

<https://doi.org/10.23913/ride.v12i24.1133>

*Artículos científicos*

## **Impactos socioemocionales, estrategias y retos docentes en el nivel medio superior durante el confinamiento por COVID-19**

*Socio-Emotional Impacts, Strategies and Teaching Challenges at the High  
School Level During Confinement Due to COVID-19*

*Impactos socioemocionais, estratégias e desafios pedagógicos no ensino  
médio durante o confinamento por COVID-19*

**Herlinda Gervacio Jiménez**

Universidad Autónoma de Guerrero, México

[lindagj09@gmail.com](mailto:lindagj09@gmail.com)

<https://orcid.org/0000-0003-3037-9528>

**Benjamín Castillo Elías**

Universidad Autónoma de Guerrero, México

[bcastilloelias@gmail.com](mailto:bcastilloelias@gmail.com)

<https://orcid.org/0000-0003-1487-5353>

### **Resumen**

El objetivo de la presente investigación fue identificar las problemáticas, experiencias y situaciones de emergencia en las que se encuentran inmersos los docentes del Colegio Nacional de Educación Profesional Técnica, México, a raíz del confinamiento ocasionado por la pandemia del coronavirus Covid-19, con la finalidad de generar datos e información que revele las condiciones y estrategias pedagógicas que han permitido a los docentes de este subsistema continuar con su labor docente. Se implementó la metodología cualitativa de investigación-acción, al igual que la observación participante y la recolección de información de historias de vida. Se seleccionó una muestra de 388 docentes. Los resultados permitieron identificar las dimensiones físicas, emocionales y cognitivas que se han visto afectadas. Los



docentes sufren de angustia, miedo, depresión e irritabilidad. Además, subrayaron la necesidad de contar con espacios físicos tranquilos para su bienestar y salud mental, y señalaron a la seguridad laboral como la principal preocupación, aquello que se interpone para alcanzar estabilidad y bienestar económico. Se concluye con el hecho de que los efectos de la pandemia actual no solo han sido emocionales y físicos, sino también socioeconómicos.

**Palabras clave:** aislamiento escolar, COVID-19, estrés laboral, impactos socioemocionales, personal educativo, resiliencia docente.

### **Abstract**

The objective of this research was to identify the problems, experiences and emergency situations in which the teachers of the National College of Technical Professional Education, Mexico, are immersed as a result of the confinement caused by the Covid-19 coronavirus pandemic, with the purpose of generating data and information that reveal the conditions and pedagogical strategies that have allowed the teachers of this subsystem to continue with their teaching work. The qualitative methodology of research-action was implemented, as well as participant observation and the collection of information from life stories. A sample of 388 teachers was selected. The results allowed to identify the physical, emotional and cognitive dimensions that have been affected. Teachers suffer from anxiety, fear, depression and irritability. In addition, they underlined the need to have quiet physical spaces for their well-being and mental health, and pointed to job security as the main concern. It concludes with the fact that the effects of the current pandemic have not only been emotional and physical, but also socioeconomic.

**Keywords:** education lockdown, COVID-19, occupational stress, socio-emotional impacts, educational personnel, teacher resilience.

## Resumo

O objetivo desta pesquisa foi identificar os problemas, vivências e situações emergenciais em que os docentes do Colégio Nacional de Educação Profissional Técnica, México, como resultado do confinamento causado pela pandemia de coronavírus Covid-19, com a finalidade de gerar dados e informações que revelam as condições e estratégias pedagógicas que têm permitido aos professores deste subsistema dar continuidade ao seu trabalho docente. Foi implementada a metodologia qualitativa de pesquisa-ação, observação participante e coleta de informações de histórias de vida. Uma amostra de 388 professores foi selecionada. Os resultados permitiram identificar as dimensões físicas, emocionais e cognitivas que foram afetadas. Os professores sofrem de ansiedade, medo, depressão e irritabilidade. Além disso, sublinharam a necessidade de espaços físicos tranquilos para o seu bem-estar e saúde mental, e apontaram a segurança do emprego como a principal preocupação, aquela que impede a estabilidade e o bem-estar econômico. Conclui com o fato de que os efeitos da atual pandemia não foram apenas emocionais e físicos, mas também socioeconômicos.

**Palavras-chave:** bloqueio educacional, COVID-19, estresse ocupacional, impactos socioemocionais, pessoal educacional, resiliência de professores.

**Fecha Recepción:** Agosto 2021

**Fecha Aceptación:** Febrero 2022

---

## Introduction

The 2019 coronavirus disease (Covid-19) pandemic has transformed the different dimensions of human life. As in other work activities, education and teaching have undergone great transformations. The quarantine imposed at a global level was intended to prevent the spread of the zoonotic virus that is transmitted between animals and humans known as SARS-CoV-2 and that causes Covid-19 (Chen, Liu and Guo, 2020). According to Chen et al. (2020), coronaviruses are pathogens that can infect the respiratory, gastrointestinal, hepatic and central nervous systems of humans.

In this context of global crisis, the economic, health and educational systems were and continue to be seriously affected. In the latter, considered one of the most important sectors for society, the educational community faced the health emergency through virtual platforms or other means of communication, in such a way that the education of the students was not interrupted, but which continued remotely.

However, for the teachers it was not an easy task: they had to quickly adapt to a totally different teaching modality from the one they had been practicing, at least for most of them,



and at the same time deal with the ravages of a global pandemic. Studies such as those by Garrick et al. (2014), Jensen, Sandoval, Knoll and González (2012) and Skaalvik and Shaalvik (2015) reported the existence of high rates of dissatisfaction, stress, burnout and depression among active teachers. In fact, according to Sanz, García, Rubio, Santed and Montoro (2002), teaching is considered a profession that presents a high risk of psychological distress: when compared to those of the general population, it registers the highest levels low job satisfaction. While, in a recent study, Alves, Lopes and Precioso (2020) found that the pandemic has further reduced the perception of well-being among teachers and has accentuated the uncertainty about their professional future.

Lozano (2020) and Morales (2021) have documented that teaching work causes stress, uncertainty, fear, in short, a negative psychological impact, especially in the most vulnerable population. Likewise, the United Nations Educational, Scientific and Cultural Organization [Unesco], in collaboration with the International Institute for Higher Education in Latin America and the Caribbean [Iesalc] (2020), have confirmed that the pandemic caused by Covid-19 has caused strong psychological impacts on the educational community: the closure of educational centers, the need for physical distancing, the loss of loved ones, of work and the change in traditional learning methods have generated stress, pressure and anxiety. , teachers, students and their families.

The impacts caused by the current pandemic have significantly affected education in all its processes, both in the educational field and in the social and personal field of the entire educational community (Gervacio and Castillo, 2021). As has been documented, distance education has become relevant and has become an alternative to continue academic processes from home (Robinet and Pérez, 2020). Teachers, as a result of these changes, have had to readjust their daily lives to adapt to an unexpected change that generated effects in terms of socio-emotional balance (Tacca and Tacca, 2019).

The process of content adaptation, use of the different platforms and adaptation to the new emerging educational needs require the use of different professional skills, as well as teaching skills that allow the academic work to be carried out effectively. In this way, emotional competencies have been fundamental for the development of knowledge, skills, attitudes and values necessary to identify, understand, express and appropriately regulate the emotional phenomena suffered by society in general and in particular by teachers and their students. . According to Bisquerra and Mateo (2019); Pérez and Filella (2019), among the emotional competencies are emotional awareness, emotional regulation, emotional

autonomy, social competence, life skills and well-being, which are considered necessary and important to be able to face the challenge that represents education in times of pandemic.

Teaching is considered a profession of high social significance. However, it is also an occupation that presents, compared to those of the general population, the lowest levels of job satisfaction (Sanz et al., 2002). And the transfer of education to the virtual plane has made even more evident the physical and emotional health problems suffered by teachers. According to López and Pérez (2020), teaching is currently a threat to the health and well-being of those who exercise it. Other studies have documented that while teachers have always been under constant pressure, this pressure has increased due to current events caused by the current pandemic.

In this regard, the Ministry of Education of Peru (April 1, 2020) starts from the fact that socio-emotional well-being affects what and how one learns. Therefore, crises cause strong negative emotional responses such as fear, stress, panic, anxiety, so the construction of socio-emotional learning skills allows stressful situations to be addressed with assertive responses and critical thinking.

In addition to this, stress and fear have a negative impact on health and the ability to learn; only when the brain is socially connected and emotionally safe can it focus on academic content and properly engage in learning (Unesco-Iesalc, 2020).

Along the same lines, Aguaded and Almeida (2016) affirm that the way in which each person responds to life's adversities and experiences contributes to or affects personal development. This is a fundamental competence of all education professionals. In this way, to promote emotional health, it is necessary to consciously articulate the dimensions of emotion, cognition and behavior, which will allow persevering in achieving goals despite difficulties and will exercise tolerance to frustration.

The Ministry of Public Education [SEP] (2020) set itself the objective of contributing to strengthening the resilience of the education system in order to prevent and attend to emergency situations through technical assistance to educational authorities and officials, as well as through strengthening of teachers' abilities. This through the production and dissemination of specialized virtual spaces and the offer of a series of tools focused on issues related to the performance and development of teaching activities and the strengthening of socio-emotional skills.

Gervacio and Castillo (2020) have documented that the National College of Technical Professional Education (Conalep) of the Upper Secondary Level has implemented

methodological strategies in all its schools nationwide to monitor teaching and learning online. This follow-up has included the strengthening of the socio-emotional skills of teachers of this subsystem in all schools in the country, so that they have strategies for managing emotions, stress, and self-regulation in the context of the pandemic and confinement.

Asimismo, Gervacio and Castillo (2021) affirm that the stress to which the educational community is currently subjected has mainly affected students and teachers due to various factors related to virtual classes, such as poor connectivity, the management of technological tools and virtual platforms, as well as a critical situation economic vulnerability and social inequality that have been evidenced by the current pandemic.

Within this framework, Conalep implemented strategies at the national level to achieve the emotional stability of the members of the educational community of this subsystem. Through a program called Preparing for a new normality, it promoted tools and strategies with which the emotional stability of the teacher is intended. This program includes massive open online courses (MOOC) as a strategy to strengthen the teacher's socio-emotional skills, as well as the design of strategies to deal with socio-emotional aspects in the face of the pandemic.

The objective of this research was to identify the socio-emotional dimensions, problems, experiences and emergency situations in which Conalep teachers are immersed in the face of the confinement caused by the SARS-CoV-2 pandemic, in order to generate data and information that reveals the conditions and pedagogical strategies that have allowed the teachers of this subsystem to continue with their teaching work.

### **Research hypothesis**

The interruption of routines, the reduction of social interactions and the deprivation of traditional teaching-learning methods caused by the confinement of the Covid-19 pandemic, have resulted in greater pressure, stress and anxiety in teachers, which which has significantly affected their emotional state and job performance.

## Methodology

The present investigation arises in a framework of uncertainty before the imminent return to face-to-face classes. As a strategy to stabilize the socio-emotional dimensions, Conalep implemented MOOC to contribute to the emotional stability of the members of the educational community of this subsystem, part of the "Preparing for a new normality" program.

It was attended by 13,356 teachers from the Conalep system from different state and regional schools in the Mexican Republic. From this total of participants, following Sierra (2001) and Pértigas and Pita (2002), a representative sample size of 388 teachers was chosen. It should be noted that the following formula was used to arrive at this figure:

$$n = \frac{4 * N * p * q}{E^2 (N - 1) + 4 * p * q}$$

As:

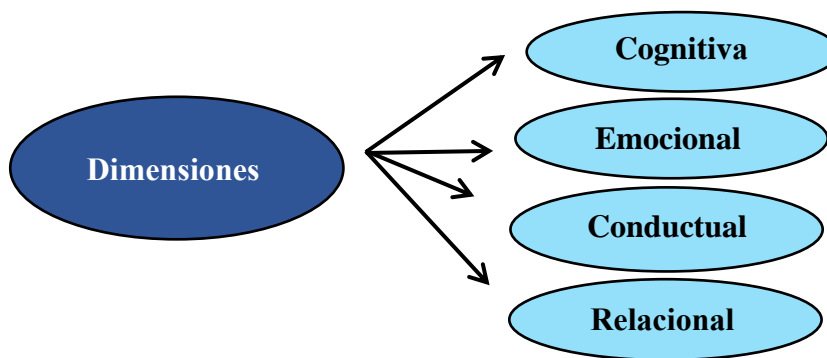
- $n$ : sample size;
- $N$ : population size;
- $p$ : probability of success = 0.5;
- $q$ : probability of failure = 0.5;
- $E_2$ : error selected by the researcher = 0.05, and
- 4: constant.

This research was articulated through a qualitative methodological approach based on action research (Rekalde, Vizcarra and Macazaga, 2014). Within this, the dialogue on "experiential experiences" has been a key aspect in the construction of new knowledge. As Pérez (2008) points out, one of the features of this methodology is the union of theory and practice, which opens the door to more open, flexible, participatory research, accessible to any professional and, above all, committed to solving of practical problems (Rekalde et al., 2011).

Likewise, the technique of Gervacio and Castillo (2020) was taken up, who used clarity and precision as units of analysis to systematize educational experiences, which was replicated here to precisely systematize the personal life experiences of the teachers under study. Of course, dialogue was privileged through MOOC-type workshops, forums and virtual chats, which were taught by expert teachers on the subject, who stimulated dialogic action through the expository technique, thanks to which relevant information and data were

obtained. on the socio-emotional impacts caused by the Covid-19 pandemic. These were classified into four socio-emotional dimensions, as shown in Figure 1.

**Figura 1.** Clasificación de las dimensiones socioemocionales



Fuente: Elaboración propia con datos del Centro de Perfeccionamiento, Experimentación e Investigaciones Pedagógicas [Cpeip] (2020)

The analysis of the narrated and recorded experiences were classified based on clarity and precision. From these, inferences were made with the content analysis technique and were grouped into descriptive, objective and systematic (Fernández, 2002; Hernández and Mendoza, 2018; Unesco, 2016). Within this approach, communication and dialogue constituted a key aspect for the construction of knowledge (Freire, 2014; Habermas, 2018). The ATLAS.ti v8 support software was used for qualitative content analysis (Varguillas, 2006), where valid and reliable inferences were made from data that show the context that the teachers under study are experiencing (Hernández, Fernández and Baptista, 2014 ).

## Results

The results are presented in two blocks. The first corresponds to the methodological structure with which the virtual workshops called MOOCs were taught, which allowed this research to be carried out. The second block corresponds to the results obtained from the workshops.

In this way, the context in which the experiential virtual workshops "Resignify myself in emergency situations" were developed is described below. It should be noted that they were carried out within the framework of a possible return to face-to-face classes and taught by logotherapy specialists from the National Institute of Psychiatry. Thus, it had the support of 15 expert psychologists and thanatologists who attended the teachers through virtual



forums "experiential experiences", where questions, doubts and special cases were channeled; giving five workshops with a total of 20 hours.

The methodological and pedagogical approach used for the workshops, as well as their objectives, are detailed in Table 1.

**Tabla 1.** Taller virtual: “Resignificarme en situaciones de emergencia”

Dirigidos a docentes del sistema Conalep	
Enfoque metodológico	<p>La metodología empleada para el desarrollo del MOOC estuvo basado en el aprendizaje vivencial, en donde se buscó conducir al participante al autoconocimiento y autorregulación de sus emociones a través de herramientas y consejos prácticos que le permitan avanzar y adaptarse a la realidad pese a las circunstancias que se le presenten.</p> <p>Para la realización de los talleres se contó con la participación de especialistas en los temas, con el fin de promover acciones que lleven a los participantes a tener resultados de mayor bienestar y satisfacción personal y profesional.</p> <p>Considerando la importancia del tema, se desarrollaron algunos recursos, emocionales y prácticos, para que los participantes cuenten con las herramientas necesarias para un regreso seguro.</p>
Enfoque pedagógico	Autoaprendizaje y aprendizaje social
Objetivo	Dialogar con los docentes del sistema Conalep, conocer cómo están viviendo la pandemia, para tratar de fortalecer su lado humano, mejorar los estados emocionales, proporcionarles las herramientas y elementos que les permita cumplir mejor con su función e integrarlos a sus actividades docentes en mejores condiciones, de tal manera que se genere en el interior de los planteles un ambiente que supere el miedo, el dolor, la incertidumbre en que actualmente se vive.
Apertura de curso para docentes	Un primer acercamiento y reconocimiento de la plataforma.
Sesiones en vivo	<p>A lo largo de estos días se trabajó de la mano de especialistas, quienes identificaron y reconocieron las emociones, así como aquello en lo que necesitan trabajar a través de experiencias vivenciales, a fin de estar preparados para el regreso a las instalaciones de trabajo.</p> <p>Estas experiencias ofrecieron algunos recursos emocionales y prácticos para acompañar al docente en el regreso a la nueva normalidad y a su bienestar emocional para una mejor interacción con su comunidad.</p>

	Se revisaron algunos aspectos teóricos como el manejo de sentimientos, la relación entre la satisfacción de las necesidades personales, la resiliencia y el sentido de vida.
Recursos de apoyo	Los recursos de apoyo permitieron abrir espacios respetuosos para que, en caso de que los docentes lo necesitaran, expresaran sus propias experiencias y los sentimientos derivados de ellas durante este periodo de confinamiento y contingencia sanitaria.
Duración	Sesiones en vivo. 20 horas totales de los talleres

Fuente: Elaboración propia

Table 2 shows a concentrate on the activities that were developed with the teachers under study in the virtual workshops. Likewise, each of the experiences can be observed. The main objectives were the following:

- 1) Analyze the impact of Covid-19 by recounting a personal experience in order to promote co-responsibility in the face of the pandemic.
- 2) Develop the capacity for empathy, by exposing an adverse situation, in order to recognize their feelings and facilitate empathy with other people.
- 3) Reflect on your feelings and thoughts in this time of confinement to relate to the other.
- 4) Promote the use of resilient resources and the discovery and construction of the meaning of life to facilitate the experiences of the new reality.
- 5) Identify actions to promote emotional health, self and student health, and recognize the effects caused by the pandemic.

**Tabla 2.** Estructura del taller virtual: “Resignificarme en situaciones de emergencia”

Dirigido a docentes del Conalep	
Experiencia 1	Vivencia personal durante la contingencia sanitaria y el confinamiento.
Objetivo	Analizar el impacto de la Covid-19 mediante el relato de una experiencia personal con el fin de promover la corresponsabilidad ante la pandemia.
Experiencia 2	Mis sentimientos el confinamiento y la contingencia.
Objetivo	Desarrollar la capacidad de empatía, mediante la exposición de una situación adversa, con el fin de reconocer mis sentimientos y facilitar la empatía con las otras personas.
Experiencia 3	Relación entre mis necesidades satisfechas y mis sentimientos.
Objetivo	Reflexionar sobre nuestros sentimientos y pensamientos en este tiempo de confinamiento para relacionarnos con el otro.
Experiencia 4	Vivir mi nueva realidad: resiliencia y sentido de vida.
Objetivo	Promover la utilización de recursos resilientes y el descubrimiento y construcción del sentido de la vida para facilitar las experiencias de nuestra nueva realidad.
Experiencia 5	Estrategias para promover con los estudiantes la salud emocional.
Objetivo	Identificar acciones para la promoción de la salud emocional, propia y de los alumnos, reconociendo los efectos causados por la pandemia.

Fuente: Elaboración propia

The analysis that follows is presented by theme of each workshop. Thus, the results corresponding to workshop number one, "Personal experience during health contingency and confinement", are presented immediately, whose objective was to analyze the impact of Covid-19 through the "report of a personal experience" in order to promote co-responsibility in the face of the pandemic.

In this first workshop, the topics of discussion, as well as the questions for reflection, revolve around the feelings that teachers have experienced due to the contingency and Covid-19, which currently has the educational system and the population in general in quarantine.

It has been of great interest to know how this period of time has brought out different feelings and emotions and the coincidences between the various components of the educational community.

In this workshop, the reflection questions were considered: “What feelings have you experienced when learning life stories about Covid-19? and “Do they have any relationship with your own experience in the face of the pandemic and confinement? Which one?”.

Based on these reflection questions, the participating teachers had the opportunity to express and present their own experiences. Thus, they expressed the feelings they have experienced when learning about the suffering that family members, friends, students and themselves are feeling; they expressed their concern, their fears, their anger and their feelings in the face of the evident problem that is being experienced globally; they expressed how Covid-19 has drastically changed their life routines; They stated that this experience has been traumatizing and its impacts have been very strong in all aspects, both emotional and economic. However, they commented that they have faith that this tragedy will pass and that it will serve as an experience to modify aspects of their personal and professional lives.

This excerpt exposes the concerns and comments about the reflection questions:

This confinement has had us worried, anxious and stressed because we don't know how to help our family, our friends, our students and ourselves. We have lost relatives, fellow teachers, neighbors and acquaintances. There is a lot of fear of possible contagion. We have sick relatives and acquaintances, which makes us nervous and stressed. There is uncertainty for not knowing what will happen tomorrow.

We have fellow teachers and family members of our students who are in health problems due to this virus, the consequences and problems have been incalculable on a personal and economic level. There is a high degree of stress, not only due to health issues, but also due to the increase in work at home, due to the various courses that are being taught to us for the use of virtual platforms; there is uncertainty about knowing the conditions of a possible return to face-to-face classes. We are distressed by the change in routine, we have new activities, we have changed work and sleep schedules, we are suffering from insomnia, we feel depressed, angry, there are many things that I do not know how to react to (...). We have moved the classroom home, we have experienced physical and emotional changes in our routines, in living with our families.

According to figure 2, worry, anguish, fear, stress and irritability are the main cognitive and behavioral perceptions that teachers have expressed during confinement.



teachers assured that there are restrictive measures but the general public has not complied with the measures as it should, which has caused an increase in those infected.

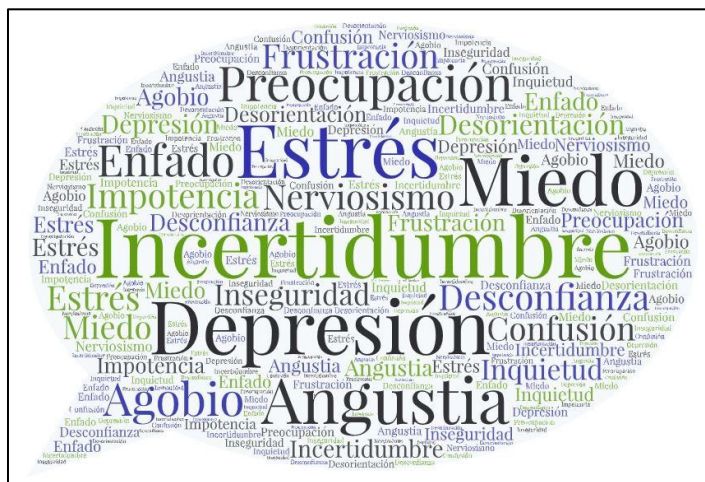
Below is a fragment of the events mentioned by the teachers under study:

The uncertainty of not knowing what will happen to our family and ourselves, with our health, has allowed us to reflect on the process of our life and our existence; Knowing that the lives of our families and ourselves are at risk has caused us instability and emotional uncertainty. On the other hand, there are economic needs: in case of illness or contagion, we do not have the financial resources to cover medical expenses. We are experiencing fear and fear in the face of this threatening and unknown virus. The irresponsibility of some people who do not abide by health recommendations and consequently do not break the chain of infections; the panic situation that exists around us has brought us stress; the isolation from our family and our parents has been frustrating; the stress of work activities and home activities keeps us constantly stressed. However, we must remain firm, responsible, consistent and move forward waiting for better times, with the confidence that we will get ahead.

Regarding the responsibility and importance of emotional health, the teachers affirmed that love of life, love of their family and responsibility for their work have allowed them to move forward; They assured that staying emotionally stable has not been easy, they have had to resort to different activities such as physical exercise, meditation or praying, this has allowed them to maintain relatively stable emotional health. Still others commented that the manual activities, courses on different topics, have been of great support to the teachers themselves and their families. Some others have found it difficult to keep their balance due to the different situations they are going through, such as not having enough space at home for their work activities, spaces for children and family.

The emotions of uncertainty, depression, fear, stress and anguish are the most outstanding as shown in figure 3.

**Figura 3.** Categorización de la conexión de emociones con la emergencia sanitaria



Fuente: Elaboración propia con software ATLAS. ti

In the third workshop, "Relationship between my satisfied needs and my feelings", whose objective was to reflect on feelings and thoughts in time of confinement and the relationship with others, the following reflection questions were raised: "What needs and feelings have you contained in this time of confinement?" and "What part of this experience makes you feel more human and closer to your needs and those of others?"

Regarding the needs, the teachers commented that within their emerging needs is that of a space, both physical and personal space, a space for themselves. It has been difficult, they said, to have a physical space at home to set up as a permanent study or office that allows them to carry out their work activities in a comfortable and pleasant way, a physical space for themselves and their children or relatives who also carry out their school activities or work at home due to the pandemic, activities that have been carried out from home.

Therefore, they have had to share all the spaces at home, which has complicated coexistence and the physical and emotional well-being of the family in general. They emphasized the importance of having a personal space for meditation, reflection or rest, a space for oneself or simply to relax the mind. And they insisted on the importance of having time and space for themselves since this would allow them physical and mental harmony, so necessary in complicated and changing times.

Unfortunately, some teachers said that coexistence has been more complicated where they live because the spaces are reduced, but they also accepted that love, tolerance and motivation have been strengthened among the family to move forward and stay together and safe.

Another need that they have considered of vital importance for their well-being is job security. The teachers of this subsystem commented that in some of the schools where they work, their employment contract must be renewed every semester; In addition, they work for hours, which forces them to look for another source of income, since the limit of hours is only 20 and, consequently, the salary is very low and lower than that of other educational subsystems.

It was observed how teachers recognize the need for quiet physical spaces, something essential for their well-being and mental health. On the other hand, job security is the main need for your peace of mind and to satisfy your basic needs; have a decent salary that certainly supports the family economy (figure 4). This situation of job insecurity is another reason for frustration, anguish and anger.

**Figura 4.** Categorización de las necesidades y sentimientos con la emergencia sanitaria



Fuente: Elaboración propia con software ATLAS. ti

For the fourth workshop, "Living my new reality: resilience and meaning of life", the objective was to promote the use of resilient resources and the discovery and construction of the meaning of life to facilitate the experiences of our new reality. The following reflection questions were formulated: “What socio-emotional and academic skills do I require to live in the new normal?” and “Which one do I count on for the safe return?”

The answers to these questions were divided into socio-emotional and academic skills. Among the main socio-emotional skills that they have considered necessary and fundamental and that has allowed them to continue and move forward, has been resilience, this socio-emotional skill, according to what was mentioned by some teachers, has allowed



them to resist the pain due to the loss of relatives. , friends or neighbors, has allowed them to be strong in the face of suffering from some disease, resilience has allowed them to adapt and face the adverse situation caused by the current coronavirus pandemic; the teachers agreed that it has been necessary to develop socio-emotional skills that allow them to continue with their lives and their work, overcoming obstacles and solving them satisfactorily.

The teachers affirmed that they have developed empathy with their students. Even more, they consider it an essential social skill to foster a pleasant climate of teacher-student relationship. They pointed out that empathy has facilitated communication and conflict resolution between work groups and teams.

On the other hand, within teaching skills, collaborative and team work has been considered a fundamental social skill to integrate the educational project they have in common. According to the teaching staff, all personal and professional skills are necessary to carry out all educational activities successfully, which has given them fruitful results with students.

Another ability that the teachers themselves have developed, according to their comments, is personal initiative, which has allowed them to undertake new things, enhancing their teaching skills. In the context they currently live in, they considered that without this ability they could not have continued learning the new virtual methodologies and strategies to innovate in their work activity as teachers. Consequently, they said that they have had to take the initiative to continue learning autonomously and to continue developing digital skills that are so necessary in their current role as teachers.

Figure 5 shows how teachers explained that, based on self-motivation, they have strengthened their own resilience; They are also aware that it is necessary to continue building and promoting this quality with students.

**Figura 5.** Categorización de habilidades socioemocionales y profesionales



Fuente: Elaboración propia con software ATLAS. ti

Regarding academic and educational skills, teachers considered the essential digital skill to live and work in the face of the evident global pandemic, technological knowledge, creativity and the ability to correctly communicate the message that you want others to understand and understand. pay attention

Seeing the new reality with critical thinking is a skill that teachers consider important to develop both among themselves and with students. The faculty mentioned that it is necessary to think critically and encourage this ability in students, so that they develop critical thinking, analyze the current problems caused by the pandemic from different perspectives and formulate their own criteria to bring new solutions and effective performance in any field and area of life (figure 6).

**Figura 6.** Categorización de habilidades académicas y educativas



Fuente: Elaboración propia con software ATLAS. ti

Finally, in the fifth workshop, "Strategies to promote emotional health with students", the objective was to identify actions to promote emotional health, both for themselves and for students, and to recognize the effects caused by the pandemic. It was structured from two questions. The first of them was: "What effects will there be and how is this going to impact the teaching plane?"

On the social level, the teachers under study affirmed that the spread of the pandemic caused by the Covid-19 virus has brought with it an economic crisis, global and local unemployment, an unprecedented public health crisis that has caused a enormous suffering and loss of human life. At the educational level, they commented that the consequences in education are dramatic, the educational sector has been overwhelmed and that there is great pressure on this sector, which has negatively affected the quality of education.

On the other hand, social inequality became evident. The teachers emphasized that a great social inequality was observed due to the fact that not all the students, and the teachers themselves, had a computer and internet or broadband to continue their learning; Consequently, students who did not have technological equipment were left without access to virtual platforms, and closing the school caused a large dropout of students who were unable to continue their classes.

In addition, they have raised the urgent need to make changes in their pedagogical strategies. The majority agreed on the urgency of improving the cognitive, social, emotional and behavioral dimensions of their learning, in such a way that it allows them to reach students more easily and that they, in turn, take better advantage of the classes and the contents of the corresponding subjects.

They have recognized the need for a restructuring of the study programs, which address content and learning outcomes according to the experiences that have been experienced by the pandemic. The participants agreed on the importance of a new pedagogy, a comprehensive and transformative education, where the contents encompass inclusive learning in environments and environments conducive to learning.

They agreed on the importance of raising awareness and promoting a change in behavior in the face of events caused by the pandemic that allows them to intensify care in their cleaning and disinfection activities, as well as improve waste management practices among the educational community with the in order to reduce the risk of contagion.

The second question of this workshop was: "To promote a healthy professional practice, what actions will be the priority in my teaching work in the new normality?"

The faculty agreed that the reopening of schools will certainly bring benefits in every way, both for students and for the economy in general, however, they also recognized that it is essential to protect teachers and administrative staff, as well as students. who, in the same way, are at high risk of contagion due to their age or health conditions, which makes them prone to and vulnerable to the pandemic.

The teachers concluded on the importance of developing clear protocols on security measures in the face of an imminent return to the classroom, first of all, physical distancing, prohibiting activities that require large gatherings, staggering the start and end of the working day, moving classes to outdoor sites and teaching in shifts to reduce student group sizes.

The teachers under study agreed on the importance of having effective procedures in the school facilities and constant communication with the health authorities for the monitoring and control of the health of students and staff, the updating or creation of emergency plans for follow up on vulnerable or infected cases, as well as the protocols recommended by the Ministry of Health in terms of taking temperatures, testing teachers before reopening school facilities for the new normality, training cleaning staff in practices disinfection and equip them with personal protective equipment as far as possible.

In this way, teachers confirmed their fears about a possible return to face-to-face classrooms. They argued that the health, technological and technical conditions for a safe return for the educational community do not exist in the schools that work. In addition, they do not have the technological resources to migrate to hybrid classes, as the Ministry of Public Education is proposing.

According to the analysis of the results, the research hypothesis proposed at the beginning is accepted: the aspects of pressure, stress and anxiety detected in the teachers significantly affected their emotional state and, consequently, their work performance. Likewise, strengths were identified that allowed them to be resilient to continue with their teaching practice.

## Discussion

Within a complex and challenging context in which humanity finds itself at a global level, teachers have been fundamental actors in the response to the Covid-19 pandemic: they have responded to a series of emerging demands during the social and health crisis, which it has brought an imbalance in all areas of the teacher and significant socio-emotional impacts, as shown in the results of this research. In the study by Tacca and Tacca (2019), as here, it



was detected that the main symptoms of stress have been tiredness, lack of sleep, headache, lack of concentration, imbalance in eating habits, among others; They all talk about the socio-emotional impacts that being a teacher represents. In addition to the above, and based on the results of this research, it can be stated that the degrees of stress are increasing. Without a doubt, the effects of the pandemic have further deepened the socio-emotional impacts.

International organizations such as UNESCO (2020) have emphasized the effects caused by the current coronavirus pandemic, which has caused the closure of educational centers, the need for physical distancing, the loss of loved ones, of work and change of traditional learning methods, have generated stress, pressure and anxiety for teachers, students and their families, which has been exhausting and exhausting. The physical and emotional health of teachers has undoubtedly been affected and in some cases seriously compromised.

The aforementioned Garrick et al. (2014), Jensen et al. (2012) and Skaalvik and Shaalvik (2015) reported the existence of high rates of dissatisfaction, stress, exhaustion and depression presented by teachers in service. And Alves et al. (2020) found that the pandemic has reduced the perception of well-being among teachers and has cast doubt on their professional future. These findings coincide with the results of the present study, since the teachers under study expressed low satisfaction in terms of both economic and professional recognition of their teaching work. Meanwhile, Lozano (2020) affirms that teaching work generates stress, uncertainty and fear, all a negative psychological impact, especially in the most vulnerable population. On the other hand, Morales (2021) determined in university students a relationship between fear, stress, resistance, self-esteem, and coping strategies in the face of the Covid-19 pandemic, as recorded in this study, where teachers reported having a high degree of stress as a result of the process they are experiencing due to the pandemic.

Although it is true that teaching is considered a profession with a high social impact, those who practice it consider it an exhausting and exhausting job due to the large number of academic activities that must be carried out before and after a class in front of a group. In this regard, Sanz et al. (2002) state that teaching is considered the occupation that presents the highest risk of psychological distress with the lowest levels of job satisfaction compared to the general population; likewise, teachers have stated that the transfer of education to the virtual plane has affected their physical and emotional health, coinciding with López and Pérez (2020) who assert that teaching is one of the professions that most intensely endangers education. health and well-being of those who exercise it.

In the context caused by the pandemic, the teachers affirmed that they have enhanced their creativity in the design of virtual classes. To do this, having the necessary digital skills, having expertise in managing virtual platforms and tools has been invaluable. Of course, the time they spend planning and preparing their work involves a number of activities that can be extremely stressful and often undervalued. In this regard, Aguaded and Almeida (2016) have documented that the way in which each person responds to life's adversities and experiences influences personal development, which is considered a fundamental competence of all education professionals.

Martínez, Yániz and Villardón (2017) affirm that teachers are subjected to a series of social challenges that require more professional preparation and adaptation, so it is necessary to have a wide range of professional skills to adequately face the challenges that the performance of their task requires, skills that without a doubt the teachers under study have affirmed that they are necessary to face the challenges of their work as a teacher in the face of the new virtuality.

Unesco (2020) has recognized that during the pandemic, teachers and educational personnel have faced the demands for socio-emotional and mental health support from both students and their families, in such a way that the anguish and anxiety that teachers mention having under study may be caused by both the associated health risks and the increased workload of teaching using new and complex methods without adequate training.

Finally, it is necessary to emphasize the problems currently suffered by teachers both personally and professionally. Although it is true what the Ministry of Education of Peru (2020) affirms regarding that socio-emotional well-being affects what and how it is learned, it has not been easy for teachers to develop academic activities with a virtual format, adjust new methodologies, as well as such as curricular reorganization, design of materials and diversification of media, formats and work platforms. As López and Pérez (2020) state, education requires a large number of technical, technological, and academic skills and, above all, a great emotional involvement with students, families, and co-workers.

The teachers under study have pointed out the importance of tolerance and flexibility, openness and collaborative work. Along these lines, Richardson and Mishra (2018) affirm that these conditions facilitate the development of creative teaching. And Díaz (2020) pointed out that in the context of the pandemic, technology-mediated teaching strategies have been generated in an improvised but resilient way.

Based on the results obtained, it was found that the teachers registered a greater psychological impact, since, in addition to factors such as stress, anxiety and depression, together with extracurricular activities such as the various courses promoted by the institution itself and the SEP, we must add the overwhelming housework product of gender stereotypes. According to Lozano (2020) and Gervacio and Castillo (2020, 2021), under this scenario, if there is no immediate and relevant intervention, the levels of stress, fear, confusion, anger, frustration, worry, boredom, loneliness, stigma, anxiety, hopelessness, guilt and depression would be triggered even more, even in some cases it would be talking about suicide.

## Conclusions

Teaching work in times of pandemic has been essential for academic development and continuity, to provide remote and virtual care to groups of students who have been left without the possibility of attending face-to-face classes due to the pandemic. Teachers, like their own students, have sought the most appropriate means to stay in touch, to maintain constant communication, and to give continuity to classes through different means of communication. This challenge has not been easy, due to the multiple technical, technological and communication complications that arose at the time.

The forced transformation from the transfer to virtual classrooms has generated new educational spaces and has enhanced creativity, has developed resilient strengths and demonstrated a great capacity for work and adaptation to enhance teaching and learning in teachers. The experiences of the teachers account for creative processes, the search for alternatives, the design of new pedagogical strategies, where the main interest is the needs and interests of the students and the conditions of their families.

In this sense, teachers are not only building learning, but they have also created affective bonds, socio-emotions and empathy with students and their families, they have learned about the importance of tolerance and flexibility, openness and collaborative work. Now it seems that the next step will be to adapt to mixed, blended learning or hybrid pedagogical models, which require the incorporation of forms of multimedia teaching based on ICT, in such a way that not only teachers must continue training to face this new challenge. educational, but that the institutions must equip themselves with what is necessary to carry out this new modality of teaching and learning.

On the other hand, teachers, as education professionals, have remained exposed to the impacts caused by the current coronavirus pandemic (Covid-19), they have been at constant risk of contagion, their physical and emotional health has been affected, They have had to deal with the emotions that stress has caused them. Indeed, as documented in the results, their tranquility, peace, calm and sense of humor have been affected, which has had consequences in their immediate context and their intra-family relationships, their environment, their economy and their work performance.

In this sense, psychological support and follow-up will be essential in order to take care of emotional health, as well as to protect teachers from chronic stress and anxiety so that they can continue with their educational activities.

Physical health was also a fundamental topic that teachers took up again. While it is true that emotional well-being is important, they also emphasized the importance of staying physically healthy. Many of the teachers insisted that their physical health has been affected, which has triggered a series of ailments from the pandemic. Consequently, it is necessary to consider the physical and emotional state of teachers before the imminent return to classrooms in person. Both physical and emotional health must be attended to in equal measure through a serious and professional approach in each of the schools of the Conalep system, in order to attend and help them in a timely manner, because, of this, Your performance, performance and ability to adapt to the "new normal" will depend on your physical and emotional well-being.

### **Future lines of research**

This research provides valuable data to generate new lines of research that allow continuity to the topic discussed in this study. The economic and physical health impacts of the teachers under study in times of pandemic is one of them. In short, it is not an exhausted topic, quite the opposite. It is considered convenient to continue this research in order to generate new information on the problems that teachers are currently experiencing in the country and globally due to Covid-19. The foregoing will provide more valuable information for the implementation of better strategies that contribute to facing this and future pandemics.



## Acknowledgment

The authors thank the National College of Technical Professional Education for the support provided to carry out this research.

## References

- Aguaded, M. y Almeida, N. A. (2016). La resiliencia del docente como factor crucial para superar las adversidades en una sociedad de cambios. *Tendencias Pedagógicas*, 28, 167-180. Recuperado de <http://dx.doi.org/10.15366/tp2016.28.012>.
- Alves, R., Lopes, T. and Precioso, J. (2020). Teachers' well-being in times of Covid-19 pandemic: factors that explain professional well-being. *IJERI: International Journal of Educational Research and Innovation*, (15), 203-217. Retrieved from <https://doi.org/10.46661/ijeri.5120>.
- Bisquerra, R. y Mateo, J. (2019). *Competencias emocionales para un cambio de paradigma en educación*. España: Horsori.
- Chen, Y., Liu, Q. and Guo, D. (2020). Emerging coronaviruses: Genome structure, replication, and pathogenesis. *Journal of Medical Virology*, 92(4), 418-423. Retrieved from <https://doi.org/10.1002/jmv.25681>.
- Centro de Perfeccionamiento, Experimentación e Investigaciones Pedagógicas [Cpeip]. (2020). *Comprender la crisis y su impacto socioemocional*. Chile: Ministerio de Educación. Recuperado de <https://www.cpeip.cl/wp-content/uploads/2020/07/Comprender-la-Crisis-y-su-Impacto-Socioemocional.pdf>.
- Díaz, M. A. (2020). Equipos directivos de educación primaria. Improvisar la alfabetización digital durante la cuarentena. En Instituto de Investigaciones sobre la Universidad y la Educación [Iisue] (ed.), *Educación y pandemia. Una visión académica* (pp. 145-152). Ciudad de México, México: Universidad Nacional Autónoma de México <https://www.iisue.unam.mx/nosotros/covid/educacion-y-pandemia>.
- Fernández, F. (2002). El análisis de contenido como ayuda metodológica para la investigación. *Revista Ciencias Sociales*, 96, 35-53. Recuperado de <https://www.revistacienciasociales.ucr.ac.cr/images/revistas/RCS96/03.pdf>.
- Freire, P. (2014). *Pedagogía de la esperanza: Un reencuentro con la pedagogía del oprimido*. (2.<sup>a</sup> ed.) Buenos Aires, Argentina: Siglo XXI Editores.

- Garrick, A., Winwood, P. C., Mak, A. S., Cathcart, S., Bakker, A. B. and Lushington, K. (2014). Prevalence and Organizational Factors of Psychological Injury Among Australian School Teachers. *The Australasian Journal of Organisational Psychology*, 7(5), 1-12. Retrieved from <https://doi.org/10.1017/orp.2014.5>.
- Gervacio, H. y Castillo, B. (2020). Desafíos educativos que enfrenta el Colegio Nacional de Educación Profesional Técnica ante la pandemia sanitaria Covid-19. *Revista del Centro de Investigación de la Universidad La Salle*, 14(53), 45-66. Recuperado de <https://doi.org/10.26457/recein.v14i53.2658>.
- Gervacio, H. y Castillo, B. (2021) Impactos de la pandemia Covid-19 en el rendimiento escolar durante la transición a la educación virtual. *Revista Pedagógica*, 23, 1-29. Recuperado de <https://doi.org/10.22196/rp.v22i0.6153>.
- Habermas, J. (2018). *Teoría de la acción comunicativa: Tomo I. Racionalidad de la acción y racionalización social*. Madrid, España: Trotta.
- Hernández, R. y Mendoza, C. (2018). *Metodología de la Investigación. Las rutas cuantitativa, cualitativa y mixta*, Ciudad de México, México: McGraw-Hill Education.
- Hernández, R., Fernández, C. y Baptista, P. (2014). *Metodología de la investigación* (6.ª ed.) Ciudad de México, México: McGraw-Hill.
- Jensen, B., Sandoval, A., Knoll, S. and González, E. J. (2012). *The Experience of New Teachers: Results from TALIS 2008*. Paris, France: Organisation for Economic Co-operation and Development. Retrieved from <https://doi.org/10.1787/9789264120952-en>.
- López, È. y Pérez, N. (2020). *La influencia de las emociones en la educación ante la COVID-19. El caso de España desde la percepción del profesorado*. Barcelona, España: Universitat de Barcelona. Recuperado de [http://diposit.ub.edu/dspace/bitstream/2445/173449/4/2020\\_Informe\\_La%20influen%20cia%20de%20las%20emociones%20en%20la%20educaci%20n%20ante%20la%20COVID-19.pdf](http://diposit.ub.edu/dspace/bitstream/2445/173449/4/2020_Informe_La%20influen%20cia%20de%20las%20emociones%20en%20la%20educaci%20n%20ante%20la%20COVID-19.pdf).
- Lozano, A. (2020). Impacto de la epidemia del coronavirus (COVID-19) en la salud mental del personal de salud y en la población general de China. *Revista de Neuro-Psiquiatría*, 83(1), 51-56. Recuperado de <https://dx.doi.org/10.20453/rnp.v83i1.3687>.

- Martínez, M., Yániz, C. y Villardón, L. (2017). Competencias profesionales del profesorado de educación obligatoria. *Revista Iberoamericana de Educación*, 74(1), 171-192. Recuperado de <https://doi.org/10.35362/rie740613>.
- Ministerio de Educación. (1 de abril de 2020). Resolución Ministerial N°016-2020-MINEDU. *El Peruano*, pp. 9-10. <https://cdn.www.gob.pe/uploads/document/file/574684/disponen-el-inicio-del-ano-escolar-a-traves-de-la-implementa-resolucion-ministerial-n-160-2020-minedu-1865282-1.pdf>.
- Morales, F. M. (2021). Fear, Stress, Resilience and Coping Strategies during COVID-19 in Spanish University Students. *Sustainability*, 13(11), 1-19. Retrieved from <https://doi.org/10.3390/su13115824>.
- Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura [Unesco]. (2016). *Sistematización de experiencias educativas innovadoras*. (1.<sup>a</sup> ed.), Lima, Perú: Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura. Recuperado de <https://unesdoc.unesco.org/ark:/48223/pf0000247007>.
- Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura [Unesco]. (2020). Respuesta del ámbito educativo de la Unesco al COVID-19. Nota temática núm. 1-2. Recuperado de [https://unesdoc.unesco.org/ark:/48223/pf0000373271\\_spa](https://unesdoc.unesco.org/ark:/48223/pf0000373271_spa).
- Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura [Unesco]- Instituto Internacional para la Educación Superior en América Latina y el Caribe [Iesalc]. (2020). *COVID-19 y educación superior: de los efectos inmediatos al día después. Análisis de impactos, respuestas políticas y recomendaciones*. Recuperado de <https://www.iesalc.unesco.org/wp-content/uploads/2020/05/COVID-19-ES-130520.pdf>.
- Pérez, N. y Filella, G. (2019). Educación emocional para el desarrollo de competencias emocionales en niños y adolescentes. *Revista Praxis & Saber*, 10(24), 23-44. Recuperado de <https://doi.org/10.19053/22160159.v10.n25.2019.8941>.
- Pérez, G. (2008). La educación como respuesta a los retos que plantea la escuela. *Bordón. Revista de Pedagogía*, 60(4), 15-29.
- Pértigas, S. y Pita, S. (2002). Determinación del tamaño muestral para calcular la significación del coeficiente de correlación lineal. *Cuadernos de Atención Primaria*, 9(4), 209-211. Recuperado de <https://www.fisterra.com/mbe/investiga/pearson/pearson2.pdf>.

- Rekalde, I., Vizcarra, M. T. y Makazaga, A. M. (2011). La aventura de investigar. Una experiencia de investigación acción participativa. *Aula Abierta*, 39(1), 93-104. Recuperado de [http://www.uniovi.net/ICE/publicaciones/Aula\\_Abierta/numeros\\_anteriores\\_hasta\\_2013/i15/11\\_AulaAbierta\\_Vol39\\_n1\\_enero\\_2011](http://www.uniovi.net/ICE/publicaciones/Aula_Abierta/numeros_anteriores_hasta_2013/i15/11_AulaAbierta_Vol39_n1_enero_2011).
- Rekalde, I., Vizcarra, M. T. y Macazaga, A. M. (2014). La observación como estrategia de investigación para construir contextos de aprendizaje y fomentar procesos participativos. *Educación XXI*, 17(1), 201-220. Recuperado de <https://redalyc.org/pdf/706/70629509009.pdf>.
- Richardson, C. and Mishra P. (2018). Learning environments that support student creativity: Developing the SCALE. *Thinking Skills and Creativity*, 27, 45-54. Retrieved from <https://doi.org/10.1016/j.tsc.2017.11.004>.
- Robinet, A. L. y Pérez, M. (2020). Estrés en los docentes en tiempos de pandemia covid-19. *Polo del Conocimiento*, 5(12), 637-653. Recuperado de <https://polodelconocimiento.com/ojs/index.php/es/article/view/2111/4197>.
- Sanz, C., García, J., Rubio, A., Santed, M. A. and Montoro, M. (2002). Validation of the Spanish version of the Perceived Stress Questionnaire. *Journal of Psychosomatic Research* 52(3), 167-172. Retrieved from [https://doi.org/10.1016/S0022-3999\(01\)00275-6](https://doi.org/10.1016/S0022-3999(01)00275-6).
- Secretaría de Educación Pública [SEP]. (2020). *Orientaciones pedagógicas para el inicio y organización del ciclo escolar 2020-2021. Guía para el trabajo docente*. México: Secretaría de Educación Pública. Recuperado de <https://bibliospd.files.wordpress.com/2020/07/anexo-2-guc3ada-pedagc3b3gica-resumen-cte.pdf>.
- Sierra, R. (2001). *Técnicas de investigación social. Teoría y ejercicios* (14.<sup>a</sup> ed.) Madrid, España: Paraninfo-Thomson Learning.
- Skaalvik, E. M. and Skaalvik, S. (2015). Job Satisfaction, Stress and Coping Strategies in the Teaching Profession-What Do Teachers Say? *International Education Studies*, 8(3), 181-192. Retrieved from <https://doi.org/10.5539/ies.v8n3p181>.
- Tacca, D. R. y Tacca, A. L. (2019). Factores de riesgos psicosociales y estrés percibido en docentes universitarios. *Propósitos y Representaciones*, 7(3), 323-353. Recuperado de <http://dx.doi.org/10.20511/pyr2019.v7n3.304>.

Varguillas, C. (2006). El uso de Atlas.ti y la creatividad del investigador en el análisis cualitativo de contenido UPEL. *Laurus*, 12, 73-87. Recuperado de <https://www.redalyc.org/articulo.oa?id=76109905>

Rol de Contribución	Autor (es)
Conceptualización	Herlinda Gervacio Jiménez (Principal)
Metodología	Herlinda Gervacio Jiménez (igual), Benjamín Castillo Elías (igual)
Software	Herlinda Gervacio Jiménez (Principal)
Validación	Herlinda Gervacio Jiménez (igual), Benjamín Castillo Elías (igual)
Análisis Formal	Herlinda Gervacio Jiménez (igual), Benjamín Castillo Elías (igual)
Investigación	Herlinda Gervacio Jiménez (Principal)
Recursos	Herlinda Gervacio Jiménez (igual), Benjamín Castillo Elías (igual)
Curación de datos	Herlinda Gervacio Jiménez (Principal), Benjamín Castillo Elías (que apoya)
Escritura - Preparación del borrador original	Herlinda Gervacio Jiménez (igual), Benjamín Castillo Elías (igual)
Escritura - Revisión y edición	Herlinda Gervacio Jiménez (igual), Benjamín Castillo Elías (igual)
Visualización	Herlinda Gervacio Jiménez (igual), Benjamín Castillo Elías (igual)
Supervisión	Herlinda Gervacio Jiménez (igual), Benjamín Castillo Elías (igual)
Administración de Proyectos	Herlinda Gervacio Jiménez (igual), Benjamín Castillo Elías (igual)
Adquisición de fondos	Herlinda Gervacio Jiménez (igual), Benjamín Castillo Elías (igual)