How to Cite:
Abdesselam, Z., Amor, A., & El Hafedh, A. M. (2024). The nexus between the development of human competencies and occupational burnout among primary school teachers in Oued State. *International Journal of Economic Perspectives*, *18*(12), 2846–2870. Retrieved from https://ijeponline.org/index.php/journal/article/view/817

The nexus between the development of human competencies and occupational burnout among primary school teachers in Oued State

Zaoui Abdesselam
Management Laboratory for Sustainable Economic Institutions, University of El Oued, Algeria.
Orcid: 0000-0003-2107-620X
Email: zaoui-abdesselam@univ-eloued.dz

Atallah Amor
Management Laboratory for Sustainable Economic Institutions, University of El Oued, Algeria.
Orcid: 0009-0008-8038-0635
Email: atallah-amor@univ-eloued.dz

Aichouche Mohammed El Hafedh
Management Laboratory for Sustainable Economic Institutions, University of El Oued, Algeria.
Orcid: 0009-0005-0211-3986
Email: el.hafedh@yahoo.com

***Abstract*---**The study at hand explores the nature of the connection between the development of human teaching competencies and burnout among primary school teachers in El Oued province. Hence, teaching competencies hold a major role in enhancing the quality of education as well as the psychological and professional well-being of teachers. For the aforementioned aim, a descriptive methodology was followed, opting for a questionnaire distributed to a sample of 223 teachers. Then, the data analysis using SPSS V.26 revealed a positive correlation between the development of teaching competencies and teacher burnout, with a Pearson correlation coefficient of 0.846 and an adjusted determination coefficient of 0.714. This indicates that 71.4% of the variance in burnout levels can be explained by efforts in developing teaching competencies. So these findings suggest that while professional development is necessary for elevating teacher performance, it may increase burnout levels without adequate psychological and social support. Therefore, it would be better to

Corresponding author: *Abdesselam, Z., Email: zaoui-abdesselam@univ-eloued.dz*
Submitted: 09 October 2024, Revised: 18 November 2024, Accepted: 24 December 2024

recommend balancing strategies that enhance teacher competencies all while reducing burnout levels among teachers.

Keywords---Teaching Competency Development, Burnout, Primary School Teachers.

Introduction

Education has long been a central focus for both researchers and practitioners, and for good reason. Teachers play a fundamental role in shaping the future of society, making their well-being a matter of paramount importance. This makes the current study on the relationship between teaching competency development and burnout among primary school teachers in Oued State particularly relevant. In recent years, increasing concern has emerged regarding the rising burnout rates among teachers, particularly in the primary education sector. Burnout is a multifaceted issue that affects not only individual teachers but also the broader work environment, with potentially significant consequences for student outcomes. Addressing this challenge requires a thorough understanding of the factors contributing to teacher burnout and the identification of effective strategies to alleviate its impact. In this context, the present study aims to explore how the development of teaching competencies influences burnout levels among primary school teachers in Oued State. Through a comprehensive literature review and data collection from a sample of teachers, the general aim is to provide an accurate understanding of the factors contributing to burnout and the role that professional development can play in alleviating its effects.

(1) Research Problem:

The main research problem can be defined as follows:
What is the impact relationship between the development of teaching competencies and burnout among primary school teachers in Oued State?
This question aims to study the effect of growth in teaching skills on the level of job-related stress and burnout among primary school teachers in Oued State.

(2) Sub-Questions:

- •What is the current status of burnout among primary school teachers in Oued State?
- How do primary school teachers in Oued State perceive the importance of developing their teaching competencies?
- To what extent do primary school teachers in Oued State engage in opportunities to develop their teaching competencies?
- How does the level of engagement in teaching competency development opportunities relate to the level of burnout among primary school teachers in Oued State?
- What are the barriers to developing teaching competencies among primary school teachers in Oued State, and how do they affect burnout?
- What strategies can be implemented to support primary school teachers in developing their teaching competencies and reducing burnout in Oued State?

(3) Hypotheses:

General Hypothesis:

There is a positive effect between the dimensions of teaching competency development and burnout among primary school teachers in Oued State.

(4) Sub-Hypotheses:

- There is a positive effect between workplace development and burnout in its dimensions (emotional exhaustion, depersonalization, and reduced personal accomplishment) among primary school teachers in Oued State.
- There is a positive effect between out-of-workplace development and burnout in its three dimensions (emotional exhaustion, depersonalization, and reduced personal accomplishment) among primary school teachers in Oued State.

(5) Research Significance:

This study aims to examine the relationship between the development of teaching competencies and burnout among primary school teachers in Oued State. Its significance is demonstrated in the following points:

- Relevance to Education: This study underscores the pivotal role of enhancing teaching competencies as a means to address burnout among primary school educators. By emphasizing the interplay between professional growth and teacher well-being, it highlights a crucial pathway for elevating the quality of education and safeguarding the welfare of educators, who are instrumental in shaping the future trajectories of students.
- Mitigating Burnout: The research provides critical insights into the influence of teaching competency development on alleviating burnout. Recognizing and understanding this intricate relationship is imperative for formulating targeted interventions that foster teacher resilience, enhance professional satisfaction, and promote a healthier work-life equilibrium.
- Emphasis on Primary Education: This study prioritizes primary school teachers, a demographic often underrepresented in scholarly research despite their indispensable role in students' foundational development. Identifying the key factors driving burnout within this group is essential for devising robust support mechanisms tailored to their unique challenges.
- Contribution to Scholarship: By examining the nexus between teaching competency development and burnout, the study enriches the existing educational literature. Its findings not only fill a critical research gap but also serve as a valuable resource for future scholarly inquiries aimed at enhancing teacher well-being and professional effectiveness.

(6) Research Objectives:

The objectives of our study can be defined as follows:

- To assess the extent of burnout among primary school teachers in Oued State.
- To study the relationship between the level of teaching competency development and the prevalence of burnout among primary school teachers in Oued State.

- To identify the main factors contributing to burnout among primary school teachers in Oued State, including workload, teacher-student relationships, peer and administrative support, and other relevant factors.
- To determine the impact of burnout on the well-being of primary school teachers in Oued State, including their mental and physical health, job satisfaction, and overall quality of life.
- To explore the potential benefits of developing teaching competencies as a means to mitigate burnout among primary school teachers in Oued State.
- To provide recommendations for policymakers and educational leaders in Oued State to support primary school teachers and improve their well-being and job satisfaction.

(7) Research Methodology:

This research will follow a descriptive methodology by reviewing existing literature on teaching competencies and the concept of burnout, and then testing the proposed hypotheses through data analysis collected via questionnaires using SPSS V.26.

Teaching Competencies

Axiomatically teaching competencies are fundamental to achieving successful educational outcomes for students. Therefore, gaining more knowledge concerning what teaching competencies entail, their various types, and how they can be cultivated is the primary step to enables teachers to enhance their effectiveness in the classroom.

(1) Definition of Teaching Competencies

Despite extensive research, there remains no universally agreed-upon definition of teaching competencies, as different scholars and educators emphasize varying aspects of this concept. Below are notable definitions that offer diverse perspectives:

"Teaching competency refers to the extent to which educational objectives are achieved through the use of educational resources." (Hargreaves & Fullan, 2012). This definition accentuates the importance of achieving educational goals and utilizing resources in the teaching process.

"Teaching competency is the degree to which a teacher is capable of creating and maintaining a learning environment that maximizes student learning." (Marzano, Pickering, & Pollock, 2001). This definition highlights the teacher's role in creating a positive learning environment for students.

"Teaching competency is the ratio of student learning outcomes to the resources used in the teaching and learning process." (Ekpenyong, 2016). This definition considers both the outcomes of the teaching process and the resources used to achieve these outcomes.

"Teaching competency is a teacher's ability to effectively use their time, resources, and skills to achieve desired results in their students." (Al-Kharousi & Al-Harthy, 2013). This definition focuses on the teacher's ability to effectively utilize their resources and skills to achieve positive outcomes in students.

"Teaching competency is the effectiveness of teaching strategies in producing intended learning outcomes in students, considering the resources used and the context in which teaching occurs." (Al-Khazim, 2019). This definition takes into

account the effectiveness of teaching strategies, the resources used, and the context in which teaching occurs in determining the efficiency of the teaching process.

(2) Types of Teaching Competencies

Teaching competency refers to a set of knowledge, skills, attitudes, and behaviors that enable teachers to design, deliver, and evaluate educational experiences effectively for their students. Generally, there are several types of educational competency, including:

- Content Knowledge: Understanding the subject matter being taught, including its structure and how it can be effectively taught (Shilling & Willis, 2012).
- Pedagogical Knowledge: Understanding teaching methods, strategies, and techniques that can be used to facilitate student learning (Shulman, 1987).
- Classroom Management Skills: The ability to create a positive and safe learning environment, manage student behavior, and maintain order in the classroom (Wong & Wong, 2009).
- Assessment Competency: The ability to design, implement, and use assessment tools and techniques effectively to evaluate student learning (Black & Wiliam, 1998).
- Cultural Competency: Understanding and sensitivity to different cultural backgrounds, beliefs, and values, and the ability to effectively integrate this understanding into teaching practices (Lloyd & Bowers, 2011).
- Technological Competency: The ability to use technology effectively to support student learning, such as integrating digital tools and resources into instruction (Warschauer & Matuchniak, 2010).
- It is important to note that these types of educational competency are interconnected and not mutually exclusive. Effective teachers generally have a strong understanding of all these areas and are able to use them to support student learning in meaningful ways.

(3) Development of Teaching Competencies

Effective teaching is critical to student success, and therefore, it is important for teachers to continuously strive to improve their educational practices. There are many different approaches to enhancing teaching competency. Below are some of these methods and approaches:

- Integrating Technology in the Classroom: Using technology in the classroom can significantly enhance teaching competency by providing students with engaging and interactive learning experiences. In the study titled "The Impact of Technology on Student Engagement and Learning Outcomes in Higher Education" (Rana, Al-Shamrani, & Al-Harbi, 2018), it was found that students who used technology in the classroom had higher levels of engagement and better learning outcomes compared to those who did not.
- Active Learning Approaches: Active learning approaches, such as teamwork, discussions, and problem-based learning, can increase teaching competency by promoting student engagement and critical thinking skills. In the study titled "The Effectiveness of Active Learning Strategies in Enhancing Student Learning Outcomes" (Al-Harbi, Al-

Shamrani, & Al-Juhani, 2019), it was found that students who participated in active learning activities showed significant improvement in their learning outcomes compared to those who did not.

- Formative Assessment: Formative assessment is an ongoing process that allows teachers to assess student learning and adjust their teaching strategies accordingly. By regularly assessing student progress, teachers can identify areas of weakness and target specific instructions to improve student learning.
- Professional Development for Teachers: Regular professional development opportunities can help teachers stay updated on the latest teaching strategies and practices, leading to increased teaching competency.

Integrating technology, implementing active learning approaches, using formative assessment, and providing professional development for teachers are effective ways to enhance teaching competency and improve student learning outcomes. It is essential to regularly evaluate these practices to ensure their effectiveness and make any necessary adjustments.

Burnout

Burnout is a complex phenomenon that has gained increasing attention in recent years, both in academic circles and among the general public. The concept of burnout has its roots in the field of occupational stress, but it has since expanded to encompass a range of related topics, including workplace well-being, employee engagement, and organizational performance.

(1) Definition of Burnout

The concept of burnout remains an area of extensive exploration and debate among researchers, with its precise causes and contributing factors still under investigation. Various definitions have been proposed, each highlighting different aspects of this complex phenomenon:

• According to Maslach and Jackson (1981), burnout is a syndrome resulting from prolonged workplace stress that has not been effectively managed. This definition underscores the role of chronic stress and the lack of adequate coping mechanisms in the development of burnout (Maslach & Jackson, 1981).

• Schaufeli and Enzmann (1998) define burnout as a psychological syndrome stemming from an extended response to ongoing emotional and interpersonal stressors in the workplace. This perspective emphasizes that burnout arises not only from work-related stress but also from strained interpersonal relationships within the work environment (Schaufeli & Enzmann, 1998).

• Hakanen, Bakker, and Schaufeli (2006) describe burnout as a condition defined by three interrelated dimensions: emotional exhaustion, depersonalization, and reduced personal accomplishment. This definition focuses on the core elements that constitute burnout and their interconnection (Hakanen, Bakker, & Schaufeli, 2006).

• Shirom, Melamed, and Toker (2009) suggest that burnout is a form of chronic stress that emerges when the demands of the job surpass an individual's available resources, highlighting the imbalance between workload and coping capacity (Shirom, Melamed, & Toker, 2009).

• Sakits and de Stavola (2019) characterize burnout as a long-term response to occupational stress, marked by diminished energy, increased cynicism and detachment, and a decrease in job effectiveness. This definition illustrates the broader consequences of burnout on both personal well-being and professional performance (Sakits & de Stavola, 2019).
Across all definitions, burnout is consistently described as a response to chronic workplace stress, leading to emotional exhaustion, depersonalization, and reduced personal accomplishment. These definitions further suggest that burnout results when job demands exceed an individual's ability to cope, with detrimental effects on job performance and overall well-being.

(2) Causes and Risks of Burnout

Burnout has emerged as a critical concern in contemporary work environments, affecting both individuals and organizations. It is a complex and multifactorial phenomenon that can be triggered by various interrelated causes and risk factors. Therefore, knowing these causes is essential for implementing strategies to prevent burnout and promote employee well-being.

- High Workload: Excessive demands on employees, including long hours and heavy workloads, often lead to emotional and physical exhaustion. When workers consistently face overwhelming tasks without sufficient recovery time, the chronic stress they experience can gradually culminate in burnout (Leiter & Maslach, 2009). This factor is particularly prevalent in high-stakes professions and environments where expectations are high.
- Lack of Control: Employees who feel they have little or no control over their work or decision-making processes may experience feelings of helplessness and frustration. The lack of autonomy in one's role can intensify stress and contribute to the development of burnout (Shirom, 1989). A sense of powerlessness often leads to disengagement and dissatisfaction with the job.
- Role Ambiguity: Uncertainty regarding job responsibilities and expectations can create confusion, leading to feelings of frustration and stress. Employees who are unsure of their roles may feel inadequate and unsupported, which can exacerbate burnout. Clear communication and defined roles are essential for preventing role ambiguity and fostering a sense of competence (Jamal, 1995).
- Unsupportive Work Environment: A lack of support from colleagues, supervisors, or the organization as a whole can significantly increase the risk of burnout. Employees who feel isolated or unsupported may struggle to cope with work-related stress, leading to emotional exhaustion. Social support, whether in the form of encouragement, mentorship, or team collaboration, plays a crucial role in mitigating burnout (Christensen & Kristensen, 2005).
- Insufficient Recognition: Recognition of an employee's efforts is a fundamental aspect of job satisfaction. When individuals feel their contributions go unnoticed or unappreciated, they may experience diminished motivation and a sense of undervaluation. This lack of acknowledgment can contribute to burnout, as individuals feel their hard work is not being rewarded or recognized (Schaufeli & Bakker, 2004).

- Lack of Growth Opportunities: The absence of opportunities for personal and professional growth within an organization can lead to feelings of stagnation and frustration. Employees who do not have avenues for advancement, skill development, or career progression are more likely to experience boredom and disengagement. This lack of growth opportunities is a significant factor in burnout, as employees may feel trapped in their roles without the possibility of improvement (Leiter & Maslach, 2009).

To put it all together, these previously mentioned factors often interact in complex ways, and burnout may result from a combination of these causes rather than a single factor. For those reasons and by understanding these underlying risk factors, organizations can take proactive steps to create healthier work environments, reduce stress, and provide employees with the support and resources they need to thrive. Burnout is increasingly recognized as a major issue in the modern workforce. Given the widespread impact of burnout, it is essential to understand the underlying causes and risk factors contributing to its development. Here are some of those causes:
•High Workload: When employees face an excessive workload, they may experience feelings of exhaustion and stress, which can lead to burnout over time (Leiter & Maslach, 2009).

- Lack of Control: When employees feel they have limited control over their work, they may experience feelings of helplessness and frustration, which can lead to burnout (Shirom, 1989).
- Role Ambiguity: When employees are unclear about their roles or responsibilities, they may experience confusion and frustration, which can contribute to burnout (Jamal, 1995).
- Unsupportive Work Environment: When employees feel unsupported by their colleagues or supervisors, they may experience feelings of isolation and stress, which can lead to burnout (Christensen & Kristensen, 2005).
- Insufficient Recognition: When employees do not receive adequate recognition for their work, they may feel undervalued and unappreciated, which can contribute to burnout (Schaufeli & Bakker, 2004).
- Lack of Growth Opportunities: When employees do not have opportunities to learn and grow within their organization, they may experience feelings of boredom and frustration, which can lead to burnout (Leiter & Maslach, 2009).

Burnout is a complex phenomenon that can be caused by a combination of factors, including high workload, lack of control, role ambiguity, an unsupportive work environment, insufficient recognition, and lack of growth opportunities.

(3) Types of Burnouts

Burnout, a phenomenon that has garnered significant attention within occupational health research, presents serious repercussions for both individuals and organizations. Its multifaceted nature calls for a nuanced understanding of its various forms and underlying causes. Below, we explore the primary types of burnout, along with several influential theoretical models that help to explain its development and impact.

- Emotional Exhaustion: This type of burnout is marked by profound feelings of emotional depletion and physical fatigue. Individuals

experiencing emotional exhaustion often report a sense of having given all they can, both emotionally and physically, leaving them with little to no energy or motivation to continue in their roles. This form of burnout is particularly prevalent in high-demand professions where the emotional demands on individuals are constant and intense.

- Depersonalization: Depersonalization is characterized by a negative, detached, and often cynical attitude toward one's work and colleagues. Those suffering from this type of burnout tend to distance themselves emotionally from their work, exhibiting a sense of disengagement and detachment. This may result in a lack of empathy toward others in the workplace, leading to impaired interpersonal relationships and a disconnection from professional responsibilities.
- Reduced Personal Accomplishment: This dimension of burnout is reflected in a diminished sense of professional competence and personal achievement. Individuals experiencing reduced personal accomplishment often feel that their contributions are undervalued or go unrecognized. As a result, they may experience a pervasive sense of inefficacy, believing that their efforts are futile and that their work does not lead to meaningful outcomes.

In addition to these distinct types of burnout, various theoretical models have been proposed to explain its onset and progression:

- The Demand-Control Model: This model posits that burnout arises from the interaction between job demands and the level of control an individual has over their work. High demands combined with low control are thought to be particularly stress-inducing, leading to emotional exhaustion and burnout (Karasek, 1979).
- The Effort-Reward Imbalance Model: According to this model, burnout is primarily caused by an imbalance between the effort an individual invests in their job and the rewards they receive in return. When efforts are high, but rewards (such as recognition, pay, or job security) are insufficient, individuals are more likely to experience burnout (Siegrist, 1996).
- The Job Demands-Resources Model (JD-R): This model suggests that burnout is a result of the interaction between job demands and available resources. High demands, when not balanced by adequate resources (such as social support or autonomy), can lead to burnout. Conversely, resources can help mitigate the adverse effects of demands, promoting employee well-being (Bakker & Demerouti, 2007).

Therefore, identifying the different types of burnout and the theoretical frameworks that explain its mechanisms is important for developing effective interventions and fostering a supportive work environment that mitigates the risk of burnout.

(4) Treatment Methods for Burnout

Burnout, a pervasive issue that significantly affects individuals, requires targeted strategies for intervention and management. Various individual and organizational approaches, including Cognitive Behavioral Therapy (CBT), mindfulness-based interventions, and workplace stress management programs,

have shown promise in alleviating burnout symptoms. However, further investigation is necessary to determine the most effective treatment methods.

- Cognitive Behavioral Therapy (CBT): CBT aims to alter negative thought patterns and behaviors that contribute to burnout. By helping individuals identify and challenge maladaptive thoughts, CBT assists in developing effective coping strategies for stress management and reducing burnout symptoms. Research has demonstrated that CBT is a beneficial approach in managing burnout, as it equips individuals with practical tools for coping with stress (Sonnentag & Bayer, 2005; Bakker & Demerouti, 2007).
- Mindfulness-Based Interventions: Mindfulness-based interventions utilize practices such as meditation and deep breathing to promote relaxation and stress reduction. These interventions have proven to be effective in mitigating burnout symptoms by fostering mindfulness, enhancing emotional regulation, and improving overall well-being. Studies indicate that mindfulness-based approaches can significantly reduce the psychological impact of burnout (Shapiro & Mongrain, 2010).
- Stress Management Programs: Workplace stress management programs are designed to educate employees on managing stress and preventing burnout. These programs often include training on relaxation techniques, time management, and coping strategies, empowering employees to implement them in their daily routines. Evidence suggests that such programs effectively reduce burnout symptoms and enhance job satisfaction by providing employees with the tools they need to manage stress effectively (Halbesleben & Buckley, 2004).

So further research is essential to refine these methods and explore their long-term efficacy in different occupational contexts.

Procedures of the Study

(1) Study Methodology

Given the varied methodologies employed in the humanities, the specific nature of a study's topic and its objectives ultimately guide the selection of the appropriate methodology. For this study, a descriptive approach was deemed essential, as it facilitates a comprehensive understanding of the relationship between teaching competencies and burnout among primary school teachers in Oued State. This methodology allows for an in-depth exploration of the phenomenon without manipulating the variables, enabling a clearer picture of how teaching competencies influence burnout in the educational context.

(2) Study Population and Sample

The study population consists of primary school teachers, while the study sample specifically represents primary school teachers in Oued State. This population was selected based on two primary considerations:

- The nature of one of the researchers' work and workplace.
- The significant importance of primary education as the cornerstone of the educational system's success.

In our research, a questionnaire was employed as the primary data collection tool to investigate the impact of teaching competencies on burnout among primary school teachers in Oued State. The questionnaire was structured using a five-

point Likert scale, ranging from 1 ("strongly agree") to 5 ("strongly disagree"), providing a clear and standardized way to assess the respondents' perspectives. This method was selected for its effectiveness in gathering quantitative data from a large sample, offering both efficiency and simplicity in administration.The questionnaire was divided into two main sections: the first, "Development of Teaching Competencies," consisted of two subsections, each containing 10 items. The second section, "Burnout," was further divided into three subsections, each comprising 5 items. A total of 250 questionnaires were distributed across primary schools in various regions of Oued State, resulting in 223 completed questionnaires being returned for analysis. The valid questionnaires were analyzed using SPSS V26 software.

(3) Psychometric Properties of the Questionnaire

a) Reliability

Reliability Using Cronbach's Alpha

Table 1: Reliability of the questionnaire using Cronbach's alpha.

Section	Number of Items	Sample Size	Cronbach's Alpha Value	Statistical Decision
Section 1: Development of Teaching Competencies	20	20	0.856	Reliable
Section 2: Burnout	15	15	0.829	Reliable

Source: Prepared by researchers using SPSS software.

From Table 1:

For the "Development of Teaching Competencies" section: The Cronbach's alpha value is greater than 0.7, indicating high reliability of the section, making it suitable for data collection.

For the "Burnout" section: The Cronbach's alpha value is also greater than 0.7, indicating high reliability of the section, making it suitable for data collection.

- Split-Half Reliability

Table 2: Reliability of the questionnaire using split-half reliability.

Section	Number of Items	Sample Size	Cronbach's Alpha Value	Statistical Decision
Section 1: Development of Teaching Competencies	20	20	0.856	Reliable
Section 2: Burnout	15	15	0.829	Reliable

Source: Prepared by researchers using SPSS software.

From Table 2:

For the "Development of Teaching Competencies" section: The Spearman-Brown length correction value for the split-half correlation coefficient is greater than 0.7, indicating high reliability of the section, making it suitable for data collection.

For the "Burnout" section: The Spearman-Brown length correction value for the

split-half correlation coefficient is very close to 0.7, indicating good reliability of the section, making it suitable for data collection.

b) Validity

- **Internal Consistency Validity**

Table 3: Internal consistency validity for the first dimension of the first section

Item	Correlation with Dimension (R)	Statistical Decision
Item 1	0.524**	Significant
Item 2	0.512**	Significant
Item 3	0.520**	Significant
Item 4	0.547**	Significant
Item 5	0.540**	Significant
Item 6	0.431**	Significant
Item 7	0.534**	Significant
Item 8	0.581**	Significant

**Significance level: 0.01

Source: Prepared by researchers using SPSS software.

From Table 3, we find that all items in the first dimension of the first section have a positive and statistically significant correlation with the overall dimension score, indicating strong internal consistency validity, making it suitable for data collection.

Table 4: Internal consistency validity for the second dimension of the first section (Development outside the Workplace).

Item	Correlation with Dimension (R)	Statistical Decision
Item 11	0.607**	Significant
Item 12	0.591**	Significant
Item 13	0.531*	Significant
Item 14	0.624**	Significant
Item 15	0.644**	Significant
Item 16	0.581**	Significant
Item 17	0.589**	Significant
Item 18	0.572**	Significant

**Significance level: 0.01

Source: Prepared by researchers using SPSS software.

From Table 4, we find that all items in the second dimension of the first section have a positive and statistically significant correlation with the overall dimension score, indicating strong internal consistency validity, making it suitable for data collection.

Table 5: Internal consistency validity for the first dimension of the second section (Emotional Exhaustion).

Item	Correlation with Dimension (R)	Statistical Decision
Item 21	0.494**	Significant
Item 22	0.677**	Significant
Item 23	0.638*	Significant
Item 24	0.663**	Significant
Item 25	0.629**	Significant

**Significance level: 0.01

Source: Prepared by researchers using SPSS software.

From Table 5, we find that all items in the first dimension of the second section have a positive and statistically significant correlation with the overall dimension score, indicating strong internal consistency validity, making it suitable for data collection.

Table 6: Internal consistency validity for the second dimension of the second section (Depersonalization).

Item	Correlation with Dimension (R)	Statistical Decision
Item 26	0.672**	Significant
Item 27	0.718**	Significant
Item 28	0.698*	Significant
Item 29	0.501**	Significant
Item 30	0.577**	Significant

**Significance level: 0.01

Source: Prepared by researchers using SPSS software.

From Table 6, we find that all items in the second dimension of the second section have a positive and statistically significant correlation with the overall dimension score, indicating strong internal consistency validity, making it suitable for data collection.

Table 7: Internal consistency validity for the third dimension of the second section (Reduced Personal Accomplishment).

Item	Correlation with Dimension (R)	Statistical Decision
Item 31	0.572**	Significant
Item 32	0.664**	Significant
Item 33	0.652*	Significant
Item 34	0.638**	Significant
Item 35	0.596**	Significant

**Significance level: 0.01

Source: Prepared by researchers using SPSS software.

From Table 7, we find that all items in the third dimension of the second section have a positive and statistically significant correlation with the overall dimension score, indicating strong internal consistency validity, making it suitable for data

collection.

- **Construct Validity**

Table 8: Construct validity of the first section (Development of Teaching Competencies):

Dimension	Correlation with Section (R)	Significance (Sig)	Statistical Decision
Development within the Workplace	0.920**	0.000	Significant
Development outside the Workplace	0.946**	0.000	Significant

Source: Prepared by researchers using SPSS software.

Based on Table 8, all dimensions of the first section show a positive and statistically significant correlation with the overall section score, indicating strong construct validity, making it suitable for data collection.

Table 9: Construct validity of the second section (Burnout):

Dimension	Correlation with Section (R)	Significance (Sig)	Statistical Decision
Emotional Exhaustion	0.867**	0.000	Significant
Depersonalization	0.863**	0.000	Significant
Reduced Personal Accomplishment	0.869**	0.000	Significant

Source: Prepared by researchers using SPSS software.

Based on Table 9, all dimensions of the second section show a positive and statistically significant correlation with the overall section score, indicating strong construct validity, making it suitable for data collection.

(4) Presentation and Analysis of Results:

a) Demographic Characteristics of the Study Sample

Distribution of the Study Sample by Gender:

Table 10: Distribution of the study sample by gender.

Gender	Number	Percentage (%)
Male	116	52.0
Female	107	48.0
Total	223	100.0

Source: Prepared by researchers using SPSS software.

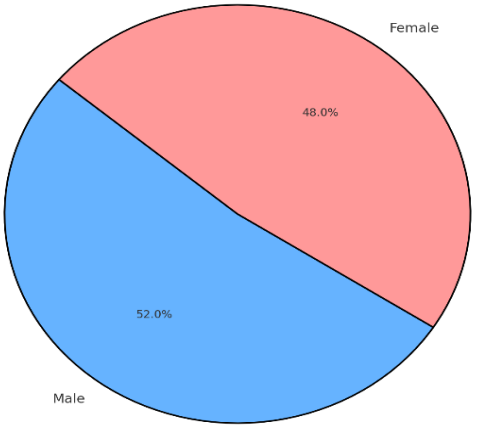

Figure 1: Distribution of the study sample by gender.
Source: Prepared by researchers using SPSS software.

From Table 10 and Figure 1, we observe a relatively balanced distribution between males and females, with males representing 52.0% of the sample (116 individuals) and females 48.0% (107 individuals). This balanced distribution provides diverse representation in the sample, enhancing the accuracy of the results related to the impact of competency development on burnout among primary education teachers.

Table 11: Distribution of the study sample by age.

Age Range	**Number**	**Percentage (%)**
21-29	67	30.0
30-40	56	25.1
41-50	48	21.5
Above 50	52	23.3
Total	223	100.0

Source: Prepared by researchers using SPSS software.

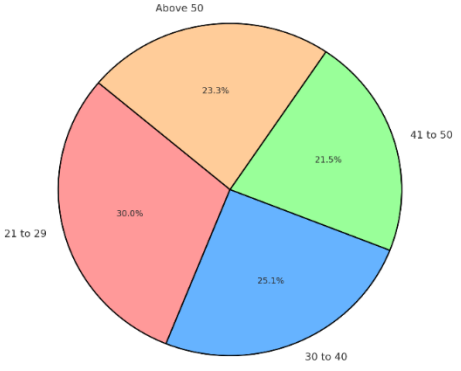

Figure 2: Distribution of the study sample by age.
Source: Prepared by researchers using SPSS software.

From Table 11 and Figure 2, the age distribution shows that the 21-29 age group is the most represented at 30.0%, followed by the 30-40 age group at 25.1%. The 41-50 age group represents 21.5% of the sample, while those above 50 constitute 23.3%. This indicates a diversity of age groups in the sample, primarily among younger and middle-aged individuals, with notable representation of those over 50.

Table 12: Distribution of the study sample by educational level.

Educational Level	**Number**	**Percentage (%)**
Technological Institute	61	27.4
Bachelor's Degree	55	24.7
Master's Degree	55	24.7
Doctorate	52	23.3
Total	223	100.0

Source: Prepared by researchers using SPSS software.

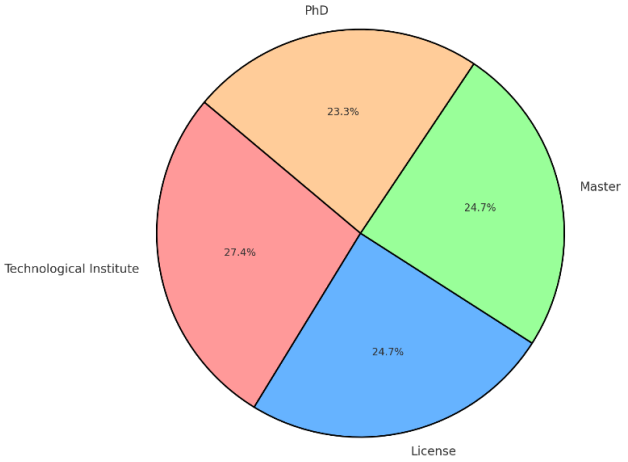

Figure 3: Distribution of the study sample by educational level.
Source: Prepared by researchers using SPSS software.

From Table 12 and Figure 3, the distribution by educational level shows that the most represented category is Technological Institute graduates at 27.4%, followed by Bachelor's and Master's degree holders at 24.7% each, and Doctorate holders at 23.3%. This reflects a diversity in the educational levels of the sample, providing balanced representation across different educational categories.

Table 13: Distribution of the study sample by marital status

Marital Status	**Number**	**Percentage (%)**
Single	60	26.9
Married	68	30.5
Divorced	45	20.2
Widowed	50	22.4
Total	223	100.0

Source: Prepared by researchers using SPSS software.

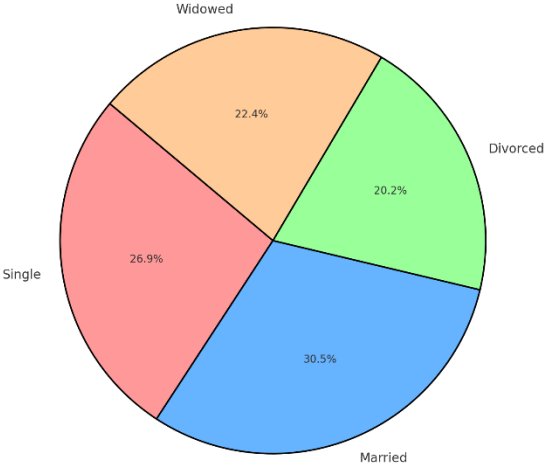

Figure 4: Distribution of the study sample by marital status.
Source: Prepared by researchers using SPSS software.

From Table 13 and Figure 4, the distribution by marital status shows that the most represented group is married individuals at 30.5%, followed by singles at 26.9%, widowed at 22.4%, and divorced at 20.2%. This distribution indicates a relative balance among different social backgrounds, which can influence the study results regarding the impact of competency development on burnout among primary education teachers in Oued State.

Table 14: Distribution of the study sample by years of experience.

Experience Range	**Number**	**Percentage (%)**
Less than 5 years	50	22.4
5-10 years	65	29.1
11-20 years	55	24.7
More than 20 years	53	23.8
Total	223	100.0

Source: Prepared by researchers using SPSS software.

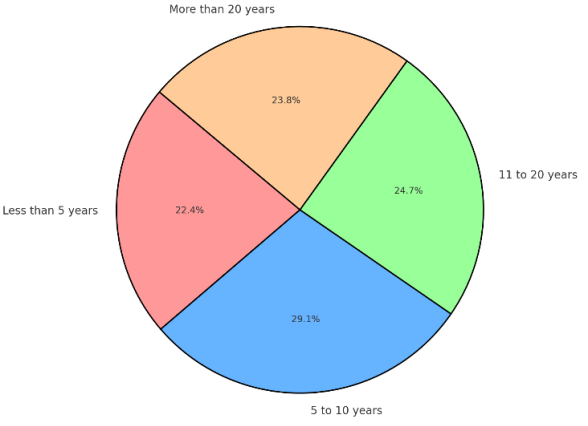

Figure 5: Distribution of the study sample by years of experience.
Source: Prepared by researchers using SPSS software.

From Table 14 and Figure 5, it is evident that there is a relatively balanced distribution across different experience categories. However, the most represented category is teachers with 5 to 10 years of experience (29.1%), while other categories range between 22.4% and 24.7%. This balanced distribution helps provide more representative and accurate research results regarding the impact of competency development on burnout among teachers, encompassing teachers from various levels of professional experience.

b) Data Distribution

Table 15: Statistical distribution of the data.

Variable	**Kolmogorov-Smirnov Test**	**Statistical Decision**
	Test Value	Degrees of Freedom (DF)
Development of Teaching Competencies (X)	0.270	223
Burnout (Y)	0.286	223

Source: Prepared by researchers using SPSS software.

Based on Table 15, the significance values (Sig) for the Kolmogorov-Smirnov test for the variables (X, Y) are all less than the significance level (0.05), indicating no statistical significance for the test and that they do not follow a normal distribution. However, since the sample size is large, parametric statistical tests will be used to analyze these data.

c) Descriptive Analysis of the Questionnaire

Table 16: Statistical distribution of the data.

Section	**Dimension**	**Item**	**Mean**	**Standard Deviation**	**Response Direction (Likert Scale)**
Development of Teaching Competencies	Development within the workplace	Q1	1.61	.908	Strongly agree
		Q2	1.56	.893	Strongly agree
		Q3	1.60	.900	Strongly agree
		Q4	1.59	.954	Strongly agree
		Q5	1.58	.926	Strongly agree
		Q6	1.53	.848	Strongly agree
		Q7	1.60	.909	Strongly agree
		Q8	1.60	.910	Strongly agree
		Q9	1.59	.875	Strongly agree
		Q10	1.64	.919	Strongly agree
	Development outside the workpl	Q11	1.71	1.098	Strongly agree
		Q12	1.65	.974	Strongly agree
		Q13	1.58	.896	Strongly agree
		Q14	1.60	.976	Strongly agree

		Q15	1.59	.963	Strongly agree
		Q16	1.69	.981	Strongly agree
		Q17	1.56	.927	Strongly agree
		Q18	1.62	.917	Strongly agree
		Q19	1.62	.979	Strongly agree
		Q20	1.69	.996	Strongly agree
Burnout	Emotional exhaustion	Q21	1.60	.953	Strongly agree
		Q22	1.66	.986	Strongly agree
		Q23	1.65	.911	Strongly agree
		Q3	1.67	.971	Strongly agree
		Q24	1.66	.977	Strongly agree
		Q25	1.62	.936	Strongly agree
	Depersonalization	Q26	1.70	1.003	Strongly agree
		Q27	1.62	.992	Strongly agree
		Q28	1.55	.863	Strongly agree
		Q29	1.57	.907	Strongly agree
		Q30	1.65	.964	Strongly agree
	Low personal achievement	Q31	1.76	1.015	Strongly agree
		Q32	1.59	.920	Strongly agree
		Q33	1.60	.904	Strongly agree
		Q34	1.60	.884	Strongly agree
		Q35	1.61	.908	Strongly agree

Source: Prepared by researchers using SPSS software.

d) Presentation and Analysis of Hypothesis Results

Table 17: Results of the Hypotheses

Independent Variable	Dependent Variable	Pearson Correlation Coefficient (R)	Coefficient of Determination (R^2)	Adjusted Coefficient of Determination	Significance Level (Sig)	Statistical Decision
Development of Teaching Competencies	Emotional exhaustion	.636	404.	402.	0.099	Strongly agree
	Depersonalization	.669	447.	445.	0.099	Strongly agree
	Low personal achievement	.708	501.	499.	0.099	Strongly agree
Development of Teaching Competencies	Emotional exhaustion	.710	504.	502.	0.099	Strongly agree
	Depersonalization	.657	431.	429.	0.099	Strongly agree
	Low personal achievement	722	521.	519.	0.099	-
Development of Teaching Competencies	Burnout	846.	715.	714	0.099	

Source: Prepared by researchers using SPSS software.

- Presentation and Analysis of the Results of the First Hypothesis

There is a statistically significant positive effect of the dimension "Development

within the Workplace" on the dimension "Burnout" (Emotional Exhaustion, Depersonalization, Reduced Personal Accomplishment).

a) Statistical Description and Correlation between the Variables of the First Hypothesis

Let's begin by presenting the statistical description of the variables "Development within the Workplace" and the dimensions of "Burnout":

Table 18: Statistical Description and Correlation between the Variables of the First Hypothesis

Independent Variable	**Dependent Variable**	**Pearson Correlation Coefficient (R)**	**Coefficient of Determination (R^2)**	**Adjusted Coefficient of Determination**	**Significance Level (Sig)**
Development within the Workplace	Emotional Exhaustion	0.636	0.404	0.402	0.099
Development within the Workplace	Depersonalization	0.669	0.447	0.445	0.099
Development within the Workplace	Reduced Personal Accomplishment	0.708	0.501	0.499	0.099

Source: Prepared by researchers using SPSS software.

Table 18 clearly demonstrates a positive correlation between "Development within the Workplace" and the three dimensions of "Burnout." The Pearson correlation coefficient (R) between "Development within the Workplace" and "Emotional Exhaustion" is 0.636, while the correlation with "Depersonalization" is 0.669, and with "Reduced Personal Accomplishment" is 0.708. These values suggest a strong and positive relationship between the development within the workplace and the increasing levels of burnout across all three dimensions. The adjusted coefficient of determination ranges between 0.402 and 0.499, suggesting that approximately 40.2% to 49.9% of the variance in burnout is explained by development within the workplace.

b) Interpretation of the Results of the First Hypothesis

Given the significance level (Sig = 0.099), we conclude that the first hypothesis is accepted, indicating a statistically significant positive effect of development within the workplace on all dimensions of burnout. The Pearson correlation coefficients range from 0.636 to 0.708, suggesting that workplace development significantly contributes to burnout. The positive correlation implies that developmental improvements or interventions within the work environment, especially frequent seminars and poorly scheduled half-day workshops, can increase burnout levels, particularly concerning emotional exhaustion and depersonalization. This may result from additional work challenges and excessive pressure associated with continuous development within the workplace, which may be demanded by the administration or even the community, thereby increasing the psychological and emotional workload on teachers.

- Presentation and Analysis of the Results of the Second Hypothesis

There is a statistically significant positive effect of the dimension "Development outside the Workplace" on the dimension "Burnout" (Emotional Exhaustion,

Depersonalization, Reduced Personal Accomplishment).

a) Statistical Description and Correlation between the Variables of the Second Hypothesis

Table 19: Correlation Relationships of the Second Hypothesis

Independent Variable	**Dependent Variable**	**Pearson Correlation Coefficient (R)**	**Coefficient of Determination (R^2)**	**Adjusted Coefficient of Determination**	**Significance Level (Sig)**
Development outside the Workplace	Emotional Exhaustion	0.710	0.504	0.502	0.099
Development outside the Workplace	Depersonalization	0.657	0.431	0.429	0.099
Development outside the Workplace	Reduced Personal Accomplishment	0.722	0.521	0.519	0.099

Source: Prepared by researchers using SPSS software.

From the above table 19:

The results indicate a positive correlation between "Development outside the Workplace" and the dimensions of "Burnout." The Pearson correlation coefficient (R) between "Development outside the Workplace" and "Emotional Exhaustion" is 0.710, between "Development outside the Workplace" and "Depersonalization" is 0.657, and between "Development outside the Workplace" and "Reduced Personal Accomplishment" is 0.722. These coefficients indicate a strong relationship between the variables. The adjusted coefficient of determination ranges between 0.429 and 0.519, suggesting that development outside the workplace explains between 42.9% and 51.9% of the variance in burnout.

b) Interpretation of the Results of the Second Hypothesis

Given the significance level (Sig = 0.099), we can say that the second hypothesis is also accepted, indicating a statistically significant positive effect of development outside the workplace on all three dimensions of burnout. With correlation coefficients ranging from 0.657 to 0.722, this suggests that professional development outside the work environment also contributes to increasing burnout levels. This could be because efforts to develop skills outside of work add pressure on teachers to balance improving their competencies with their daily professional duties and social life, leading to increased emotional exhaustion, feelings of depersonalization, and reduced personal accomplishment.

- Results of the General Hypothesis

There is a positive effect between the dimensions of teaching competencies development and burnout among primary school teachers in Oued State.

Table 20: Results of the General Hypothesis

Independent Variable	Dependent Variable	Pearson Correlation Coefficient (R)	Coefficient of Determination (R^2)	Adjusted Coefficient of Determination	Significance Level (Sig)
Development of Teaching Competencies	Burnout	0.846	0.715	0.714	0.099

Source: Prepared by researchers using SPSS software.

According to the data presented in Table 20, a strong positive correlation is observed between the "Development of Teaching Competencies" and "Burnout," as evidenced by a Pearson correlation coefficient (R) of 0.846 and an adjusted coefficient of determination of 0.714. This implies that 71.4% of the variance in burnout can be attributed to the development of teaching competencies. Furthermore, the significance level (Sig = 0.099) provides support for the acceptance of the general hypothesis, confirming that a positive relationship exists between these two variables.

According to the general results, there is a strong positive effect between the development of teaching competencies and burnout (Pearson correlation coefficient = 0.846), which means that continuous improvement of teaching competencies is associated with increased burnout levels. A realistic interpretation of this result suggests that although professional development is essential for teachers to improve their performance, the efforts to achieve this may increase their sense of burnout, especially when psychological and social support is insufficient. This relationship reflects the need for a balance between professional development and psychological support for teachers to avoid burnout.

Conclusion

This investigation delved into the intricate relationship between the development of teaching competencies and burnout among primary school educators in Oued State, a subject of profound relevance in the pursuit of both educational quality and the cultivation of a supportive professional climate for teachers. The study's findings unequivocally demonstrate that the ongoing advancement of teachers' competencies is integral to the enhancement of their pedagogical performance. However, a cautionary note arises from the data: while such development undoubtedly improves teaching effectiveness, it can also precipitate heightened burnout levels, particularly when psychological and social considerations are insufficiently addressed. The implications of these results point to the critical need for a harmonious strategy, one that promotes professional growth while vigilantly safeguarding the well-being of teachers.

(1) Key Findings

The core outcomes of this research reveal a strikingly robust and statistically significant positive correlation between the enhancement of teaching competencies and the manifestation of burnout across its three defining dimensions: emotional exhaustion, depersonalization, and diminished personal accomplishment. Moreover, the data underscores the paradoxical nature of professional development, indeed while efforts aimed at skill refinement can undoubtedly yield positive effects, both in-school and external developmental activities have been found to inadvertently contribute to the escalation of burnout levels, ranging from 42.9% to 71.4%. These results point to a fundamental reality in the field of education: professional growth, when pursued without a corresponding framework of psychological and social support, may inadvertently act as a catalyst for burnout. This conclusion capitalizes the necessity for a balanced approach, one that safeguards teachers' well-being even as it fosters their professional growth.

(2) Recommendations

In light of these findings, the study stress the imperative to adopt comprehensive and balanced strategies that simultaneously advance teachers' professional competencies and mitigate burnout. Proposed recommendations include the establishment of robust psychological and social support systems within schools, thereby ensuring adequate restorative breaks to alleviate stress, and enacting policies to curtail overwhelming workloads while fostering a more conducive and equitable work environment. Furthermore, the study advocates for the integration of targeted training programs that harness modern technological advancements, thereby equipping educators with tools tailored to contemporary pedagogical demands. Cultivating a collaborative professional atmosphere, one that encourages teachers to share insights and experiences, emerges as a definitive mechanism for fortifying mental well-being and elevating overall job satisfaction.

Acknowledgments

We wish to articulate our profound and heartfelt gratitude to our esteemed colleagues, the primary school teachers of El Oued province, whose unwavering support and invaluable collaboration have served as the cornerstone of this research endeavor. Their steadfast dedication to the noble mission of education, coupled with their earnest willingness to contribute, has lent this study both substance and success.

Equally, we extend our sincerest appreciation to the distinguished principals of El Oued's primary schools, whose facilitation and encouragement acted as the guiding current, ensuring the seamless progression of our research. Their exemplary commitment to nurturing an environment that not only welcomes but actively elevates academic inquiry stands as a testament to their remarkable leadership and vision.

Disclosure Statement

The authors report there are no competing interests to declare

Funding
No funding was received for this research

Data Availability Statement
The data supporting the findings of this study are available at the following link: *https://docs.google.com/spreadsheets/d/1vdjaDdt4GjNc2Wkvhdr44rOn2S-oR-9p/edit?usp=drive_link&ouid=105888615925397195664&rtpof=true&sd=true.*

Authors' Contributions
The first author was responsible for collecting the references for the theoretical framework of the study. The second author gathered the data for the empirical part of the research. The third author prepared and formatted the manuscript in Microsoft Word.

Ethics Statement
The study was approved by the principals of the educational institutions.

References

1. Al-Kharousi, S., & Al-Harthy, M. (2013). Teacher effectiveness and the role of competency development in the learning process. *Journal of Educational Sciences, 7*(1), 45–60.
2. Al-Khazim, A. (2019). The impact of teaching strategies on student achievement in different contexts. *Journal of Modern Education, 5*(3), 78–92.
3. Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology, 22*(3), 309–328.
4. Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice, 5*(1), 7–74.
5. Christensen, K. B., & Kristensen, T. S. (2005). The social environment and job burnout: The impact of supervisor and co-worker support. *Work and Stress, 19*(3), 282–293.
6. Ekpenyong, L. E. (2016). Teacher competency and student performance: The moderating role of learning environment. *Educational Management Review, 34*(2), 112–125.
7. Halbesleben, J. R. B., & Buckley, M. R. (2004). Burnout in organizational life. *Journal of Management, 30*(6), 859–879.
8. Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology, 43*(6), 495–513.
9. Hargreaves, A., & Fullan, M. (2012). *Professional capital: Transforming teaching in every school.* Teachers College Press.
10. Jamal, M. (1995). Burnout among Canadian and Japanese employees: A cross-cultural study. *International Journal of Stress Management, 2*(1), 57–67.
11. Leiter, M. P., & Maslach, C. (2009). Areas of worklife: A structured approach to organizational predictors of job burnout. *Research in Occupational Stress and Well-Being, 6,* 91–134.
12. Lloyd, G., & Bowers, J. (2011). Cultural competency in teaching: Understanding diversity and inclusion in the classroom. *Educational Studies, 8*(2), 34–50.

13. Marzano, R. J., Pickering, D. J., & Pollock, J. E. (2001). *Classroom instruction that works: Research-based strategies for increasing student achievement.* Association for Supervision and Curriculum Development (ASCD).
14. Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior, 2*(2), 99–113.
15. Sakits, A., & de Stavola, B. (2019). Long-term impacts of job burnout on career trajectories. *Occupational Health Journal, 48*(1), 22–34.
16. Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior, 25*(3), 293–315.
17. Schaufeli, W. B., & Enzmann, D. (1998). *The burnout companion to study and practice: A critical analysis.* Taylor & Francis.
18. Shirom, A. (1989). Burnout in work organizations. In C. L. Cooper & I. T. Robertson (Eds.), *International Review of Industrial and Organizational Psychology, 1,* 25–48.
19. Shirom, A., Melamed, S., & Toker, S. (2009). Burnout, health, and the role of social support. *Journal of Applied Psychology, 94*(4), 1034–1046.
20. Shilling, T., & Willis, J. (2012). *Content knowledge for teaching: A practical guide for teachers.* Routledge.
21. Shapiro, S. L., & Mongrain, M. (2010). The benefits of mindfulness meditation in coping with stress. *Stress and Health, 26*(5), 401–412.
22. Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review, 57*(1), 1–22.
23. Sonnentag, S., & Bayer, U. V. (2005). Switching off mentally: Predictors and consequences of psychological detachment from work during off-job time. *Journal of Occupational Health Psychology, 10*(4), 393–414.
24. Warschauer, M., & Matuchniak, T. (2010). New technology and digital worlds: Analyzing evidence of equity in access, use, and outcomes. *Review of Research in Education, 34,* 179–225.
25. Wong, H. K., & Wong, R. T. (2009). *The first days of school: How to be an effective teacher.* Harry K. Wong Publications.