magnusson (2015), described a method to help patients with long-term mental illnesses depict their life situations – "worlds of life" – through photography. This approach was beneficial for collecting data and allowed patients to express their perceptions meaningfully. Nurses and other professionals could also use photography and interviews to better understand the lives of their patients.

Milasan et al. (2020), conducted a systematic review analyzing photography-based research methods to explore wellbeing and recovery from mental distress. The review identified photo-elicitation and photovoice as key methodologies, revealing themes such as increased understanding, collaboration, empowerment, storytelling, and their foundational role in resilience development. The study demonstrated photography's value in conceptualizing wellbeing and supporting recovery processes.

Sandhu et al. (2013), examined the subjective experiences of post-psychotic depression, showing how photography-based methodologies could aid in understanding and improving mental health. This approach demonstrated potential therapeutic benefits in helping individuals process and manage their conditions.

Thompson et al. (2007) explored how photovoice could enhance empathy among professionals working with patients diagnosed with psychiatric conditions. Their study highlighted themes of feeling misunderstood, gaining a sense of control, rebuilding self-esteem, and employing coping strategies. Participants valued photography for communicating their lived experiences and dealing with mental health challenges.

These projects and studies collectively illustrate how photography can serve as a powerful tool for building resilience, fostering self-expression, and initiating dialogues about mental health.

Next Suggested the contents and activities to promote Resilience through Photography:

1. **Emotion Photography:** Encourage participants to capture photos representing their emotions during stressful or challenging times, helping them process and view their experiences from new perspectives.
2. **Portraits of Overcoming:** Highlight stories of resilience by having participants photograph individuals who have overcome significant challenges, accompanied by brief narratives of their strength.
3. **Resilience Photo Diary:** Over a set period, participants document daily moments of growth and overcoming challenges through photography, creating a visual reflection of their resilience journey.
4. **Nature as a Symbol of Resilience:** Organize outdoor workshops where participants photograph natural elements that symbolize resilience, such as trees growing in harsh conditions or plants thriving in adversity.
5. **Before and After:** Participants take photos representing a significant transformation in their lives, reflecting on the process and what they learned from the experience.
6. **Community Photography:** Facilitate group activities where participants capture scene of resilience in their communities, fostering solidarity and collective strength.
7. **Empowering Self-Portraits:** Conduct workshops where participants take self-portraits in empowering poses, boosting self-esteem and confidence.
8. **Collaborative Photography for Healing:** Partner with therapists to use photography as a creative outlet for managing stress and trauma, documenting personal healing journeys.

Photography, as a medium of visual communication, offers multifaceted benefits for fostering resilience. Through self-expression, storytelling, and community engagement, it contributes to personal and collective strength. Its capacity to facilitate reflection, strengthen social bonds, and support therapy underscores its value as a tool for building and sustaining resilience.

### 5.10.3 RESUPERES Activities to Develop Resilience through Photography and Communication

RESUPERES Portugal Team (UAIG), by Professor Calado, P., has conceived a program of activities for the development and improvement of resilience in university students and staff that is based on the techniques of Photography and communication, specifically. Although

resilience is targeted as a global concept, it is designed to work on the following resilience skills:

- Creativity (two sessions delivered via modules will target this resilience skill).
- Mindfulness (awareness, focusing attention on the present moment) (two sessions delivered via modules will target this resilience skill).
- Leadership (two sessions delivered via modules will target this resilience skill).
- Teamwork (two sessions delivered via modules will target this resilience skill).
- Cultural heritage (two sessions delivered via modules will target this resilience skill)

#### **Intervention Development and Procedure:**

In order to develop resilience in higher education through art and creativity, RESUPERES conceived a specific module that was made available via the interactive platform **RESUPERES Module 10. Photography and Communication** ([Link: Course: Module 10 – Photography | resuperesLMS](#)). This module is structured in the following way:

- Programming: 12 sessions (this number of sessions was selected because existing literature suggests that, in university students, between eight and 16 sessions are sufficient to bring about improvement).
- Target audience: students and university staff.
- Content of Art and Creativity Sessions:
  - Session 1: Introduction to Smartphone Photography and Resilience
  - Session 2: Fundamentals of Composition
  - Session 3: Capturing Emotions through Photography.
  - Session 4: Basic Editing Techniques.
  - Session 5: Symbolism and Meaning in Images.
  - Session 6: Communicating through Visual Narrative.
  - Session 7: Identity and Self-Expression.
  - Session 8: Advanced Composition Techniques
  - Session 9: Promoting Social Connection through Photography.
  - Session 10: Advanced Editing Techniques.
  - Session 11: Reflection and Evaluation.
  - Session 12: Self-Evaluation of Photography and Communication



**Figure 5.109.**  
*Implementation of the RESUPERES Subject in Portugal in Master's students (Module Photography and Communication, Prof. Calado P.)*



**Figures 5.110. and 5.111.**  
*Photographic and resilience Session in RESUPERES Pilot Study Portugal (Module Photography and Communication, material and Prof. Calado P.)*





## REFERENCESv

### Chapter 1

- Anaut, M. (2002). A Resiliência: Ultrapassar os traumatismos. Climepsi Editores.
- Baessler, J. & Schwarzer, R. (1996). Evaluación de la autoeficacia: Adaptación española de la escala de autoeficacia general. *Ansiedad y estrés*, 2(1), 1-7. <https://www.ansiedadystres.es/sites/default/files/rev/ucm/1996/anyes1996a1.pdf>
- Benard, B. (2002). Turning it round for all youth: From risk to resilience. <http://resilnet.uiuc/library/dig126.html>
- Blandon, A. Y., Calkins, S. D., Keane, S. P., & O'Brien, M. (2008). Individual differences in trajectories of emotion regulation processes: The effects of maternal depressive symptomatology and children's physiological regulation. *Developmental Psychology*, 44(4), 1110-1123. <https://doi.org/10.1037/0012-1649.44.4.1110>
- Bleuler, E. (1950). *Dementia Praecox or the Group of Schizophrenias*. International Universities Press.
- Bowlby, J. (1988). *A secure base: Clinical applications of attachment theory*. Routledge.
- Bowlby, J. (1992). Continuité et discontinuité: Vulnérabilité et résilience. *Devenir* 4, 7-31.
- Bowlby, J. (1993). *Perda: Tristeza e depressão* (2ª Ed.). Editora Martins Fontes.
- Bowlby, J. (2002). *Apego: A natureza do vínculo* (3ª Ed.). Editora Martins Fontes.
- Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American psychologist*, 32(7), 513-531. <https://doi.org/10.1037/0003-066X.32.7.513>
- Bronfenbrenner, U. (1979). Contexts of child rearing: Problems and prospects. *American Psychologist*, 34(10), 844-850. <https://doi.org/10.1037/0003-066X.34.10.844>
- Brown, J., D'Emidio-Caston, M., & Benard, B. (2001). *Resilience Education*. Corwin Press.
- Cano-García, F., Rodríguez-Franco, L., & García-Martínez, J. (2007). Adaptación Española del Inventario de Estrategias de Afrontamiento. *Actas españolas de psiquiatría*, 35(1), 29-39. <https://idus.us.es/handle/11441/56854>
- Carbelo, B. (2006). Estudio del sentido del humor: Validación de un instrumento para medir el sentido del humor, análisis del cuestionario y su relación con el estrés [Tesis doctoral, Universidad de Alcalá, Madrid España]. <http://dspace.uah.es/dspace/handle/10017/438>.
- Carretero, M., & Cervelló, E. (2019). Teaching Styles in Physical Education: A New Approach to Predicting Resilience and Bullying. *International Journal of Environmental Research and Public Health*, 17, <https://api.semanticscholar.org/CorpusID:209433737>.
- Carroll, A., Durkin, K., Hattie, J., & Houghton, S. (1997). Goal setting among adolescents: A comparison of delinquent, at-risk and not-at-risk youth. *Journal of Educational Psychology*, 89(3), 441-450. <http://dx.doi.org/10.1037/0022-0663.89.3.441>.
- Cepero, M. (Marzo, 2023a). Proyecto RESUPERES "La resiliencia en la Educación Superior. Superando Adversidades" [Conferencia invitada, 2023] Report presented at VII Congreso Internacional en investigación y Didáctica de la Educación Física (Addijes). Facultad de Ciencias de la Educación de Granada. <https://www.youtubeeducation.com/watch?v=l8CFNn3nH0c>
- Cepero, M. (2023b, diciembre 1). ¿Porqué la necesidad del desarrollo curricular de la Resiliencia en la Educación Superior?. Proyecto RESUPERES. [Report presented at conference Alice Friendship Over the World and in NaplesChristmas]. Wonders | One-day International Conference, International Research Group of Children's Literature: Letture per la formazione interculturale e pedagogica, Napoli.
- Cepero, M. (2024, diciembre 5). Propuesta de intervención para el desarrollo de la resiliencia en la Educación Superior. Superación de adversidades. RESUPERES. "Importancia del Área de la literatura en el desarrollo de la resiliencia". [Report presented at conference Alice Friendship Over the World and in NaplesChristmas]. Wonders | One-day International Conference, International Research Group of Children's Literature: Letture per la formazione interculturale e pedagogica, Napoli.
- Cicchetti D, & Blender, J. A. (2006). A multiple-levels-of-analysis perspective on resilience. Implications for

- the developing brain, neural plasticity and preventative interventions. *Annals of the New York Academy of Sciences*, 1094, 248–258. <https://doi.org/10.1196/annals.1376.029>
- Cicchetti, D. & Cohen, D. (1995). Perspectives on developmental psychopathology. In D. Cichetti & D. Cohen (Eds.). *Developmental Psychopathology*. Vol.1. Theory and methods. John Wiley and Sons.
- Cicchetti, D. & Garmezy, N. (1993). (Eds.). Milestones in the development of resilience. (Special Issue). *Development and psychopathology*, 5(4), 4497–774.
- Compas, B., Hinden, B. & Gerhardt, C. (1995). Adolescent development and process of risk resilience. *Annual Review of Psychology*, 46, 265–293. <https://doi.org/10.1146/annurev.ps.46.020195.001405>
- Connor, K. M., & Davidson, J. R. T. (2003). Development of a new resilience scale: the Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*, 18, 71–82. <http://dx.doi.org/10.1002/da.10113>.
- Crespo, M., Fernández-Lansac, V., & Soberón, C. (2014). Adaptación Española de la “Escala de resiliencia de Connor-Davidson” (CD-RISC) en situaciones de estrés crónico [Spanish version of the Connor-Davidson Resilience Scale (CD-RISC) for chronic stress situations]. *Behavioral Psychology*, 22(2), 219–238. <http://doi.org/10.6018/analesps.31.1.158241>.
- Cyrlunik, B. (2002). *Los patitos feos. La resiliencia: una infancia infeliz no determina la vida*. Gedisa.
- Cyrlunik, B. (2015). *Bajo el signo del vínculo. Una historia natural de apego*. Ed. Gedisa.
- Cyrlunik, B., Tomkiewicz, S., Guenard, T., Vanistendael, S., Manciaux, M., et al. (2004). *El realismo de la esperanza*. Gedisa.
- Dawson, G., Rogers, S., Munson, J., Smith, M., Winter, J., Greenon, J., Donaldson, A., & Varley J. (2010). Randomized, controlled trial of an intervention for toddlers with autism: the Early Start Denver Model. *Pediatrics*, 125(1), 17–23. <https://doi.org/10.1542/peds.2009-0958>
- Dominguez-Sánchez, F. J., Lasa-Aristu, A., Amor, P. J., & Holgado-Tello, F. P. (2011). Psychometric Properties of the Spanish Version of the Cognitive Emotion Regulation Questionnaire. *Assessment*, 20(2), 253–261. <https://doi.org/10.1177/1073191110397274>.
- Dongen, C. J. V. (1998). Self-esteem among persons with severe mental illness. *Issues in mental health nursing*, 19(1), 29–40. <https://doi.org/10.1080/016128498249196>
- Doron, R., & Parot, F. (2001). *Dicionário de Psicologia*. (1ª ed.). Climepsi Editores.
- Emery, R. E., & Forehand, R. (1996). Parental divorce and children's well-being: A focus on resilience. In R. J. Haggerty, L. R. Sherrod, N. Garmezy, & M. Rutter (Eds.), *Stress, risk, and resilience in children and adolescents: Processes, mechanisms, and interventions* (pp. 64–99). Cambridge University Press.
- Fernández-Ballesteros, R., & Sierra, B. (1989). *Escalas de clima social*. TEA Ediciones.
- Fisher, G. M. (1994). *Le Resort Invisible: vivre l'extrême*. Seuil.
- García, F., & Musitu, G. (1999). *AF5: Autoconcepto Forma 5*. TEA Ediciones.
- Garmezy, N. (1991). Resiliency and vulnerability to adverse developmental outcomes associated with poverty. *American Behavioral Scientist*, 34, 416–430. <https://doi.org/10.1177/0002764291034004003>
- Garmezy, N. (1996). Reflections and commentary on risk, resilience, and development. In R. J. Haggerty, L. R. Scherrod, N. Garmezy & M. Rutter, (Orgs.). *Stress, risk, and resilience in children and adolescents: processes, mechanisms, and interventions* (pp.1–18). Cambridge University Press.
- Garmezy, N., & Rutter, M. (Eds.). (1983). *Stress, coping, and development in children*. Johns Hopkins University Press.
- Garmezy, N., & Masten, A. (1991) The protective role of competence indicators in children at risk. In E. Cummings e col. *Perspective on Stress and Coping* (151–174). Erlbaum Associates
- Garnefski, N., Kraaij, V., & Spinhoven, P. (2001). Negative life events, cognitive emotion regulation and emotional problems. *Personality and Individual Differences*, 30, 1311–1327. [http://doi.org/10.1016/S0191-8869\(00\)00113-6](http://doi.org/10.1016/S0191-8869(00)00113-6).
- Goldstein, A., Sprafkin, R., Gershaw, J., & Klein, P. (1980). *Habilidades sociales y autocontrol en la adolescencia. Un programa de entrenamiento*. Ediciones Martínez Roca.
- Goodyer, J.M. (1995). Risk and resilience processes in

- childhood and adolescence. In Lindstrom, B. & Spencer, N. Social Paediatrics. Oxford University Press.
- Gottlieb, D. (1991). Resilience: Status of the research and research-based programs. U.S. Dept. of Health and Human Services, Substance Abuse and Mental Health Services Administration.
- Grotberg, E. (1995). A guide to promoting resilience in children: strengthening the human spirit. The Hague, Bernard Van Leer Foundation Early Childhood development: Practice and Reflections, 8. <https://unesdoc.unesco.org/ark:/48223/pf0000109429>
- Grotberg, E. (1998). The international resilience project. Findings from the Research and the Effectiveness of Interventions. <https://www.semanticscholar.org/paper/The-International-Resilience-Project-Findings-from-Grotberg/b7e7df5fc926513d82e595c6cbce1dfb551b4fe3>
- Grotberg, E. (1999). Tapping your inner strength. How to find resilience to deal with anything. New Harbinger Publications.
- Grotberg, E. (2006). La resiliencia en el mundo de hoy. Gedisa.
- Hobfoll, S. E. (2002). Social and psychological resources and adaptation. Review of General Psychology, 6(4), 307-324. <https://doi.org/10.1037/1089-2680.6.4.307>
- Jolliffe, D., & Farrington, D. P. (2006). Development and validation of the Basic Empathy Scale. Journal of Adolescence, 29(4), 589-611. <https://doi.org/10.1016/j.adolescence.2005.08.010>
- Karr-Morse, R., & Wiley, M. S. (1997). Ghosts from the nursery: Tracing the roots of violence. Atlantic Monthly Press.
- Kobasa, S. (1979). Concept of Hardiness. A Study with Reference to the 3Cs. International Research. Journal of Engineering, IT & Scientific Research, 2(1), 34-40. <https://sloap.org/journals/index.php/irjeis/article/view/24334>
- Lazarus, R. & Folkman, S. (1984). Stress, appraisal and coping. Springer.
- López-Mora, C., González-Hernández, J., Garcés de los Fayos, E. J., & Portolés, A. (2017). Versión reducida del cuestionario CMA de Metas para Adolescentes (CMA-R). Revista de Investigación Educativa, 35(2), 445-464. <http://dx.doi.org/10.6018/rie.35.2.226461>
- Martins, A. M. E. (2005). Condição física funcional e estados de humor na pessoa idosa. Universidade de Coimbra, Faculdade de Ciências do Desporto e Educação Física, Portugal.
- Masten, A. S. (1994). Resilience in Individual Development: Successful Adaptation Despite a Risk and Adversity. In Wang, M. C. & Gordon, E. W. (Eds.) (1994). Educational Resilience in Inner-City America: Challenges and prospects (pp. 3-35). Lawrence Erlbaum Associates.
- Masten, A. S. (1997). Resilience in children at-risk. <http://carei.coled.umn.edu/Rpractice/Spring97/resilience.htm>
- Masten, A. S. (1999). Commentary – The Promise and Perils of Resilience in Research as a Guide to Preventive Interventions. In Glantz, M. D. & Johnson, J. L., (Eds.) (1999). Resilience and development: Positive Life Adaptations. (pp. 251-257), Academic/Plenum Publishers.
- Masten, A. S. (2004). Regulatory Processes, Risk and Resilience in Adolescent Development. New York Academic Science, 1021, 310-319. <https://doi.org/10.1196/annals.1308.036>
- Merino, D. M., & Privado, J. (2015). Does Employee Recognition Affect Positive Psychological Functioning and Well-Being? The Spanish Journal of Psychology, 18, E64. <https://doi.org/10.1017/sjp.2015.67>
- Moos, R. H., & Moos, B. S. (1981). Family Environment Scale Manual. CA: Consulting Psychologist Press.
- Nettles, S. M., & Mason, M. J. (2004). Zones of narrative safety: Promoting psychosocial resilience in young people. Journal of Primary Prevention, 25, 359-373. <https://doi.org/10.1023/B:JOPP.0000048026.99223.3b>
- Ohio State University (2002). Personal characteristics related to resilience. Bulletin 875-99 – Fostering resilience in children. [http://ohioline.osu.edu/b8875\\_2.html](http://ohioline.osu.edu/b8875_2.html)
- Oliva, A., Antolín, L., Pertegal, M., Ríos, M., Parra, A., Hernando, A., & Reina, M. (2011). Instrumentos para la evaluación de la salud mental y el desarrollo positivo adolescente y los activos que lo promueven. España: Consejería de Salud.
- Onsès-Segarra, J., Hurtubia, V., & Forés, A. (2020). Resilience in a postcard. Expectations, Prescriptions,



- Reconciliations, 32. [https://www.researchgate.net/profile/Rolf-Laven-2/publication/359685471\\_Research\\_on\\_Arts\\_Education\\_ECER\\_Conference\\_Geneva\\_online/links/6247f90d8068956f3c624d69/Research-on-Arts-Education-ECER-Conference-Geneva-online.pdf](https://www.researchgate.net/profile/Rolf-Laven-2/publication/359685471_Research_on_Arts_Education_ECER_Conference_Geneva_online/links/6247f90d8068956f3c624d69/Research-on-Arts-Education-ECER-Conference-Geneva-online.pdf)
- Osofsky, J. D. (1995). The effects of exposure to violence on young children. *American Psychologist*, 50, 782-788. <https://doi.org/10.1037//0003-066x.50.9.782>
- Otero, J. M., Luengo, A., Romero, E. Gómez, J. A., & Castro, C. (1998). *Psicología de personalidad. Manual de prácticas*. Ariel Practicum.
- Padial, R., García, L., y Cepero, M. (2024, Febrero, 20). Presentación del Proyecto RESUPERES. Cómo evaluar la resiliencia? [Report presented at Presentation of the European Project Erasmus ERASMUS K-220 RESUPERES. In the Workshop "Importancia de la formación resiliente en educación superior. Implementación y pilotaje de la asignatura RESUPERES"]. Facultad de Ciencias de la Educación de la Universidad de Granada, Granada.
- Pereira, A. M. S. (2001). Resiliência, personalidade, stress e estratégias de coping. In J. Tavares (Eds.), *Resiliência e Educação* (95-114). Cortez.
- Radke-Yarrow, M., & Brown, E. (1993). Resilience and vulnerability in children of multiple-risk families. *Development and Psychopathology*, 5(4), 581-592. <https://doi.org/10.1017/S0954579400006179>
- Radke-Yarrow, M., & Sherman, T. (1990). Hard growing: Children who survive. In J. E. Rolf, A. S. Masten, D. Cicchetti, K. H. Nuechterlein, & S. Weintraub (Eds.), *Risk and protective factors in the development of psychopathology* (pp. 97-119). Cambridge University Press. <https://doi.org/10.1017/CBO9780511752872.008>
- Richters, J. E., & Martinez, P. (1993). The NIMH Community Violence Project: I. Children as victims of and witnesses to violence. *Psychiatry: Interpersonal and Biological Processes*, 56 (1), 7-21. <https://doi.org/10.1080/00332747.1993.11024617>
- Rouse, G. (2001). Resilient students' goals and motivation. *Journal of Adolescence*, 24(4), 429-578. <https://doi.org/10.1006/jado.2001.0383>
- Rouse, K. (1998). Resilience from poverty and stress. [www.hec.ohio-state.edu/famlife/bulletin/volume.4/bull41f.html](http://www.hec.ohio-state.edu/famlife/bulletin/volume.4/bull41f.html)
- Rutter, M. (1999). Psychosocial adversity and child psychopathology; *Br. J. Psychiatry*, 174, 480-493. <https://doi.org/10.1192/bjp.174.6.480>
- Rutter, M. (Eds.). (1996). *Stress, risk, and resilience in children and adolescents*. Cambridge University Press.
- Sameroff, A. (2006). Identifying Risk and Protective Factors for Healthy Child Development. In A. Clarke-Stewart & J. Dunn (Eds.), *Families count: Effects on child and adolescent development* (pp. 53-76). Cambridge University Press. <https://doi.org/10.1017/CBO9780511616259.004>
- Sánchez-Teruel, D., & Robles-Bello, M. A. (2015). Escala de Resiliencia 14 ítems (RS-14): Propiedades Psicométricas de la Versión en español. *Revista Iberoamericana de Diagnóstico y Evaluación - e Avaliação Psicológica*, 40(2), 103-113. <https://www.redalyc.org/pdf/4596/459645432011.pdf>
- Santos, R. (2013). *Levantarse y luchar. Cómo superar la adversidad con la resiliencia*. Ed. Conecta.
- Sanz de Acedo, M., Ugarte, M. D., & Lumbreras, M. V. (2003). Desarrollo y validación de un Cuestionario de Metas para Adolescentes. *Psicothema*, 15(3), 493-499. <https://www.redalyc.org/pdf/727/72715325.pdf>
- Scheier, M., Carver, C., & Bridges, M. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): a reevaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, 67(6), 1063-1078. <https://doi.org/10.1037/0022-3514.67.6.1063>
- Schröder, E. (1992). Modeling qualitative change in individual development. In J.B. Asendorpf & J. Valsiner (Eds.). (1992). *Stability and change in development – a study of methodological reasoning* (pp.1-20). Sage.
- Seifer, R., Sameroff, A. J., Baldwin, C. P., & Baldwin, A. L. (1992). Child and family factors that ameliorate risk between 4 and 13 years of age. *Journal of the American Academy of Child & Adolescent Psychiatry*, 31(5), 893-903. <https://doi.org/10.1097/00004583-199209000-00018>
- Sheppard, J. A., & Kashani, J. H. (1991). The relationship of hardiness, gender, and stress to health outcomes in adolescents. *Journal of Personality*, 59(4), 747-768. <https://doi.org/10.1111/j.1467-6494.1991.tb00930.x>



- Simões-Ralha, H. (2001). Resiliência e desenvolvimento pessoal. In J. Tavares (Org). *Resiliência e Educação*. Ed. Cortez.
- Sousa, A. L. (2017). Programa de educação para a qualidade de vida de pessoas adultas com multideficiência grave: Um estudo centrado no contexto individual da Associação Portuguesa de Paralisia Cerebral de Faro, Algarve, Portugal. [Tese de Doutoramento, Faculdade de Educação, Universidade Autónoma de Madrid]. <http://hdl.handle.net/10486/682650>
- Sousa, C. (1995). Activação do desenvolvimento cognitivo e facilitação da aprendizagem, In Tavares & Bonboir, et al. *Activação do Desenvolvimento Psicológico nos Sistemas de Formação*. Edições CIDInE.
- Sousa, C. (2006a). Educação para a activação da resiliência no adulto, In J. Tavares, C. Fernandes, M. S. Pereira & S. Monteiro [Eds]. *Activação do Desenvolvimento Psicológico*. Actas do Simpósio Internacional. Aveiro, Universidade de Aveiro.
- Sousa, C. (2006b). Higher Education in the Bologna process framework, Audy, J. L. N. [Eds]. & M. C. Morosino [Orgs.]. *Innovation and Entrepreneurialism in the University*. Pontifícia Universidade Católica do Rio Grande do Sul.
- Sousa, C. (2015a). Trauma, contexto y exclusión, Promocionando Resiliencia. In A. Salvador, J. Hernández & C. S. Sousa (Coords.). *Colección Infancia, Cultura y Educación*. ISBN: 978-84-16361-64-9.
- Sousa, C. (2015b). Profissão Docente, diversidade e resiliência. In M. E. A.I Engers, M. C. Morosini, & V. L. Felicetti (2015). *Educação superior e aprendizagem* (p. 115-126) ISBN 978-85-397-0629-7.
- Sousa, C. (2016). La educación para la Resiliencia en el alumnado de la periferia de la Europa del Sur. *Civitas Educationis. Education, Politics, and Culture*, (V)1, (pp. 83-100). ISBN: 9788857537818; <https://universitypress.unisob.na.it/ojs/index.php/civitaseducationis/article/view/272/739>
- Sousa, C., & Extremera, M. O. (2016). Docentes resilientes em contextos precários: Estudo de casos em Espanha. *Educação*, 41(3), 541-552. <http://dx.doi.org/10.5902/1984644424598>
- Sousa, C. S., et al. (2021). Efectos de la pandemia originada por COVID en los estudiantes universitarios más vulnerables. *Retos de la educación inclusiva*. In J. J. L. Olivencia y A. Matas (Coords). (2021). *Claves para una educación inclusiva en tiempos de COVID*. Narcea, S.A. de Ediciones.
- Sroufe, L. A. (1990). An organization perspective on the self. In D. Cicchetti (Eds.), *Rochester Symposium on Developmental Psychopathology*. New Jersey: Erlbaum, (pp. 13-40). Erlbaum.
- Sroufe, L. A., & Rutter, M. (1984). The domain of developmental psychopathology. *Child Development*, 55, 17-29. <https://doi.org/10.2307/1129832>
- Tavares, J., & Albuquerque, A. (1998). Sentidos e implicações da resiliência na formação. *Psicologia, Educação e Cultura*, 2(1), 143-153.
- Tavares, J. (2001). Resiliência e Educação. In J. Tavares (Org). *Resiliência e Educação*. Cortez.
- Tobin, D. L., Holroyd, K. A., Reynolds, R. V., & Kigal, J. K. (1989). The hierarchical factor structure of the Coping Strategies Inventory. *Cognitive Therapy and Research*, 13, 343-61. <https://doi.org/10.1007/BF01173478>
- Thorson, J. A., & Powell, F. C. (1993). Development and validation of a Multidimensional Sense of Humor Scale. *Journal of clinical psychology*, 49(1), 13-23. [https://doi.org/10.1002/10974679\(199301\)49:1<13::aid-jclp2270490103>3.0.co;2-s](https://doi.org/10.1002/10974679(199301)49:1<13::aid-jclp2270490103>3.0.co;2-s)
- Tronick, E., Als, H., Adamson, L., Wise, S., & Brazelton, T. B. (1978). The infant's response to entrapment between contradictory messages in face-to-face interaction. *J Am Acad Child Psychiatry*. Winter, 17(1), 1-13. [https://doi.org/10.1016/s0002-7138\(09\)62273-1](https://doi.org/10.1016/s0002-7138(09)62273-1)
- Vaillant, G. (1993). *The wisdom of the Ego*. Harvard University Press.
- Vanistendael, S., & Lecomte, J. (2000). *Le Bonheur Est Toujours Possible. Construire La Resilience*. Editor: Bayard.
- Vanistendael, S. (2003). Humor y resiliencia: la sonrisa que dá vida. In B. Cyrulnik et al. (Org.). *El Realismo de la Esperanza: testimonios de experiencias profesionales en torno a la resiliência* (pp. 119-148). Editorial Gedisa.
- Wagnild, G. M. (2009). *The Resilience Scale User's Guide for the US English version of the Resilience Scale and the 14-Item Resilience Scale*. The Resilience Center. USA. <https://www.resiliencecenter.com/products/the-resilience-scale-users-guide/>

- Werner, E. E. & Smith, R. S. (1992). *Overcoming the odds: High risk children from birth to adulthood*. Cornell University Press.
- Werner, E. E. (1989). Children of the Garden Island. *Scientific American*, 4, 107-123. <http://www.jstor.org/stable/24987220>
- Werner, E. E. (1993). Risk, resilience, and recovery: Perspectives from the Kauai Longitudinal Study. *Development and Psychopathology*, 5(4), 503-515. <https://doi.org/10.1017/S095457940000612X>
- Werner, E. & Smith, R. (1982). *Vulnerable but invincible: A Longitudinal Study of Resilient Children and Youth*. McGraw-Hill.
- Werner, E., & Smith, R. (2001). *Journeys from childhood to midlife: Risk, resilience and recovery*. Cornell University Press.
- Wright, M. O., & Masten, A. S. (2005). Resilience Processes in Development: Fostering Positive Adaptation in the Context of Adversity. In S. Goldstein & R. B. Brooks (Eds.), *Handbook of resilience in children* (pp. 17-37). Kluwer Academic/Plenum Publishers. [https://doi.org/10.1007/0-306-48572-9\\_2](https://doi.org/10.1007/0-306-48572-9_2)
- Yunes, M. A. M., & Szymanski, H. (2001). Resiliência: Noção, conceitos afins e considerações críticas. In *Resiliência e Educação*. José Tavares (Org). Ed. Cortez.
- Chapter 2**
- Bakker, A. B., & Demerouti, E. (2016). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), 273-285. <https://doi.org/10.1037/ocp0000056>
- Dato, D. (2009). *Pedagogia del lavoro intangibile*. FrancoAngeli.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499-512. <https://doi.org/10.1037/0021-9010.86.3.49>
- Ginsburg, K. R., & Jallow, M. M. (2011). Building resilience in children and teens: Giving kids roots and wings (p. 398). Elk Grove Village, IL: American Academy of Pediatrics.
- Ingusci, E., Coletta, G., De Carlo, E., Madaro, A., Converso D., Loera, B., & Brondino, M. (2019). Stress lavoro correlato nel personale docente universitario: Una rassegna teorica. *Counseling. Giornale italiano di ricerca e applicazioni*, 12(1). <https://doi.org/10.14605/CS1211903>
- Karasek, R. A., & Theorell, T. (1990). *Healthy work. Stress, productivity and the reconstruction of working life*. Basic Books.
- Ledesma, J. (2014). Conceptual Frameworks and Research Models on Resilience in Leadership. *SAGE Open*, 4(3). <https://doi.org/10.1177/2158244014545464>
- Lengnick-Hall, C. A., Beck, T. E., & Lengnick-Hall, M. L. (2011). Developing a capacity for organizational resilience through strategic human resource management. *Human Resource Management Review*, 21(3), 243-255. <https://doi.org/10.1016/j.hrmr.2010.07.00>
- Matos, F., Martins, H., Jesus, S. N., & Viseu, J. (2015). Prevenção da violência através da resiliência dos alunos. *Psicologia, Saúde & Doenças*, 16(1), 35-43. <https://www.redalyc.org/pdf/362/36237156005.pdf>
- Ortega, M., & Saavedra, S. (2014). Resilience: physiological assembly and psychosocial factors. *Procedia-social and behavioral sciences*, 132, 447-453. <https://doi.org/10.1016/j.sbspro.2014.04.335>
- Paolozzi, M. F., & Maddalena, S. (2023). Superare le avversità tra incertezza e cura di sé: La resilienza nei contesti educativi. *Journal of Health Care Education in Practice*, 5(1), 91-101. <https://doi.org/10.14658/pupj-jhcep-2023-1-10>
- Paolozzi, M. F., Maddalena, S., Ercolano, M., & Petrecca, R. (2023, may 23). The tale of the self between movement, writing and art. Strategies for resilience education. [Paper presentation] RESUPERES International Conference: Building Resilience in Higher Education, Bergen, Norway.
- Paolozzi, M. F. (2023, dicembre 1). La casita della resilienza. Un modello per bambini ed adulti. [Report presented at conference Alice Friendship Over the World and in NaplesChristmas]. Wonders | One-day International Conference, International Research Group of Children's Literature: Letture per la formazione interculturale e pedagogica, Napoli.
- Rossi, B. (2013). *Pedagogia della felicità*. FrancoAngeli.
- Sirignano, F. M. (2019). *Pedagogia della decrescita*.

L'educazione sfida la globalizzazione. FrancoAngeli.

Sirignano, F. M., Buccolo, M., & Ferro Allodola, V. (2023). Gestire lo stress lavoro-correlato attraverso la metodologia del teatro d'impresa: Un percorso pedagogico di ricerca-formazione. *Journal of Theories and Research in Education*, 18(3), 1-26. <https://doi.org/10.6092/issn.1970-2221/17002>

Wolin, S. J., & Wolin, S. (1993). *The resilient self: How survivors of troubled families rise above adversity*. Villard Books.

Vanistendael, S., & Lecomte, J. (2000). *Le bonheur est toujours possible: Construire la résilience*. Bayard.

Vanistendael, S. (2018). *Vers la mise en oeuvre de la résilience: La casita, un outil simple pour un défi complexe*. Bureau International Catholique de l'Enfance.

Xanthopolou, D., Bakker, A. B., Demerouti, E., & Schaufell, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14(2), 121-141. <https://doi.org/10.1037/1072-5245.14.2.121>

### Chapter 3

Allan, J. F., McKenna, J., & Dominey, S. (2014). Degrees of resilience: Profiling psychological resilience and prospective academic achievement in university inductees. *British Journal of Guidance & Counselling*, 42, 9-25. <https://doi.org/10.1080/03069885.2013.793784>

Angst, R., & Amorim, C. (2011, novembro 7-10). Resiliência em acadêmicos de pedagogia. In X Congresso Nacional de Educação – EDUCERE e I Seminário Internacional de Representações Sociais, Subjetividade e Educação (pp. 5611-5622). Pontifícia Universidade Católica do Paraná. <https://observatoriodeeducacao.institutounibanco.org.br/cedoc/detalhe/x-congresso-nacional-de-educacao,fc47a7ce-a6e5-49fa-a840-c455db5ad731>

Araoz, E. G. E., & Uchasara, H. J. M. (2020). Bienestar psicológico y resiliencia en estudiantes de educación superior pedagógica. *Apuntes Universitarios*, 10(4), 55-68. <https://doi.org/10.17162/au.v10i4.491>

Archana, U., & Singh, R. (2014). Resilience and spirituality as predictors of psychological well-being among university students. *Journal of Psychosocial*

Research, 9(2), 227-235. <https://web.s.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=0&sid=0f678228-738b-4baa-b245-9f531590af1a%40redis>

Asthana, A. (2021). Organisational citizenship behaviour of MBA students: The role of mindfulness and resilience. *The International Journal of Management Education*, 19, 1-11. <https://doi.org/10.1016/j.ijme.2021.100548>

Baños, R. M., Etchemendy, E., Mira, A., Riva, G., Gaggioli, A., & Botella, C. (2017). Online positive interventions to promote well-being and resilience in the adolescent population: A narrative review. *Front. Psychiatry*, 8(10), 1-9. <https://doi.org/10.3389/fpsy.2017.00010>

Benavente, M., & Quevedo, M. (2018). Resiliencia, bienestar psicológico y afrontamiento en universitarios atendiendo a variables de personalidad y enfermedad. *Revista de Psicología y Educación*, 13(2), 99-112. <https://doi.org/10.23923/rpye.2018.01.161>

Black-Hughes, C., & Stacy, P. (2013). Early childhood attachment and its impact on later life resilience: A comparison of resilient and nonresilient female siblings. *Journal of Evidence-Based Social Work*, 10(5), 410-420. <https://doi.org/10.1080/15433714.2012.759456>

Bouteyre, E. (2010). La résilience académique des étudiants d'université. *Enfances Majuscules*, 112, 16-20. <https://shs.hal.science/halshs-01248313v1>

Bretón, S., Zurita, F., & Cepero, M. (2016). La resiliencia como factor determinante en el rendimiento deportivo. Revisión bibliográfica. *Revista de Ciencias del Deporte*, 12(2), 79-88. <https://www.redalyc.org/pdf/865/86548813001.pdf>

Brewer, M. L., Van Kessel, G., Sanderson, B., Naumann, F., & Lane, M., Reubenson, A., & Carter, A. (2019). Resilience in higher education students: a scoping review. *Higher Education Research & Development*, 38(6), 1105-1120. <https://doi.org/10.1080/07294360.2019.1626810>

Cardoso, A. M., Lira, D. C., Sousa, T. J., & Pinho, A. M. (2019). Síndrome de burnout e docência: Uma revisão integrativa. *Revista Expressão Católica*, 8(2), 7. <https://doi.org/10.25190/rec.v8i2.3236>

Cepero, M. (Marzo, 2023a). Proyecto RESUPERES "La resiliencia en la Educación Superior. Superando Adversidades" [Conferencia invitada, 2023] Report presented at VII Congreso Internacional en

- Investigación y Didáctica de la Educación Física (Addijes). Facultad de Ciencias de la Educación de Granada. <https://www.youtubeeducation.com/watch?v=I8CFNn3nH0c>
- Cepero, M. (2023b, diciembre 1). ¿Por qué la necesidad del desarrollo curricular de la Resiliencia en la Educación Superior? Proyecto RESUPERES. [Report presented at conference Alice Friendship Over the World and in NaplesChristmas]. Wonders | One-day International Conference, International Research Group of Children's Literature: Letture per la formazione interculturale e pedagogica, Napoli.
- Cepero, M. (2024, diciembre 5). Propuesta de intervención para el desarrollo de la resiliencia en la Educación Superior. Superación de adversidades. RESUPERES. "Importancia del Área de la literatura en el desarrollo de la resiliencia". [Report presented at conference Alice Friendship Over the World and in NaplesChristmas]. Wonders | One-day International Conference, International Research Group of Children's Literature: Letture per la formazione interculturale e pedagogica, Napoli.
- Donovan, C., & Erskine-Shaw, M. (2019). 'Maybe I can do this. Maybe I should be here': Evaluating an academic literacy, resilience and confidence programme. *Journal of Further and Higher Education*, 44(3), 326-340. <https://doi.org/10.1080/0309877X.2018.1541972>
- Enrique, A., Mooney, O., Salamanca-Sanabria, A., Lee, C. T., Farrell, S., & Richards, D. (2019). Assessing the efficacy and acceptability of an internet-delivered intervention for resilience among college students: A pilot randomised control trial protocol. *Internet Interventions*, 17, 1-7. <https://doi.org/10.1016/j.invent.2019.100254>
- Fajardo, I. N., Minayo, M. C. S., & Moreira, C. O. F. (2010). Educação escolar e resiliência: Política de educação e a prática docente em meios adversos. *Ensaio*, 18(69), 761-774. <https://doi.org/10.1590/S0104-40362010000400006>
- Francisco, M. S. (2021). Contributos da personalidade e da resiliência no bem-estar psicológico de estudantes do ensino superior. [Dissertação de Mestrado Integrado em Psicologia. Universidade de Coimbra]. <https://estudogeral.sib.uc.pt/handle/10316/96504>
- Francisco, M., Félix, D. & Ferreira, J. (2022). Personalidade, resiliência e bem-estar subjetivo de alunos do ensino superior. *Revista de estudos e investigação em psicologia y educación*, 9, 302-313. <https://doi.org/10.17979/reipe.2022.9.0.8907>
- Galante, J., Dufour, G., Vainre, M., Wagner, A. P., Stochl, J., Benton, A., Lathia, N., Howarth, E., & Peter, B. J. (2018). A mindfulness-based intervention to increase resilience to stress in university students (the Mindful Student Study) a pragmatic randomised controlled trial. *The Lancet*, 3, 72-81. [http://dx.doi.org/10.1016/S2468-2667\(17\)30231-1](http://dx.doi.org/10.1016/S2468-2667(17)30231-1)
- García, M. I. V., & Gambarte, M. I. G. (2019). Burnout y factores de resiliencia en docentes de educación secundaria. *International Journal of Sociology of Education*, 8(2), 127-152. <http://dx.doi.org/10.17583/rise.2019.3987>
- Gonçalves, A. M., Cabral, L. R., Ferreira, M. C., Martins, M. C., & Duarte, J. C. (2017). Negative life events and resilience in higher education students. *The European Journal of Social and Behavioural Sciences*, 19, 2301-2218. <https://doi.org/10.15405/ejsbs.2017.04.issue-2>
- Grills-Tauchel, A. E., Norton, P., & Ollendick, T. H. (2010). A longitudinal examination of factors predicting anxiety during the transition to middle school. *Anxiety, Stress & Coping*, 23(5), 493-513. <https://doi.org/10.1080/10615800903494127>
- Herrero, R., Mira, A., Cormo, G., Etchemendy, E., Baños, R., García-Palacios, A., Ebert, D., Franke, M., Berger, T., Schaub, M., Görlich, D., Jacobi, C., & Botella, C. (2019). An Internet based intervention for improving resilience and coping strategies in university students: Study protocol for a randomized controlled trial. *Internet Interventions*, 16, 43-51. <https://doi.org/10.1016/j.invent.2018.03.005>
- Hwang, E., & Shin, S. (2018). Characteristics of nursing students with high levels of academic resilience: A cross-sectional study. *Nurse Education Today*, 71, 54-59. <https://doi.org/10.1016/j.nedt.2018.09.011>
- Jorge, A. M. (2008). Resiliência em estudantes do ensino superior. *International Journal of Developmental and Educational Psychology*, 2(1), 261-272. <https://www.redalyc.org/pdf/3498/349832317029.pdf>
- Kidd, S., & Shahar, G. (2008). Resilience in homeless youth: The key role of self-esteem. *American Journal of*

- Orthopsychiatry, 78(2), 163–172. <https://doi.org/10.1037/0002-9432.78.2.163>
- Lee, M., Coutts, R., Fielden, J., Hutchinson, M., Richard Lakeman, R., & Mathisen, B. (2021). Occupational stress in university academics in Australia and New Zealand. *Journal of Higher Education Policy and Management*, 44(1), 57–71. <https://doi.org/10.1080/1360080X.2021.1934246>
- Li, J., Chen, Y., Zhang, J., Lv, M., Välimäki, M., Li, Y., Yang, S., Tao, Y., Ye, B., Tan, C., & Zhang, J. (2020). The mediating role of resilience and self-esteem between life events and coping styles among rural left-behind adolescents in China: A cross-sectional study. *Front. Psychiatry*, 11, 1–13. <https://doi.org/10.3389/fpsyt.2020.560556>
- Marôco, J., & Assunção, H. (2020, janeiro 30). Envolvimento e burnout no ensino superior em Portugal. In H. Pereira, S. Monteiro, G. Esgalhado, A. Cunha, & I. Leal (Orgs.). *Atas do 13º Congresso Nacional de Psicologia da Saúde*, Faculdade de Ciências da Saúde. [https://repositorio.ispa.pt/bitstream/10400.12/7542/1/13CongNacSaude\\_399.pdf](https://repositorio.ispa.pt/bitstream/10400.12/7542/1/13CongNacSaude_399.pdf)
- McLafferty, M., Mallett, J., & McCauley, V. (2012). Coping at university: The role of resilience, emotional intelligence, age and gender. *Journal of Quantitative Psychological Research*, 1, 1–6. [https://www.researchgate.net/publication/280920811\\_Coping\\_at\\_university\\_The\\_role\\_of\\_resilience\\_emotional\\_Intelligence\\_age\\_and\\_gender~](https://www.researchgate.net/publication/280920811_Coping_at_university_The_role_of_resilience_emotional_Intelligence_age_and_gender~)
- Molina, E. C. (2021). Docentes resilientes. Elementos centrales en el programa universitario de tutoría. *IE Revista de Investigación Educativa de la REDIECH*, 12, 1–18 [https://doi.org/10.33010/ie\\_rie\\_rediech.v12i0.1115](https://doi.org/10.33010/ie_rie_rediech.v12i0.1115)
- Morgan, J. A. (2021). El análisis de la Resiliencia y el rendimiento académico en los estudiantes universitarios. *Revista Nacional de Administración*, 12(1), e3534. <https://doi.org/10.22458/rna.v12i1.3534>
- Nogueira, M. J. (2017). Saúde mental em estudantes do ensino superior: Fatores protetores e fatores de vulnerabilidade. [Tese de doutoramento]. Universidade de Lisboa. [https://repositorio.ul.pt/bitstream/10451/28877/1/ulsd730773\\_td\\_Maria\\_Nogueira.pdf](https://repositorio.ul.pt/bitstream/10451/28877/1/ulsd730773_td_Maria_Nogueira.pdf)
- Noriega, G., Angulo, B., & Angulo, G. (2015). La resiliencia en la educación, la escuela y la vida. *Perspectivas docentes*, 58(1), 42–48. <https://doi.org/10.19136/pd.a0n58.1199>
- Oliveira, E. N., Vasconcelos, M. I. O., Maciel, J. A. C., Almeida, P. C., Neto, F. R. G. X., Lima, G. F., Melo, F. V. D., Furtado, J. S., Santos, L. A., & Costa, M. S. A. (2022). “Não vou nada bem”: Saúde mental de estudantes universitários no contexto da COVID-19. *Gestão E Desenvolvimento*, 30, 113–135. <https://doi.org/10.34632/gestaoedesenvolvimento.2022.11321>
- Pennington, C. R., Elizabeth, A. B., Linda, K. K., & Lauren, T. B. (2018). Transitioning in higher education: An exploration of psychological and contextual factors affecting student satisfaction. *Journal of Further and Higher Education*, 42(5), 596–607. <https://doi.org/10.1080/0309877X.2017.1302563>
- Piccoli, D. N. (2022). Resiliência, Saúde e Bem-Estar em Estudantes do Ensino Superior Português. [Dissertação de Mestrado em Educação para a Saúde]. Escola Superior de Educação de Coimbra. <https://comum.rcaap.pt/handle/10400.26/42063>
- Piña, K. (2017). Bienestar psicológico y resiliencia en jóvenes universitarios [Tesis de Maestría en Psicología], Universidad Autónoma del Estado de México, Toluca, México. <http://hdl.handle.net/20.500.11799/68666>
- Prado, R., Bastianini, M., Cavalleri, M., Ribeiro, S., Pizi, E., & Marsicano, J. (2017). Avaliação da síndrome de Burnout em professores universitários. *Revista da ABENO*, 17(3), 21–29. <https://doi.org/10.30979/rev.abeno.v17i3.409>
- Reay, D., Ball, S., & David, M. (2002). “It’s taking me a long time, but I’ll get there in the end”: Mature students on access courses and higher education choice. *British Educational Research Journal*, 28(1), 5–19. <https://doi.org/10.1080/01411920120109711>
- Reed, M., Maodzwa, M. T., Ndofirepi, E. S., & Moosa, R. (2019). Insights gained from a comparison of South African and Canadian first-generation students: The impact of resilience and resourcefulness on higher education success. *Compare: A Journal of Comparative and International Education*, 49(6), 964–982. <https://doi.org/10.1080/03057925.2018.1479185>
- Reyes, E. J., Blannin, J., Cohrsen, C., & Mahat, M. (2022). Resilience of higher education academics in the time of 21st century pandemics: A narrative review. *Journal of*



- Higher Education Policy And Management, 44(1), 39–56. <https://doi.org/10.1080/1360080X.2021.1989736>
- Robbins, A., Kaye, E., & Catling, J. C. (2018). Predictors of student resilience in higher education. *Psychology Teaching Review*, 24, 44–52. <https://eric.ed.gov/?id=EJ1180345>
- Sampedro-Mera, M., Mawyin-Cevallos, F., Santana-Sardi, I., Toala-Vera, K., & Santana-Sardi, G. (2021). La resiliencia en la educación universitaria. *Pol. Con.* (Edición núm. 54), 6(2), 312–323. <https://doi.org/10.23857/pc.v6i3.2367>
- Seery, M., Holman, E., Silver, R., & King, L. (2010). Whatever does not kill us: Cumulative lifetime adversity, vulnerability, and resilience. *Journal of Personality and Social Psychology*, 99(6), 1025–1041. <https://doi.org/10.1037/a0021344>
- Sierra-Molina, T. J., & Sevilla-Santo, D. E. (2021). Cómo conforma el profesorado universitario su alta resiliencia? Un estudio de casos. *Revista Electrónica Educare (Educare Electronic Journal)*. 25(3), 1–19. <http://doi.org/10.15359/ree.25-3.16>
- Silva, M. M., Oliveira, J. G., Durso, S. O., & Cunha, J. V. A. (2020, julho, 29–31). Resiliência e desempenho acadêmico: Um estudo com graduandos de contabilidade. [Conference paper]. XX USP International Conference in Accounting (pp. 1–18). [https://www.researchgate.net/publication/342690091\\_Resiliencia\\_e\\_Desempenho\\_Academico\\_um\\_Estudo\\_com\\_Graduandos\\_de\\_Contabilidade](https://www.researchgate.net/publication/342690091_Resiliencia_e_Desempenho_Academico_um_Estudo_com_Graduandos_de_Contabilidade)
- Teixeira, P. C. (2020). Entre a docência e a investigação: Os professores do ensino superior e o burnout. [Dissertação de Mestrado em Economia e Gestão de Recursos Humanos]. Universidade do Porto. <https://repositorio-aberto.up.pt/bitstream/10216/129685/2/426662.pdf>
- Turner, M. M., Scott-Young, C. M., & Holdsworth, S. (2017). Promoting wellbeing at university: The role of resilience for students of the built environment. *Construction Management and Economics*, 35, 707–718, <https://doi.org/10.1080/01446193.2017.1353698>
- Vara, N., Fernandes, N., Queirós, C., & Pimentel, H. (2017). Resiliência e stress em estudantes universitários. In T., Baptista, M. Ricou, F. Rodrigues, D. Neto, T. Espassandim, T., A. Ramos, M. Oliveira, N. Baptista, & T. Almeida (Coords.) *Actas do 3º Congresso da Ordem dos Psicólogos Portugueses* (pp. 569–579). Ordem dos Psicólogos Portugueses. <https://repositorio-aberto.up.pt/handle/10216/111952>
- Xuereb, S. (2015). Academic Resourcefulness, coping strategies and doubting in university undergraduates. *Journal of Further and Higher Education*, 39(2), 205–22. <https://doi.org/10.1080/0309877X.2013.817004>
- Ye, B., Zhao, S., Zeng, Y., Chen, C., & Zhang, Y. (2022). Perceived parental support and college students' depressive symptoms during the COVID-19 pandemic: The mediating roles of emotion regulation strategies and resilience. *Current Psychology*, 42, 20275–20286. <https://doi.org/10.1007/s12144-022-03049-3>
- Yokus, T. (2015). The relation between pre-service music teachers' psychological resilience and academic achievement levels. *Educational Research and Reviews*, 10(14), 1961–1969. <https://doi.org/10.5897/ERR2015.2320>
- Zarotti, N., Povah, C., & Simpson, J. (2020). Mindfulness mediates the relationship between cognitive reappraisal and resilience in higher education students. *Personality and Individual Differences*, 156, 1–5. <https://doi.org/10.1016/j.paid.2019.109795>

## Chapter 4

- Afonso, P. (2020). O impacto da pandemia COVID-19 na saúde mental. *Acta Médica Portuguesa*, 33(5), 351–358. <https://doi.org/10.20344/amp.13877>
- Agrela, S. P. (2020). Criatividade e resiliência no ensino superior [Dissertação de mestrado, Universidade da Madeira]. DigitUMa. <http://hdl.handle.net/10400.13/3104>
- Alivernini, F., Manganelli, S., Lucidi, F., Di Leo, I., & Cavicchiolo, E. (2017). Studenti svantaggiati e fattori di promozione della resilienza. *ECPS Journal*, 16.
- Álvarez, J. (2017). Mindfulness en estudiantes universitarios y su relación con estrés, ansiedad, depresión, resiliencia y satisfacción con la vida [Tese de doutorado, Universidad de Huelva]. Repositorio Institucional de la Universidad de Huelva. <http://rabida.uhu.es/dspace/handle/10272/14785>
- Åvitsland, A., Leibinger, E., Haugen, T., et al. (2020). The



- association between physical fitness and mental health in Norwegian adolescents. *BMC Public Health*, 20, 776. <https://doi.org/10.1186/s12889-020-08936-7>
- Blanuša, J., Knežević, J., & Krstić, D. (2018). Primena intervencija pozitivne psihologije za povećanje psihološkog blagostanja studenata. *Horizonti*, 10, 128-135. [https://www.researchgate.net/publication/336445748\\_Primena\\_intervencija\\_pozitivne\\_psihologije\\_zapovecanje\\_psihologskog\\_blagostanja\\_studenata](https://www.researchgate.net/publication/336445748_Primena_intervencija_pozitivne_psihologije_zapovecanje_psihologskog_blagostanja_studenata)
- Brando-Garrido, C., Montes-Hidalgo, J., Limonero, J. T., Gómez-Romero, M. J., & Tomás-Sábado, J. (2020). Relación de la procrastinación académica con la competencia percibida, el afrontamiento, la autoestima y la autoeficacia en estudiantes de enfermería. *Enfermería Clínica*, 30(6), 398-403. <https://doi.org/10.1016/j.enfcli.2019.07.012>
- Bretón, S., Zurita-Ortega, F., & Cepero-González, M. (2016). La resiliencia como factor determinante en el deportivo. *Revisión Bibliográfica. E-Balónmano. Revista de Ciencias del Deporte*, 12(2), 79-88. <http://ojs.e-balonmano.com/index.php/revista/article/view/351/331>.
- Brewer, M., van Kessel, G., Sanderson, B., Naumann, F., Lane, M., Reubenson, A., & Carter, A. (2019). Resilience in higher education students: A scoping review. *Higher Education Research & Development*, 38(6), 1105-1120. <https://doi.org/10.1080/07294360.2019.1626810>
- Burba, G. (2020). Resilienza e modelli culturali. Un costrutto ambivalente. *Giovani e comunità locali*, 3(1), 2020. <https://www.giovaniecomunitalocali.it/resilienza-e-modelli-culturali-un-costrutto-ambivalente/>
- Caamaño, A. (2016). Análisis del clima familiar y resiliencia en una muestra de estudiantes universitarios de primer curso [Tese de mestrado, Universidad de Santiago de Compostela]. Minerva. Repositorio Institucional Da USC. <https://minerva.usc.es/xmlui/handle/10347/15237>
- Caruana, V., Ploner, J., Sue, C., & Stevenson, J. (2014). Promoting students' resilient thinking in diverse higher education learning environments: Review report commissioned by the HEA Subject Centre for Anthropology, Sociology and Politics (C-SAP). Higher Education Academy.
- Castañeda-García, P. J., Alejo-Trujillo, T., Cota-Bedoya, M. R., García-Torres, M. F., & Cruz-Santana, V. (2022). Análisis cuantitativo de resiliencia y apoyo social en estudiantes universitarios de primero y último curso de Psicología. *Revista Iberoamericana de Psicología*, 15(1), 79-90. <https://doi.org/10.33881/2027-1786.rip.15108>
- Cejudo, J., López-Delgado, M., & Rubio, M. J. (2016). Inteligencia emocional y resiliencia: Su influencia en la satisfacción con la vida en estudiantes universitarios. *Anuario de Psicología*, 46(2), 51-57. <https://www.redalyc.org/articulo.oa?id=97049408001>
- Cepero, M. (Marzo, 2023). Proyecto RESUPERES "La resiliencia en la Educación Superior. Superando Adversidades" (Conferencia invitada )2023, VII Congreso Internacional en investigación y Didáctica de la Educación Física (Addijes). Facultad de Ciencias de la Educación de Granada. <https://www.youtubeeducation.com/watch?v=l8CFNn3nH0c>
- Cepero, M. (2024, diciembre 5). Propuesta de intervención para el desarrollo de la resiliencia en la Educación Superior. Superación de adversidades. RESUPERES. "Importancia del Área de la literatura en el desarrollo de la resiliencia". [Report presented at conference Alice Friendship Over the World and in NaplesChristmas]. Wonders | One-day International Conference, International Research Group of Children's Literature: Letture per la formazione interculturale e pedagogica, Napoli.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24(4), 385-396. <https://doi.org/10.2307/2136404>
- Connor, K. M., & Davidson, J. R. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*, 18(2), 76-82. <https://doi.org/10.1002/da.10113>
- Corbi, E., Musello, M., & Sirignano, F. M. (Eds.). (2017). I professionisti delle risorse umane: Un'esperienza di alta formazione dell'Università Suor Orsola Benincasa. Suor Orsola Benincasa University Press.
- Corbi, E., Musello, M., & Sirignano, F. M. (Eds.). (2018). Risorse umane e nuovi scenari formativi: Pedagogie, didattiche ed esperienze aziendali. Suor Orsola Benincasa University Press.
- Corbi, E., Musello, M., & Sirignano, F. M. (Eds.). (2021).

- Formazione Lifelong Learning e Risorse Umane: Esperienze didattiche e modelli pedagogici. Suor Orsola Benincasa University Press.
- Corbi, E., Musello, M., & Sirignano, F. M. (Eds.). (2022). *Pedagogia e Risorse Umane: Nuovi scenari nell'era post Covid*. Suor Orsola Benincasa University Press.
- Cyrułnik, B., & Malaguti, E. (Eds.). (2015). *Costruire la resilienza: La riorganizzazione positiva della vita e la creazione di legami significativi*. Erickson.
- d'Alessandro, L. (2020). Cronache di Ateneo ai tempi del COVID. In *Annali. Università degli Studi Suor Orsola Benincasa* (pp. 358–371). Suor Orsola Benincasa University Press.
- Díaz, C. C., Serrano, M. A. A., Medina, E. B., García, E. M., & Salvador, A. M. (2021). Resiliencia en estudiantes universitarios del Grado en Enfermería de los campus universitarios de Granada y Ceuta. In *Transformación universitaria. Retos y oportunidades* (pp. 611–619). Ediciones Universidad de Salamanca.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71–75. [http://doi.org/10.1207/s15327752jpa4901\\_13](http://doi.org/10.1207/s15327752jpa4901_13)
- DigiPsyRes (n.d.). DigiPsyRes. Retrieved October 17, 2022, from <https://digipsyres.kg.ac.rs/>
- Dimitrijević, B., & Randelović, D. (2012). Aggressiveness and susceptibility to stress in Serbian students from University of Nis and University of Pristina-Kosovska Mitrovica. *Svit Socialnih Komunikacij*, 7, 97–104. [https://www.researchgate.net/publication/354151147\\_AGGRESSIVENESS\\_DEPRESSION\\_AND\\_ACADEMIC\\_ACHIEVEMENT\\_OF\\_STUDENTS](https://www.researchgate.net/publication/354151147_AGGRESSIVENESS_DEPRESSION_AND_ACADEMIC_ACHIEVEMENT_OF_STUDENTS)
- Fazlagić, A., & Rakić-Bajić, G. (2011). Stav studenata prema psihoterapiji. *PONS Medicinski Časopis*, 48–52. <https://scindeks.ceon.rs/article.aspx?artid=1820-2411102048F>
- Fernández-García, R., Zurita-Ortega, F., Melguizo-Ibáñez, E., & Ubago-Jiménez, J. L. (2024). Physical activity as a mediator of stress, anxiety and depression on well-being in physical education teachers. *Journal of Human Sport and Exercise*, 19(1), 117–129. <https://doi.org/10.14198/jhse.2024.191.10>
- Ferradás Canedo, M. M., & Freire Rodríguez, C. (2020). Relaciones positivas con otras personas y autoeficacia en estudiantes universitarios. *Revista INFAD De Psicología. International Journal of Developmental and Educational Psychology*, 1(1), 371–378. <https://doi.org/10.17060/ijodaep.2020.n1.v1.1794>
- Ferreira, T., Ribeiro, J. L., & Guerreiro, M. D. (2004). Estudo de adaptação da escala de satisfação com suporte social em doentes submetidos a revascularização do miocárdio. *Revista Referência*, 11, 11–16. <https://repositorio-aberto.up.pt/bitstream/10216/57248/2/82685.pdf>
- Finez, M. J., & Morán, C. (2017). Resilience and core self-evaluations: a comparative study in adolescents and young. *Psychology, Society & Education*, 9(3), 347–356. <https://doi.org/10.25115/psye.v9i3.857>
- Finez, J., & Astorga, M. C. (2015). La resiliencia y su relación con salud y ansiedad en estudiantes españoles. *International Journal of Developmental and Educational Psychology*, 1(1), 409–416. <http://www.redalyc.org/articulo.oa?id=349851779041>
- Francisco, M. (2021). Contributos da personalidade e da resiliência no bem-estar psicológico de estudantes do ensino superior [Dissertação de mestrado, Universidade de Coimbra]. Repositório Científico da Universidade de Coimbra. <https://hdl.handle.net/10316/96504>
- Frauenfelder, E., & Sirignano, F. M. (2013). La formazione delle “human resources”. *Traiettorie pedagogiche ed orizzonti educativi*. Pensa Multimedia.
- García, Y., Vázquez-Pérez, R., & Pastor-Seller, E. (2022). Resiliencia académica en tiempos de pandemia por COVID-19: las prácticas curriculares en los Grados de Trabajo Social de las universidades españolas. *Research in Education and Learning Innovation Archives*, 29, 73–82. <https://dx.doi.org/210.7203/realia.29.24134>
- Genc, A., Pekić, J., & Matanov, J. (2013). Mehanizmi suočavanja sa stresom, optimizam i generalna samoeфикаsnost kao prediktori psihofizičkog zdravlja. *Primenjena Psihologija*, 6(2), 155–174. <https://doi.org/10.19090/pp.2013.2.155-174>
- Gonçalves, J. (2021). Perceção de forças familiares por estudantes do ensino superior. Impacto da resiliência individual, variáveis sociodemográficas, familiares e respostas ao confinamento (COVID-19) [Dissertação de Mestrado, Universidade de Coimbra]. Repositório Científico da Universidade de Coimbra. <https://estudogeral.uc.pt/handle/10316/96464>

- González, G., Zurita, F., Sanromán, S., & Puertas, P. (2021). Relación de efecto del Síndrome de Burnout y resiliencia con factores implícitos en la profesión docente: una revisión sistemática. *Revista de Educación*, 394, 271–296. ISSN 0034–8082. <https://doi.org/10.4438/1988-592X-RE-2021-394-508>
- Grøtan, K., Sund, E. R., & Bjerkeset, O. (2019). Mental health, academic self-efficacy, and study progress among undergraduates: The SHoT study, Norway. *Frontiers in Psychology*, 10, 45. <https://doi.org/10.3389/fpsyg.2019.00045>
- Gutiérrez-Lozano, C., García-Martínez, I., Augusto-Landa, J., & León, S. P. (2022). Impact of confinement on coping strategies and psychosocial factors among university students. *European Journal of Investigation in Health, Psychology and Education*, 12(8), 933. <https://doi.org/10.3390/ejihpe12080067>
- Hervás-Torres, M., Miñaca-Laprida, M. I., Fernández-Martin, F. D., & Arco-Tirado, J. L. (2022). Melhorando o engajamento acadêmico através de mentoria e serviço de aprendizagem. *Revista Eletrônica Educare*, 26(2), 570–588. <http://dx.doi.org/10.15359/ree.26-2.30>
- Hurst, B., Wallace, R., & Nixon, S. B. (2013). The impact of social interaction on student learning. *Reading Horizons: A Journal of Literacy and Language Arts*, 52(4). [https://scholarworks.wmich.edu/reading\\_horizons/vol52/iss4/5](https://scholarworks.wmich.edu/reading_horizons/vol52/iss4/5)
- Hurtubia-Toro, V., Onsès, J., & Forés-Miravalles, A. (2022). Quan la resiliència es va fer postal. *REIRE Revista d'Innovació i Recerca En Educació*, 15(2), 1–18. <https://doi.org/10.1344/reire.36980>
- Isakov Burgund, A., Marković, V., & Penavić Polić, S. (2020). Refleksije studenata socijalne politike i socijalnog rada u periodu vanrednog stanja izazvanog pandemijom Kovid-19 u Srbiji. *Godisnjak Fakultet Politickih Nauka*, 14(24), 163–184. [https://openurl.ebsco.com/EPDB%3Agcd%3A2%3A7843522/detailiv2?sid=ebsco%3Aplink%3Ascholar&id=ebsco%3Agcd%3A149302082&cl=c&link\\_origin=www.google.com](https://openurl.ebsco.com/EPDB%3Agcd%3A2%3A7843522/detailiv2?sid=ebsco%3Aplink%3Ascholar&id=ebsco%3Agcd%3A149302082&cl=c&link_origin=www.google.com)
- Jardim, J., Pereira, A., & Bártolo, A. (2021). Development and Psychometric Properties of a Scale to Measure Resilience among Portuguese University Students: Resilience Scale-10. *Education Sciences*, 11(2), 61. <https://doi.org/10.3390/educsci11020061>
- Jerez, P., & Cabrera-Fernández, A. (2021). Clima motivacional percibido en el deporte y su asociación con los niveles de resiliencia en estudiantes universitarios. *Journal of Sport and Health Research*, 13(3), 505–514. <https://recyt.fecyt.es/index.php/JSHR/article/view/83268>
- Jovanović, V., Molenaar, D., Gavrilov-Jerković, V., & Lazić, M. (2021). Positive Expectancies and Subjective Well-Being: A Prospective Study Among Undergraduates in Serbia. *Journal of Happiness Studies*, 22(3), 1239–1258. <https://doi.org/10.1007/S10902-020-00271-3/METRICS>
- Jovanović, V., & Novović, Z. (2008). Kratka skala subjektivnog blagostanja – novi instrument za procenu pozitivnog mentalnog zdravlja. *Primenjena Psihologija*, 1(1–2), 77–94. <https://doi.org/10.19090/pp.2008.1-2.77-94>
- Lazarević, L. B., Lazarević, D., & Orlić, A. (2017). Predictors of students' self-esteem: the importance of body self-perception and exercise 1. *Psihološka Istraživanja*, 2. <http://doi.org/10.5937/PsIstra1702239L>
- Lietz, F., Piumatti, G., Mosso, C., Marinkovic, J., & Bjegovic-Mikanovic, V. (2018). Testing multidimensional well-being among university community samples in Italy and Serbia. *Health Promotion International*, 33(2), 288–298. <https://doi.org/10.1093/HEAPRO/DAW082>
- Lim, M. S. C., Cappa, C., & Patton, G. C. (2017). Subjective well-being among young people in five Eastern European countries. *Global Mental Health*, 4, 1–10. <https://doi.org/10.1017/GMH.2017.8>
- López-Aguilar, D., Álvarez-Pérez, P. R., González-Ramos, J. A., & Garcés-Delgado, Y. (2023). The development of resilient behaviours in the fight against university academic dropout. *Educación XX1*, 26(2), 91–116. <https://doi.org/10.5944/educxx1.35891>
- López-Cortón, A. (2015). Factores predictores de procesos resilientes en jóvenes universitarios. [Tesis doctoral, Universidad de A Coruña]. Repositorio Universidad Da Coruña. <https://ruc.udc.es/dspace/handle/2183/15355>
- Losa-Iglesias, M. E., Calvo-Lobo, C., Jiménez-Fernández, R., Rodríguez-Sanz, D., Corral-Liria, I., Casado-Hernández, I., & Becerro-de-Bengoa-Vallejo,

- R. (2023). Comparison between virtual and hybrid education for psychological factors and academic stress in freshman nursing students: a case-control study. *BMC Nursing*, 22(1), 300. <https://doi.org/10.1186/s12912-023-01477-5>
- Lozano-Díaz, A., Fernández-Prados, J. S., Figueredo Canosa, V., & Martínez Martínez, A. M. (2020). Impactos del confinamiento por el COVID-19 entre universitarios: Satisfacción Vital, Resiliencia y Capital Social Online. *International Journal of Sociology of Education*, 8(4), 79-104. <https://doi.org/10.17583/rise.2020.5925>
- Ma, X., Yue, Z., Gong, Z., & Zhang, H. (2020). The effect of diaphragmatic breathing on stress and anxiety: A meta-analytic review. *Journal of Behavioral Therapy*, 48(6), 754-762. <https://doi.org/10.1016/j.beth.2020.03.002>
- Madariaga, J. M., Axpe, I., & Novella, I. (2016). Resiliencia y funcionalidad familiar. In Cyrulnik, B. & Anaut, M. (Coords.). *¿Por qué la resiliencia? Lo que nos permite reanudar la vida* (pp. 74-81). Gedisa Editorial.
- Malaguti, E. (2005). *Educarsi alla resilienza. Come affrontare crisi e difficoltà e migliorarsi*. Erickson, Trento.
- Malaguti, E. (2020). *Educarsi in tempi di crisi. Resiliencia, pedagogia speciale, processi inclusivi e intersezioni*. Aras Edizioni, Fano.
- Malonda, Y. S., & Módenes, M. P. F. (2018). Resiliencia, ansiedad y sentido de la vida en estudiantes universitarios. *Cauriensa*, 13, 87-106. <https://www.cauriensa.es/index.php/cauriensa/article/view/XIII-EMO5/376>
- Manetti, M., Zunino, A., Frattini, L., & Zini, E. (2010). *Processi di resilienza culturale: confronto tra modelli euristici*. Università degli Studi di Genova, Dipartimento di Scienze Antropologiche. [http://www.aipass.org/paper/manetti.pdf?origin=publication\\_detail](http://www.aipass.org/paper/manetti.pdf?origin=publication_detail)
- Mansfield, F., Beltman, S., Bradley, T., & Weatherby-Fell, N. (2016). Building resilience in teacher education: An evidenced informed framework. *Teaching and Teacher Education*, 54, 77-87. <https://doi.org/10.1016/j.tate.2015.11.016>
- Mayor-Silva, L., Romero-Saldaña, M., Moreno-Pimentel, A., Álvarez-Melcón, A. C., Molina-Luque, R., & Meneses-Monroy, A. (2022). Psychological impact during confinement by COVID-19 on health sciences university students-A prospective, longitudinal, and comparative study. *International Journal of Environmental Research and Public Health*, 19(16), 9925. <https://doi.org/10.3390/ijerph19169925>
- Melnyk, B. M., Orta, R., & García, C. (2022). Building resilience in healthcare workers through breath training during COVID-19. *Military Medicine*, 187(3), e508-e515. <https://doi.org/10.1093/milmed/usab555>
- Melguizo, E., González, G., Zurita, F., & Ortega, J. L. (2023). Burnout, estrés y resiliencia en el proceso de oposición a cuerpos educativos. *Revista de educación*, 40, 31-54. <https://doi.org/10.4438/1988-592X-RE-2023-402-594>
- Miladinović, P., & Nedić, A. (2020). Kratak sadržaj. *Engrami*, 2, 23-41. <https://doi.org/10.5937/engrami41-30167>
- Milošević, N., & Ševkušić, S. (2005). Samopoštovanje i školsko postignuće učenika. *Zbornik Instituta Za Pedagoška Istraživanja*, 38(1), 70-87.
- Montes-Hidalgo, J., & Tomás-Sábado, J. (2016). Autoestima, resiliencia, locus de control y riesgo suicida en estudiantes de enfermería. *Enfermería Clínica*, 26(3), 188-193. <https://doi.org/10.1016/j.enfcli.2016.03.002>
- Morales, F. M. (2020). Estrategias de afrontamiento, empatía y tendencia prosocial en universitarios. *European Journal of Education and Psychology*, 13(2), 187-200. <https://doi.org/10.30552/ejep.v13i2.360>
- Moreno, R., & Saiz, C. (2014). Factores resilientes en los futuros maestros. *International Journal of Development and Educational Psychology*, 1(3), 475-488. [https://dehesa.unex.es:8443/bitstream/10662/1854/1/0214-9877\\_2014\\_1\\_3\\_475.pdf](https://dehesa.unex.es:8443/bitstream/10662/1854/1/0214-9877_2014_1_3_475.pdf)
- Oliveira, M., & Machado, T. S. (2011). Tradução e validação da Escala de Resiliência para Estudantes do Ensino Superior. *Análise Psicológica*, 4(29), 579-591. <https://doi.org/10.14417/ap.105>
- Organización para la Cooperación y el Desarrollo Económicos [OCDE]. (2020). *Lessons for Education from COVID-19: A Policy Maker's Handbook for More Resilient Systems*. OECD Publishing. <https://doi.org/10.1787/0a530888-en>
- Ovejero, M. M. (2014). Evaluación de fortalezas humanas en estudiantes de la universidad complutense de Madrid y diferencias de sexo: relación

- con salud, resiliencia y rendimiento académico. [Tesis doctoral, Universidad Complutense de Madrid]. Portal de Investigación. <https://produccioncientifica.ucm.es/documentos/5d1df62b29995204f76636ed>
- Panić, D., Radojković, D., & Hadži Pešić, M. (2013). Personality traits, coping styles and psychosomatic tendencies in students. *Teme – Časopis Za Društvene Nauke*, 37(2), 735–751. <https://www.ceeol.com/search/article-detail?id=160622>
- Pavićević, O. (2015). Kulturna dimenzija koncepta otpornosti. *Zbornik Instituta Za Kriminološka i Sociološka Istraživanja*, XXXIV(2), 91–112. [https://www.iksi.ac.rs/zbornik\\_arhiva/zbornik\\_iksi...](https://www.iksi.ac.rs/zbornik_arhiva/zbornik_iksi...)
- Piccoli, D. (2022). Resiliência, saúde e bem-estar em estudantes do ensino superior português. [Dissertação Mestrado em Educação para a Saúde, Escola Superior de Educação e Escola Superior de Tecnologia da Saúde do Instituto Politécnico de Coimbra]. Repositório Comum. <https://comum.rcaap.pt/handle/10400.26/42063>
- Pocinho, M., Garcês, S., Jesus, S. N., Viseu, J., & Miguel-Tobal, J. J. (2019, junho 27–29). Psychometric study of the short form of the creative personality scale [Poster presentation]. In M. Pocinho, D. Lopes, D. L. Rodrigues, S. Garcês, & E. Câmara (Eds.). *X Simpósio Nacional de Investigação em Psicologia* (p. 89). Funchal, Madeira. <https://doi.org/10.13140/RG.2.2.13080.34566>
- Project, T. C. (n.d.). Helping children develop resilience, manage stress and strong emotions using the '90 Second Rule' [Document]. ChildHub – Child Protection Hub. <https://childhub.org/en/child-protection-multimedia-resources/helping-children-develop-resilience-manage-stress-and-strong>
- Quevedo-Aguado, M. P., & Benavente, M. H. (2018). Análisis de variables de personalidad, bienestar psicológico y pensamiento constructivo en estudiantes de Ciencias de la Salud. *European Journal of Health Research*, 4(1), 5–18. <https://doi.org/10.30552/ejhr.v4i1.86>
- Ramos-Martín, J., Pérez-Berlanga, J. M., Oliver, J., & Moreno-Küstner, B. (2023). Non-lethal suicidal behavior in university students of Spain during COVID-19. *Frontiers in psychiatry*, 14, 1155171. <https://doi.org/10.3389/fpsy.2023.1155171>
- Randelović, D. J., Mitrović, M. Z., & Todorović, D. L. (2015). Psychological counseling center for students: need, desire, necessity. *Zbornik Radova Filozofskog Fakulteta u Prištini*, 45(3), 143–166. <https://doi.org/10.5937/ZRFFP45-8663>
- Ravina Ripoll, R., Gálvez Albarracín, E. J., & Prieto Pulido, R. (2022). Efecto de la felicidad personal sobre la felicidad como estudiante de administración. *Desarrollo Gerencial*, 14(1), 1–22. <https://doi.org/10.17081/dege.14.1.5091>
- Reche, C., Martínez-Rodríguez, A., Gómez, M., & Hernández-Morante, J. J. (2020b). Análisis entre deportes de combate y otras modalidades deportivas en resiliencia y dependencia. *Actividad Física y Deporte: Ciencia y Profesión*, 31(33), 67–67. <https://dialnet.unirioja.es/servlet/articulo?codigo=7724241>
- Reche, C., Martínez-Rodríguez, A., & Ortín, F. (2020a). Caracterización del deportista resiliente y dependiente del ejercicio físico. *Cultura, Ciencia y Deporte*, 15(43), 17–21. <https://doi.org/10.12800/ccd.v15i43.1395>
- Reche, C., Cepero, M., & Rojas, F. J. (2013). Consideraciones en el entrenamiento de habilidades psicológicas en esgrima. *Cuadernos de Psicología del Deporte*, 13(2). [https://scielo.isciii.es/scielo.php?script=sci\\_arttext&pid=S1578-84232013000200009](https://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1578-84232013000200009)
- Robledo-Martín, J., Acea-López, L., Pérez-Urdiales, I., Alcolea-Cosin, M. T., Bellon, F., Oter-Quintana, C., Blanco-Blanco, J., Pastor-Bravo, M. d. M., Rubinat-Arnaldo, E., & Briones-Vozmediano, E. (2023). From students to nurses under pressure: Nursing students' entry into employment during the first COVID-19 wave. *Journal of Clinical Nursing*, 32, 7209–7226. <https://doi.org/10.1111/jocn.16800>
- Robotham, D. (2008). Stress among higher education students: towards a research agenda. *High Education*, 56, 735–746. <https://doi.org/10.1007/s10734-008-9137-1>
- Romero-González, B., Mariño-Narváez, C., Montero-López, E., Puertas-González, J. A., Robles-Ortega, H., Peralta-Ramírez, M. I., & García-León, M. A. (2021). Síntomas psicopatológicos, estrés y resiliencia en estudiantes universitarios antes y durante la pandemia por la COVID-19. En *Nuevos retos educativos en la enseñanza superior frente al desafío COVID-19* (pp. 123–131). Octaedro.
- Rosenberg, M. (n.d.). *Society and the adolescent self-image*. Princeton University Press.



- Sakač, M., & Marić, M. (2018). Psihološke karaktersitike kao prediktori subjektivnog blagostanja budućih učitelja i vaspitača. *Zbornik Instituta Za Pedagoška Istraživanja*, 50(1), 93–112.
- Salvador, C., Cayo, F., López, C., & Salvador, J. A. (2014). Estudio de la relación entre la satisfacción vital y la resiliencia en una muestra española y ecuatoriana. In M. Orozco, & K. Caballero (Eds.). *Psicología Latinoamericana; experiencias, desafíos y compromisos sociales* (pp. 607–615). ISBN: 978-607-9645-41-0.
- San Román-Mata, S., Martínez, A., Zurita, F., Chacón, R., Puertas, P., & González, G. (2019). Capacidad de resiliencia según tendencia religiosa y género en universitarios. *Revista electrónica de investigación educativa*, 21, e15, 1–11. <https://doi.org/10.24320/redie.2019.21.e15.2016>
- Sánchez, A. M., & Ortín, F. J. (2022). Relación entre resiliencia y rendimiento en deportistas. *Revisión sistemática. Revista de Psicología Aplicada al Deporte y al Ejercicio Físico*, 6(2). <https://doi.org/10.5093/rpadef2021a16>
- Sanchez-De Miguel, M., Orkaizagirre-Gomara, A., Izagirre-Otaegi, A., Badiola, I., Ortiz de Elguea-Díaz, F. J., Gomez-Gastiasoro, A., Ferriz-Valero, A., & Goudas, M. (2023). Association among university students' motivation, resilience, perceived competence, and classroom climate from the perspective of self-determination theory. *Education Sciences*, 13(2), 147. <https://doi.org/10.3390/educsci13020147>
- Santerini, M. (2017). *Da stranieri a cittadini. Educazione interculturale e mondo globale*. Mondadori, Milano.
- Save the Children. (2022, diciembre 27). Save the children advierte de que las medidas de aislamiento social por la covid-19 pueden provocar en los niños y niñas trastornos psicológicos permanentes como la depresión. <https://www.savethechildren.es/notasprensa/save-children-advierte>
- Selimović, A., Tomić Selimović, L., Emić, E., & Husarić, M. (2019). Samopoštovanje i prilagodba na studij: da li studenti višeg nivoa samopoštovanja imaju bolju emocionalnu, socijalnu i akademsku prilagodbu? *Primenjena Psihologija*, 12(3), 263–281. <https://doi.org/10.19090/pp.2019.3.263-281>
- Sevil, J., Práxedes, A., Zaragoza, J., del Villar, F., & García-González, L. (2017). Barreras percibidas para la práctica de actividad física en estudiantes universitarios. *Diferencias por género y niveles de actividad física. Universitas Psychologica*, 16(4). Pontificia Universidad Javeriana, Colombia. <http://www.redalyc.org/articulo.oa?id=64753569027> <https://dx.doi.org/10.11144/Javeriana.upsy16-4.bppa>
- Sirignano, F. M., & Perillo, P. (Eds.). (2019). *La scuola delle culture. Riflessioni pedagogiche situate*. Pensa, Lecce.
- Sirignano, F. M. (2020). Pedagogia delle emergenze educative e lifelong learning nel contesto della crisi globale. Il modello dell'Alta formazione dell'Università degli Studi Suor Orsola Benincasa. In *Annali. Università degli Studi Suor Orsola Benincasa* (pp. 471–486). Suor Orsola Benincasa University Press.
- Sirignano, F. M., & Maddalena, S. (Eds.). (2021). *Come schegge di cometa Il formatore autobiografico: spunti e coordinate pedagogiche per l'insegnamento narrativo*. Suor Orsola Benincasa University Press.
- Sivertsen, B., Knudsen, A. K. S., Kirkøen, B., Skogen, J. C., Lagerstrøm, B. O., Lønning, K. J., Kessler, R. C., & Reneflot, A. (2023). Prevalencia de trastornos mentales entre estudiantes universitarios noruegos: Un análisis transversal basado en la población. *The Lancet Regional Health*, 100732. <https://doi.org/10.1016/j.lanepe.2023.100732>
- Sousa, C. S. (2016). La educación para la resiliencia en el alumnado de la periferia de la Europa del Sur. *Civitas educationis. Education, Politics and Cultures*, 5(1), 83–100. <https://universitypress.unisob.na.it/ojs/index.php/civitaseducationis/article/view/272/739>
- Suárez, C., & Marrero, R. J. (2020). Intervención positiva multicomponente a través del correo electrónico para promover el bienestar en estudiantes universitarios. *Psicología Conductual*, 28(3), 375–392. [https://www.behavioralpsycho.com/wp-content/uploads/2020/12/01.Suarez\\_28-3.pdf](https://www.behavioralpsycho.com/wp-content/uploads/2020/12/01.Suarez_28-3.pdf)
- Sundgot-Borgen, C., Sundgot-Borgen, J., Bratland-Sanda, S., et al. (2021). Apreciación corporal y presión de la apariencia corporal en estudiantes universitarios noruegos comparando estudiantes de ciencias del ejercicio y otros estudiantes. *BMC Salud Pública*, 21, 532. <https://doi.org/10.1186/s12889-021-10550-0>
- Suriá, R. (2015). Redes sociales online y perfiles resilientes en estudiantes universitarios con



- discapacidad. [Tesis doctoral, Universidad de Alicante]. Repositorio Institucional de la Universidad de Alicante. <http://rua.ua.es/dspace/handle/10045/53709>
- Teixeira, A. V. B. (2014). Resiliência e stress em pais de crianças com perturbações do espectro do autismo. [Dissertação de Mestrado em Psicologia da Educação, Universidade do Algarve, Faro]. Sapientia Repositório Científico da UAlg. <http://hdl.handle.net/10400.1/7736>
- Tipismana, O. (2019). Resilience factors and coping as predictors of academic performance of the students in private universities. REICE. Revista Iberoamericana Sobre Calidad, Eficacia y Cambio en Educación, 17(2), 147-185. <https://doi.org/10.15366/reice2019.17.2.008>
- United Nations (2020). The Sustainable Development Goals Report 2020. The-Sustainable-Development-Goals-Report-2020.pdf
- Vaccarelli, A. (2016). Le prove della vita. Promuovere la resilienza nella relazione educativa. FrancoAngeli, Milano.
- Valverde-Janer, M., Ortega-Caballero, M., Ortega-Caballero, I., Ortega-Caballero, A., & Segura-Robles, A. (2023). Study of Factors Associated with the Development of Emotional Intelligence and Resilience in University Students. Education Sciences, 13, 255. <https://doi.org/10.3390/educsci13030255>
- Vara, N., Pimentel, M. H., Fernandes, A., & Queirós, C. (2018, janeiro 24-27). Resiliência e satisfação com o suporte social em estudantes do ensino superior [Paper presentation]. In C. Ramos, A. Ferreira-Valente, C. C. Tomás, C. Damião, F. A. Teplitzky, & R. Rosas (Eds.), Livro de Resumos do 12.º Congresso Nacional de Psicologia da Saúde (p. 115). Lisboa. <https://bibliotecadigital.ipb.pt/handle/10198/20984>
- Vázquez, C., & Risso, A. (2022). Autoconcepto del alumnado universitario. Revista de Estudios e Investigación en Psicología y Educación, 9, 220-232. <https://doi.org/10.17979/reipe.2022.9.0.8905>
- Villani, N. (2020). La didattica all'Unisob al tempo del Coronavirus. Un esempio organizzativo. In Annali. Università degli Studi Suor Orsola Benincasa (pp. 488-502). Suor Orsola Benincasa University Press. <https://universitypress.unisob.na.it/ojs/index.php/annali/article/view/1295>
- Vizioso-Gómez, C. (2019). Resiliencia, optimismo y estrategias de afrontamiento en estudiantes de Ciencias de la Educación. Psychology, Society, & Education, 11(3), 367-377. <https://doi.org/10.25115/psye.v10i1.2280>
- Vizioso-Gómez, C., & Arias-Gundín, O. (2018). Resiliencia, optimismo y burnout académico en estudiantes universitarios. European Journal of Education and Psychology, 11(1), 47-59. <https://doi.org/10.30552/ejep.v11i1.185>
- Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the resilience scale. Journal of Nursing Measurement, 1, 165-178. <https://typeset.io/pdf/development-and-psychometric-evaluation-of-the-resilience-2omx5awxo4.pdf>
- Yuste-Hidalgo, F., Rojas-Cepero, I., Chacón-Borrego, F., & Cepero-González, M. (2021). Intervención para la promoción de resiliencia en docentes y estudiantes universitarios: fundamentación y protocolo de estudio del Proyecto RESUPERES. En O. Buzón y C. Romero (Eds.), Metodologías activas con TIC en la educación del siglo XXI (pp. 2615-2644). Dykin.
- Zurita, F., Castro, M., Linares, M., & Chacón, R. (2017). Resiliencia, un elemento de prevención en actividad física. Sportis Sci J, 3(1), 50-62. <https://dx.doi.org/10.17979/sportis.2017.3.1.1726>

## Chapter 5

- Águila, C. (2020). Mindfulness e investigación psicológica positivista: críticas y alternativas. Psychology, Society, & Education, 12(1), 57-69. <https://doi.org/10.25115/psye.v0i0.2159>
- Aguilar, E. (2018). Onward: Cultivating emotional resilience in educators. Jossey-bass.
- Alheit, P. (2018). Biographical learning: Within the lifelong learning discourse. In K. Illeris (Ed.), Contemporary theories of learning: Learning theorists. ..in their own words (pp.153-165). Routledge.
- Alheit, P. (2022). "Biographical Learning" reloaded. Theoretical grounding of a challenging approach. Adult Education Critical Issues, 2(1), 7-19. <https://doi.org/10.12681/aeci.30008>
- Álvarez, J. (2017). Mindfulness en estudiantes universitarios y su relación con estrés, ansiedad,

- depresión, resiliencia y satisfacción con la vida. [Tesis Doctoral. Universidad de Huelva]. Repositório Institucional da Universidade de Huelva. <http://hdl.handle.net/10272/14785>
- Amutio, A., López-González, L., Oriol, X., & Pérez-Escoda, N. (2020). Predicción del rendimiento académico a través de la práctica de relajación-meditación-mindfulness y el desarrollo de competencias emocionales. *Universitas Psychologica*, 19, 4-17. <https://doi.org/10.11144/Javeriana.upsy19.prat>.
- Antoniou, M., Gunasekera, G. M., & Wong, P. C. M. (2013). Foreign language training as cognitive therapy for age-related cognitive decline: a hypothesis for future research. *Neurosci. Biobehav. Rev.*, 37, 2689-2698. <https://doi.org/10.1016/j.neubiorev.2013.09.004>
- Anzaldi, L., A., & Gedhini, A. (1999). Laboratori di formazione per educatori auto(bio)grafi. In D. Demetrio (Ed.), *L'educatore auto(bio)grafo. Il metodo delle storie di vita nelle relazioni d'aiuto* (pp.103-137). Unicopoli.
- Art Therapy Resources. (2022). *Art Therapy GuideBook – Developing Resilience*. <https://arttherapyresources.com.au/shop/developing-resilience/>
- Atakan, M. M., Li, Y., Koşar, Ş. N., Turnagöl, H. H., & Yan, X. (2021). Evidence-Based Effects of High-Intensity Interval Training on Exercise Capacity and Health: A Review with Historical Perspective. *Int J Environ Res Public Health*, 18(13), 7201. <http://dx.doi.org/10.3390/ijerph18137201>
- Ausubel, D.P. (1995). *Educación e procesos cognitivos*. FrancoAngeli.
- Azevedo, L. B., Burges Watson, D., Haighton, C., & Adams, J. (2014). The effect of dance mat exergaming systems on physical activity and health-related outcomes in secondary schools: Results from a natural experiment. *BMC Public Health*, 14(1), 2-13. <https://doi.org/10.1186/1471-2458-14-951>.
- Baena-Extremera, A., Ortiz-Camacho, M. M., Marfil Sánchez, A. M., y Granero-Gallegos, A. (2021). Mejora de los niveles de atención y estrés en los estudiantes a través de un programa de intervención Mindfulness. *Revista de Psicodidáctica*, 26,132-142. <https://doi.org/10.1016/j.psicod.2020.12.002>.
- Baer, R. (2006). *Mindfulness based treatment approaches: Clinician's guide to evidence based and applications*. Elsevier.
- Baer, R. A., Smith, G. T., & Greco, L. A. (2011). Assessing Mindfulness in Children and Adolescents: Development and Validation of the Child and Adolescent Mindfulness Measure (CAMM). *Psychological Assessment*, 23(3), 606-614. <https://doi.org/10.1037/a0022819>
- Bakker, A. B., & Demerouti, E. (2016). Job Demands–Resources Theory: Taking Stock and Looking Forward. *Journal of Occupational Health Psychology*, 22(3), 273-285. <https://doi.org/10.1037/ocp0000056>
- Bakosh, L. S., Snow, R. M., Tobias, J. M., Houlihan, J. L., & Barbosa-Leiker, C. (2016). Maximizing mindful learning: Mindful awareness intervention improves elementary school students' quarterly grades. *Mindfulness*, 7, 59-67. <https://doi.org/10.1007/s12671-015-0387-6>.
- Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. W H Freeman/Times Books/ Henry Holt & Co.
- Banushi, B., Brendle, M., Ragnhildstveit, A., Murphy, T., Moore, C., Egberts, J., & Robison, R. (2023). Breathwork Interventions for Adults with Clinically Diagnosed Anxiety Disorders: A Scoping Review. *Brain Sciences*, 13(2), 256. <https://doi.org/10.3390/brainsci13020256>
- Barton, J., & Pretty, J. (2010). What is the Best Dose of Nature and Green Exercise for Improving Mental Health? A Multi-Study Analysis. *Environ Sci Technol*, 44(10), 3947-55. <https://doi.org/10.1021/es903183r>
- Beart, K., Barnard, A., & Skelhorn, H. (2015). Visual methodologies in mental health. *The Journal of Mental Health Training, Education and Practice*, 10(3), 170-179. <https://doi.org/10.1108/JMHTEP-11-2013-0037>
- Bentley, T.G.K., D'Andrea-Penna, G., Rakic, M., Arce, N., LaFaille, M., Berman, R., & Cooley, K., Sprimont, P. (2023). Breathing Practices for Stress and Anxiety Reduction: Conceptual Framework of Implementation Guidelines Based on a Systematic Review of the Published Literature. *Brain Sci*;13(12):1612. doi: 10.3390/brainsci13121612.
- Berman, K. (2017). Methodologies and methods of change. In K. S. Berman (Ed.), *Finding Voice: A visual arts approach to engaging social change* (pp. 9-19). University Michigan Press. <https://doi.org/10.3998/mpub.9256315>.
- Bharucha, J. J., & Curtis, M. (2008). Affective spectra, synchronization, and motion: Aspects of the emotional

- response to music. *Behavioral and Brain Sciences*, 31(5), 579–579. <https://doi.org/10.1017/S0140525X08005335>
- Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., Segal, Z. V., Abbey, S., Specia, M., Velting, D., & Devins, G. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice*, 11(3), 230–241. <https://doi.org/10.1093/clipsy.bph077>.
- Blumenthal, J. A., Babyak, M. A., Doraiswamy, P. M., Watkins, L., Hoffman, B. M., Barbour, K. A., Herman, S., Craighead, W. E., Brosse, A. L., Waugh, R., Hinderliter, A., & Sherwood, A. (2007). Exercise and pharmacotherapy in the treatment of major depressive disorder. *Psychosomatic Medicine*, 69(7), 587–596. <https://doi.org/10.1097/PSY.0B013E318148C19A>
- Bohn, J., & Hogue, S. (2021). Changing the Game: College Dance Training for Well-Being and Resilience Amidst the COVID-19 Crisis. *Health promotion practice*, 22(2), 163–166. <https://doi.org/10.1177/1524839920963703>.
- Borowski, T. (2021). How dance promotes the development of social and emotional competence. *Arts Education Policy Review*, 124(3), 1–14. <http://dx.doi.org/10.1080/10632913.2021.1961109>
- Borrega-Mouquinho, Y., Sánchez-Gómez, J., Fuentes-García, J. P., Collado-Mateo, D., & Villafaina, S. (2021). Effects of High-Intensity Interval Training and Moderate-Intensity Training on Stress, Depression, Anxiety, and Resilience in Healthy Adults During Coronavirus Disease 2019 Confinement: A Randomized Controlled Trial. *Front Psychol.*, 12, 643069. <http://dx.doi.org/10.3389/fpsyg.2021.643069>
- Brown, J., & Evans, S. (2023). Physical activity and coping skills training for university students: Effects on resilience and mental health. *Journal of Health Promotion*, 38(4), 295–307.
- Brown, K. & Ryan, R. (2003). The benefits of being present: mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84(4), 822–48. <https://doi.org/10.1037/0022-3514.84.4.822>
- Brown, R. P., & Gerbarg, P. L. (2009). Yoga Breathing, Meditation, and Longevity. *Annals of the New York Academy of Sciences*, 1172(1), 54–62. <https://doi.org/10.1111/J.1749-6632.2009.04394.X>
- Brown, R. P., & Gerbarg, P. L. (2020). The neurophysiology of breathing and its impact on emotion, cognition, and health. *Frontiers in Psychology*, 11, 708. <https://doi.org/10.3389/fpsyg.2020.00708>
- Bruner, J.S. (1986). *Actual minds, possible worlds*. Harvard University Press.
- Bruner, J.S. (1990). *Acts of meaning*. Harvard University Press.
- Bruner, J.S. (1996). *The culture of education*. Harvard University Press.
- Bruner, J.S. (2002). *Making stories: Law, literature, life*. Farrar Straus & Giroux.
- Buecker, S., Luhmann, M., Haehner, P., Bühler, J. L., Dapp, L. C., Luciano, E. C., & Orth, U. (2023). The Development of Subjective Well-Being Across the Life Span: A Meta-Analytic Review of Longitudinal Studies. *Journal of Rehabilitation Research and Development*, 60(1), 70–82. <https://psycnet.apa.org/fulltext/2024-05957-002.html>
- Caballero, C., Abello, R., & Palacio, J. (2007). Relación del burnout y el rendimiento académico con la satisfacción frente a los estudios en estudiantes universitarios. *Avances en Psicología Latinoamericana*, 25(2), 98–111. <https://www.redalyc.org/articulo.oa?id=79925207>
- Cambi, F. (2002). *L'autobiografia come metodo formativo*. Laterza.
- Cameron, J. (1992). *The artist's way: A spiritual path to higher creativity*. J.P. Tarcher/Putnam.
- Canales-Lacruz, I., & Rovira, G. (2017). La práctica de la atención plena en estudiantes universitarios. Dificultades y facilidades percibidas. *Retos: nuevas tendencias en educación física, deporte y recreación*, 31, 118–122. <https://doi.org/10.47197/retos.v0i31.49292>
- Cardaciotto, L., Herbert, J. D., Forman, E. M., Moitra, E., & Farrow, V. (2008). The assessment of present-moment awareness and acceptance: The Philadelphia Mindfulness Scale. *Assessment*, 15(2), 204–223. <https://doi.org/10.1177/1073191107311467>.
- Carlson, L. E., & Garland, S. N. (2005). Impact of mindfulness based stress reduction (MBSR) on sleep, mood, stress, and fatigue symptoms in cancer outpatients. *International Journal of Behavioral Medicine*, 12, 278–285. [https://doi.org/10.1207/s15327558ijbm1204\\_9](https://doi.org/10.1207/s15327558ijbm1204_9)

- Carron, A. V., & Hausenblas, H. A. (2006). Group Dynamics in Sport. *Sport Psychologist*, 26(3), 412-434. <https://doi.org/10.1123/tsp.26.3.412>
- Chen, K., Liu, F., Mou, L., Zhao, P., & Guo, L. (2022). How physical exercise impacts academic burnout in college students: The mediating effects of self-efficacy and resilience. *Frontiers in Psychology*, 13, 964169. <https://doi.org/10.3389/FPSYG.2022.964169/BIBTEX>
- Collado, D. (2023). "Yoga para el desarrollo o mejora de la Resiliencia. Proyecto Resuperes" [Workshop]. VII Congreso Internacional en Investigación y Didáctica de la Educación Física, Granada, Spain, <https://sites.google.com/go.ugr.es/congresoaddijes/congresos/vii-congreso-2023>
- Collado, D. (2024). "Yoga para el desarrollo o mejora de la Resiliencia. Proyecto Resuperes" [Workshop]. VIII Congreso Internacional en Investigación y Didáctica de Educación Física, Granada, Spain, <https://sites.google.com/go.ugr.es/congresoaddijes/congresos/viii-congreso-2024/talleres-24>
- Costa, M., Ferreira, C., Bernardo de Oliveira, A., Monteiro-Santos, R., Gama Linhares, D., Ribeiro Dias, E. G., & Borba-Pinheiro, C. J. (2024). Actividad física, ansiedad, estrés y depresión de estudiantes de educación secundaria y superior en instituciones públicas post-pandemia de covid-19 en el norte de Brasil. *Retos*, 52, 76-84. <https://doi.org/10.47197/retos.v52.101697>
- Connolly, M. K., Quin, E., & Redding, E. (2011). Dance 4 your life: Exploring the health and well-being implications of a contemporary dance intervention for female adolescents. *Research in Dance Education*, 12(1), 53-66. <https://doi.org/10.1080/14647893.2011.561306>
- Corbett, S., Farris, M. S., MacQueen, G., & Addington, J. (2021). Pilot aerobic exercise intervention for youth at risk for serious mental illness. *Early intervention in psychiatry*, 15(3), <https://doi.org/10.1111/eip.12977>
- Costa, M., Ferreira, C., Bernardo de Oliveira, A., Monteiro-Santos, R., Gama Linhares, D., Ribeiro Dias, E. G., & Borba-Pinheiro, C. J. (2024). Actividad física, ansiedad, estrés y depresión de estudiantes de educación secundaria y superior en instituciones públicas post-pandemia de covid-19 en el norte de Brasil. *Retos*, 52, 76-84. <https://doi.org/10.47197/retos.v52.101697>
- Craft, L. L., & Perna, F. M. (2004). The benefits of exercise for the clinically depressed. *Primary Care Companion to the Journal of Clinical Psychiatry*, 6(3), 104-111. <https://doi.org/10.4088/pcc.v06n0301>
- Cunningham, M.K. (2012). *Manuale di formazione per interpreti museali*. (Ed. Trans. Marta Brunelli). EUM.
- Cyrulnik, B. (2002). *I brutti anatroccoli. Le paure che ci aiutano a crescere* (E. Nortey translation). Frassinelli. (Original book published 2001).
- Cyrulnik, B. (2007). *Di carne e d'anima. La vulnerabilità come risorsa per crescere felici* (E. Nortey translation). Frassinelli. (Original book published 2006).
- Cyrulnik, B., & Malaguti, E. (Ed.). (2005). *Costruire la resilienza. La riorganizzazione positiva della vita e la creazione di legami significativi*. Erickson.
- Cyrulnik, B. (2018). Resilience: Pain is inevitable, suffering is optional. #AprendemosJuntos 10 dec 2018 . #Welearntogether <https://www.bbvaaprendemosjuntos.com/es>
- Dato, D. (2009). *Pedagogia del lavoro intangibile*. FrancoAngeli.
- Davis, A., Smith, P., Ferguson, M., Stephens, D., & Gianopoulos, I. (2007). Acceptability, benefit and costs of early screening for hearing disability: A study of potential screening tests and models. *Health Technol Assess*, 11(42). <https://doi.org/10.3310/hta11420>
- DeGraves, B.S., Titley, H., Duan, Y., et al. (2024). Workforce resilience supporting staff in managing stress: A coherent breathing intervention for the long-term care workforce. *J Am Geriatr Soc*, 72(3): 753-766. <https://doi.org/10.1111/jgs.18727>
- De la Torre-Luque, A., Díaz-Piedra, C., & Buela-Casal, G. (2017). Effects of preferred relaxing music after acute stress exposure: A randomized controlled trial. *Psychology of Music*, 45(6), 795-813. <https://doi.org/10.1177/0305735617689953>
- De Vibe, M., Solhaug, I., Tyssen, R., Friberg, O., Rosenvinge, J. H., & Sorlie, T. (2013). Mindfulness training for stress management: a randomised controlled study of medical and psychology students. *BMC Medical Education*, 13, 1-14. <https://doi.org/10.1186/1472-6920-13-107>
- Del Rio, M. (2009). Reflexiones sobre la praxis en Arteterapia. *Papeles de Arteterapia y Educación Artística para la Inclusión Social*, 4, 17-22. <https://>

- revistas.ucm.es/index.php/ARTE/article/view/ARTE0909110017A
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499–512. <https://doi.org/10.1037/0021-9010.86.3.499>
- Demetrio, D. (1996). *Raccontarsi. L'autobiografia come cura di sé*. Raffaello Cortina Editore.
- Demetrio, D. (1998). *Pedagogia della memoria: Per se stessi con gli altri*. Meltemi.
- Dewey, J. (1934/1951). *L'arte come esperienza*. La Nuova Italia.
- Dissanayake, E. (1992). *Homo Aestheticus: Where art comes from and why*. University of Washington Press.
- Dominicé, P. (2000). *Learning from our lives: Using educational biographies with adults*. Jossey-Bass.
- Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology* 92(6), 1087–1101. <https://doi.org/10.1037/0022-3514.92.6.1087>
- Dunne, J. (2013). *Toward and understanding of non-dual Mindfulness*. Routledge.
- Dvorakova, K., Kishida, M., Li, J., Elavsky, S., Broderick, P. C., Agrusti, M. R., & Greenberg, M. T. (2017). Promoting healthy transition to college through mindfulness training with first-year college students: Pilot randomized controlled trial. *Journal of American College Health*, 65(4), 259–267. <https://doi.org/10.1080/07448481.2017.1278605>.
- Eerola, T., Friberg, A., & Bresin, R. (2013). Emotional expression in music: contribution, linearity, and additivity of primary musical cues [Original Research]. *Frontiers in Psychology*, 4. <https://doi.org/10.3389/fpsyg.2013.00487>
- Eerola, T., Vuoskoski, J. K., & Kautiainen, H. (2016). Being Moved by Unfamiliar Sad Music Is Associated with High Empathy. *Frontiers in Psychology*, 7, 1176–1176. <https://doi.org/10.3389/fpsyg.2016.01176>
- Eime, R.M., Harvey, J.T., & Charity, M. (2013). The relationship between sport participation and self-reported wellbeing among Australian adults. *International Journal of Behavioral Nutrition and Physical Activity*, 10, 135.
- Elstad, T., Ulleberg, P., Klonteig, S., Hisdal, J., Dyrdal, G. M., & Bjørndal, A. (2020). The effects of yoga on student mental health: a randomised controlled trial. *Health psychology and behavioral medicine*, 8(1), pp.573–586. <https://doi.org/10.1080/21642850.2020.1843466>
- Empathy. (2022). In Merriam-Webster.com. <https://www.merriam-webster.com/dictionary/empathy>
- Erben, M., & Alheit, P. (Ed.), (1998). *Biography and Education: A Reader*. Routledge.
- Ercolano M. (2021b), Musei, pubblico e società. Formare professionalità museali competenti per una proposta educativa di qualità. In S. Polenghi, F. Cereda, P. Zini (Eds.), *La responsabilità della pedagogia nelle trasformazioni dei rapporti sociali*. Storia, linee di ricerca e prospettive (pp. 205–212). Pensa MultiMedia.
- Ercolano, M. (2021a). Il museo come spazio per l'educazione allo sviluppo sostenibile. Un percorso di formazione del Sé attraverso l'arte del ritratto. *Formazione & Insegnamento*, 19(2), 246–254. <https://hdl.handle.net/20.500.12570/23123>
- Ercolano, M. (2022). Educare nei contesti culturali: Quale scenario per i professionisti dell'educazione?. *Pedagogia Oggi*, 20 (2), 102–110. <https://doi.org/10.7346/PO-022022-12>
- Ercolano, M. (2024). Leggere un'opera d'arte attraverso il mito. Percorsi educativi e inclusivi al museo. In Musello, M., Cafagna, V. (Ed.). *Saperi, tecnologia, inclusione. Temi e prospettive della scuola di oggi/2* (pp.87–96). Cafagna.
- Erdner, A., & Magnusson, A. (2010). La fotografia como método de recogida de datos: Ayudar a las personas con enfermedades mentales de larga duración a transmitir su mundo vital. *Perspectivas en la atención psiquiátrica*, 47(3), 145–150. <https://doi.org/10.1111/j.1744-6163.2010.00283.x>
- Erikson, E. H. (1959). *Identity and the life cycle*. International Universities Press.
- Fincham, G.W., Strauss, C., Montero-Marin, J., et al. (2023). Effect of breathwork on stress and mental health: A meta-analysis of randomised-controlled trials. *Sci Rep*, 13, 432. <https://doi.org/10.1038/s41598-022-27247-y>
- Formenti, L. (1998). *La formazione autobiografica*. Guerini.
- Forquer, L. M., Camden, A., Gabriau, K., & Johnson, C.



- (2008). Sleep patterns of college students at a public university. *Journal of American College Health*, 56, 563–565. <https://doi.org/10.3200/JACH.56.5.563-565>.
- Franco, C., De la Fuente, M., & Salvador, M. (2011). Impacto de un programa de entrenamiento en conciencia plena (mindfulness) en las medidas del crecimiento y la autorealización personal. *Psicothema*, 23(1), 58–65. <https://www.psicothema.com/pdf/3850.pdf>
- Frauenfelder, E. (2010). Prefazione. In P. Perillo, La trabeazione formativa. Riflessioni sulla formazione per una formazione alla riflessività. Liguori.
- Fructuoso, A., & Gómez, S. (2010). La danza como elemento educativo en el adolescente. *Apuntes Educación física y deporte*, 66, 31–37. <https://raco.cat/index.php/ApuntesEFD/article/view/301902>.
- Fullerton, D. J, Zhang, L. M., & Kleitman, S. (2021). An integrative process model of resilience in an academic context: Resilience resources, coping strategies, and positive adaptation. *PLoS ONE* 16(2), e0246000. <https://doi.org/10.1371/journal.pone.0246000>
- Garcés de los Fayos, E. J. (1995). Burnout en niños y adolescentes: Un nuevo síndrome en psicopatología infantil. *Psicothema*, 7(1), 33–40. <https://www.psicothema.com/pdf/954.pdf>
- Garcés de los Fayos, E. J., Palacios, C., & Arce, C. (2012). Inventario de burnout en deportistas Revisado (IBD-R). *Revista de Psicología del Deporte*, 21(2), 271–278. <https://www.redalyc.org/pdf/2351/235126897007.pdf>
- García, L. A., Hernández, P., & Martín E., (1998) Análisis de la problemática de los estudiantes universitarios: Evaluación e intervención psicoeducativa. *Revista Interuniversitaria de Psicología de la Educación*, 1, 67–79.
- García-Pérez, L., Collado Fernández, D., Lamas-Cepero, J. L., & Ubago-Jiménez, J. L. (2024). Píldoras saludables: Un programa de actividad física para la prevención de la salud mental y mejora de la capacidad resiliente en estudiantes universitarios. protocolo de actuación (Healthy pills: physical activity program for the prevention of mental health and improvement of resilience in university students. intervention protocol). *Retos*, 55, 726–735. <https://doi.org/10.47197/retos.v55.104012>.
- Garrido, S., & Schubert, E. (2013). Adaptive and maladaptive attraction to negative emotions in music. *Musicae Scientiae*, 17(2), 147–166. <https://doi.org/10.1177/1029864913478>
- Gergen, K. J. (2009). *Relational being: Beyond self and community*. Oxford University Press
- Germer, C. K. (2017). *El poder del mindfulness*. Ediciones Paidós.
- Gibelli, G., Grava de Moraes, M., Teodoro, A., & Lopes, E. (2024). Niveles de actividad física, bienestar físico y psicológico de estudiantes universitarios, durante la pandemia de COVID-19. *Retos*, 54, 180. <https://doi.org/10.47197/retos.v54.100951>
- Godbey, G., & Mowen, A. J. (2010). *The Benefits of Physical Activity and Nature-Based Recreation for Children*. National Recreation and Park Association.
- Goleman, D. (1996). *Emotional intelligence: Why it can matter more than IQ*. Bloomsbury.
- Gonçalves, G., Fernández, D., Alves, M. P., Espindola, M. I., Villar, V., & Regina, A. (2023). A randomized controlled trial of mindfulness: effects on university students' mental health. *International Journal of Mental Health Systems*, 17(32), pp.1–12. <https://doi.org/10.1186/s13033-023-00604-8>.
- González, N. (2008). Prevalencia del estrés en la satisfacción laboral de los docentes universitarios. *Revista Electrónica de Humanidades, Educación y Comunicación Social*, 3(4), 68–89.
- Grasdalsmoen, M., Eriksen, H. R., Lønning, K. J., & Sivertsen, B. (2020). Physical exercise, mental health problems, and suicide attempts in university students. *BMC Psychiatry*, 20(175), pp.1–11. <https://doi.org/10.1186/s12888-020-02583-3>
- Greeson, J., Garland, E. L., & Black, D. (2014). Mindfulness: A transtherapeutic approach for transdiagnostic mental processes. In A. Ie, C. T. Ngnoumen, & E. J. Langer (Eds.). *The Wiley Blackwell handbook of mindfulness* (pp. 533–562). Wiley Blackwell. <https://doi.org/10.1002/9781118294895.ch28>
- Gunaratana, B. H. (2012). *El libro del mindfulness*. Editorial Kairós.
- Hartig, T., Mitchell, R., de Vries, S., & Frumkin, H. (2014).



- Nature and Health. Annual Review of Public Health, 35, 207–228. <https://doi.org/10.1146/annurev-publhealth-032013-182443>
- Heffernan, A. (n.d.). How Exercise Can Help Build Physical –and Mental– Resilience. Experience Life by Life Time. <https://experiencelife.lifetime.life/article/how-exercise-can-help-build-physical-and-mental-resilience/>
- Herbert, C., Meixner, F., Wiebking, C., & Gilg, V. (2020). Regular Physical Activity, Short-Term Exercise, Mental Health, and Well-Being Among University Students: The Results of an Online and a Laboratory Study. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.00509>
- Hofman-Bergholm, M. (2023). Nature-Based Education for Facilitating Resilience and Well-Being among Youth—A Nordic Perspective. *Education Sciences*, 14(1), 43. <https://doi.org/10.3390/EDUCSCI14010043>
- Holliday, R., & Kraftl, P. (2010). *Critical Geographies of Childhood and Youth*. Policy Press.
- Hopp, H., Troy, A. S., & Mauss, I. B. (2011). The unconscious pursuit of emotion regulation: Implications for psychological health. *Cognition and Emotion*, 25(3), 532–545. <https://doi.org/10.1080/02699931.2010.532606>
- Hyland, T. (2009). Mindfulness and the therapeutic function of education. *Journal of Philosophy of Education*, 43, 119–131. <https://doi.org/10.1111/j.1467-9752.2008.00668.x>
- Hyland, T. (2011). *Mindfulness and learning: Celebrating the affective dimension of education*. Springer Science & Business Media.
- Immordino-Yang, M. H., & Damasio A. (2007). We feel, therefore we learn: The relevance of affective and social neuroscience to education. *Mind, Brain and Education* 1(1), 3–10. <https://doi.org/10.1111/j.1751-228X.2007.00004.x>
- Inasaridze, K. (2021). Breathing exercises for the treatment of anxiety symptoms. Preprints of PsyArXiv. <https://doi.org/10.31234/OSF.IO/PWUD4>
- INE (2014). Encuesta sobre defunciones por suicidio en España 2021. Metodología. Instituto Nacional de Estadística. <https://www.ine.es/dynt3/inebase/es/index.htm?padre=8965&capsel=8973>
- Jackson, S. B., Stevenson, K. T., Larson, L. R., Peterson, M. N., & Seekamp, E. (2021). Connection to Nature Boosts Adolescents' Mental Well-Being during the COVID-19 Pandemic. *Sustainability*, 13(21), 12297. <https://doi.org/10.3390/SU132112297>
- Johnson, A., & Lee, M. (2023). Exercise and wellness intervention program for university students: A randomized controlled trial. *Journal of American College Health*, 71(4), 470–483.
- Johnson, D.W., Holubec, E. J. & Johnson, R. T. (1994). *Cooperative Learning in the Classroom*. Association for Supervision and Curriculum Development.
- Jones, C., & Smith, A. (2023). The Impact of Social Media Use Interventions on Mental Well-Being: Systematic Review. *Journal of College Student Development*, 64(2), 145–159.
- Juslin, P. N. (2013). From everyday emotions to aesthetic emotions: Towards a unified theory of musical emotions. *Physics of Life Reviews*, 10(3), 235–266. <https://doi.org/https://doi.org/10.1016/j.phprev.2013.05.008>
- Juslin, P. N. (2019). *Musical emotions explained: Unlocking the secrets of musical affect*. Oxford University Press.
- Juslin, P. N., & Lindström, E. (2010). Musical Expression of Emotions: Modelling Listeners' Judgements of Composed and Performed Features. *Music Analysis*, 29(1/3), 334–364. <http://www.jstor.org/galanga.hvl.no/stable/41289731>
- Juslin, P. N., Harmat, L., & Eerola, T. (2014). What makes music emotionally significant? Exploring the underlying mechanisms. *Psychology of Music*, 42(4), 599–623. <https://doi.org/10.1177/0305735613484548>
- Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, 10(2), 144–156. <https://doi.org/10.1093/clipsy.bpg016>
- Kabat-Zinn, J. (2012). *Mindfulness en la vida cotidiana: Donde quiera que vayas, ahí estás*. Grupo Planeta (GBS).
- Kabat-Zinn, J. (2013). *Full catastrophe living, revised edition: How to cope with stress, pain and illness using mindfulness meditation*. Hachette UK.

- Kabat-Zinn, J., & Santorelli, S. F. (2021). Mindfulness-Based Stress Reduction (MBSR): Reflections and directions. *Mindfulness*, 12(4), 765–780. <https://doi.org/10.1007/s12671-021-01577-3>
- Kaimal, G., Drescher, J., Fairbank, H., Gonzaga, A & White, G. P. (2014). Inspiring Creativity in School Leaders: Leadership Lessons from the Creative Arts. *International Journal of Education and the Arts*, 15(4), 1–22. <https://files.eric.ed.gov/fulltext/EJ1039562.pdf>
- Kaimal, G., Drescher, J., Fairbank, H., Gonzaga, A, Junkin, J., & White, G. P. (2016a). Learning about leadership from a visit to the art museum. *International Journal of Education and the Arts*, 17(6), 1–22. <https://files.eric.ed.gov/fulltext/EJ1094530.pdf>
- Kaimal, G., Ray, K., & Muniz, J. M. (2016b). Reduction of Cortisol Levels and Participants' Responses Following Art Making. *Art Therapy: Journal of the American Art Therapy Association*, 33(2) 74–80. <https://doi.org/10.1080/07421656.2016.1166832>
- Kaimal, G., Metzl, E., & Millrod, E.T. (2017a). Facilitative Leadership: A Framework for the Creative Arts Therapies. *Art Therapy: Journal of the American Art Therapy Association*, 34(3) 146–151. <https://doi.org/10.1080/07421656.2017.1343072>
- Kaimal, G., Mensinger, J. L., Drass, J. M., & Dieterich-Hartwell, R. (2017b). Open studio art therapy versus coloring: Differences in outcomes of affect, stress, creative agency and self-efficacy. *Canadian Art Therapy Association Journal*, 30(2) 56–68. <https://doi.org/10.1080/08322473.2017.1375827>
- Kaplan, F. (2000). *Art, science and art therapy: Repainting the picture*. Jessica Kingsley Publishers.
- Kaplan, S. (1995). The Restorative Benefits of Nature: Toward an Integrative Framework. *Journal of Environmental Psychology*, 15(3), 169–182. [https://doi.org/10.1016/0272-4944\(95\)90001-2](https://doi.org/10.1016/0272-4944(95)90001-2)
- Karasek, R. A. & Theorell, T. (1990). *Healthy Work. Stress, Productivity and the Reconstruction of Working Life*. Basic Books
- Karmalkar, S. J., & Vaidya, A. (2017). Effects of classical Yoga intervention on resilience of rural-to-urban migrant college students – ProQuest. *Indian Journal of Positive Psychology*, 8(3), 429–434. <https://doi.org/10.15614/ijpp%2F2017%2Fv8i3%2F162016>
- Kim, K., Lee, J., & Yoon, J. (2023). Effects of Emotional Regulation, Resilience, and Distress Disclosure on Post-Traumatic Growth in Nursing Students. *Int J Environ Res Public Health*, 20(4), 2782. <https://doi.org/10.3390/ijerph20042782>
- King, L. A., & Miner, K. N. (2000). Writing about the perceived benefits of traumatic events: Implications for physical health. *Personality and Social Psychology Bulletin*, 26, 220–230. <https://doi.org/10.1177/0146167200264008>
- Klein, K. (2002). Stress, expressive writing, and working memory. In S. J. Lepore & J. M. Smyth (Eds.), *The writing cure: How expressive writing promotes health and emotional well-being* (pp. 135–155). American Psychological Association.
- Klein, K., & Boals, A. (2001). The relationship of life event stress and working memory capacity. *Applied Cognitive Psychology*, 15(5), 565–579. <https://doi.org/10.1002/acp.727>
- Klussman, K., Curtin, N., Langer, J., & Nichols, A. L. (2022). The importance of awareness, acceptance, and alignment with the self: A framework for understanding self-connection. *Europe's Journal of Psychology*, 18(1), 120–131. <https://doi.org/10.5964/ejop.3707>
- Kranzler, A., Young, J. F., Hankin, B. L., Abela, J. R. Z., Elias, M. J., & Selby, E. A. (2016). Emotional Awareness: A Transdiagnostic Predictor of Depression and Anxiety for Children and Adolescents. *Journal of Clinical Child & Adolescent Psychology*, 45(3), 262–269. <https://doi.org/10.1080/15374416.2014.987379>
- Kremer, J., & Williams, J. M. (2001). Psychological benefits of exercise. In *Physical Activity and Psychological Well-being*, (pp. 72–87). Routledge.
- Kreutz, G., Schubert, E., & Mitchell, L. A. (2008). *Cognitive styles of music listening*. University of California Press. <https://doi.org/10.1525/mp.2008.26.1.57>
- Kumar, A., & Kumar, A. (2020). Impact of physical fitness on academic stress and quality of life among university students. *Journal of Health Psychology*, 25(12), 2204–2216.
- Kuo, F. E., & Taylor, A. F. (2004). A Potential Natural Treatment for Attention-Deficit/Hyperactivity Disorder: Evidence from a National Study. *American Journal of Public Health*, 94(9), 1580–6. <https://doi.org/10.1093/ajph.94.9.1580>

org/10.2105/AJPH.94.9.1580

Kuyken, W., Weare, K., Ukoumunne, O. C., Lewis, R., Motton, N., Burnett, R., Cullen, C., Hennelly, S., & Huppert, F. (2013). Effectiveness of the mindfulness in schools programme: Non-randomised controlled feasibility study. *The British Journal of Psychiatry*, 202(2), 126–131. <https://doi.org/10.1192/bjp.bp.113.126649>

Kuyken, W., Weare, K., Ukoumunne, O. C., Vicary, R., Motton, N., Burnett, R., Cullen, C., Hennelly, S., & Huppert, F. (2013). Effectiveness of the Mindfulness in Schools Programme: non-randomised controlled feasibility study. *The British Journal of Psychiatry*, 203(2), 126–131. <https://doi.org/10.1192/bjp.bp.113.126649>

Lancaster, M. R., & Callaghan, P. (2022). The effect of exercise on resilience, its mediators and moderators, in a general population during the UK COVID-19 pandemic in 2020: a cross-sectional online study. *BMC Public Health*, 22(1), 1–10. <https://doi.org/10.1186/S12889-022-13070-7/TABLES/2>

Lee, E., & Hsu, H. (2021). The effect of structured physical activity programs on resilience and psychological well-being in college students. *International Journal of Exercise Science*, 14(3), 743–758.

Lehrer, P. M., & Gevirtz, R. N. (2022). Heart rate variability biofeedback: How and why does it work? *Scientific Reports*, 12(1), 4567. <https://doi.org/10.1038/s41598-022-27247-y>

Lengnick-Hall, C. A., Beck, T. E. & Lengnick-Hall, M. L. (2011). Developing a capacity for organizational resilience through strategic human resource management. *Human Resource Management Review*, 21(3), 243–255. <https://doi.org/10.1016/j.hrmr.2010.07.001>

Leung, M. C., & Cheung, R. Y. M. (2020). Music engagement and well-being in Chinese adolescents: Emotional awareness, positive emotions, and negative emotions as mediating processes. *Psychology of Music*, 48(1), 105–119. <https://doi.org/10.1177/0305735618786421>

Lhamo, T. (2017). *La meditación: una vía de conocimiento interno*. Valencia.

Liang, W. M., Xiao, J., Ren, F. F., Chen, Z. S., Li, C. R., Bai, Z.

M., & Rukšenas, O. (2023). Acute effect of breathing exercises on muscle tension and executive function under psychological stress. *Frontiers in Psychology*, 14, 1155134. <https://doi.org/10.3389/FPSYG.2023.1155134/BIBTEX>

Lindsay, K., Kirby, D., Dluzewska, T., & Campbell, S. (2015). Oh, the places you'll go! Newcastle law school's partnership interventions for well-being in first year law. *Journal of Learning Design*, 8(2), 11–21. <https://doi.org/10.5204/jld.v8i2.239>

Linville, P. W. (1987). Self-complexity as a cognitive buffer against stress-related illness and depression. *Journal of Personality and Social Psychology*, 52(4), 663–676. <https://doi.org/10.1037//0022-3514.52.4.663>

López González, L. (2013). El Programa TREVA (Técnicas de Relajación Vivencial aplicadas al Aula): aplicaciones, eficacia y acciones formativas. *ISEP SCIENCE*, 4, 26–32. [https://www.researchgate.net/publication/287999781\\_El\\_Programa\\_TREVA\\_tecnicas\\_de\\_Relajacion\\_Vivencial\\_Aplicadas\\_al\\_Aula\\_aplicaciones\\_eficacia\\_y\\_acciones\\_formativas](https://www.researchgate.net/publication/287999781_El_Programa_TREVA_tecnicas_de_Relajacion_Vivencial_Aplicadas_al_Aula_aplicaciones_eficacia_y_acciones_formativas)

López-González, L., Amutio, A., & Muñoz, D. (2018). The Relaxation-Mindfulness Competence of Secondary and High School students and its influence on classroom climate and academic performance. *European Journal of Education and Psychology*, 11(1), 5–17. <https://doi.org/10.30552/ejep.v11i1.182>

Lu, C., Tito, J. M., & Kentel, J. A. (2009). Eastern movement disciplines (EMDs) and mindfulness: A new path to subjective knowledge in Western physical education. *Quest*, 61(3), 353–370. <https://doi.org/10.1080/00336297.2009.10483621>

Lubans, D., Richards, J., Hillman, C., Faulkner, G., Beauchamp, M., Nilsson, M., Kelly, P., Smith, J., Raine, L., & Biddle, S. (2016). Physical activity for cognitive and mental health in youth: A systematic review of mechanisms. *Pediatrics*, 138(3). <https://doi.org/10.1542/PEDS.2016-1642/52688>

Lutz, A., Dunne, J. D., & Davidson, R. J. (2007). Meditation and the neuroscience of consciousness: An introduction. In P. D. Zelazo, M. Moscovitch, & E. Thompson (Eds.), *The Cambridge handbook of consciousness* (pp. 499–551). Cambridge University Press. <https://doi.org/10.1017/>

CBO9780511816789.020.

Maddalena, S. & Paolozzi, M. F. (2022). Sulle ali della Procellaria. Green Autobiography come strumento di resilienza. In C. Pizzo, G. De Martino Di Montegiordano (Ed.) *Animal Land. Fra umano e animale nella letteratura e oltre...* (pp. 125–136). Editoriale Scientifica.

Maddalena, S. & Paolozzi, M. F. (2023). Complessità, bioetica e resilienza. Tre dimensioni paradigmatiche all'approccio MH e MN nella prospettiva pedagogica. *Medical Humanities and Medicina Narrativa*, 145–164. <https://doi.org/10.53136/979122180808711>

Malaguti, E. (2005). Educarsi alla resilienza. Come affrontare crisi e difficoltà e migliorarsi. Erickson.

Malaguti, E. (2020). Educarsi in tempi di crisi. Resilienza, pedagogia speciale, processi inclusivi e intersezioni. Aras Edizioni.

Malchiodi, C. (1998). *The art therapy sourcebook*. McGraw Hill Professional.

Manciaux, M. (1999). La résilience: Mythe ou réalité?. In M. Gabriel, F. Jesù, & M. Manciaux. *Maltraitance psychologique. Accueillir et soigner les enfants sans les maltraiter*. Fleurus.

Manciaux, M. (Ed.) (2001). *La résilience. Résister et se construire*. Cahiers Medico-Sociaux.

Manciaux, M., Vanistendael, S., Lecomte, J., & Cyrulnik, B. (2001). La résilience: État des lieux. In *La résilience. Résister et se construire*, (pp. 13–20). Cahiers Medico-Sociaux.

Marselle, M. R.; Warber, S. L.; & Irvine, K. N. (2019). Growing Resilience through Interaction with Nature: Can Group Walks in Nature Buffer the Effects of Stressful Life Events on Mental Health? *Int. J. Environ. Res. Public Health*, 16, 986. <https://doi.org/10.3390/ijerph16060986>

Martens, R. (1977). *Sport Competition Anxiety Test*. Human Kinetics Publishers.

Martin Rodríguez, R. D., & Luján Henríquez, I. (2021). Mindfulness e inteligencia emocional en el afrontamiento de conflictos intrapersonales e interpersonales. *Revista INFAD De Psicología*. *International Journal of Developmental and Educational Psychology*, 1(1), 17–26. <https://doi.org/10.17060/ijodaep>

Martinez, A., & González, R. (2022). Physical fitness,

coping strategies, and resilience in university students during the COVID–19 pandemic. *International Journal of Sport and Exercise Psychology*, 20(4), 589–605.

Martinez, L., & Gonzalez, R. (2023). Physical activity as a stress management tool for college students: A multi-component intervention. *Journal of Behavioral Medicine*, 46(1), 58–70.

Mártires, M., Carreño, A., & Sousa, C. (2015). Aprender a ensinar: Influências culturais no desenho artístico. *Conhecimento & Diversidade*, 7(14), 56–72. <https://doi.org/10.18316/2299>

Mayer, J. D. (1986). How mood influences cognition. In N. E. Sharkey (Ed.), *Advances in Cognitive Science*. Ellis Horwood.

Mayer, J. D., DiPaolo, M., & Salovey, P. (1990). Perceiving Affective Content in Ambiguous Visual Stimuli: A Component of Emotional Intelligence. *Journal of Personality Assessment*, 54(3–4), 772–781. [https://doi.org/10.1207/s15327752jpa5403&4\\_29](https://doi.org/10.1207/s15327752jpa5403&4_29)

Mayer, J. D., Mamber, M. H., & Volanth, A. J. (1988). Cognitive Domains of the Mood System. *Journal of Personality*, 56(3), 453–486. <https://doi.org/10.1111/j.1467-6494.1988.tb00898.x>

McCombs, B. L., & Pope, J. E. (1994). *Motivating hard to reach students*. American Psychological Association.

McFerran, K. S., Hense, C., Koike, A., & Rickwood, D. (2018). Intentional music use to reduce psychological distress in adolescents accessing primary mental health care. *Clinical Child Psychology and Psychiatry*, 23(4), 567–581. <https://doi.org/10.1177/1359104518767231>

Merryman, M., Mezei, A., Bush, J. A., & Weinstein, M. (2012). The Effects of a Summer Camp Experience on Factors of Resilience in At-Risk Youth. *The Open Journal of Occupational Therapy*, 1(1), 3. <https://doi.org/10.15453/2168-6408.1016>

Metzl, E. S. (2009). The role of creative thinking in resilience after hurricane Katrina. *Psychology of Aesthetics, Creativity, and the Arts*, 3(2), 112–123. <https://doi.org/10.1037/a0013479>

Milasan, L. H., Bingley, A., & Fisher, N. R. (2020). El panorama general de la recuperación: una revisión sistemática sobre la evidencia de los métodos basados en la fotografía en la investigación de la recuperación de

- la angustia mental. *Artes y Salud*, 14(2), 165-185. <https://doi.org/10.1080/17533015.2020.1855453>
- Miró, M.T. (2006). La atención plena (mindfulness) como intervención clínica para aliviar el sufrimiento y mejorar la convivencia. *Revista de Psicoterapia*, 17(66/67), 31-76. <https://doi.org/10.33898/rdp.v17i66/67.906>
- Molina, M. C., Pastor, C., & Violant, V. (2009). *Guiad'estratègies ludicocreatives per al voluntariat de Ciber Caixa hospitalària. Obra Social. Fundació "la Caixa"*.
- Montoya, A. J., Araya, G., & Salazar, W. (2007). Efecto agudo del yoga y de la danza aeróbica sobre el estado de ánimo y el funcionamiento cognitivo en hombres y mujeres. *Revista de Ciencias del Ejercicio y la Salud*, 5(1), 41-46. <https://dialnet.unirioja.es/servlet/articulo?codigo=4790859>
- Moore, S., Barbour, R., Ngo, H., Sinclair, C., Chambers, R., Aret, K., ... & Playford, D. (2020). Determining the feasibility and effectiveness of brief online mindfulness training for rural medical students: A pilot study. *BMC medical education*, 20(1), 1-12. <https://doi.org/10.1186/s12909-020-02015-6>
- Moreno, A. (2010). La mediación artística: Un modelo de educación artística para la intervención social a través del arte. *Revista Iberoamericana de Educación*, 52(2), 1-9. <https://doi.org/10.35362/rie5221797>
- Morin E. (2000). *La testa ben fatta. Riforma dell'insegnamento e riforma del pensiero*. (S. Lazzari translation). Raffaello Cortina Editore. (Original work published 1999).
- Morin E. (2001). *I sette saperi necessari all'educazione del futuro*. (S. Lazzari translation). Raffaello Cortina Editore. (Original work published 2000).
- Morris, M., & Rogers, H. (2017). The effects of physical activity on academic performance and stress in university students. *Journal of Educational Psychology*, 109(5), 778-790.
- Moses, I., Admiraal, W. F., & Berry, A. K. (2016). Gender and gender role differences in student-teachers' commitment to teaching. *Social Psychology of Education* 19, 475-492. <https://doi.org/10.1007/s11218-016-9340-3>.
- Moses, J., Bradley, G. L., & O'Callaghan, F. V. (2016). When college students look after themselves: Self-care practices and well-being. *Journal of Student Affairs Research and Practice*, 53(3), 346-359. <https://doi.org/10.1080/19496591.2016.1157488>.
- Moula, Z., Powell, J., & Karkou, V. (2020). An investigation of the effectiveness of arts therapies interventions on measures of quality of life and wellbeing: A pilot randomized controlled study in primary schools. *Frontiers in Psychology*, 11, 1-17. <https://doi.org/10.3389/fpsyg.2020.586134>.
- Moure-Rodríguez, L., Caamaño-Isorna, F., Doallo, S., Juan-Salvadores, P., Corral, M., Rodríguez-Holguin, S., & Cadaveira, F. (2014). Consumo intensivo y lesiones relacionadas con el alcohol en estudiantes universitarios. *Gaceta Sanitaria*, 28(5), 376-380. <https://dx.doi.org/10.1016/j.gaceta.2014.02.017>
- Mundet, A., Beltrán, A., & Moreno, A. (2015). Arte como herramienta social y educativa. *Revista Complutense de Educación*, 26(2), 315-329. <https://revistas.ucm.es/index.php/RCED/article/view/43060/45511>.
- Munevar, D., & Díaz, N. (2009). CORP-oralidades. *Arteterapia - Papeles de arteterapia y educación artística para la inclusión social*, 4, 63-77. <https://revistas.ucm.es/index.php/ARTE/article/view/ARTE0909110063A/8775>
- Nelis, N., Quoidbach, J., Mikolajczak, M., & Hansenne, M. (2009). Increasing emotional intelligence: How it is possible?. *Personality and Individual Differences*, 47, 36-41. <https://doi.org/10.1016/j.paid.2009.01.046>.
- Nguyen, T., & Thomas, R. (2022). Enhancing resilience through exercise and social support in university students: An intervention study. *Journal of College Student Development*, 63(3), 321-332.
- Nguyen, T., & Wu, J. (2023). Impact of physical activity on resilience and mental health among college students: A longitudinal study. *Journal of Behavioral Health*, 12(1), 33-45.
- Nixon, G., McMurtry, D., Craig, L., Nevejan, A. & Regan-Addis, H. (2016). Studies in mindfulness: Widening the field for all involved in pastoral care. *Pastoral Care in Education*, 34(3), 167-183. <https://doi.org/10.1080/02643944.2015.1127990>.
- Ozkara, A. B., Kalkavan, A., Alemdag, S., & Alemdag, C. (2016). The Role of Physical Activity in Psychological Resilience. *Baltic Journal of Sport and Health Sciences*, 3(102), 24-29. <https://doi.org/10.33607/BJSHS.V3i102.62>



- Pal, G. K., Velkumary, S., & Madanmohan. (2004). Effect of short-term practice of breathing exercises on autonomic functions in normal human volunteers. *Indian Journal of Medical Research*, 120 (2)115-121. <https://pubmed.ncbi.nlm.nih.gov/15347862/>
- Paluch, A., Boyer, W., Franklin, B. A., Deepika, L., Lobelo, F., Duck-chul, L., McDermott, M., Damon, L., Swift, D. L., Webel, A. R., & Lane, A. (2024). Resistance Exercise Training in Individuals With and Without Cardiovascular Disease: 2023 Update: A Scientific Statement From the American Heart Association. *Circulation*, 149(3), e217-e231. <https://doi.org/10.1161/CIR.0000000000001189>
- Padial, R, & Puga, E. (2023). "¿Bailamos? El movimiento para la inclusión. Desarrollando resilencias. RESUPERES Project" [Workshop]. VII Congreso Internacional en Investigación y Didáctica de la Educación Física, Granada, Spain. <https://sites.google.com/go.ugr.es/congresoaddijes/congresos/vii-congreso-2023>
- Padial, R, & Puga, E. (2024). ¿Bailamos? El movimiento para la inclusión -Proyecto RESUPERES. [Taller]. VIII Congreso Internacional en Investigación y Didáctica de Educación Física, Granada, Spain, <https://sites.google.com/go.ugr.es/congresoaddijes/congresos/viii-congreso-2024/talleres-24>.
- Paolozzi M. F. & Maddalena, S. (2023). Superare le avversità tra incertezza e cura di sé: la resilienza nei contesti educativi. *Journal of Health Care Education in Practice*, 5 (1), 91-101. <https://doi.org/10.14658/pupj-jhcep-2023-1-10>
- Paolozzi, M. F. (2023). La Casita della resilienza. Un modello per bambini ed adulti. [Report presentation]. Conference Alice Friendship Over the World and in Naples Christmas Wonders | One-day International Conference, Decima Edizione, International Research Group of Children's Literature: Letture per la formazione interculturale e pedagogica, Napoli.
- Paolozzi, M. F., Maddalena, S., Ercolano M. & Petrecca R. (2023, may 23). The Tale of the Self between Movement, Writing and Art. Strategies for resilience education. [Paper presentation] RESUPERES International Conference: Building Resilience in Higher Education, Bergen, Norway.
- Pengpid, S., & Peltzer, K. (2020). Vigorous physical activity, perceived stress, sleep and mental health among university students from 23 low- and middle-income countries. *International Journal of Adolescent Medicine and Health*, 32(2), 20170116. <https://doi.org/10.1515/ijamh-2017-0116>
- Pennebaker, J. W. (1990). *Opening up: The healing power of expressing emotions*. The Guilford Press
- Pennebaker, J. W. (1993). Social mechanisms of constraint. In D. M. Wegner & J. W. Pennebaker (Eds.), *Handbook of mental control* (pp. 200-219). Prentice-Hall, Inc.
- Pennebaker, J. W. (1998). Disclosure of traumas and immune function: Health implications for psychotherapy. *Journal of Consulting and Clinical Psychology*, 56(2), 239-245. <https://doi.org/10.1037//0022-006x.56.2.239>
- Pennebaker, J. W., & Seagal, J. D. (1999). Forming a story: The health benefits of narrative. *Journal of Clinical Psychology*, 55(10), 1243-1254. [https://doi.org/10.1002/\(SICI\)1097-4679\(199910\)55:10<1243::AID-JCLP6>3.0.CO;2-N](https://doi.org/10.1002/(SICI)1097-4679(199910)55:10<1243::AID-JCLP6>3.0.CO;2-N)
- Pennebaker, J. W., Zech, E., & Rimé, B. (2001). Disclosing and sharing emotion: Psychological, social, and health consequences. In M. S. Stroebe, R. O. Hansson, W. Stroebe, & H. Schut (Eds.), *Handbook of bereavement research: Consequences, coping, and care* (pp. 517-543). American Psychological Association. <https://doi.org/10.1037/10436-022>
- Pennebaker, J. W. & Susman, J. R. (1988). Disclosure of traumas and psychosomatic processes. *Social Science & Medicine*, 26(3), 327-332. [https://doi.org/10.1016/0277-9536\(88\)90397-8](https://doi.org/10.1016/0277-9536(88)90397-8)
- Perillo, P. (2010). La trabeazione formativa. Riflessioni sulla formazione per una formazione alla Riflessività. Liguori.
- Pineau, G., & Legrand, J. (2013). *Les histoires de vie* (4e ed., 1re ed. 1993). Presses Universitaires de France.
- Prescott, M. V., Sekendur, B., Bailey, B., & Hoshino, J. (2008). Art making as a component and facilitator of resiliency with homeless youth. *Art Therapy*, 25(4), 156-163. <https://doi.org/10.1080/07421656.2008.10129549>
- Pretty, J., Peacock, J., & Hine, R. (2007). The Impact of Outdoor Recreation on Resilience: A Review. *Int J Environ Health Res*, 15(5), 319-37. <https://doi.org/10.1080/09603120500155963>



- Ramsburg, J. T., & Youmans, R. J. (2014). Meditation in the higher-education classroom: Meditation training improves student knowledge retention during lectures. *Mindfulness*, 5, 14–31. <https://doi.org/10.1007/s12671-013-0199-5>.
- Rappaport, J. (1984). In Praise of Paradox: A Social Policy of Empowerment. *American Journal of Community Psychology*, 9, 1. <https://doi.org/10.1007/BF00896357>
- Re, M. (2021). Isolated systems towards a dancing constellation: coping with the Covid-19 lockdown through a pilot dance movement therapy tele-intervention. *Body, Movement and Dance in Psychotherapy*, 16(1), 9–18. <https://doi.org/10.1080/17432979.2021.1879934>.
- Reed, J. & Buck, S. (2009). The effects of physical activity on mood and anxiety in college students. *Journal of Clinical Psychology*, 65(7), 743–754.
- Rejeski, W. J., & Mihalko, S. L. (2001). Physical activity and quality of life in older adults. *Journal of Gerontology: Psychological Sciences*, 56B, 23–35.
- Roberts, K. C., & Danoff-Burg, S. (2010). Mindfulness and health behaviors: Is paying attention good for you? *Journal of American College Health*, 59(3), 165–173. <https://doi.org/10.1080/07448481.2010.484452>
- Roiek Lazier Leão, T., Ferreira, L., Mena Leão Junior, C., Lucas Morais Freire, G., Gomes Costa, N. L., Andrade do Nascimento Junior, J. R., & Lopes Vieira, J. L. (2023). ¿La resiliencia predice la autoeficacia y la motivación en los bailarines?. *Retos*, 48, 229–234. <https://doi.org/10.47197/retos.v48.96799>
- Romero, A. J. (2012). A pilot test of the Latin active hip hop intervention to increase physical activity among low-income Mexican-American adolescents. *American Journal of Health Promotion: AJHP*, 26(4), 208–211. <https://doi.org/10.4278/ajhp.090123-ARB-24>.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton University Press.
- Rossi, B. (2013). *Pedagogia della felicità*. FrancoAngeli.
- Ryan, R., & Deci, E. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52, 141–166. <https://doi.org/10.1146/annurev.psych.52.1.141>.
- Sageidet, B. M., Presthus Heggen, M., Berrefjord Ugelstad, I., Grøsvik, K., & Eikeland, S., (2020). Physical Education and Natural Sciences in Norwegian. Early Childhood Teacher Education. In B. Elliott, E. Årlemalm-Hagsér, J. Davis (Eds). *Researching Early Childhood Education for Sustainability* (pp. 125–137). Routledge. <https://doi.org/10.4324/9780429446764-10>
- Salami, S. O. (2010). Emotional intelligence, self-efficacy, psychological well-being and student's attitudes: Implications for quality implications. *European Journal of Educational Studies*, 2(3), 247–257.
- Salmon, P.G. (2001). Effects of physical exercise on depression and anxiety. *Cochrane Database of Systematic Reviews*, (2), [https://doi.org/10.1016/s0272-7358\(99\)00032-x](https://doi.org/10.1016/s0272-7358(99)00032-x)
- Salovey, P., & Mayer, J. D. (1990). Emotional Intelligence. *Imagination, Cognition and Personality*, 9(3), 185–211. <https://doi.org/10.2190/dugg-p24e-52wk-6cdg>
- Sampedro-Piquero, P., & Moreno-Fernández, R. D. (2021). Building Resilience with Aerobic Exercise: Role of FKBP5. *Current Neuropharmacology*, 19, 1156–1160. <https://doi.org/10.2174/1570159X19666210408124937>
- Samsudin, S., Kamalden, T. F. T., Aziz, A., Ismail, M. H., Yaakob, S. S. N., & Farizan, N. H. (2021). The Impact of Outdoor Education Camp Program in Building Resilience among University Students. *Asian Journal of University Education*, 17(4), 71–83. <https://doi.org/10.24191/AJUE.V17I4.16185>
- Sánchez Herrera, S., & Gil, N. (2003). Principales problemas y obstáculos durante los estudios universitarios en el contexto de la Universidad de Extremadura. *Campo abierto: Revista de educación*, 24, 127–142.
- Sanchis-Soler, G., García-Jaén, M., Sebastia-Amat, S., Diana-Sotos, C., & Tortosa-Martínez, J. (2022). Acciones para una universidad saludable: Impacto sobre la salud mental y física de los jóvenes. *Retos*, 44, 1045–1052. <https://doi.org/10.47197/retos.v44i0.91940>
- Sandhu, A., Ives, J., Birchwood, M., & Uptegrove, R. (2013). La experiencia subjetiva y la fenomenología de la depresión después del primer episodio de psicosis: un estudio cualitativo que utiliza la foto-elicitación. *Revista de Trastornos Afectivos*, 149(1–3), 166–174.

<https://doi.org/10.1016/j.jad.2013.01.018>

Santos, M., & Pereira, T. (2023). The role of physical fitness in enhancing psychological resilience among university students: A cross-sectional study. *Journal of Psychological Research*, 15(3), 150–163.

Sarracino, F. (2014). Can augmented reality improve student's learning? A proposal for an augmented museum experience. *Profesorado. Revista de Currículum y Formación de Profesorado*, 18 (3). <https://www.redalyc.org/pdf/567/56733846011.pdf>

Sarracino, F. (2015). Il Museo del Giocattolo di Napoli. Un progetto di didattica museale "aumentata". In Tomarchio, M., Olivieri S. (Ed.), *Pedagogia militante. Diritti, culture, territori. Atti del 29° Convegno Nazionale SIPED. Catania 6–7–8 novembre 2014*. Edizioni ETS. (832–837).

Schäfer, T., Sedlmeier, P., Städtler, C., & Huron, D. (2013). The psychological functions of music listening. *Frontiers in Psychology*, 4, 511–511. <https://doi.org/10.3389/fpsyg.2013.00511>

Schutte, N. S., Malouff, J. M., Simunek, M., McKenley, J., & Hollander, S. (2002). Characteristic emotional intelligence and emotional well-being. *Cognition and Emotion*, 16(6), 769–785. <https://doi.org/10.1080/02699930143000482>

Senker, K., Fries, S., & Grund, A. (2022). Mindfulness in everyday life: Between- and within-person relationships to motivational conflicts. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues*, 41(5), 2786–2801. <https://doi.org/10.1007/s12144-020-00760-x>.

Seo, S. H., & Kim, S. J. (2015). The effects of a parental education program based on satir transformational systemic therapy model for preschoolers' mothers. *Journal of Korean academy of psychiatric and mental health nursing*, 24(4), 330–341. <https://doi.org/10.12934/jkpmhn.2015.24.4.330>

Seppälä, E. M., Bradley, C., Moeller, J., Hariri, S., & Dowd, M. M. (2021). Breath-based meditation and resilience training for PTSD: Randomized controlled trial. *Journal of Clinical Psychology*, 77(5), 1057–1070. <https://doi.org/10.1002/jclp.23093>

Shang, Y., Xie, H., & Yang, S. (2021). The Relationship Between Physical Exercise and Subjective Well-Being in College Students: The Mediating Effect of Body Image and Self-Esteem. *Frontiers*, 12, pp.1–9. <https://doi.org/10.3389/fpsyg.2021.658935>

[doi.org/10.3389/fpsyg.2021.658935](https://doi.org/10.3389/fpsyg.2021.658935)

Shao, S. (2021). Intervention effect of dance therapy based on the satir model on the mental health of adolescents during the covid-19 epidemic. *Psychiatria Danubina*, 33(3), 411–417. <https://doi.org/10.24869/psyd.2021.411>.

Shapiro, S., de Sousa, S., & Jazaieri, H. (2016). Mindfulness, mental health, and positive psychology. In I. Ivztan & T. Lomas (Eds.), *Mindfulness in positive psychology: The science of meditation and wellbeing* (pp. 108–125). Routledge/Taylor & Francis Group.

Sheikhzadeh, E., & Khatami, M. (2017). Critical thinking, mindfulness and academic achievement among Iranian EFL learners. *Modern Journal of Language Teaching Methods*, 7(3), 281–294.

Shim, M., Johnson, R. B., Gasson, S., Goodill, S., Jermyn, R., & Bradt, J. (2017). A model of dance/movement therapy for resilience-building in people living with chronic pain. *European Journal of Integrative Medicine*, 9, 27–40. <https://doi.org/10.1016/J.EUJIM.2017.01.01>

Siegel, D. J. (2012). Cerebro y "mindfulness": la reflexión y la atención plena para cultivar el bienestar. Grupo Planeta Spain.

Siegel, L. J. (2011). *Criminology*. Cengage Learning.

Siegel, R. D. (2011). La solución mindfulness. *Prácticas cotidianas para problemas cotidianos*. Desclee de Brouwer.

Siegel, R. D., Germer, C. K., & Olendzki, A. (2009). Mindfulness: What is it? Where did it come from?. *Clinical handbook of mindfulness*, 17–35.

Smith, R., & Johnson, D. (2018). Physical fitness, self-efficacy, and resilience in college students: A path analysis. *Journal of Behavioral Medicine*, 41(2), 145–156.

Silva, N., & Motta, C. (2017). A criatividade como fator de resiliência na ação docente do professor de ensino superior. *Revista UFG*, 7(2), 43–46. <https://revistas.ufg.br/revistaufg/article/view/48869>

Simón, V. (2006). Mindfulness y neurobiología. *Revista de psicoterapia*, 17(66–67), 5–30.

Simón, V. (2011). *Aprender a practicar Mindfulness*. Sello editorial.

Singh, N. N. (2010). Mindfulness: A finger pointing to the moon. *Mindfulness*, 1(1), 1–3. <https://doi.org/10.1007/s12671-010-0009-2>.

- Sirignano, F. M. (2012). Per una pedagogia della differenza: promuovere l'integrazione attraverso lo sviluppo di un clima di classe positivo. Indire. [http://www.scuolavalore.indire.it/nuove\\_risorse/per-una-pedagogia-della-differenza-promuovere-lintegrazione-attraverso-lo-sviluppo-di-un-clima-di-classe-positivo/](http://www.scuolavalore.indire.it/nuove_risorse/per-una-pedagogia-della-differenza-promuovere-lintegrazione-attraverso-lo-sviluppo-di-un-clima-di-classe-positivo/)
- Sirignano, F. M. (2019a). L'intercultura come emergenza pedagogica. Modelli e strategie educative. Edizioni ETS.
- Sirignano, F. M. & Maddalena, S. (2012). La pedagogia autobiografica. Pensa Multimedia.
- Sirignano, F. M. & Maddalena, S. (Eds.) (2021). Come schegge di cometa Il formatore autobiografico: spunti e coordinate pedagogiche per l'insegnamento narrativo. Suor Orsola Benincasa University Press.
- Sirignano, F. M. (2002). La formazione interculturale tra teoria, storia e autobiografia. ETS.
- Sirignano, F. M. (2019b). Pedagogia della decrescita. L'educazione sfida la globalizzazione. FrancoAngeli.
- Sirignano, F. M., Buccolo, M. & Ferro Allodola, V. (2023). Gestire lo stress lavoro-correlato attraverso la metodologia del teatro d'impresa: Un percorso pedagogico di ricerca-formazione. *Journal of Theories and Research in Education*, 18(3), 1-26. <https://doi.org/10.6092/issn.1970-2221/17002>
- Sirignano, F. M., Perillo, P. & Maddalena, S. (2016). Qualitative Pedagogical Techniques in Education: Auto-biographical Methodology. In J. G. Galan, F. M. Sirignano (Eds.) *Theory and Practice in Educational Research* (pp. 171-219). Suor Orsola Benincasa University Press.
- Smit, B., & Stavroulaki, E. (2021). The Efficacy of a Mindfulness-Based Intervention for College Students. *Mindfulness*, 12(12):3086-3100. <https://doi.org/10.1007/s12671-021-01772-9>.
- Sontag, S. (1979). *On Photography*. Penguin Books. London.
- Stallman, H. (2008). Prevalence of psychological distress in university student. *Australian Family Physician*, 37(8), 673-677.
- Strong, W. B., Malina, R. M., & Blimkie, C. J. M. (2005). Evidence based physical activity for children and adolescents. *Journal of Pediatrics*, 146(6), 732-737.
- Thomas, L., & Smith, N. (2024). Exercise, mental health, and resilience in college students: Insights from a multi-method study. *Journal of Physical Activity and Health*, 21(1), 80-92. <https://doi.org/10.1016/j.jpeds.2005.01.055>
- Thompson, N., Hunter, E. E., Murray, L., Ninci, L. R., Rolfs, E. M., & Pallikathayil, L. (2007). La experiencia de vivir con una enfermedad mental crónica: un estudio de fotovoz. *Perspectivas en la atención psiquiátrica*, 44(1), 14-24. <https://doi.org/10.1111/j.1744-6163.2008.00143.x>
- Fairey, T. (2018). These Photos Were My Life: understanding the impact of participatory photography projects, *Community Development Journal*, Volume 53, Issue 4, October 2018, Pages 618-636. <https://doi.org/10.1093/cdj/bsx010>
- Ubago-Jiménez, J. L.; Zurita-Ortega, F.; Melguizo-Ibáñez, E.; & Alonso-Vargas, J. M. (2023). Análisis del autoconcepto, inteligencia emocional y violencia según la modalidad deportiva practicada en educación superior. *Apunts: Educación física y deportes*, 154, 61-70. [https://doi.org/10.5672/apunts.2014-0983.es.\(2023/4\).154.06](https://doi.org/10.5672/apunts.2014-0983.es.(2023/4).154.06)
- Utdanningsdirektoratet. (2019a). Core curriculum: Competence in the subjects. <https://www.udir.no/lk20/overordnet-del/prinsipper-for-laring-utvikling-og-danning/kompetanse-i-fagene/?lang=eng>
- Utdanningsdirektoratet. (2019b). Curriculum for music (MUS01-02). <https://www.udir.no/lk20/mus01-02/om-faget/kjerneelementer?lang=eng>
- van Goethem, A., & Sloboda, J. (2011). The functions of music for affect regulation. *Musicae scientiae*, 15(2), 208-228. <https://doi.org/10.1177/1029864911401174>
- Velasquez, Y., & Villagarcía, R. (2017). Estrategias para el fortalecimiento de la resiliencia en estudiantes del V ciclo de la institución educativa 40121 Everardo Zapata del distrito de Jose Luis Bustamante y Rivero. [Unpublished doctoral dissertation]. Universidad Nacional de San Agustín de Arequipa.
- Viciano, V., Fernández Revelles, A. B., Linares, M., Espejo, T., Puertas, P., & Chacón, R. (2018). Los Estudios Universitarios y el Mindfulness. Una Revisión Sistemática. REICE. Red Iberoamericana de Investigación sobre Cambio y Eficacia Escolar 16(1). <https://doi.org/10.15366/reice2018.16.1.008>.
- Wang C., & Burris M. A. (1997). Photovoice: Concept, methodology, and use for participatory needs assessment. *Health Education & Behavior: The Official Publication of the Society for Public Health Education*,

- 24(3), 369387. <https://doi.org/10.1177/109019819702400309>
- Weinberg, R. S., & Gould, D. (2018). Foundations of Sport and Exercise Psychology. Human Kinetics.
- White, M. P., Alcock, I., Grellier, J., Wheeler, B. W., Hartig, T., Warber, S. L., Bone, A., Depledge, M. H. & Fleming, L.E. (2019). Spending at least 120 minutes a week in nature is associated with good health and wellbeing. *Scientific Reports*, 9, 7730. <https://doi.org/10.1038/s41598-019-44097-3>.
- Williams, P., & Roberts, H. (2022). Integrating mindfulness and physical exercise to enhance resilience in university students: A pilot study. *International Journal of Exercise Science*. 15(2), 114–126.
- Worsley, J. D., Pennington, A., & Corcoran, R. (2022). Supporting mental health and wellbeing of university and college students: A systematic review of review-level evidence of interventions. *PLOS ONE*, 17(7), e0266725. <https://doi.org/10.1371/JOURNAL.PONE.0266725>
- Wu, X., & Lu, X. (2021). Musical Training in the Development of Empathy and Prosocial Behaviors. *Frontiers in Psychology*, 12, 661769. <https://doi.org/10.3389/fpsyg.2021.661769>
- Wulf, C. (2008). Antropología. Historia, cultura, filosofía. Anthropos.
- Xu, S., Zongyu, L., Tian, S., Zhiyao, M., Jia, C., & Guoxiao, S. (2021). Physical Activity and Resilience among College Students: The Mediating Effects of Basic Psychological Needs. *International Journal of Environmental Research and Public Health*, 18(7), 1–11. <https://doi.org/10.3390/ijerph18073722>
- Yildirim, N. (2017). Virginia Satir's family education and therapy model. *International Journal of Social Science Studies*, 5(12), 72–79. <https://doi.org/10.11114/ijsss.v5i12.2778>
- Zarotti, N., Povah, C., & Simpson, J. (2020). Mindfulness mediates the relationship between cognitive reappraisal and resilience in higher education students. *Personality and Individual Differences*, 156, 109795. <https://doi.org/10.1016/j.paid.2019.109795>
- Zumalde, E. C., Sola, I. O., González, L. F., Colomer, E. R., Fidalgo, A. P., & Odriozola, J. G. (2019). El programa de mindfulness "Aprendiendo a Respirar" en adolescentes haciendo la transición a la universidad: Ensayo piloto controlado aleatorizado. *Revista de Psicología Clínica con Niños y Adolescentes*, 6(3), 32–38.
- Zung, W. (1971). Rating instrument for anxiety disorders. *Psychosomatic*, 12(6), 371–379. [https://doi.org/10.1016/S0033-3182\(71\)71479-0](https://doi.org/10.1016/S0033-3182(71)71479-0)
- Zurita-Ortega, F., Castro-Sánchez, M., Linares-Manrique, M., & Chacón-Cuberos, R. (2016). Resiliencia, un elemento de prevención en actividad física. *Sportis. Scientific Journal of School Sport, Physical Education and Psychomotricity*, 3(1), 50–62. <https://doi.org/10.17979/sportis.2017.3.1.1726>
- Zurita-Ortega, F., Chacón-Cuberos, R., Castro-Sánchez, M., & Espejo-Garcés, T. (2023). Academic performance and resilience: A study of university students. *Educational Psychology*, 43(7), 865–879. <https://doi.org/10.1080/01443410.2022.2058391>

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