

"RELAXATION TECHNIQUES AND THE CREATIVITY OF HIGHER LEVEL STUDENTS": A REVIEW OF THE SCIENTIFIC LITERATURE BETWEEN THE YEARS 2015-2020.

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Abstract. The present study allowed to learn about relaxation techniques and creativity of higher education students. The objective was to know the influence of relaxation techniques on the creativity of higher education students, through a systematic review between 2015 and 2020. For this purpose, several papers published in very important databases such as Scopus, Ebsco and Scielo were used. This inquiry allowed the observation of 66 effective papers for the study. Papers in Spanish, English and Portuguese were included. The countries from which the final papers were obtained were Brazil, Spain, Peru, Chile, Paraguay, Turkey, Taiwan and Venezuela. The study was evaluated using the Prisma synthesis method. The limitations that were obtained were the scarcity of publications in relation to both topics, as well as the fact that there was no relationship between the titles and the categories when reading the papers. The results reflect that, on the subject, there are studies with quantitative and qualitative methodologies, likewise that relaxation techniques are used in their various types mainly in cases of anxiety, stressful situations favoring positively higher-level students, as for creativity is closely related to the climate of the environment and strategies or resources. It is concluded with this systematic review that relaxation techniques in their various types favor higher level students, as well as favoring the development of creativity. These results are important because they allow

knowing the influence of relaxation techniques and creativity in higher level students, as well as what should be put into practice during the sessions. Further research on the subject is suggested.

Keywords: Systematic review, Relaxation techniques, Creativity, Students, Creativity, Systematic review

1. Introduction

At present, due to the situation of emergency due to the pandemic of COVID 19 and carrying out remote work in the education sector, students have gone through various situations generating a lot of stress, anxiety, physical-emotional overload and, at the same time, having to intensify creativity to face this situation. In relation to this, there are studies in Chinese students that show that the increase of creativity in search of novelty was related to the decrease of anxiety, stress and depression in students (Li et al., 2020).

In this sense, the present study seeks to glimpse the contributions that relaxation techniques could provide in favor of the improvement in terms of creativity of higher-level students through praxis of their various techniques, since in various studies it can be glimpsed that their use has given positive results in various fields controlling levels of anxiety and/or stress in students. In relation to this, some researchers state that relaxation techniques represent a valuable preventive and therapeutic option, through a good management and application of these, since they are very old practices which allow reaching a level of deep meditation, showing positive results in the control of tension headache in university students due to psychosocial stress and muscular overload due to some

non-physiological active posture (Álvarez, Valero, Atín, Melcón, & Benit, 2016).

Similarly, relaxation reduces the automatic activation of anxiety levels, thus improving the conception of sleep and increasing motivation. The most commonly used techniques are breathing training, Jacobson's muscle relaxation technique, mindfulness, Meditation, yoga, Schultz autogenous training, among others (Rodriguez, 2018).

In this line of thinking, it can be said that in agreement with several authors, Jacobson's relaxation technique aims through the progressive inhibition of muscle tension to inhibit and reduce mental stress and its associates (Torales et al., 2020). On the other hand, various researches make clear that creativity throughout history has been recognized of vital importance for the development of teaching and learning, as well as for the progress of societies and consciousness (Soriano de Alencar et al., 2018).

Interactions also take precedence, giving meaning to creativity according to the social context in which they are located, as well as attitude (Morlá, Eudafe, & Brunet, 2018). The Justification of this work lies in the contribution for the future research of an educational quality through the application of relaxation techniques to

promote the creativity of higher level students, it is of theoretical, practical and epistemological character, every time that, in the first place, it is based on theories about the need to apply relaxation techniques (Payne, 2005), and the creativity mentioned within the studies of Garner (2010), since, otherwise it could disfavor the quality in the development of their learning.

In turn, in a practical way, the study will allow to solve some difficulties of emotional control such as anxiety, stress, as well as in the creativity of higher level students in their daily tasks. Epistemologically, it has an associationist nature (Castillero, 2020) in relation to relaxation techniques and at the same time cognitivist (Cáceres and Munévar, 2016) in reference to emotional control and creativity. In relation to this, the following question was posed: What is the influence of relaxation techniques on the creativity of higher-level students between the years 2015 and 2020? And the objective posed was to know the influence of relaxation techniques on the creativity of higher-level students through a systematic review between the years 2015-2020.

2. Methodology

The present work is a "systematic review of the scientific literature", based on the adaptation of the prism methodology [Preferred Reporting Items for Systematic Reviews and Meta- Analyses] (Moher et al., 2009, Liberati et al., 2009). The research question determined to carry out the methodological process was the following: What is the influence of relaxation techniques on the creativity of

higher education students between 2015 and 2020?

Methodology rationale

The Systematic review is a strategy for selecting information that arises from the need to address the deficiencies in the various types of research, thus providing complete and clear results of the research conducted, which will lead to evaluate the strengths and weaknesses of the research, in turn adjusting to the specific eligibility criteria may answer the research question (Liberati, et al., 2009). Given the need to have better guidelines for reviews and meta-analyses is that the systematic review arises, designed under the principles of the Prisma statement, which is a guide for this type of reviews, in which 32 items required to be applicable and provide more reliable information on research in terms of the quality of their methods and results are presented (Hutton,2016).



Figure 1: Phases of a systematic review. Own elaboration.

Data collection process

To attest to the sensitivity of the research process, the following terms were described as descriptors based on the research question: "relaxation techniques", "teaching creativity". To specify the search of the scientific literature, a protocol was outlined with the combination of the established terms

and the Boolean operators [(techniques of relaxation AND teaching creativity) AND (relaxation AND creativity techniques) AND (Mindfulness OR teaching creativity) AND (breathing OR teaching creativity)]. Likewise, Scopus, Ebsco and Scielo were determined as specialized databases for the search. The specific search routes are detailed below.

Scopus:

((Mindfulness OR teaching creativity) AND (breathing OR teaching creativity) AND alternative medicine OR creativity)

Ebsco:

((techniques of relaxation AND teaching creativity) AND (relaxation AND creativity techniques) AND (relaxation OR creativity techniques))

Scielo:

((techniques of relaxation AND teaching creativity) AND (relaxation AND creativity techniques) AND (relaxation OR creativity techniques))

Identification

This period consisted of the exploration of research on relaxation techniques and their types, as well as the creativity of higher-level students. Research papers published from the years 2016 to 2020 were consulted, considering this time for presenting updated data and thus allowing more real results, despite the fact that relaxation techniques are very old practices, but that in these times they are being applied in various sectors and can give good results for teachers, therapists, psychologists, and students (Dobińska& Cieślikowska-Ryczko, 2018), as well as creativity of higher level

students was also inquired. Three scientific web search engines Scopus, Ebsco and Scielo were used for this purpose, employing English and Spanish descriptors. The Excel program was used to create a personalized database for the organization of the works selected in the research, which amounted to 66.

Selection (inclusion and exclusion)

The following were considered as inclusion criteria: 1) original papers disclosed in indexed scientific databases, as well as systematic reviews 2) of open access, 3) in the languages English, Portuguese and Spanish, 4) between the years 2016 and 2020, 5) Developed in a higher educational context (higher level students), 6) the search was conducted with research that measured, even one of the descriptors or its synonyms. The exclusion criteria were: 1) documents such as conferences, books, letters to the editor and theses, 2) off access or unavailable, 3) research that studied contexts external to the educational (patients, parents), 4) research that was in an educational level other than higher education (students of initial, primary, secondary level).

Data extraction and analysis

The search and information extraction protocol were applied individually by the same student independently.

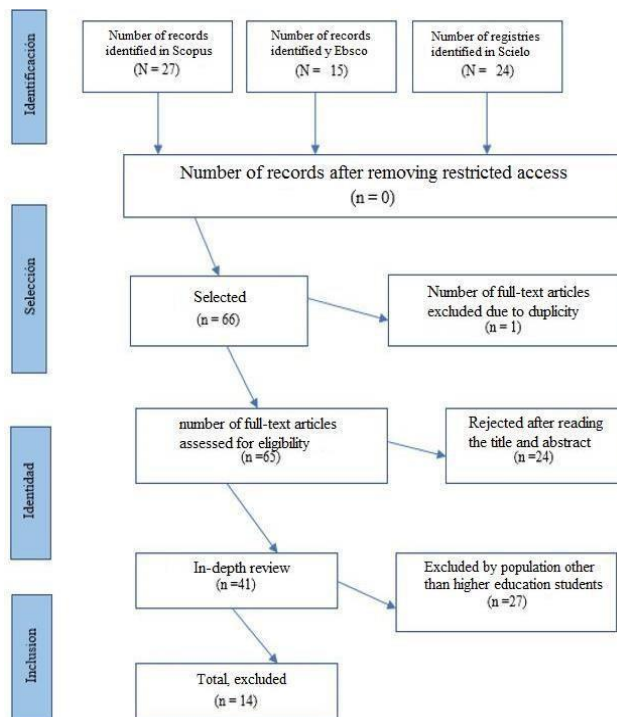


Figure 2: Flowchart for document search and selection.

3. Results

The exploration of papers in databases and search engines yielded a total of 66 original papers in the time period from 2015 to 2020, distributed as follows: Scopus, 27 papers; Ebsco, 15 papers; and Scielo, 24 papers. From this total amount, the purification was performed by restricted access and duplicity through Excel, from which no restricted paper

was obtained since all were open access, only 1 duplicate was purified. After that, the elimination was performed after reading the title and/or abstract of the paper, being deleted 24 papers, then, the inclusion and exclusion criteria were applied, purifying 27 papers, thus obtaining the total amount of papers to be used, being finally 14 the ones selected for the presentation of the results.

In the 14 selected papers, the geography and language of higher-level students in the different countries of the world were identified, as evidenced by the research published in international journals presented in Table 1. Within the geographical location, it can be seen that Spain is in the first place with 4 publications in relation to relaxation techniques and creativity of higher-level students, followed by Brazil with a total of 3 publications, then Peru, with 2 publications, and Chile, Paraguay, Turkey, Taiwan and Venezuela, one publication from each country. The languages most used in these publications were English with 7 papers, followed by Spanish with 6 publications, and only 1 publication in Portuguese.

Table 1 Geographic Identification and Language of Higher Education Students.

No	PaperTitle	NameofJournal	Year	No	Country	Language
1	An Overview of Jacobson's Progressive Muscle Relaxation in Managing Anxiety	Argentine Journal of Clinical Psychology	2020	3	Paraguay	English
2	Study of students' cognitive states self-regulation during lessons	Journal of Human Sport and Exercise.	2020	15	Spain	English
3	Reduction of COVID-19 Anxiety Levels Through Relaxation Techniques: A Study Carried Out in Northern Spain on a Sample of Young University Students	Frontiers in psychology	2020	11	Spain	English
4	Exploratory study of stage anxiety and diaphragmatic breathing in the saxophone classroom.	SPIRAL. TEACHER'S NOTEBOOKS	2019	12 (24)	Brazil	Spanish
5	Meditation: critical analysis of the experience of young university students in their daily life and health.	Cadernos Brasileiros de Terapia Ocupacional (BrazilianJournalofOccupationalTherapy)	2019	27 (4)	Chile	English

6	Towards an integration of mindfulness and emotional intelligence in psychology and education	Liberabit	2019	25 (1)	Peru	Spanish
7	Incidence of mindfulness on academic stress in university students: A controlled study.	Psychologicaltherapy	2019	37 (2)	Peru	Spanish
8	A plasticidadecriativa4878osibilitada pela sociopoética: A perspectiva da criação de relaxamentos.	Portuguesa Journal of Mental Health Nursing	2017	5	Brazil	Portuguese
9	Effects of specific physical training and relaxation techniques on painful parameters of tension headache in university students: a randomized controlled clinical trial.	Neurology	2016	33 (4)	Spain	Spanish
10	Factors affecting nursing students' creativity in Taiwan: Exploring the moderating role of creative personality.	Nurse educationtoday	2020	88	Taiwan	English
11	University Education and Creativity: An Assessment from Students' Perspective	Eurasian Journal of Educational Research	2019	80	Turkey	English
12	Analysis of College Students' Creativity. Differences by Gender, Age and Choice of Studies.	Education XX1.	2019	22 (2)	Spain	Spanish
13	Teaching Practices for Creativity at University: A Study in Portugal and Brazil	Paideia	2017	27	Brazil – Portugal	English
14	Reproducing an innovation environment in the classroom. A strategy to promote creativity in chemical engineering education.	Chemical education	2016	27 (4)	Venezuela	Spanish

In order to respond to the objective of knowing the influence of relaxation techniques on the creativity of higher level students between the years 2016-

2020, Table 2 describes the relationship of the selected studies, considering the methodological aspects and main findings of each study.

Table 2 List of Selected Studies on Relaxation Techniques and the Creativity of Higher Education Students.

Title	Authors	Database	Methodology	Mainresults
QualitativeLevel				
Study of students' cognitive states self-regulation during lessons	Khalfieva, Alisa R. Yusupov, Mark G.	SCOPUS	Method of comparative analysis of the data obtained and a content analysis of the responses received on the methods and obstacles to the use of	It shows that students during training in lectures and seminars experience the same state of interest and reflection. The difference is that, during lectures for students, to these states is added a cognitive state of curiosity, and in a seminar is focused. In tests, students are mostly only in a state of concentration. The article also shows that students most frequently use self-regulation

			self-regulation of cognitive states during lessons.	techniques in seminar-type training sessions. Students resort to various methods of self-regulation: such as forcing themselves to concentrate on a task, a technique, on the contrary, abstracting themselves, as well as using physical exercises, breathing techniques, etc. The practice of meditation had implications in the personal, relational and societal spheres, highlighting the well-being that meditation generates in the short and medium term, contributing to self-care, self-knowledge and change of perspective regarding themselves, others and social reality, favoring transforming actions in these areas.
Meditation: critical analysis of the experience of young university students in their daily life and health.	Karen Fernandez, Josie Kühn, Camila Lopez, Millicent Moraga, Pilar Ortega, Rodolfo Morrison	SCIELO	Qualitative methodology, the experience of university students who participated in a General Training Course in which 10 meditation sessions were conducted. Systematic review	PMR is useful in both adult (young and elderly) and pediatric populations, as well as in clinical and non-clinical samples, and its use can be considered in the routine care of people with anxiety. In addition, it is highlighted that PMR is an easy technique to learn and practice, requiring minimally trained personnel and does not use expensive equipment (Ramasamy et al., 2018), so it can be applied in the most varied. Healthcare facilities or in patients' homes.
An Overview of Jacobson's Progressive Muscle Relaxation in Managing Anxiety	Julio Torales, Marcelo O'Higgins, Iván Barrios, Israel González, Marcos Almirón, Marcelo O'Higgins, Iván Barrios, Israel González, Marcos Almirón	SCOPUS		
Towards an integration of mindfulness and emotional intelligence in psychology and education	Manoleta S. Moscoso	SCIELO	Review of preliminary scientific evidence published in the psychological and educational literature, examining the mediating effects of both constructs in the process of emotional regulation and individual quality of life.	Taking into account this conceptual context and the review of the literature on the relationships and mediation of mindfulness practice on emotional intelligence, we suggest the existence of preliminary evidence that the constellation of skills that represent this construct can be stimulated through mindfulness training, particularly an increase in personal well-being and quality of life, as well as a better adaptation in interpersonal relationships. The interaction of the mechanisms of action inherent to the practice of mindfulness and the skills that characterize emotional intelligence facilitate an adequate integration of both conceptual models, taking into consideration the central role of emotional regulation within this integrative process.
University Education and Creativity: An Assessment From Students' Perspective	Ruya EHTIYAR, Gozdegul BASER	EBSCO	Qualitative research, following a phenomenological methodology.	The results indicated that students found their university education mainly as uncreative and experimented with a limited number of creative practices during their education, and thought that university education did not contribute to their overall creative potential.
A plasticidade criativa possibilitada pela sociopoética: A perspectiva da criação de relaxamentos.	Paula Isabella Marujo Nunes da Fonseca, Pamela Gioza da Silveira, Cláudia Mara de Melo Tavares, & José Carlos Carvalho	SCIELO	Critical analysis of the relaxations used in the production of academic works according to the qualitative method and sociopoetics methodological approach. An analysis based on the	By understanding man as a political, social being, with equal rights and considering the body, creativity and spirituality in the construction of knowledge (Gauthier, 2005) for the production and assimilation of data, Sociopoetics allows the construction - the context of contextualized relationships with the subjects studied in a way that aligns them with the techniques of data production in a more spontaneous and free way by the co-researchers in the investigations.

underlying principles of Sociopoetics was carried out on the literature base and articles on the approach available in the Virtual Health Library.

Quantitative Level

Reduction of COVID-19 Anxiety Levels Through Relaxation Techniques: A Study Carried Out in Northern Spain on a Sample of Young University Students	Naiara Ozamiz-Etxebarria, María Dosil Santamaría, Amaia Eiguren Munitis and Maitane Picaza Gorrotxategi	EBSCO	Design without comparison group, since we compared the effectiveness of the relaxation techniques before performing and explaining the relaxation techniques and after the intervention.	Among the relaxation techniques, 43.2% (n = 19) performed Jacobson relaxation techniques, 36.4% (n = 16) abdominal breathing techniques, 11.4% (n = 5) Schultz autogenic training and 9.1% (n = 4) visualization. There was no significant difference in the reduction of anxiety levels according to the relaxation techniques chosen. As can be seen in Table 2, the mean anxiety measured with the GAD-7 scale is higher for relaxation techniques. Moreover, a mean of more than 1 is observed at both times. Frequencies of anxiety before and after the test in general, 45.5% (n = 20) of the university students indicated feeling anxiety during these moments of confinement by the COVID-19 and 54.5% (n = 24) did not feel anxiety. Likewise, once the relaxation techniques were performed and again assessed with the same scale, anxiety seemed to decrease considerably, with 72.7% (n = 32) not feeling anxiety versus 27.3% (n = 12) indicating continued anxiety. Thus, after the intervention, there was an improvement in the mean anxiety levels of the participants.
Effects of specific physical training and relaxation techniques on painful parameters of tension headache in university students: a randomized controlled clinical trial.	A.C. Álvarez-Melcóna, R. Valero-Alcaide, M.A. Atín-Arratibela, A. Melcón-Álvarez and J.V. Beneit-Montesinos	SCOPUS	An experimental, nonpharmacological, randomized controlled clinical trial was designed, with blinded evaluation of the response variables. The results of 2 parallel and independent samples were compared. One group received EA and the other group received a combination of EA together with cervical kinesiotherapy exercises and postural education.	Results: The 2 intervention groups evolved positively, achieving a more significant reduction in the frequency and intensity of headaches with the combined treatment ($p < 0.01$) ($d = 0.4$).
Incidence of mindfulness on academic stress in university students: A controlled study.	Luis Armando Oblitas Guadalupe, Duber Enrique Soto Vásquez, José Carlos Anicama Gómez, Adolfo	SCIELO	Experimental study, randomized control group, and with pretest measures.	There is no statistically significant difference in the stress levels of the group that received the mindfulness program compared to those who did not receive the training.

Exploratory study of stage anxiety and diaphragmatic breathing in the saxophone classroom.	Alfredo Arana Sánchez Eladio Selles Navarro	EBSCO	Deductive method, going from the general to the particular and qualifying the study as a quasi-quantitative, exploratory study.	More than 80% of the class suffers from stage anxiety (Table 1), and despite this, they do not carry out any type of training for the respiratory technique. The saxophone students, who did not know the basic aspects of this technique, limited themselves to carrying out specific technique exercises, but not diaphragmatic ones (Figure 2). These deficiencies explain the students' allusions to nerves and stress, as well as the decrease in the quality of the air column during public performances (stage anxiety) and also in the classroom (Figure 3).
Factors affecting nursing students' creativity in Taiwan: Exploring the moderating role of creative personality.	Liu, H.-Y.	SCOPUS	A non-experimental study used a quantitative cross-sectional descriptive design.	The mean total scores of the nursing students on the TTCT-V and TTCT-F were 24.41 and 44.50, respectively. The mean scores of the fluency, flexibility, and originality subscales on the TTCT-V were 11.03, 7.12, and 6.26, respectively. The mean scores of the fluency, flexibility, originality, and elaboration subscales on the TTCT-F were 18.78, 11.45, 12.73, and 1.54, respectively. (SD = 4.05), indicating an overall negative creative personality. Pearson's correlation analysis showed that the sufficient resources component of the school creative climate correlated positively with the elaboration component of figurative creative thinking. However, sufficient resources correlated negatively with the fluency and flexibility components of verbal creative thinking. The SPSS PROCESS macro showed that students' creative personality had a moderating effect on the relationship between the sufficient resources component of the school creative climate and students' creativity, as reflected in the fluency of verbal creative thinking ($b = -0.62$, $p < 0.01$). and flexibility ($b = -0.55$, $p < 0.01$) components.
ANALYSIS OF CREATIVITY AMONG UNIVERSITY STUDENTS. DIFFERENCES BY GENDER, AGE AND CHOICE OF STUDIES	Ángeles Caballero García, Sara Sánchez Ruiz, María Luisa Belmonte Almagro	EBSCO	Quasi-experimental design, with non-equivalent control group.	They show that students increase their creativity after the intervention program, and there are statistically significant differences for the CREA tests, forms A and B. These significant differences are also found in creativity by gender, with women being more creative, in the pre-test and post-test, in the CREA, form B test. In terms of age, younger students, under 20 years of age, were significantly more creative, in the pre-test and post-test, in the CREA test, form B. In terms of the choice of studies, those students who belong to the education sector showed a higher creativity index than students in the non-education sector, both before and after the intervention, with significant results in the CREA test, form B. The results of the study are discussed for their great interest for educational change at university towards employability and equal opportunities in the development of 2020 competencies.
Teaching Practices for Creativity at University: A Study in Portugal and Brazil	Maria de Fátima Morais, Ivete Azevedo, Denise de	SCIELO	Qualitative methods were used, such as interviews and classroom	The results show variations in the means of the different subgroups for the four dimensions of the scale. The greatest variation is observed in the Interest in Student

	Souza Fleith, Eunice Maria Lima Soriano de Alencar Leandro Silva Almeida, Alexandra M. Araújo		observations. Analyses were performed using IBM SPSS 20.0. Subscale scores were transformed into Z scores (METRO = 0, SD = 1), based on factor scores obtained from exploratory factor analysis, to allow comparisons between Brazilian and Portuguese students. Experimental, collaborative and team work.	Learning - related to didactic strategies and resources that motivate students to learn creatively - (ranging from -.08 to .15), which are the results for the Portuguese SSCA & H and Sc & T students, respectively. The second highest values are found for the New Ideas Stimulus factor - which involves items related to fostering cognitive skills and affective characteristics associated with students' creativity -, with values between -.09 and .11; in this case, both values came from Brazilian students, belonging to the Sc & T and SS-CA & H subgroups, respectively.
Reproducing an innovation environment in the classroom. A strategy to promote creativity in chemical engineering education.	Ronald Márquez, Laura Tolosa, Rubén Gómez, César Izaguirre, Leonardo Rennol, Johnny Bullón, Beatriz Sandia	SCIELO		This strategy generated an increase in motivation with respect to other courses based on lectures, and the development of the ability to develop and find solutions in work environments with multidisciplinary groups. It is important to highlight that more than 80% of the students indicated that the RAIS strategy contributes to their personal development and training to carry out applied research.

Source: Databases (SCOPUS, EBSCO, SCIELO)

In the literature reviewed in the study, in relation to what is known about relaxation techniques and their influence on the creativity of higher level students in the last 5 years, with respect to the methodology used, 5 were qualitative and the data collection was based on critical analysis and interviews; as for the quantitative type, 9 articles were established, which collected information through scales, surveys, tests and inventories, data were found based on the 2 categories worked on. The first category refers to relaxation techniques, on which we found the study on the reduction of anxiety levels of the COVID-19 through relaxation techniques, carried out on a sample of young university students who, as a result of the pandemic situation due to Covid 19, presented high levels of anxiety and who participated in a pre and post-test on

general anxiety. After taking a telematic workshop and being re-evaluated with the same scale, anxiety seemed to decrease considerably, with 72.7% (n = 32) not feeling anxiety as opposed to 27.3% (n = 12) who indicated that they continued to feel anxiety. Thus, after the intervention, there was an improvement in the mean anxiety levels of the participants through the use of the relaxation techniques (Ozamiz-Etxebarria, Santamaría, Munitis and Gorrotxategi, 2020).

Likewise, in the study Effects of specific physical training and relaxation techniques on the painful parameters of tension headache in university students, it was found that the 2 intervention groups evolved positively, achieving a more significant reduction in the frequency and intensity of headaches with the combined treatment of drugs and relaxation techniques ($p < 0.01$) ($d = 0.01$) ($d =$

0.01). 0.01) ($d = 0.4$) (Álvarez, et al. 2016).

In relation to creativity the study on university education and creativity: an evaluation from the students' perspective, highlighted that university education is uncreative and does not contribute to the overall creative potential (Ehtiyar and Baser, 2019). In relation to the categories on relaxation techniques, the study on Jacobson's progressive muscle relaxation technique in the management of anxiety was found, which is recommended for all

groups of people because it favors in the control of anxiety, is easy to learn and low cost (Torales, et al. 2020). Likewise, mindfulness is another technique used with much influence on which it was found that it is a favorable technique at personal and social level (Fernandez, et al. 2019), in turn improves the quality of life and favors emotional intelligence (Moscoso, 2019), as for breathing were used for student lectures and musical presentations ((Khalfieva and Yusupov, 2020), (Selles, 2019). (See Table 3)

<u>Title</u>	<u>Authors</u>	<u>Database</u>	<u>Methodologyused</u>	<u>Relaxationtechniques</u>
<u>QualitativeLevel</u>				
Study of students' cognitive states self-regulation during lessons.	Khalfieva, Alisa R. Yusupov, Mark G.	SCOPUS	Method of comparative analysis of the data obtained and a content analysis of the responses received on the methods and obstacles to the use of self-regulation of cognitive states during lessons.	Jacobson's Progressive Muscle Relaxation
Meditation: critical analysis of the experience of young university students in their daily life and health	Karen Fernandez, Josie Kühn, Camila Lopez, Millicent Moraga, Pilar Ortega, Rodolfo Morrison	SCIELO	Qualitative methodology, the experience of university students who participated in a General Training Course in which 10 meditation sessions were conducted.	Mindfulness Breathing
An Overview of Jacobson's Progressive Muscle Relaxation in Managing Anxiety	Julio Torales, Marcelo O'Higgins, Iván Barrios, Israel González, Marcos Almirón, Marcelo O'Higgins, Iván Barrios, Israel González, Marcos Almirón	SCOPUS	Systematicreview	
Towards an integration of mindfulness and emotional intelligence in psychology and education	Manolete S. Moscoso	SCIELO	Review of preliminary scientific evidence published in the psychological and educational literature, examining the mediating effects of both constructs in the process of emotional regulation and individual quality of life.	
<u>QuantitativeLevel</u>				
Incidence of mindfulness on academic stress in university students: A	Luis Armando Oblitas Guadalupe,	SCIELO	Experimental study, randomized control group, and with pretest measures.	

controlled study.

Duber Enrique
Soto Vásquez,
José Carlos
Anicama Gómez,
Adolfo Alfredo
Arana Sánchez

Source: Databases (SCOPUS, EBSCO, SCIELO)

Reviews of studies allowed identifying that socio-poetic studies cannot do without relaxation, and that it has an unprecedented importance in data production sessions (Fonseca et al., 2017). Likewise, there are factors that affect students' creativity in of fluency, Table 4 Articles on Creativity categories

flexibility and originality (Liu, 2020). It was also found that students' learning is related to didactic strategies and resources, generating increase in motivation ((Morais, et al. 2017; (Márquez, et al. 2016))

Title	Authors	Database	Methodology used	Creativity
<u>Qualitative level</u>				
A plasticidad criativa posibilidad de la perspectiva da criação de relaxamentos.	Paula Isabella Isabella Marujo Nunes da Fonseca, Pamela Gioza da Silveira, Cláudia Mara de Melo Tavares, & J	SCIELO	Critical analysis of the relaxations used in the production of academic papers according to the qualitative method and methodological approach of socio poetics. An analysis was carried out based on the underlying principles of Socio poetics arranged on the basic literature and articles on the approach arranged in the Virtual Health Library.	Creative skills Adaptability
<u>Quantitative Level</u>				
Factors affecting nursing students' creativity in Taiwan: Exploring the moderating role of creative personality.	Liu, H.-Y.	SCOPUS	A non-experimental study used a quantitative cross-sectional descriptive design.	Novelty development capability
Teaching Practices for Creativity at University: A Study in Portugal and Brazil	Maria de Fátima Morais, Ivete Azevedo, Denise de Souza Fleith, Eunice Maria Lima Soriano de Alencar Leandro Silva Almeida, Alexandra M. Araújo	SCIELO	Qualitative methods were used, such as interviews and classroom observations. Analyses were performed using IBM SPSS 20.0. Subscale scores were transformed into Z scores (METRO = 0, SD = 1), based on factor scores obtained from exploratory factor analysis, to allow comparisons between Brazilian and Portuguese students.	
Reproducing an innovation environment in the classroom. A strategy to promote creativity in chemical engineering education.	Ronald Márquez, Laura Tolosa, Rubén Gómez, César Izaguirre, Leonardo Remolada, Johnny Bullón, Beatriz Sandía	SCIELO	Experimental, collaborative and team work.	

Source: Databases (SCOPUS, EBSCO, SCIELO)

4. Discussion and Conclusions

This systematic review collected 14 empirical studies on relaxation techniques and creativity of higher education students. As a result of the pandemic situation by the Covid 19 students presented high rates of anxiety, after analyzing the results it was found that relaxation techniques are effective in controlling anxiety, so it is important to educate people in their practice and thus minimize the use of anxiolytics, both as drugs for tension headaches (Ozamiz-Etxebarria et al. 2020; Alvarez, et al. 2016).

In the same way, relaxation favors students in situations of stress and anxiety in front of exams, credits, homework, so they give a rest to the brain (Khalfieva, & Yusupov, 2020). The various types of relaxation techniques such as Jacobson's muscle relaxation, mindfulness, breathing and others can be used (Torales, et al. 2020; Fernandez, et al. 2019; Moscoso, 2019; Selles, 2019).

Likewise, it can be seen that not for all students some techniques such as mindfulness can give positive results (Oblitas et al., 2019). On the other hand, in relation to the creativity of higher-level students, it was determined that it can be affected both in fluency, originality and flexibility (Liu, 2020). In some cases, students do not feel motivated by their classes, for this to happen they require the increase of didactic strategies and resources (Morais, et al. 2017; Márquez, et al. 2016). Thus, it was found that there

is an influence of relaxation techniques on the creativity of higher-level students. Therefore, it is concluded with this systematic review, that relaxation techniques in its various types favor higher level students, as well as it favors in the development of creativity. These results are important because they allow knowing the influence of relaxation techniques and creativity in higher education students, as well as that it should be put into practice during the sessions. Further research on the subject is suggested.

REFERENCIAS

- Álvarez-Melcón, A., Valero-Alcaide, R., Atín-Arratibel, M., Melcón-Álvarez, A. y Beneit-Montesinos, J. (2016). Efectos de entrenamiento físico específico y técnicas de relajación sobre los parámetros dolorosos de la cefalea tensional en estudiantes universitarios: un ensayo clínico controlado y aleatorizado. *Neurología*, 33(4):233-243. doi.org/10.1016/j.nrl.2016.06.008
- Cáceres, Z. y Munévar, O. (2016). Evolución de las teorías cognitivas y sus aportes a la educación. *Actividad física y desarrollo humano*, (7). Recuperado de http://revistas.unipamplona.edu.co/ojs_viceinves/index.php/AFDH/article/view/2408/1207
- Castillero, O. (2020). Teoría Asociacionista: sus autores y aportes psicológicos. Blog

- Psicología y mente. Recuperado de:
<https://psicologiaymente.com/psicologia/teoria-asociacionista>
- Dobińska, G., & Cieślukowska-Ryczko, A., (2018). Między Twórczością, edukacją a wychowaniem. Miejsce relaksacji w praktyce pedagogicznej. Nauki o wychowaniu. studiów interdyscyplinarnych. (2). Recuperado de:
<https://czasopisma.uni.lodz.pl/wychowanie/article/view/4515/3971>
- Ehtiyar, R. & Baser, G. (2019). University Education and Creativity: An Assessment From Students' Perspective. Eurasian Journal of Educational Research, (80). Recuperado de
<https://eric.ed.gov/?id=EJ1211624>
- Fernández, K., Kühn, J., López, C., Moraga, M., Ortega, P., & Morrison, R. (2019). Meditation: critical analysis of the experience of young university students in their daily life and health. Cadernos Brasileiros de Terapia Ocupacional, 27(4), doi.org/10.4322/2526-8910.ctoao1674
- Fonseca, P., Silveira, P. G., Tavares, C. M. M., & Carvalho, J. C. (2017). A plasticidade criativa possibilitada pela sociopoética: a perspectiva da criação de relaxamentos. Revista Portuguesa de Enfermagem de Saúde Mental (Spe. 5), 99-106. Recuperado de
<http://www.scielo.mec.pt/pdf/rpes/m/nspe5/nspe5a17.pdf>
- Garner, H. (2010). Mentecreativas. *Una Anatomía de la creatividad*.
- Hutton B, et al. (2016) La extensión de la declaración PRISMA para revisiones sistemáticas que incorporan metaanálisis en red: PRISMA-NMA. Med Clin (Barc) doi.org/10.1016/j.medcli.2016.02.025
- Khalfieva, A., & Yusupov, M. (2020). Study of students' cognitive states self-regulation during lessons. Journal of Human Sport and Exercise, 15(3). [doi:10.14198/jhse.2020.15.Proc3.41](https://doi.org/10.14198/jhse.2020.15.Proc3.41)
- Li, W., Yu, H., Miller, D., Yang, F. & Rouen, C. (2020). Búsqueda de novedades y salud mental en estudiantes universitarios chinos antes, durante y después del cierre pandémico de COVID-19: un estudio longitudinal. Frontiers in Psychology, 11:3. doi.org/10.3389/fpsyg.2020.600739
- Liu, H. (2020). Factors affecting nursing students' creativity in Taiwan: Exploring the moderating role of creative personality. Nurse education today, (88). doi.org/10.1016/j.nedt.2020.104367
- Liberati, A. et al., (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate healthcare interventions:

- explanation and elaboration. Recuperado de: https://www.centrosaludnutricional.com/udecontrol_datos/FileManager/WEB_VIEJA/blog/9_NOTICIAS/Metodologia_investigacion_biomedica/The%20PRISMA%20Statement%20for%20Reporting%20Systematic%20Reviews%20and%20Meta-Analyses.pdf
- Márquez, R., Tolosa, L., Gómez, R., Izaguirre, C., Rennola, L...y Sandía, B. (2016) Reproducción de un ambiente de innovación en el salón de clase. Una estrategia para promover la creatividad en la educación en Ingeniería Química. Educación química, (27). doi.org/10.1016/j.eq.2016.07.001
- Moher, D., Liberati, A., Tetzlaff, J. & Galtman, D. (2009). Preferred reporting items for systematic review and meta-analyses: the PRISMA statement. The BMJ. (339). doi.org/10.1136/bmj.b2535
- Morais, M., Fleith, D., Almeyda, L., Azevedo, I., Alencar, E. & Araújo, A. (2017). Teaching Practices for Creativity at University: A Study in Portugal and Brazil. Paideia, 27(67). doi.org/10.1590/1982-43272767201707
- Morla, T., Eudave, D., y Brunet, I. (2018). Habilidades didácticas de los profesores y creatividad en la educación superior. Experiencia en una universidad mexicana. Perfiles Educativos. 40(162). Recuperado de: http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0185-26982018000400100
- Moscoso, M. (2019). Hacia una integración de mindfulness e inteligencia emocional en psicología y educación. Liberabit, 25(1). [Doi.org/10.4322/2526-8910.ctoao1674](https://doi.org/10.4322/2526-8910.ctoao1674)
- Ozamiz-Etxebarria, N., Santamaría, M., Munitis, A. & Gorrotxategi, M. (2020). Reduction of COVID-19 Anxiety Levels Through Relaxation Techniques: A Study Carried Out in Northern Spain on a Sample of Young University Students. Frontiers in Psychology. (11). doi.org/10.3389/fpsyg.2020.02038
- Payne, R. (2005). *Técnicas de Relajación. Guía práctica*. España. Ed. Paidotribo(4)
- Rodríguez, E. (2018). Técnicas de relajación en los pacientes con ansiedad. XIX Congreso virtual internacional de psiquiatría. Recuperado de: <https://psiquiatria.com/congresos/pdf/1-1-2018-23-pon3%20005.pdf>
- Oblitas, L., Soto, D., Anicama, J., & Arana, A. (2019). Incidencia del mindfulness en el estrés académico en estudiantes universitarios: Un estudio controlado. Terapia psicológica, 37(2). doi.org/10.4067/S0718-48082019000200116
- Sellés, E. (2019). Estudio exploratorio de la ansiedad escénica y la respiración diafragmática en el

aula de saxofón. Espiral, cuadernos del profesorado, 12(24).

doi.org/10.25115/ecp.v12i24.2175

Soriano, E., Souza, D., Nogueira, C. y Boruchovitch, E. (2018). Criatividade em sala de Aula: Fatores Inibidores e Facilitadores Segundo Coordenadores Pedagógicos. Psico-USF, *Bragança Paulista*, 23 (3), 555-566. Recuperado de: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-

[82712018000300555&lng=pt&tlng=pt](https://doi.org/10.25115/ecp.v12i24.2175)

Torales, J. O'Higgins, M. Barrios, I. Gonzales, I & Almirón, M (2020). An Overview of Jacobson's Progressive Muscle Relaxation in Managing Anxiety. *Revista Argentina de Clínica Psicológica*, 29(3). Recuperado de: https://revistaclinicapsicologica.com/pdf_files/trabajos/vol_29/num_3/RACP_29_3_17_PDYRQ4GIXK.pdf