

## Influence Of Burnout Syndrome On The Digital Skills Of Euteachers

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### Abstract

For teachers, the ability and dexterity in the use of digital skills is an elementary aspect to avoid the consequence of chronic stress and work burnout known as burnout. The objective of the study was to determine the impact caused by the Burnout syndrome in the digital skills of teachers of private universities in Lima, Peru. The research was quantitative or with a cross-sectional and prospective design. The instrument was applied to a sample of 269 professors from a private university, an inferential analysis was applied by kolmogorov-Smirnov. The results show that the Burnout syndrome in teachers revealed that most of them presented low levels of emotional exhaustion with 52.0% of the total respondents, while in the dimension of depersonalization presented a greater number of teachers with high levels of 50.6%. On the other hand, most of the teachers evaluated presented a low level of personal fulfillment. In conclusion, the variables studied, burnout and personal development were the most affected in the teachers evaluated.

Keywords: Digital skills, Burnout syndrome, university teachers, depersonalization.

### 1. Introduction

In the case of Latin America, some governments that have been included in the learning and teaching survey (TALIS), show in terms of the relationship of teacher training with reference to the use of ICT tools the following statistics, in Chile and Mexico it reaches 77%, Colombia 75%, Brazil 64% and finally 53% for Buenos Aires (Organization for Economic Cooperation and Development [1]. Therefore, education professionals saw the need to adapt and develop digital skills for the virtual teaching modality. However, it should be considered that technology and its methods do not generate learning are only a channel for the exchange of information and educational materials; while the teacher is responsible for a correct planning of their class sessions, in order to promote the acquisition of knowledge [1]. In addition, the main goal or purpose is not to be skilled in technology but to impart knowledge through it [3,4]. However, this transition from traditional education to the technological era with the rise of the use of virtual tools and resources to support the teaching and learning process, gender in the education professional stress, anxiety, frustration, uncertainty and chaos in the face of change and new forms of educational approach making them more vulnerable to contracting the burnout syndrome [5,6,7]. This scenario is marked by the evolution and dynamism of a highly technological society. Additionally, the Ministry of Education of Peru (MINEDU) has issued various regulations regarding teaching performance and ICT in the classroom, immersing teachers in digital culture with different methodologies to strengthen digital skills in education professionals corresponding to the demand of today's society in virtual environments (MINEDU, 2016) [8]. However, this transition from traditional education to the technological era with the rise of the use of virtual tools and resources to support the teaching and learning process, gender in the education professional stress, anxiety, frustration, uncertainty and chaos in the face of change and new forms of educational approach making them more vulnerable to contracting the burnout syndrome [9, 10]. Emotional exhaustion has also been reported to correlate positively with burnout syndrome [11], with passive and avoidant coping styles [12], with negative attributional styles [13], with low self-esteem and behavior pattern type A [14], lack of social support [15], external locus of control [16], anxiety and mood disorders [17], sleep problems, psychophysical disorders and recurrence to the consumption of psychoactive substances, where it can cause negative aspects in the well-being of the teacher [18]. The problem

of burnout syndrome is related to different conditions that cause problems at the level of physical and mental health of those who suffer from it. This problem is considered a disease of public health problem; in one study it was found that teachers presented 35% of work stress being vulnerable in their psychological health indirectly to physical deterioration [19]. It should be noted, this syndrome classified as burnout is a consequence of chronic stress from work and is considered as a work condition, characterized by the depersonalization of work, emotional and physical exhaustion affecting performance and bringing frustration [20]. According to Avendaño [21] in a study of 120 teachers where it was sought to interrelate the burnout syndrome and work performance, showing that 94.4% obtained a high level and the remaining 5.6% a medium level of burnout. Additionally, the Ministry of Education of Peru [22] has issued several regulations regarding teacher performance and ICT in the classroom, immersing teachers in digital culture with different methodologies to strengthen digital skills in education professionals corresponding to the demand of today's society in virtual environments [22]. Therefore, by now, 55% of teachers have not managed to develop digital skills [23]. The purpose of the research was to know the influence of burnout syndrome on digital skills in university teachers, Peru.

## **2. Method**

The study that was developed was of non-experimental type. The population and sample of the research was constituted by all university professors of private universities in Lima, Peru, year 2022, with a total of 269 university professors. Different instruments were used. Where the questionnaire was provided to teachers indicating their sex, age, profession and remuneration. The procedure was based on convenience sampling. The instruments were administered face-to-face to each teacher. The instruments applied were adapted from "CPD-15 Questionnaire" consisting of 15 questions referring to the use of digital platforms in university teachers, which was designed with 4 answer options structured alphabetically from "a" to "d" which if answered correctly is assigned two points and if it is answered incorrectly zero points are assigned; to determine the total scale you must add the scores of the 15 questions and proceed to catalog by scales. The next instrument, known as MBI (Maslach Burnout Inventory), was made up of 22 items on a scale of 0 to 6. The instrument was distributed in three dimensions: descagste (feeling of not being able

to give more of oneself, both physically and psychically), depersonalization (loss of interest and negative attitude) and personal fulfillment (doubts of one's ability to fulfill a task). For its reliability and validation process, the structure of the scale was composed of three factors, which explained 43.39% of the variance, with values for AE of 19.45%, for PR of 15.07%, and for PD of 8.86%. Finally, the design of the instrument called BAI (Beck Anxiety Inventory), this instrument is structured by 21 items designed with the purpose of evaluating the severity of anxious symptoms. Each item refers to a symptom of anxiety and in each of these the respondent must assess the degree that the symptom described has affected him in the last week at the time of the application of the instrument. Its response distribution is designed using a Likert-type scale, considered from 0 none to 3 severe. In addition, each item has a score value between 0 to 3 points depending on the answer given by the individual and, after performing the direct sum of each of the items that represents the final score that varies from 0 to 63. Data analyses were performed using repeated measures ANOVA to identify possible differences in burnout syndrome using SPSS version 26.

### 3. Result

In principle, Table 1 shows the frequency distribution of the burnout syndrome variable and its dimensions. Regarding the Burnout syndrome, it has been observed that in the dimension of emotional exhaustion, teachers showed mainly a low level in 52.0% and a high level in 36.5%. Regarding the depersonalization dimension, they mainly had a high level (50.6%) followed by a low level (38.3%). Regarding personal fulfillment, the majority had a low level (78.4%) and only 14.5% showed a high level in this dimension. In the study, the dimensions that were evaluated in terms of emotional and personal exhaustion were the most affected in the teachers evaluated.

**Table 1 The Burnout Syndrome in teachers of private universities in Lima, 2022.**

| Burnout syndrome     | Frequencies |   |
|----------------------|-------------|---|
|                      | N           | % |
| Emotional exhaustion |             |   |

|                             |                 |      |
|-----------------------------|-----------------|------|
| Average score               | 19.9 (SD±12.54) |      |
| Scale                       |                 |      |
| Low                         | 140             | 52,0 |
| Middle                      | 31              | 11,5 |
| High                        | 98              | 36,5 |
| <b>Depersonalization</b>    |                 |      |
| Average score               | 10.6 (SD±7.39)  |      |
| Scale                       |                 |      |
| Low                         | 103             | 38,3 |
| Middle                      | 30              | 11,2 |
| High                        | 136             | 50,6 |
| <b>Personal fulfillment</b> |                 |      |
| Average score               | 23.0 (SD±13.11) |      |
| Scale                       |                 |      |
| Low                         | 211             | 78,4 |
| Middle                      | 19              | 7,1  |
| High                        | 39              | 14,5 |

**SD:** Standard deviation.

Table 2. It shows that teachers showed an average score of 6.8 in the questionnaire on digital competences. Taking into consideration represents an average of 7 well-answered questions, it can be understood that most teachers correctly completed less than half of the questions in said questionnaire. On the other hand, the scale shows that the majority have a medium level of digital skills (64.7%) and only 8.2% obtained a score that categorized them with a high level.

**Table 21 – Digital competences in teachers of private universities in Lima, 2022.**

**Digital competences in teachers of private universities in Lima, 2022.**

| Digital skills | Frequencies   |      |
|----------------|---------------|------|
|                | N             | %    |
| Average score  | 6.8 (SD±3.02) |      |
| Scale          |               |      |
| Low            | 73            | 27,1 |
| Middle         | 174           | 64,7 |

|      |    |     |
|------|----|-----|
| High | 22 | 8,2 |
|------|----|-----|

**SD:** Standard deviation.

According to Table 3, the normality test is shown, which subjected the variables to the normality test according to Kolmogorov-Smirnov, observing that digital skills, the dimensions of the Burnout syndrome variable and anxiety present an abnormal distribution.

**Table 3 – application of normality by Kolmogorov-Smirnov.**

| Variables            | Statistical |       |
|----------------------|-------------|-------|
|                      | p-value     | K-S   |
| Digital skills       | <0.001      | 0,123 |
| Burnout syndrome     |             |       |
| Emotional exhaustion | <0.001      | 0,147 |
| Depersonalization    | <0.001      | 0,160 |
| Personal fulfillment | <0.001      | 0,116 |
| Anxiety              | <0.001      | 0,085 |

**Table 4 - Association between Burnout Syndrome according to emotional exhaustion and digital competences in teachers of private universities in Lima, 2022.**

|                      |                         | Digital skills |
|----------------------|-------------------------|----------------|
| Emotional exhaustion | Correlation coefficient | 0,434          |
|                      | Sig. (bilateral)        | <0.001*        |

\*: Correlation is significant

As obtained in Table 4, a p-value less than 0.001 can be observed, which allows us to reject the null hypothesis establishing a positive relationship between emotional exhaustion and digital competences in teachers of private universities in Lima, 2022. Likewise, it can be observed that the value of Spearman's Rho shows a value of 0.434 which is established as a moderate positive correlation.

**Table 5 - Association between Burnout Syndrome according to depersonalization and digital competences in teachers of private universities in Lima, 2022.**

|                   |                         | Digital skills |
|-------------------|-------------------------|----------------|
| Depersonalization | Correlation coefficient | 0,432          |
|                   | Sig. (bilateral)        | <0.001*        |

\*: Correlation is significant

Based on Table 5, a p-value of less than 0.001 can be seen, which makes us reject the null hypothesis establishing that there is a correlation between depersonalization and digital skills in teachers of private universities in Lima, 2022. Likewise, Spearman's Rho statistic value was 0.432 indicating a good positive correlation.

**Table 6 - Association between Burnout Syndrome according to personal fulfillment and digital competences in teachers of private universities in Lima, 2022.**

|                      |                         | Digital skills |
|----------------------|-------------------------|----------------|
| Personal fulfillment | Correlation coefficient | 0,676          |
|                      | Sig. (bilateral)        | <0.001*        |

\*: Correlation is significant

Based on Table 6, it has shown a p-value lower than 0.001, which makes us reject the null hypothesis establishing that there is a correlation between personal fulfillment and digital skills in teachers of private universities in Lima, 2022. On the other hand, Spearman's Rho statistic value was 0.676 indicating that there is a moderate correlation of positive type.

**Table 7 - Association between anxiety and digital competences in teachers of private universities in Lima, 2022.**

**Association between anxiety and digital skills in teachers at private universities in Lima, 2022.**

|         |                         | Digital skills |
|---------|-------------------------|----------------|
| Anxiety | Correlation coefficient | 0,140          |

Sig. (bilateral)

0,022

\*: Correlation is significant

Based on Table 7, he found a p-value equal to 0.022, which makes us reject the null hypothesis establishing that there is a correlation between anxiety and digital skills in teachers of private universities in Lima, 2022. Likewise, Spearman's Rho statistic value was 0.140 indicating that there is a very low correlation of positive type.

### Discussion

The findings of this are initially oriented to the authorities of higher education institutions, which need to introduce policies and programs that allow studying the promotion of strategies for the occupational health care of teachers. As Bisquerra et al. [24] emphasize, an approach to educational transformation will not occur if the emotional development of teachers is not enhanced. Several authors have proposed the implementation of social-emotional learning programs in education [25]. in conjunction with recovery measures at work that point to a recovery of energies [26]. The results reveal that those who participate in these programs improve their ability to identify and manage emotions [26]. and exhibit greater competencies for care [27]. In this regard, here we can suggest indicators that should be considered in all preparation of care strategies in university institutions: first, regularity and frequency, since the normativity and designs of these actions tend to be intermittent. Secondly, they must have evaluation and monitoring processes, which make it possible to modify the achievement of the objectives. Third, these programs demand action at three levels: organizational, academic, and in the development of emotional skills and physiological recovery. At the organizational level, it is essential to establish departments whose main function is to design actions for the prevention, diagnosis and treatment of physical and psychological health problems. This would facilitate teachers to generate a sense of relevance towards the institution and interpersonal trust, which has been highlighted as an important factor in preventing OB [28].

Suarez [29]. In its results, it shows that the teachers of the educational institution 7073 in reference to digital competences have a high level with 58.1% and a medium with 41.9%. On the other hand, there is a low level of burnout syndrome with 87.1%. In this case, in reference to the descriptive statistics it is taken in the developed study that the trend is average with a value of 93.33% in

relation to digital skills and in relation to burnout syndrome is 86.67% being of one equal average level. That is why, this indicates that the variables while levels from medium to high in the comparison of results. In relation to the Suarez hypothesis test [30], on the other hand, it evidences the existence of a relationship between digital competences and burnout syndrome through Spearman's Rho correlation statistical test with a value of  $-0.0355$ ,  $\text{Sig. (bilateral)} = 0.005 < 0.05$ ., where the degree of relationship is inversely moderate. Therefore, in the study the same negative trend of moderate inverse relationship is presented with other values, but with a high value of  $-0.9965$ . On the other hand, for Veramendi [31]. The burnout syndrome has an inverse relationship with the labor competence of undergraduate teachers being  $p\text{-value} = 0.041$  moderately with a low value, but it remains inverse as in the study, it is the coincidence.

## 5. Conclusions

The findings on the influence of different dimensions of the Burnout syndrome in university professors were found that most of them presented low levels of emotional exhaustion, while in the dimension of depersonalization a greater number of teachers with high levels was found. On the other hand, most of the teachers evaluated presented a low level of personal fulfillment. However, digital surveys indicate that most of the teachers evaluated had an average score of 6.8, which is equivalent to correctly answering less than half of the questions. In addition, it was observed that most teachers have a medium level of digital competences, while only a small proportion obtained a score that categorizes them with a high level. With respect to the levels of anxiety in the sample evaluated, they were below the average possible value. However, it was observed that a significant proportion of participants (29.4%) had levels of severe anxiety, while almost half (49.1%) had very low anxiety. The findings promote the proper management and control of emotions as qualities that favor the reduction of stress and the prevention of the initial onset of this pathology

## 6. References

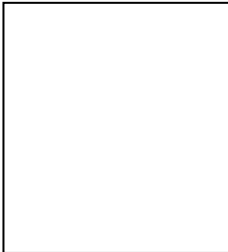
1. OECD, (2019). TALIS 2018 Results (volume I): Teachers and School Leaders as Lifelong Learners, Paris, OECD Publishing.  
<https://www.oecd.org/education/talis-2018-results-volume-i-1d0bc92a-en.htm> [ Links ]

2. Viberg Olga, Mohammad Khalil, and Martine Baars. (2020). Self Regulated Learning and Learning Analytics in Online Learning Environments: A Review of Empirical Research. In Proceedings of the 10th International Conference on Learning Analytics & Knowledge (LAK'20). ACM, New York, NY, USA, 11 pages.  
<https://doi.org/10.1145/3375462.3375483> [ Links ]
3. Horna, Y. (2020). Digital skills and work performance at UGEL 05, San Juan de Lurigancho, 2020. (Master's Thesis). César Vallejo University. Peru. <http://repositorio.ucv.edu.pe/handle/20.500.12692/49737> [ Links ]
4. López, E & Zacarias, H. (2020). Burnout syndrome in university teachers during virtual classes. *Challenges*, 11(2), e209.  
<https://doi.org/10.37711/desafios.2020.11.2.209> [ Links ]
5. Jiménez, L. & Arrieta, M. (2017). Burnout syndrome and performance evaluation in teachers of the University Foundation of the Andean area Valledupar headquarters. *Scenarios* 15(1), pp. 36-46.  
<http://dx.doi.org/10.15665/esc.v15i1.1120> [ Links ]
6. Rincón, M. (2018). Burnout Syndrome and Teaching Work Performance at the Miguel Grau Educational Institution Manchaybamba-Pacucha Seminar 2017. (Postgraduate thesis). José Carlos Mariátegui University, Moquegua-Peru.  
[http://repositorio.ujcm.edu.pe/bitstream/handle/20.500.12819/421/Milciades\\_Tesis\\_titulo\\_2018.pdf?sequence=1&isAllowed=y](http://repositorio.ujcm.edu.pe/bitstream/handle/20.500.12819/421/Milciades_Tesis_titulo_2018.pdf?sequence=1&isAllowed=y) [ Links ]
7. SUTEP. (2020, March 20). The digital divide in Peru prevents the use of ICTs. <https://sutep.org/articulos/brecha-digital-en-el-peru-impide-aprovechar-las-tics/> [ Links ]
8. Ministry of Education. (2016). Good Teaching Performance Framework. [http://www.minedu.gob.pe/n/xtras/marco\\_buen\\_dese\\_mpeno\\_docente.pdf](http://www.minedu.gob.pe/n/xtras/marco_buen_dese_mpeno_docente.pdf) [ Links ].
9. Kyung-Lim, Y.; Jin-Cho, S.; Hoon-Par, J.; Hyun-Park, S. The differential effect of ego resilience on the relationship between emotional work and salivary cortisol level in bank employees. *J. Environment. Res. Public Health* **2018** , 15 , 2576.
10. Colomeischi, AA Burnout of teachers in relation to their emotional intelligence and personality traits. *Proceeding Soc. Behavior Science* **2015**, 180, 1067–1073.
11. Diaz, J. J. (2006). Emerging pathologies: mobbing and burnout. *Advanced Care Series*, 15, 259-273.
12. Marqués, A., Lima, M. L., & Lopes, A. (2005). Sources of stress, burnout and coping strategies in Portuguese teachers. *Journal of Work and Organizational Psychology*, 21(1-2), 125-143. [ Links ]
13. Maslach, C. (1976). Burnout. *Human Behavior*, 5(9), 16-22. [ Links ]
14. Manassero, M. A., García, E., Torrens, G., Ramis, C., Vázquez, A., & Ferrer, V. A. (2005). Burnout in teaching: Attributional aspects. *Journal of Work and Organizational Psychology*, 21(1-2), 89-105.

15. Gil-Monte, P. R., Carretero, N., Roldán, M. D., & Núñez, E. M. (2005). Prevalence of burnout syndrome in workshop monitors for people with disabilities. *Journal of Work and Organizational Psychology*, 21(1-2), 107-123. [ Links ]
16. Moriana, J. A., & Herruzo, J. (2004). Stress and burnout in teachers. *International Journal of Clinical and Health Psychology*, 4(3), 597-621. [ Links ]
17. Quiceno, J. M., & Vinaccia, S. (2007). Burnout: "Burnout at Work Syndrome (SQT)". *Acta Colombiana de Psicología*, 10(2), 117-125.
18. Durán, M. A., Extremera, N., Montalbán, F. M., & Rey, L. (2005). Engagement and burnout in the teaching field: Analysis of its relationships with job and life satisfaction in a sample of teachers. *Journal of Work and Organizational Psychology*, 21(1-2), 145-158.
19. Gómez, V. (2008). Psychosocial factors of work and their relationship with perceived health and blood pressure: A study with school teachers in Bogotá. *Science & Work*, 10(30), 132-137.
20. WHO (2019). World Health Organization. <http://www.medicosypacientes.com/articulo/la-oms-reconoce-como-enfermedad-el-burnout-o-sindrome-de-estar-quemado> [ Links ]
21. Avendaño Cruz, C. (2017). The burnout syndrome and work performance in teachers of the National Amazonian University of Madre de Dios. (postgraduate thesis). Enrique Guzmán y Valle National University of Education, Lima-Peru. <https://repositorio.une.edu.pe/bitstream/handle/20.500.14039/1517/TM%20CE-Du%203120%20A1%20-%20Avenda%c3%b1o%20Cruz.pdf?sequence=1&isAllowed=y> [ Links ]
22. Ministry of Education. (2016). Good Teaching Performance Framework. [http://www.minedu.gob.pe/n/xtras/marco\\_buen\\_desempeno\\_docente.pdf](http://www.minedu.gob.pe/n/xtras/marco_buen_desempeno_docente.pdf) [ Links ]
23. SUTEP. (2020, March 20). The digital divide in Peru prevents the use of ICTs. <https://sutep.org/articulos/brecha-digital-en-el-peru-impide-aprovechar-las-tics/> [ Links ]
24. Bisquerra, R., Pérez, JC & García, E. (2015). Emotional intelligence in education. Madrid: Synthesis. [ Links ]
25. Brackett, MA, Alster, B., Wolfe, C., Katulak, N. and Fale, E. (2007). Creating an Emotionally Intelligent School District: A Skills-Based Approach. R. Bar-On, JG Maree and MJ Elias (Eds.). Educate people to be emotionally intelligent (pp. 123-137). London: Praeger Publishers. [ Links ]
26. Cabello, R., Ruiz, D. & Fernández, P. (2010). Emotionally intelligent teachers. *Revista Electrónica Interuniversitaria de Formación del Profesorado*, 13(1), 41-49. [ Links ]
27. Sonnentag, S. & Geurts, SA (2009). Methodological issues in recovery research. In: S. Sonnentag, PL Perrewé and DC Gangster (Eds.). Current

- perspectives on recovery from work-related stress, vol. 7 (pp. 1-46). New York: JHA Press/Elsevier. [ Links ]
28. Geurts, SA and Sonnentag, S. (2006). Recovery as an explanatory mechanism in the relationship between acute stress reactions and chronic health deterioration. *Scandinavian Journal of Work, Environment and Health*, 32, 482-492. [ Links ]
29. Caruso, AL, Giammanco, MD and Gitto, L. (2014). Experience of burnout among teachers: a case study. *Mediterranean Journal of Clinical Psychology*, 2(3), 1-20. Doi: 10.6092/2282-1619/2014.2.1023 [ Links ]
30. Cardenas, M.; Mendez, LM; González, MT Performance, stress, Burnout and personal variables of university professors. *Educere* **2014**, 18, 289–311.
31. Figueiredo-Ferraz, H.; Gil-Monte, PR; Grau-Alberola, E. Psychometric properties of the "Spanish Burnout Inventory" (SBI): Adaptation and validation in a Portuguese-speaking sample. *EUR. Application Rev. psicol.* **2013**, 63, 33–40.

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