









ORIGINAL

Bibliometric Analysis of Global Research Trends in Psychological Well-Being of Teacher: 2015-2024 Using VOSviewer

Análisis bibliométrico de las tendencias mundiales de investigación en bienestar psicológico del profesorado: 2015-2024 utilizando VOSviewer

Riza Fatimah Zahrah^{1,2}  , Cece Rakhmat³ , Turmudi⁴ , Sufyani Prabawanto⁴ , Geri Syahril Sidik² 

¹Indonesia University of Education, Primary Education Department. Bandung, Indonesia.

²Perjuangan University of Tasikmalaya, Elementary School Teacher Education Department. Tasikmalaya, Indonesia.

³Indonesia University of Education, Special Education Department. Bandung, Indonesia.

⁴Indonesia University of Education, Mathematics Education Department. Bandung, Indonesia.

Cite as: Zahrah RF, Rakhmat C, Turmudi T, Prabawanto S, Syahril Sidik G. Bibliometric Analysis of Global Research Trends in Psychological Well-Being of Teacher: 2015-2024 Using VOSviewer. *Salud, Ciencia y Tecnología*. 2025; 5:1235. <https://doi.org/10.56294/saludcyt20251235>

Submitted: 20-04-2024

Revised: 19-08-2024

Accepted: 23-12-2024

Published: 01-01-2025

Editor: Prof. Dr. William Castillo-González 

Corresponding author: Riza Fatimah Zahrah 

ABSTRACT

This study examines the influence of teacher well-being on educators, students, and other stakeholders, focusing on trends in existing research. This study aims to create a bibliometric map of articles discussing teacher well-being using the VOSviewer application from a psychological perspective. Data collection was conducted using reference management software, specifically Publish or Perish, to facilitate a literature review centered on the topic of teacher well-being. This approach provides insights into the scope and depth of existing studies, highlighting patterns and gaps for further exploration. The keywords “teachers” and “wellbeing” were employed during the data gathering process. Articles selected for the analysis were those published between 2015 and 2024. The findings identified 500 articles relevant to the topic of teacher well-being published within the last decade. Research trends in the world based on research publications on teacher wellbeing have increased from 2015 to 2020. However, from 2020 to 2024 the trend of research on teacher wellbeing continues to decline. Based on the results of bibliometric analysis, the term teacher welfare has 152 links. It can be concluded that research publications on teacher well-being are still limited to research and have great opportunities for further teacher’s well being research from psychological perspective in the future especially in job resources, psychological capital, emotional intelligence, motivation, expectations, age, and connections.

Keywords: Bibliometric; Psychological Well Being; Teacher; Vosviewer.

RESUMEN

Es este estudio examina la influencia del bienestar docente en educadores, estudiantes y otras partes interesadas, centrándose en las tendencias de la investigación existente. Este estudio tiene como objetivo crear un mapa bibliométrico de los artículos que tratan sobre el bienestar del profesorado utilizando la aplicación VOSviewer desde una perspectiva psicológica. La recopilación de datos se llevó a cabo utilizando software de gestión de referencias, concretamente Publish or Perish, para facilitar una revisión bibliográfica centrada en el tema del bienestar docente. Durante el proceso de recopilación de datos se emplearon las palabras clave «teachers» (profesores) y «wellbeing» (bienestar). Los artículos seleccionados para el análisis fueron los publicados entre 2015 y 2024. Los resultados identificaron 500 artículos relevantes para el tema del bienestar docente publicados en la última década. Las tendencias de investigación en el mundo basadas en publicaciones de investigación sobre el bienestar docente han aumentado de 2015 a 2020. Sin embargo,

de 2020 a 2024 la tendencia de la investigación sobre el bienestar de los profesores sigue disminuyendo. Según los resultados del análisis bibliométrico, el término bienestar docente tiene 152 enlaces. Se puede concluir que las publicaciones de investigación sobre bienestar docente siguen siendo limitadas a la investigación y tienen grandes oportunidades para seguir investigando el bienestar docente desde la perspectiva psicológica en el futuro, especialmente en recursos laborales, capital psicológico, inteligencia emocional, motivación, expectativas, edad y conexiones.

Palabras clave: Bibliometría; Bienestar Psicológico; Profesor; Vosviewer.

INTRODUCTION

Focusing on teacher well-being is crucial not only for ensuring the health and happiness of individual educators but also for enhancing the overall performance of education systems. When teachers receive adequate support and feel appreciated, they tend to perform more effectively in their roles. This positively influences student achievement, fosters a supportive school culture, and contributes to the long-term success of the educational environment. Schools and educational organizations increasingly recognize the importance of promoting teacher wellbeing as part of creating a healthy and thriving educational community. Research on teacher well-being is still a significant trend in education and psychology.^(1,2) Research continues to explore the factors that affect teacher well-being, the impact of positive or negative teacher well-being on teaching quality and student learning outcomes, and the development of effective strategies to enhance teacher well-being. These studies aim to provide insights into how supporting teachers can lead to better educational environments and improved academic performance for students.

Recent research on teacher well-being often includes a multidimensional approach that incorporates factors such as job stress, social support, job satisfaction, time management and recovery strategies. This is a growing field due to the important role teachers play in achieving educational goals and building the future of future generations. When teacher well-being is compromised, it can significantly impact both their personal lives and professional effectiveness. Low levels of welfare may lead to increased stress, reduced job satisfaction, and a decline in overall mental and physical health, which in turn affects their ability to engage with students and deliver quality education and on the education environment as a whole. Here are some of the impacts of low teacher well-being^(3,4) Burnout and High Stress; Decreased Teaching Quality; High Teacher Turnover; Poor Quality of Life; Unhealthy School Atmosphere; Impact on Students.^(5,6)

Efforts to enhance teacher well-being are crucial for ensuring the effectiveness and sustainability of the teaching profession in ensuring that teachers can make optimal contributions to students in education. This includes paying attention to factors such as professional support, stress management, work-life balance and a supportive work environment (Ingersoll, 2001) (Johnson, 2004) Research trends in teacher well-being research before 2020 focus on teachers' material well-being, including various aspects related to financial compensation, benefits, and other economic support. The following are some of the key research trends and issues regarding teachers'; material well-being before 2020: Salary and Compensation; Allowances and Benefits; Working Conditions and Facilities; Incentives and Bonuses; Education and Training; Macroeconomic Influences; Long-term Wellbeing and Retirement (Blatchford, 2009). In this study examines teacher wellbeing publications from 2015-2024 from a psychological perspective using Vosviewers. Teacher well-being refers to the overall health, happiness, and job satisfaction of educators in their professional roles. It includes various dimensions of a teacher's experience, such as physical and mental health, emotional well-being, work-life balance, and a sense of fulfillment in their profession. When teachers feel supported and satisfied, they are more likely to perform effectively, maintain motivation, and positively influence student outcomes.⁽⁷⁾

Some of the reasons why this research remains relevant and continues to grow include: Teacher well-being directly influences the effectiveness of teaching and learning. Educators who feel satisfied and supported in their roles tend to provide more engaging and effective instruction, fostering a positive learning environment for students. Beyond their professional responsibilities, teacher well-being also impacts their overall mental and physical health, which is essential for preventing burnout and improving retention rates within the profession. So it is important to map out research related to teacher well-being from its psychological side.

METHOD

The study employs a bibliometric analysis method, chosen for its ability to systematically measure and evaluate publications within the targeted database. This approach facilitates the identification, recording, analysis, and visualization of documents related to a specific theme.⁽⁸⁾ The research utilizes the Google Scholar database, a widely accessible indexing platform, with its analytical tools deemed adequate for obtaining the required data. Data collection for this study is facilitated by Harzing's Publish or Perish application, which supports the process of conducting a literature review on the topic of Teacher Well-Being. The research process

includes the following stages:

1. Collecting publication data from the Google Scholar database using Harzing's Publish or Perish.
2. Processing the bibliometric data using the Numbers application.
3. Conducting computational mapping with the VOSviewer application.
4. Analyzing the results of the computational mapping to identify trends and insights related to teacher well-being.

The data collection, conducted in June 2024, used the keyword "Teacher Well-Being" and included articles published between 2015 and 2024. Data files in *.csv and *.ris formats were exported for analysis. The *.csv files were processed using the Numbers application, while *.ris files were visualized with VOSviewer. VOSviewer played a crucial role in generating bibliometric maps that visually represented and analyzed trends in three distinct formats: network visualization, density visualization, and overlay visualization. These maps illustrated co-citation networks and highlighted the connections between various articles, offering a detailed overview of the research themes and relationships within the field of teacher well-being. By using these visual tools, the study was able to identify patterns, trends, and key topics that emerged from the literature on teacher well-being, providing valuable insights into the state of research in this area.

RESULTS

Publications Data Search Result

The data on Teacher Well-Being collected from the Google Scholar database through Harzing's Publish or Perish application resulted in 498 articles that met the research criteria. The metadata for each article includes information such as the author's name, article title, publication year, publisher, number of citations, DOI, and relevant URLs. Table 1 presents examples of the data used in the VOSviewer analysis for this study, highlighting the top 20 articles with the highest citation counts over the past decade.

The cumulative citation count for all articles in this study was 45,393, with an average of 4 539 citations per year. Additionally, the average citation count per article was 91,15, while the annual average citation rate per article stood at 9,11. These figures highlight the research impact and relevance of the articles selected for the analysis.

Table 1. Teacher Well Being Publication Data Based on Citation

| Cites | Authors | Title | Year | Publisher |
|-------|---|--|------|----------------------|
| 1203 | L Oktaviani, Y Fernando, R Romadhoni... ⁽⁹⁾ | Developing a web-based application for school counselling and guidance during COVID-19 Pandemic | 2021 | ejournal.umm.ac.id |
| 922 | KC Herman, J Hickmon-Rosa... ⁽¹⁰⁾ | Empirically derived profiles of teacher stress, burnout, self-efficacy, and coping and associated student outcomes | 2018 | journals.sagepub.com |
| 654 | B Shen, N McCaughtry, J Martin, A Garn... ⁽¹¹⁾ | The relationship between teacher burnout and student motivation | 2015 | Wiley Online Library |
| 582 | S Bücken, S Nuraydin, BA Simonsmeier... ⁽¹²⁾ | Subjective well-being and academic achievement: A meta-analysis | 2018 | Elsevier |
| 568 | KA Arnold ⁽¹³⁾ | Transformational leadership and employee psychological well-being: A review and directions for future research. | 2017 | psycnet.apa.org |
| 530 | A Sverdlik, NC Hall, L McAlpine... ⁽¹⁴⁾ | The PhD experience: A review of the factors influencing doctoral students' completion, achievement, and well-being | 2018 | informingscience.org |
| 526 | S Bostock, AD Crosswell, AA Prather... ⁽¹⁵⁾ | Mindfulness on-the-go: Effects of a mindfulness meditation app on work stress and well-being. | 2019 | psycnet.apa.org |
| 499 | U Klusmann, D Richter, O Lüdtke ⁽¹⁶⁾ | Teachers' emotional exhaustion is negatively related to students' achievement: Evidence from a large-scale assessment study. | 2016 | psycnet.apa.org |
| 454 | PD MacIntyre, T Gregersen... ⁽¹⁷⁾ | Setting an agenda for positive psychology in SLA: Theory, practice, and research | 2019 | Wiley Online Library |
| 424 | M Tadić, AB Bakker... ⁽¹⁸⁾ | Challenge versus hindrance job demands and well-being: A diary study on the moderating role of job resources | 2015 | Wiley Online Library |
| 422 | J Perryman, G Calvert ⁽¹⁹⁾ | What motivates people to teach, and why do they leave? Accountability, performativity and teacher retention | 2020 | Taylor & Francis |
| 414 | R Acton, P Glasgow ⁽²⁰⁾ | Teacher wellbeing in neoliberal contexts: A review of the literature | 2015 | search.informit.org |
| 405 | DM Netolicky ⁽²¹⁾ | School leadership during a pandemic: navigating tensions | 2020 | emerald.com |

| | | | | |
|-----|--|--|------|----------------------|
| 398 | LL Hadar, O Ergas, B Alpert, T Ariav ⁽²²⁾ | Rethinking teacher education in a VUCA world: student teachers' social-emotional competencies during the Covid-19 crisis | 2020 | Taylor & Francis |
| 366 | K Bluth, RA Campo, WS Futch, SA Gaylord ⁽²³⁾ | Age and gender differences in the associations of self-compassion and emotional well-being in a large adolescent sample | 2017 | Springer |
| 328 | MM Vainio, Daukantaitė ⁽²⁴⁾ | D Grit and different aspects of well-being: Direct and indirect relationships via sense of coherence and authenticity | 2016 | Springer |
| 319 | T Dicke, F Stebner, C Linninger, M Kunter... ⁽²⁵⁾ | A longitudinal study of teachers' occupational well-being: Applying the job demands-resources model. | 2018 | psycnet.apa.org |
| 316 | M González-Carrasco, F Casas, S Malo, F Viñas... ⁽²⁶⁾ | Changes with age in subjective well-being through the adolescent years: Differences by gender | 2017 | Springer |
| 313 | Al Drever, E Odders-White, CW Kalish... ⁽²⁷⁾ | Foundations of financial well-being: Insights into the role of executive function, financial socialization, and experience-based learning in childhood and youth | 2015 | Wiley Online Library |
| 303 | LE Kim, L Oxley, K Asbury ⁽²⁸⁾ | "My brain feels like a browser with 100 tabs open": A longitudinal study of teachers' mental health and well-being during the COVID-19 pandemic | 2022 | Wiley Online Library |

Research Development in the Field on Teacher Well Being

The progression of research in the area of teacher well-being is summarized in table 2. Over a decade (2015-2024), 498 articles addressing the topic were published in journals indexed in the Google Scholar database. The peak of research activity occurred in 2020, with 74 publications on teacher well-being, marking it as the most prolific year for studies on this theme. In comparison, 32 articles were published in 2023, and the number further decreased to 7 in 2024, reflecting a downward trend in publication frequency during the latter years.

Table 2. Teacher Well Being Publication Data in 10 years

| Year | Number of Publications |
|------|------------------------|
| 2015 | 51 |
| 2016 | 55 |
| 2017 | 51 |
| 2018 | 53 |
| 2019 | 73 |
| 2020 | 74 |
| 2021 | 58 |
| 2022 | 44 |
| 2023 | 32 |
| 2024 | 7 |

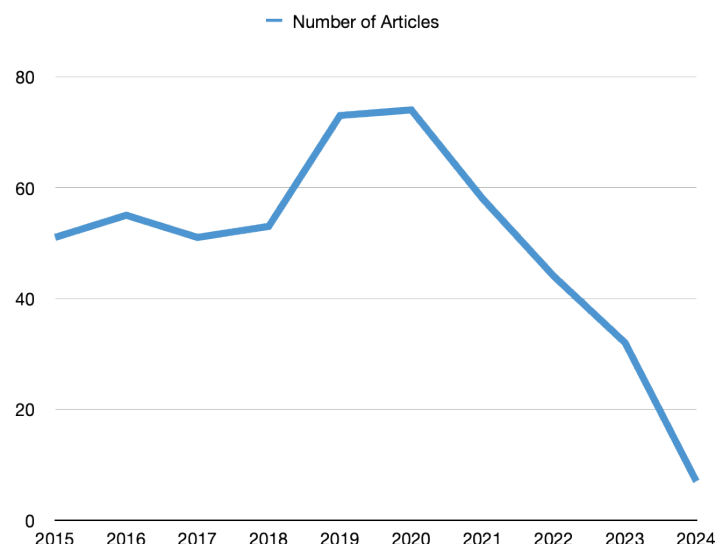


Figure 1. Level of Research Development in Teacher Well Being

The data reveals that the term “teacher well-being” is connected to other related terms. According to the mapping results, the term “teacher” is located in Cluster 3, with 151 links and a link strength of 1344, while “well-being” is in Cluster 2, with 85 links and a link strength of 210. The analysis shows that the relationship and connectivity between the two terms—teacher well-being—are relatively weak. This indicates that research on teacher well-being is still limited, presenting a significant opportunity for future studies in this area. Expanding this research could lead to a greater impact and contribute novel insights to the field.

DISCUSSION

Research Development in the Field on Teacher Well Being

The progression of research in the area of teacher well-being is summarized in table 2. Over a decade (2015-2024), 498 articles addressing the topic were published in journals indexed in the Google Scholar database. The peak of research activity occurred in 2020, with 74 publications on teacher well-being, marking it as the most prolific year for studies on this theme. In comparison, 32 articles were published in 2023, and the number further decreased to 7 in 2024, reflecting a downward trend in publication frequency during the latter years.

Visualization of Teacher Well Being Topic Areas Using VOSViewer

The application of the VOSviewer software generates a computational mapping of articles related to Teacher Well-Being. The mapping categorizes all items into 7 distinct clusters, comprising a total of 152 items. These clusters provide an organized visualization of the research landscape on this topic.

1) Cluster 1 is shown in red color, consisting of 32 items there are academic achievement, adolescence, agency, association, child, connection, country, current study, education, evidence, experience, family, happiness, health, higher level, implication, language teacher, life, mental health, outcome, paper, parent, person, school, self esteem, social support, society, state, teacher rating, teacher support, understanding, way.

2) Cluster 2 is shown in green, the 27 item are achievement, adolescent, age, care, change difference, emotional well, extent, future, hope, individual, measure, mindfulness, order, predictor, problem, program, quality, resilience, sample, school engagement, self, study, subjective well, wellbeing, year, young person.

3) Cluster 3 is shown in blue color, the 27 items are aspect, community, condition, day, educator, effort, emotion, environment, impact, importance, investigation, issue, job satisfaction, kind, learning, level, practice, reason, retention, sense, teacher, teacher candidate, teacher education, teacher educator, teacher effectiveness, teaching, university.

4) Cluster 4 is shown in yellow color, the 26 items are case, context, employee, engagement, job, job resource, literature, model, need, perception, present study, psychological capital, relationship, review, role, satisfaction, stress, stressor, support, teacher well being, well, word, work, work engagement, workplace, workplace spiritually.

5) Cluster 5 is shown in purple color, the 18 items are addition, adult, author, burnout, effect, emotional intelligence, influence, mediating role, psychological, psychological well, relation, scale, school climate, self efficacy, student, teacher burnout, teacher self efficacy, teachers stress.

6) Cluster 6 is shown in sky blue, the 12 items are covid, early childhood, example, factor, indicator, life satisfaction, longitudinal study, mediator, pandemic, strategy, teacher student relationship, time

7) Cluster 7 is shown in orange, the 10 items are children, classroom, development, effectiveness, intervention, meta analysis, motivation, performance, research, systematic review,

This research is crucial because teachers play a pivotal role in shaping the education and character development of future generations, meaning their well-being directly impacts the quality of education. Based on bibliometric analysis using the VOSviewer application, several aspects of teacher well-being have yet to be extensively explored in the literature.

One such area is job resources, which include elements such as administrative support, professional development opportunities, a positive work environment, and the autonomy to teach. Sufficient job resources can significantly enhance teacher well-being by alleviating stress and preventing burnout. When teachers have access to the necessary tools and support, they tend to feel more motivated and satisfied, leading to improved performance and overall well-being. This highlights an important gap in research, suggesting that further exploration into these aspects could contribute to the advancement of teacher welfare and, by extension, the quality of education.^(29,30)

Psychological capital This includes factors such as self-efficacy, optimism, resilience, and hope, all of which are key components in building personal strength and emotional stability. These psychological traits help individuals navigate challenges, adapt to adversity, and maintain a positive outlook even in difficult situations. High levels of these factors contribute to an individual’s ability to manage stress effectively, stay motivated,

and continue striving toward their goals, all of which are essential for overall well-being and success. These are positive psychological aspects that help individuals overcome challenges and achieve goals. High psychological capital among teachers can improve their well-being by helping them cope with stress, manage negative emotions and stay motivated. Teachers with strong psychological capital tend to be more resistant to stress and burnout and have a more positive outlook on their work.^(31,32,33)

Emotional intelligence refers to the ability to recognize, comprehend, and manage one's own emotions, as well as those of others. This includes skills such as empathy, conflict resolution, and effective communication. Teachers with high emotional intelligence are better equipped to handle stress, build strong relationships with students and colleagues, and create a positive and supportive classroom atmosphere. These skills not only enhance emotional well-being but also reduce the likelihood of burnout, as teachers are more capable of maintaining a balanced and resilient mindset in challenging situations. High emotional intelligence helps teachers manage classroom dynamics, making it easier to foster a positive, engaging learning environment. High emotional intelligence not only promotes a healthier work environment but also contributes to greater job satisfaction and overall mental health for educators.^(30,34,35)

Motivation can be to teach, help students develop, or achieve professional satisfaction. Teachers who are motivated, either intrinsically (e.g., finding joy in teaching) or extrinsically (e.g., recognition or rewards), tend to have better well-being. High motivation can increase job satisfaction and reduce the risk of stress and burnout.^(30,36,37,38)

Hope in a psychological context refers to the belief that one has the ability and path to achieve certain goals. It also includes hope for the future and career development. Teachers who have hope for the future of their careers and believe that they can achieve their professional goals tend to have higher levels of well-being.^(39,40,41)

Age can affect work experience, emotional maturity, and perspective on work. Age is often related to teaching experience and career development. Younger teachers may have more energy and enthusiasm but may also face challenges related to lack of experience. Conversely, older teachers may have more experience and stability but may also face physical challenges or boredom. Research shows that well-being can increase with age up to a certain point, but can decrease if burnout or exhaustion occurs.⁽⁴²⁾

Connections, social relationships include the support networks teachers have, including relationships with fellow teachers, administration, students and families. To enhance teacher well-being, it is essential to provide both emotional and practical support that helps educators manage job-related stress and challenges. Emotional resources such as counseling, peer support, and recognition of their efforts, alongside instrumental resources like professional development opportunities and access to teaching tools, can significantly reduce stress levels. These provisions help teachers maintain a positive attitude and sustain their motivation, ultimately improving their overall job satisfaction and performance. Positive connections with coworkers and the community can increase a sense of belonging and engagement, which is important for long-term well-being.^(43,44,45,46)

CONCLUSIONS

This study aims to conduct a bibliometric analysis to map research articles related to teacher well-being, sourced from Google Scholar, using the VOSviewer application. The analysis focuses on articles published between 2015 and 2024, with the keywords “teacher” and “well-being” guiding the data collection process. This approach helps identify trends, patterns, and connections within the body of research on teacher well-being, providing insights into the current state of this field. The findings revealed 498 relevant articles published during this period. Research on teacher well-being showed a decline in publications from 2020 to 2023. The bibliometric analysis results indicate several opportunities for future research on the psychological well-being of teachers, particularly in elementary schools or other educational levels. Areas for further investigation include job resources, psychological capital, emotional intelligence, motivation, expectations, age, and interpersonal connections, highlighting the need for deeper exploration of these factors in relation to teacher well-being.

REFERENCES

1. Toquero CM. Challenges and Opportunities for Higher Education amid the COVID-19 Pandemic: The Philippine Context. *Pedagog Res.* 2020;5(4):em0063.
2. Willis A, Hyde M, Black A. Juggling with both hands tied behind my back: Teachers' views and experiences of the tensions between student well-being concerns and academic performance *Educ Res J* [Internet]. 2019; Available from: https://journals.sagepub.com/doi/abs/10.3102/0002831219849877?casa_token=c34zrWYLdY4AAAAA:uab4B3OFkSAKlXrJSr1hHTYeecztpdnqBci91O8_NZuDPSXsD4lUwYOE10YlgosdSfkrmc6UDzFdyQ
3. Wolf S, Aber JL, Behrman JR, Tsinigo E. Experimental Impacts of the “Quality Preschool for Ghana” Interventions on Teacher Professional Well-being, Classroom Quality, and Children’s School Readiness. *J Res*

Educ Eff [Internet]. 2019;12(1):10-37. Available from: <https://doi.org/10.1080/19345747.2018.1517199>

4. Becker BD, Gallagher KC, Whitaker RC. Teachers' dispositional mindfulness and the quality of their relationships with children in Head Start classrooms. *J Sch Psychol* [Internet]. 2017; Available from: <https://www.sciencedirect.com/science/article/pii/S0022440517300778>

5. Cann RF, Riedel-Prabhakar R, Powell D. A model of positive school leadership to improve teacher wellbeing. ... *J Appl Posit ...* [Internet]. 2021; Available from: <https://link.springer.com/article/10.1007/s41042-020-00045-5>

6. Doménech-Betoret F, Lloret-Segura S, ... Teacher support resources, need satisfaction and well-being. *Spanish J ...* [Internet]. 2015; Available from: <https://www.cambridge.org/core/journals/spanish-journal-of-psychology/article/teacher-support-resources-need-satisfaction-and-wellbeing/61333CBE37DE3EE471418BE4146635C1>

7. Fretes G, Lllurba C, Palau R. Influence of Teaching Activities, Environmental Conditions and Class Schedules on Teacher Stress Measured with a Smartwatch: A Pilot Study. *J Technol Sci Educ* [Internet]. 2023; Available from: <https://eric.ed.gov/?id=EJ1407474>

8. Arquitectura EY, Introducci TI, 赫晓霞, Iv T, Teatinas LAS, Conclusiones TVII, et al. No 主観的健康感を中心とした在宅高齢者における健康関連指標に関する共分散構造分析Title. *Acta Univ Agric Silvic Mendelianae Brun* [Internet]. 2015;53(9):1689-99. Available from: <http://publications.lib.chalmers.se/records/fulltext/245180/245180.pdf%0Ahttps://hdl.handle.net/20.500.12380/245180%0Ahttp://dx.doi.org/10.1016/j.jsames.2011.03.003%0Ahttps://doi.org/10.1016/j.gr.2017.08.001%0Ahttp://dx.doi.org/10.1016/j.precamres.2014.12>

9. Oktaviani L, Fernando Y, Romadhoni R, ... Developing a web-based application for school counselling and guidance during COVID-19 Pandemic. *J Community ...* [Internet]. 2021; Available from: <https://ejournal.umm.ac.id/index.php/jcse/article/view/17630>

10. Herman KC, Hickmon-Rosa J, Reinke WM. Empirically Derived Profiles of Teacher Stress, Burnout, Self-Efficacy, and Coping and Associated Student Outcomes. *J Posit Behav Interv.* 2018;20(2):90-100.

11. Shen B, McCaughy N, Martin J, Garn A, ... The relationship between teacher burnout and student motivation. *Br J ...* [Internet]. 2015; Available from: <https://bpspsychub.onlinelibrary.wiley.com/doi/abs/10.1111/bjep.12089>

12. Bücker S, Nuraydin S, Simonsmeier BA, ... Subjective well-being and academic achievement: A meta-analysis. *J Res ...* [Internet]. 2018; Available from: <https://www.sciencedirect.com/science/article/pii/S0092656618300199>

13. Arnold KA. Transformational leadership and employee psychological well-being: A review and directions for future research. *J Occup Health Psychol* [Internet]. 2017; Available from: <https://psycnet.apa.org/journals/ocp/22/3/381/>

14. Sverdlik A, Hall NC, McAlpine L, ... The PhD experience: A review of the factors influencing doctoral students' completion, achievement, and well-being. *Int J ...* [Internet]. 2018; Available from: <https://www.informingscience.org/Publications/4113>

15. Bostock S, Crosswell AD, Prather AA, ... Mindfulness on-the-go: Effects of a mindfulness meditation app on work stress and well-being. *J Occup ...* [Internet]. 2019; Available from: <https://psycnet.apa.org/record/2018-19565-001>

16. Klusmann U, Richter D, Lüdtke O. Teachers' emotional exhaustion is negatively related to students' achievement: Evidence from a large-scale assessment study. *J Educ ...* [Internet]. 2016; Available from: <https://psycnet.apa.org/record/2016-16651-001>

17. MacIntyre PD, Gregersen T, ... Setting an agenda for positive psychology in SLA: Theory, practice, and research. ... *Mod Lang J* [Internet]. 2019; Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/>

modl.12544

18. Tadić M, Bakker AB, Oerlemans WGM. Challenge versus hindrance job demands and well-being: A diary study on the moderating role of job resources. *J Occup Organ Psychol*. 2015;88(4):702-25.
19. Perryman J, Calvert G. What motivates people to teach, and why do they leave? Accountability, performativity and teacher retention. *Br J Educ Stud* [Internet]. 2020; Available from: <https://www.tandfonline.com/doi/abs/10.1080/00071005.2019.1589417>
20. Acton R, Glasgow P. Teacher wellbeing in neoliberal contexts: A review of the literature. *Aust J Teach Educ ...* [Internet]. 2015; Available from: <https://search.informit.org/doi/abs/10.3316/ielapa.441680081120104>
21. Netolicky DM. School leadership during a pandemic: navigating tensions [Internet]. *Journal of professional capital and community*. emerald.com; 2020. Available from: https://www.emerald.com/insight/content/doi/10.1108/JPCC-05-2020-0017/full/html?casa_token=duq5tupxvOEAAAAA:Wp2AtGViU6Q_u8T8pmN8eBXQZssDCFFawhd0vl6xIHSls0E8zFfCquSwH-As9goOg7BrPF11rlx44TUwQ0qolghToQZrAYUsDF42BTytrgXiMS_f_utBtA
22. Hadar LL, Ergas O, Alpert B, Ariav T. Rethinking teacher education in a VUCA world: student teachers' social-emotional competencies during the Covid-19 crisis. *Eur J Teach ...* [Internet]. 2020; Available from: <https://www.tandfonline.com/doi/abs/10.1080/02619768.2020.1807513>
23. Bluth K, Campo RA, Futch WS, Gaylord SA. Age and gender differences in the associations of self-compassion and emotional well-being in a large adolescent sample. *J youth ...* [Internet]. 2017; Available from: <https://link.springer.com/article/10.1007/s10964-016-0567-2>
24. Vainio MM, Daukantaitė D. Grit and different aspects of well-being: Direct and indirect relationships via sense of coherence and authenticity. *J Happiness Stud* [Internet]. 2016; Available from: <https://link.springer.com/article/10.1007/s10902-015-9688-7>
25. Dicke T, Stebner F, Linninger C, Kunter M, ... A longitudinal study of teachers' occupational well-being: Applying the job demands-resources model. *J ...* [Internet]. 2018; Available from: <https://psycnet.apa.org/record/2017-04399-001>
26. González A, Gallego-Sánchez I, Gavilán-Izquierdo JM, Puertas ML. Characterizing Levels of Reasoning in Graph Theory. *Eurasia J Math Sci Technol Educ*. 2021;17(8):1-16.
27. Drever AI, Odders-White E, Kalish CW, ... Foundations of financial well-being: Insights into the role of executive function, financial socialization, and experience-based learning in childhood and youth. *J Consum ...* [Internet]. 2015; Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/joca.12068>
28. Kim LE, Oxley L, Asbury K. "My brain feels like a browser with 100 tabs open": A longitudinal study of teachers' mental health and well-being during the COVID-19 pandemic. ... *J Educ Psychol* [Internet]. 2022; Available from: <https://bpspsychub.onlinelibrary.wiley.com/doi/abs/10.1111/bjep.12450>
29. Yin H, Huang S, Wang W. Work environment characteristics and teacher well-being: The mediation of emotion regulation strategies [Internet]. *International journal of environmental research mdpi.com*; 2016. Available from: <https://www.mdpi.com/1660-4601/13/9/907>
30. Gkolia A, Belias D, Koustelios A, Tschannen-Moran M, Hoy AW, Bradley K, et al. Teacher Stress Directions for.pdf. *Teach Teach Educ* [Internet]. 2014;10(1):37-41. Available from: <http://dx.doi.org/10.1016/j.tate.2011.04.001>
<http://dx.doi.org/10.1016/j.jegh.2017.06.002>
31. Li Y, Zhang RC. Kindergarten teachers' work stress and work-related well-being: A moderated mediation model. ... *Personal an Int J* [Internet]. 2019; Available from: <https://www.ingentaconnect.com/content/sbp/sbp/2019/00000047/00000011/art00009>
32. Meyers MC, Woerkom M van. Effects of a strengths intervention on general and work-related well-being: The mediating role of positive affect [Internet]. *Journal of Happiness Studies*. Springer; 2017. Available from: <https://link.springer.com/article/10.1007/s10902-016-9745-x>

33. Smith AP, James A. The well-being of students in a Welsh secondary school before and after a COVID-19 lockdown. *J Educ Soc ...* [Internet]. 2021; Available from: <http://asian.go4publish.com/id/eprint/1604/>
34. Adams S, Savahl S. Nature as children's space: A systematic review. *J Environ Educ* [Internet]. 2017; Available from: <https://www.tandfonline.com/doi/abs/10.1080/00958964.2017.1366160>
35. Alves R, Lopes T, Precioso J. Teachers' well-being in times of Covid-19 pandemic: factors that explain professional well-being. *Int J Educ Res Innov*. 2021;2021(15):203-17.
36. Ford TG, Olsen J, Khojasteh J, Ware J, ... The effects of leader support for teacher psychological needs on teacher burnout, commitment, and intent to leave. *J Educ ...* [Internet]. 2019; Available from: <https://www.emerald.com/insight/content/doi/10.1108/JEA-09-2018-0185/full/>
37. Rothausen TJ, Henderson KE, ... Should I stay or should I go? Identity and well-being in sensemaking about retention and turnover. *J ...* [Internet]. 2017; Available from: <https://journals.sagepub.com/doi/abs/10.1177/0149206315569312>
38. Sverdlik A, Hall NC, McAlpine L, Hubbard K. The PhD experience: A review of the factors influencing doctoral students' completion, achievement, and well-being. *Int J Dr Stud*. 2018;13:361-88.
39. Avey JB, Luthans F, Smith RM, Palmer NF. Impact of positive psychological capital on employee well-being over time. *J Occup Health Psychol*. 2010;15(1):17-28.
40. Gull M, Nizami N. Comparative study of hope and psychological well-being among the parents of physically and intellectually disabled children [Internet]. *International Journal of Modern Social Sciences*. researchgate.net; 2015. Available from: https://www.researchgate.net/profile/Mubashir-Gull/publication/292141502_Comparative_study_of_hope_and_psychological_well-being_among_the_parents_of_physically_and_intellectually_disabled_children/links/56aa07f308ae7f592f0f13a2/Comparative-study-of-hope-a
41. KARTOL A, SÖNER O. Hope and mental well-being predictors of teacher candidates in the pandemic: Career adaptation and optimism and academic self [Internet]. *Journal of Innovative Research in Teacher ... academia.edu*; 2022. Available from: https://www.academia.edu/download/96268751/Vol_III_Issue_III.pdf#page=58
42. Lawler MJ, Newland LA, Giger JT, ... Ecological, relationship-based model of 12-year-old children's subjective well-being in the United States and ten other countries. *J Soc ...* [Internet]. 2015; Available from: <https://search.proquest.com/openview/da5de6207292df0536a55b6fe01679de/1?pq-origsite=gscholar&cbl=396321>
43. Feltoe G, Beamish W, Davies M. Secondary school teacher stress and coping: Insights from Queensland, Australia [Internet]. *International Journal of Arts & Sciences*. core.ac.uk; 2016. Available from: <https://core.ac.uk/download/pdf/143872741.pdf>
44. Mushtaq R, Shoib S, Shah T, ... Relationship between loneliness, psychiatric disorders and physical health? A review on the psychological aspects of loneliness [Internet]. *Journal of clinical and ... ncbi.nlm.nih.gov*; 2014. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4225959/>
45. O'Connor CA, Dyson J, Cowdell F, ... Do universal school-based mental health promotion programmes improve the mental health and emotional wellbeing of young people? A literature review. *J Clin ...* [Internet]. 2018; Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/jocn.14078>
46. Ashok L, Rao CR, Kamath V, Kamath A, ... Predictors of psychological well-being among high school teachers: A cross-sectional study from Southern India. *Indian J ...* [Internet]. 2020; Available from: <http://www.iapsmupuk.org/journal/index.php/IJCH/article/view/1876>

FINANCING

The source of funding for this research is from Kemendikbud BPI final project completion.

CONFLICT OF INTEREST

There is no conflict of interest.

AUTHORSHIP CONTRIBUTION

Conceptualization: Riza Fatimah Zahrah, Cece Rakhmat.

Data curation: Riza Fatimah Zahrah, Turmudi, Sufyani Prabawanto, Geri Syahril Sidik.

Research: Riza Fatimah Zahrah, Sufyani Prabawanto, Geri Syahril Sidik.

Display: Riza Fatimah Zahrah, Turmudi.

Drafting - original draft: Riza Fatimah Zahrah, Cece Rakhmat, Turmudi, Geri Syahril Sidik.