



Article Constructing Sustainable Learning Ecology to Overcome Burnout of Teachers: Perspective of Organizational Identity and Locus of Control

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Abstract: This study examined how organizational identity, locus of control, and their interrelationships affect teacher burnout. Utilizing a quantitative survey, data were collected from 105 teachers. The Maslach Burnout Inventory measured three burnout dimensions: emotional exhaustion, depersonalization, and personal accomplishment. Locus of control was assessed via Rotter's scale. Organizational identity was measured through the Multiple Organizational Identification Scale, assessing personal self-esteem, emotional professional identity, evaluative identification, self-classification, and team factors. PLS-SEM analysis found that external locus of control had a significant positive association with emotional exhaustion. Emotional professional identity showed robust negative relationships with depersonalization and exhaustion. Differences emerged between novice and senior teachers-identity and self-esteem were more relevant for novices, while team factors were more impactful for experienced teachers. Variations also occurred across genders, with identity and self-esteem more salient for females and team dynamics more influential for males. The study highlights the complex interplay between individual, relational, and organizational factors in shaping teacher burnout. An external locus of control may exacerbate exhaustion, while emotional professional identity seems to provide resilience. Support initiatives should account for teachers' evolving developmental needs and gender variations in burnout experiences. Fostering internal control beliefs, strong professional identity, and tailored support based on career stage and gender can potentially buffer against burnout. This study contributes insights to guide targeted efforts to promote teacher well-being, effectiveness, and retention. Learning in the workplace instead of paying more time for education services can be considered as overcoming burnout, redesigning and implementing digital teaching for sustainable teaching and learning for both teachers and students in order to construct a better learning ecology.

Keywords: burnout; digital technology; locus of control; organizational identity; sustainable learning

1. Introduction

Educational practices that support the incessant development and healthy learning environment in which knowledge is collaboratively created and shared locally are referred to as sustainable learning [1,2]. It incorporates continuous, responsive, purposeful, and proactive learning where learners efficiently build and reshape their skills and knowledge base as environments change [3]. Part of the responsibilities of sustainable learning ecologies is to support the contemporary educational processes [4], where teachers still play pivotal roles in shaping students' interest and success in education [5]. Teachers play a crucial role in developing students' scientific attitudes and interests, especially for disadvantaged students [5,6]. Their influence extends beyond the classroom, impacting the future of scientific research, innovation, and social progress. However, heavy workloads,



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Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). resource constraints, and other challenges can negatively impact teachers' well-being and effectiveness in the digital era [7,8]. Teacher burnout, a psychological phenomenon affecting educators globally, has major implications for the quality of instruction students receive and can undermine the overall educational experience [9]. It is thus critical to examine factors that may contribute to or protect against burnout among teachers.

According to existing literature, one relevant factor is teachers' professional identity and sense of connection to their school community. Teachers with a stronger professional identity and greater identification with their organization tend to have higher job satisfaction, commitment, and performance [10–12]. However, research on how organizational identity dimensions specifically relate to burnout in teachers is limited.

Another significant factor is the school environment and the perceived support from the administration. A study found that enabling school bureaucracy and psychological empowerment can play a role in mitigating teacher burnout [9]. On the other hand, Ford [13] discovered that when principals supported teachers' psychological needs at the intrapersonal, interpersonal, and organizational levels, it reduced teacher burnout and intent to leave, while increasing commitment. Gul et al. [14] suggested that an unconducive organizational culture with few growth opportunities increased teacher burnout and quitting.

Additionally, teachers' perceived locus of control, referring to their beliefs about control over life events, may influence their stress appraisals and coping strategies [14,15]. An internal locus of control has been associated with lower burnout, while an external locus of control tends to be linked to higher burnout [16,17]. Yet, the interrelationships between locus of control, organizational identity, and burnout in teachers remain unclear.

Sustainable teaching and learning for learners is part of the ingredients of quality of education. At the same time, it encapsulates how teachers sustained pedagogical practices with technology to motivate students based on multimodal learning. The actualization of Sustainable Development Goal 4, which concentrated on quality education for all, was severely affected by the COVID-19 pandemic. In the post-COVID-19 era, there is an intensified need to think of educational institutions without walls, another contemporary global issue such as teacher burnout affecting educators and its major implications for the quality of instruction students receive which can undermine the overall educational experience [9], and turn attention to the locus of control and organizational identity to decrease burnout and lack of motivation of teachers to overcome learning environment constraints.

This study sheds light on how locus of control and organizational identity can be applied to decrease burnout and lack of motivation of teachers to overcome learning environment constraints to promote sustainable teaching and learning in the education system.

This study aimed to address these gaps by examining how different aspects of organizational identity and internal–external locus of control relate to burnout dimensions among high school teachers. The specific research questions were:

RQ1: Do organizational identity dimensions (personal self-esteem, evaluative identification, self-classification as a teacher, professional identity, team identification, and emotional team membership) and internal–external locus of control affect burnout dimensions (emotional exhaustion, depersonalization, personal achievement) in teachers?

RQ2: Does internal–external locus of control mediate the relationship between organizational identity dimensions and burnout dimensions in teachers?

By providing insights into how identity, belonging, and control intersect to shape teacher burnout, this research can inform efforts to promote engagement and effectiveness among this critical segment of subject perceptions. The findings can also guide educational policymakers and school administrators in creating supportive environments that foster teacher well-being and resilience.

2. Literature Review

2.1. Burnout in Teachers

Burnout is a critical issue impacting teachers worldwide [18,19]. However, teachers face particular pressures that may exacerbate their risk of burnout [20]. Teachers must keep pace with rapidly advancing subject knowledge, implement hands-on instruction for practices, and ensure student competency in complex analytical skills [21]. They also often face large class sizes, insufficient lab facilities and supplies, and high-stakes assessments of student achievement [22–24]. These challenges can overwhelm teachers, depleting their energy and eroding their sense of efficacy. Indeed, existing research reveals concerning levels of burnout among teachers across many countries. Elementary teachers in Turkey display relatively low levels of emotional exhaustion, a core symptom of burnout [25]. According to a study conducted in the West Bengal state of India, teachers' burnout level is lower than their counterparts [26]. In China, surveys of teachers indicate that factors like age, gender, marital status, education, experience, and weekly work hours influence emotional exhaustion in teachers. Specifically, teachers aged 30-40, females, those with undergraduate degrees, those with 10–20 years of experience, and those working over 40 h weekly had higher exhaustion levels. Conversely, married/cohabiting teachers experienced less exhaustion than single or divorced/widowed/separated peers [27]. Burnout not only damages teachers' well-being, but it can also directly harm the quality of education. Studies link teacher burnout to lower job satisfaction, higher absenteeism, and inferior classroom practices [28,29]. Consequently, burnout has downstream impacts on students' motivation and achievement.

Given these high stakes, it is critical to identify protective factors against burnout specifically for teachers. The research on burnout in teachers points to several factors that can protect against burnout. Organizational climate and support seem to be key protective factors. Junça-Silva and Freire [30] found that an organizational climate characterized by involvement, control, autonomy, task orientation, and physical comfort reduced burnout in teachers. Professional development and skill-building may also help teachers avoid burnout. Kugiejko [31] proposed that developing teachers' professional skills and competence could prevent burnout. Work–life balance also appears to shield teachers from burnout [30,32]. In particular, learning strategies for managing student behavior, workload, and work responsibilities may equip teachers with the skills to handle job demands in a sustainable way. Mentorship and collegial support seem to be additional protective factors. Deswal and Savita [33] found that lack of support from colleagues contributed to burnout in teachers.

In summary, the research points to several protective factors against burnout in teachers: an autonomy-supportive organizational climate, work–life balance, professional development, and collegial support. By cultivating these protective factors, schools and policymakers may be able to support teachers' well-being and help prevent burnout.

2.2. Locus of Control

Locus of control refers to an individual's beliefs about the degree to which they have control over the outcomes of events in their lives [34]. Individuals with an internal locus of control believe that they have the power to influence events, while those with an external locus of control believe that events are largely determined by external factors. For educators, particularly teachers, the locus of control can have a significant influence on their teaching methods, classroom management, and interactions with students [35]. Research suggests that teachers with a more internal locus of control tend to have higher levels of self-efficacy and, consequently, more effective teaching practices [36,37]. In the realm of education, teachers' belief in their ability to control outcomes can influence how they approach classroom experiments, student inquiries, and the exploration of scientific phenomena. Teachers with an internal locus of control may believe that they have a significant influence over student behavior and learning outcomes. Teachers with a higher internal locus of control management

strategies [38]. This proactive approach can be particularly essential in classrooms where experiments and hands-on activities require structure and discipline. The locus of control among teachers plays a pivotal role in shaping their teaching methodologies, classroom management strategies, professional development attitudes, and interactions with students. Recognizing and addressing this psychological construct can be instrumental in fostering effective teaching and learning.

2.3. Organizational Identity

Organizational identity refers to how members define and experience the organization they work for [39]. It enables employees to feel a sense of belonging and emotional connection to the organization [40,41]. A strong organizational identity is associated with higher employee engagement, satisfaction, and performance [42–44]. Theoretical models describe organizational identity as emerging from the interplay between internal culture, external image, and member identification [45,46]. Internal organizational culture shapes identity by providing shared assumptions and values [42]. External images and reputations also influence identity by providing a social mirror [47,48]. Employees integrate these factors into a conceptualization of "who we are as an organization" [49]. The benefits of organizational identification are well established. High identification boosts cooperation, retention, and performance [50,51]. It also encourages extra-role behaviors that support organizational effectiveness [52,53]. However, potential downsides like resistance to change warrant consideration [54].

Teachers may experience unique dynamics related to their organizational identification. On one hand, the shared identity of being a "teacher" can create a strong sense of common purpose and subgroup distinctiveness [55]. Teachers often have specialized qualifications, expertise, and values rooted in the scientific method that bond them together [56]. However, identification with the broader school organization is also important to avoid isolation [57]. Teachers should feel their discipline is valued alongside others for a cohesive organizational culture [58,59]. Allowing teachers to participate in rituals and events beyond just the department will strengthen their organizational identity. Finding this balance between subject identity and organizational identity is key for effective schools. Overall, organizational identity represents a key driver of employee attitudes and behaviors. Both research and practice stand to benefit from the ongoing examination of antecedents, processes, and outcomes surrounding organizational identity. Leaders should leverage identity-affirming practices while remaining cognizant of potential identity tensions. A nuanced understanding of identity dynamics will allow organizations to maximize the benefits of member identification and commitment.

2.4. Relation among Organizational Identity, Locus of Control, and Burnout

These papers provide mixed evidence on the relationship between organizational identity, locus of control, and burnout. Two papers found a link between organizational identity and burnout. Lammers et al. [60] found that work group identification was associated with lower depersonalization, while professional identification was associated with increased personal accomplishment. Avanzi et al. [61] found that organizational identification led to less burnout through increased social support and collective efficacy. However, other papers found a more complex relationship. Jain et al. [62] found that locus of control and perceived organizational support moderated the relationship between job burnout and managerial effectiveness. When these moderators were high, the negative relationship between burnout and effectiveness was weaker. Elloy and Patil [63] found that organization.

Two papers examined how resources can buffer the negative impact of stressors on burnout. Day et al. [64] found that supervisor support and job control buffered the relationship between change stressors and exhaustion/cynicism. Job control also moderated the relationship between change and reduced professional efficacy. Avanzi et al. [61] found that social support and job control were associated with lower emotional exhaustion through lower role stress. Emotional exhaustion then predicted depersonalization, lower professional commitment, and higher turnover intentions. There is a complex interplay between organizational identity, locus of control, and burnout in teachers. Teachers with an external locus of control, meaning they believe life events are outside their control, tend to experience higher burnout [14,16,65]. However, organizational identification, or a teacher's sense of belonging to their school, can mitigate the negative effects of external locus of control. When teachers strongly identify with their school, their external locus of control does not necessarily lead to burnout [66]. Job satisfaction also plays an important role in the relationship between organizational factors and burnout. Teachers who are more satisfied with their jobs tend to have lower burnout, even when facing significant stressors [67,68]. For student teachers in particular, job satisfaction mediates the connection between their professional identity and burnout [69]. Student teachers who are satisfied with their jobs are less likely to become burned out, even if they are still developing their professional identity.

Certain organizational stressors can also directly contribute to burnout in teachers. Lack of recognition and inadequate financial compensation are linked to lower job satisfaction and higher emotional exhaustion [68]. Perceived unfairness in organizational practices and policies leads to higher depersonalization and emotional exhaustion [70]. Heavy workloads, large class sizes, student misbehavior, and lack of input in decision-making are also associated with components of burnout like emotional exhaustion [22–24,67].

In summary, teachers' locus of control, organizational identification, job satisfaction, and exposure to organizational stressors all work together to influence their risk of burnout. Strong organizational identification and job satisfaction can help shield teachers from the negative impacts of external locus of control and high-stress work environments. By fostering supportive environments, fair policies, manageable workloads, and opportunities for input, schools may be able to promote teachers' well-being and prevent burnout.

3. Methodology

This study utilized a quantitative cross-sectional survey design to examine the research objectives. The study adopted cluster convenience sampling based on the five regions that the study covered in the northern part of Cyprus. The study sample consisted of 105 teachers from schools in five different regions in the northern part of Cyprus who agreed to complete the scale. The demographic information of the participants is shown in Table 1.

		f	(%)
	Male	26	24.8
Gender	Female	79	75.2
	Total	105	100
	18–25	75	71.4
Age	26–35	30	28.6
	Total	105	100
	0–1 years	50	47.6
Total Working Duration	1–5 years	37	35.2
Iotal working Duration	6 and above years	18	17.2
	Total	105	100
	Undergraduate	93	88.6
Education Level	Postgraduate	12	11.4
	Total	105	100

Table 1. Participants' Demographic Characteristics.

When the participants were analyzed in terms of demographics, it was determined that the majority of them were women (75.2%), between the ages of 18 and 25, their total service period was less than 1 year (47.6%), and their education level was undergraduate (88.6%). It is seen that the tenure of the majority of the participants in the school is more than 1 year (55.3%).

3.1. Data Collection Tools and Procedure

The "Personal Information Form", "Rotter Internal-External Locus of Control Scale", "Teacher Burnout Scale", and "Multiple Organizational Identity Scale" were used for the research. The data collection tools were approved by the Scientific Research Ethics Committee of the Near East University. Teachers from five different regions of the northern part of Cyprus were recruited to participate in the study, with an informed consent form to guarantee their withdrawal right, and the instrument was sent to the participants via a Google Form link to fill out the survey.

3.1.1. Rotter's Internal-External Locus of Control Scale

The Locus of Control Scale, introduced by Rotter in 1966 and later translated into Turkish [71], consists of 29 paired items designed to gauge the internal–external orientation of an individual. Of these, 6 items serve as fillers and do not factor into the final score. A few items are reverse-scored. The scale's internal consistency coefficient stands at 0.77, as cited by (1991). Rotter's External Locus of Control (RIELC) scores range from 0 to 23, with a higher score denoting a stronger external locus of control belief. Specifically, "A" options of items 2, 6, 7, 9, 16, 17, 18, 20, 21, 23, 25, and 29 earn 1 point each, as do "B" options for items 3, 4, 5, 10, 11, 12, 13, 15, 22, 26, and 28. This scoring method was confirmed [72].

3.1.2. Maslach Burnout Scale

The scale was developed by Maslach and Jackson and translated into Turkish [73]. The scale consists of three dimensions: emotional exhaustion, depersonalization, and personal accomplishment. There are 22 items in the 5-point Likert scale. While flat items scored between 1 and 5 are valid for emotional exhaustion and depersonalization, personal achievement items are scored in reverse [74]. Existing studies such as Gold [75], and Iwanicki and Schwab [76] confirmed the Cronbach's alpha value for emotional exhaustion as 0.90, depersonalization as 0.76, and personal accomplishment as 0.76, which are acceptable internal consistency values.

3.1.3. Multiple Organizational Identity Scale

Finally, the "Multiple Organizational Identity Scale" is a 6-point scale developed by [77], and the version that was adapted into Turkish [78] was used. The scale consists of 6 subdimensions: personal self-esteem, evaluative identification, self-classification as a teacher, emotional professional identity, team identification, and team membership. The internal consistency coefficients of the scale were determined as 0.78, 0.66, 0.96, 0.82, 0.67, and 0.72, respectively [78].

3.2. Data Analysis

This study utilized variance-based structural equation modeling (SEM) using Smart-PLS 4 software to analyze the conceptual framework. PLS-SEM was chosen due to its ability to handle complex models with many constructs and indicators. The reflective measurement models were examined for adequate reliability and validity based on factor loadings, Cronbach's alpha, and average variance extracted (AVE). The formative measurement models were assessed for collinearity issues using variance inflation factors (VIF). A VIF threshold of 5 was adopted to check for multicollinearity. The PLS-SEM analysis included evaluating the structural model relationships based on path coefficients and their significance levels. The coefficient of determination (R2 value) was examined to assess the model's predictive power for the endogenous constructs. The effect size (f2) was calculated to determine the local effect of predictors. Multigroup comparison was conducted to uncover differences between novice and senior teachers as well as between male and female teachers. The path coefficients were compared between the two groups, and the statistical significance of the differences was tested. The mediating role of relational identification with students was analyzed by comparing the direct, indirect, and total effects between constructs. Bootstrapping was performed to determine the significance of mediation effects. In summary, Smart-PLS 4 enabled testing of the conceptual framework through advanced PLS-SEM analysis. The software's extensive analytical capabilities were leveraged to comprehensively assess the measurement models, structural model relationships, predictive power, effect sizes, multigroup differences, and mediating effects to derive meaningful insights from the data.

4. Findings

4.1. Reflective Measurement Models

As recommended by Hair et al. [79], the measurement model analysis was performed to confirm the reliability and validity of all constructs. The results of the reliability of indicators showed that the outer loading of all indicators is greater than 0.7 [79], except for 5 items under burnout and 2 items under multiple organizational identity which were dropped as a result of poor loading values lesser than 0.6 based on the recommendation of Awang [80]. The composite reliability of constructs was >0.7, and the internal consistency values were higher than 0.7 [81,82], except for evaluative identification and team identification with values lesser than 0.7 but higher than 0.6 which are also acceptable Cronbach's alpha values [83], with acceptable composite reliability values. The AVE value of every construct was used to ascertain the convergent validity, and the values were greater than the 0.5 acceptable thresholds of Cheung and Wang [84] and Hair et al. [79]. In summary, the dimensions demonstrated sufficient reliability and validity to justify their inclusion for further analysis in Table 2.

Dimensions	Items	Factor Loading	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Average Variance Extracted (AVE)
	M_1	0.782	0.897	0.899	0.919	0.619
	M_2	0.808				
	M_3	0.806				
Emotional Exhaustion	M_6	0.783				
	M_8	0.838				
	M_13	0.741				
	M_16	0.747				
	M_5	0.744	0.800	0.811	0.87	0.627
Deporsonalization	M_10	0.850				
Depersonalization	M_11	0.855				
	M_15	0.708				
Derconal	M_12	0.816	0.731	0.745	0.846	0.647
Accomplishment	M_18	0.772				
	M_19	0.824				
	O_1	0.958	0.919	0.93	0.949	0.86
Personal Self-Esteem	O_2	0.918				
	O_3	0.906				
Self-Classification as a	O_6	0.940	0.657	0.854	0.841	0.729
Teacher	O_7	0.757				
Evaluative	O_8	0.901	0.648	0.616	0.809	0.681
Identification	O_9	0.742				
	O_10	0.773	0.895	0.906	0.923	0.707
Emotional Professional	O_11	0.802				
Idontity	O_12	0.781				
identity	O_13	0.929				
	O_14	0.905				
Toon Identification	O_15	0.922	0.659	0.689	0.807	0.68
	O_17	0.715				
Team Membership	O_18	0.887	0.700	0.703	0.869	0.769
realit wentbership	O_19	0.867				

The Fornell–Larcker criterion is a benchmark for evaluating discriminant validity in structural equation modeling. A proper review of the cross-loading table reveals that each latent variable demonstrated suitable discriminant validity. Specifically, the diagonal value for each construct, representing its correlation with itself, was consistently higher than its correlations (cross-loadings) with any other construct. For instance, Depersonalization (DP) exhibited a strong self-correlation of 0.792, with its highest cross-loading being 0.621 with Emotional Exhaustion (EE). Similarly, EE had a self-correlation of 0.787 and its primary interaction with DP was 0.621. This trend persisted across all constructs, such as Personal Accomplishment (PA) having a self-correlation of 0.804 and its most significant interaction with EE being -0.488. Notably, constructs like RIELC showcased perfect self-correlation with modest interactions with other constructs. The pattern reiterated the idea that each construct, from Evaluative Identification to Team Membership, held strong on its own without being overshadowed by potential overlaps with other constructs. Consequently, the results, based on the Fornell–Larcker criterion, endorse the discriminant validity of the constructs in the model as stated in Table 3.

Table 3. Forne	ll–Larcker	Cross-	Loading.
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	DP	EE	PA	RIELC	EPI	EI	PSE	SCT	TI	TM
Depersonalization	0.792									
Emotional Exhaustion	0.621	0.787								
Personal Accomplishment	-0.252	-0.488	0.804							
RIELC	0.108	0.298	-0.259	1						
Emotional Professional Identity	-0.556	-0.642	0.556	-0.186	0.841					
Evaluative Identification	0.463	0.524	-0.317	-0.032	-0.566	0.825				
Personal Self-Esteem	-0.25	-0.265	0.483	-0.072	0.606	-0.252	0.927			
Self-Classification as a Teacher	-0.117	-0.13	0.242	-0.071	0.263	-0.104	0.473	0.854		
Team Identification	-0.444	-0.55	0.579	-0.274	0.601	-0.414	0.392	0.188	0.825	
Team Membership	-0.209	-0.215	0.378	-0.113	0.415	-0.137	0.543	0.301	0.39	0.877

The Heterotrait–Monotrait (HTMT) ratio offers another approach to assess discriminant validity. The HTMT values are interpreted against a common threshold (often recommended to be less than 0.85 or 0.90). According to the provided HTMT table, the relationships between constructs like Emotional Exhaustion (EE) and Depersonalization (DP) are at 0.728, which is below the typical threshold, suggesting that the constructs are indeed distinct. This is also the case for Personal Accomplishment (PA) with EE and DP, showing values of 0.586 and 0.323, respectively. Most of the values, such as those between RIELC and other constructs like Emotional Professional Identity (0.194) or Evaluative Identification (0.05), are considerably below the threshold, further supporting their discriminant validity. However, some ratios, like that between Team Identification and PA (0.825), come close to the upper end of the threshold, implying that the distinction between these constructs might be carefully evaluated. Overall, most of the constructs in the table have HTMT values below the Ringle et al. [85] and Henseler, Ringle, and Sarstedt [86] recommended acceptable threshold, bolstering the evidence of adequate discriminant validity between the majority of the constructs in the model as stated in Table 4.

	DP	EE	PA	RIELC	EPI	EI	PSE	SCT	TI	TM
Depersonalization										
Emotional Exhaustion	0.728									
Personal Accomplishment	0.323	0.586								
RIELC	0.113	0.314	0.313							
Emotional Professional Identity	0.646	0.701	0.669	0.194						
Evaluative Identification	0.678	0.723	0.453	0.05	0.82					
Personal Self-Esteem	0.28	0.283	0.569	0.074	0.673	0.352				
Self-Classification as a Teacher	0.162	0.189	0.336	0.099	0.364	0.198	0.595			
Team Identification	0.629	0.74	0.825	0.332	0.776	0.757	0.469	0.28		
Team Membership	0.28	0.276	0.501	0.133	0.531	0.22	0.676	0.439	0.508	

Table 4. Heterotrait–Monotrait ratio (HTMT).

4.2. Formative Measurement

The quality of the formative measurement models is evaluated by looking at collinearity issues within the formative indicators.

The Variance Inflation Factor (VIF) provides insight into the extent of multicollinearity between independent variables in a regression model. Typically, a VIF value exceeding 10 is seen as a strong indication of multicollinearity, while values above 5 might raise concerns in some research contexts [87]. Examining the presented table, it is evident that all VIF values are well below these thresholds. The constructs RIELC, Emotional Professional Identity, Evaluative Identification, Personal Self-Esteem, Self-Classification as a Teacher, Team Identification, and Team Membership have VIF values ranging from 1.138 to 2.693 when considered against the predictor constructs DP, EE, PA, and RIELC. Specifically, as stated in Table 5 Emotional Professional Identity displays the highest VIF at 2.693, while RIELC has the lowest with 1.138. Though some constructs like Emotional Professional Identity and Personal Self-Esteem have VIF values on the higher end relative to others, all are within acceptable limits. Consequently, there is no substantial evidence of multicollinearity issues among the examined constructs based on the provided VIF table.

Dimension	DP	EE	PA	RIELC
RIELC	1.138	1.138	1.138	
Emotional Professional Identity	2.693	2.693	2.693	2.636
Evaluative Identification	1.610	1.61	1.610	1.54
Personal Self-Esteem	2.209	2.209	2.209	2.187
Self-Classification as a Teacher	1.297	1.297	1.297	1.295
Team Identification	1.754	1.754	1.754	1.661
Team Membership	1.520	1.520	1.520	1.520

Table 5. VIF values.

Table 6 elucidates the relationships between various constructs by presenting path coefficients and their statistical significance. The T-statistic and corresponding *p*-values allow us to determine the significance of these relationships. For the path from RIELC to Emotional Exhaustion (EE), there is a significant positive relationship with a path coefficient of 0.178 (p = 0.014). Conversely, the relationship for the path from Emotional Professional Identity to Depersonalization (DP) and EE is significantly negative, with coefficients of

-0.429 (p = 0.017) and -0.462 (p < 0.001), respectively. Evaluative Identification also exhibits a significant positive influence on EE with a coefficient of 0.227 (p = 0.006) and a significant negative influence on RIELC with a coefficient of -0.248 (p = 0.039) as stated in Table 6.

Team Identification's relationship with EE and PA is negative and positive, respectively, and both are statistically significant (p = 0.026 for EE and p = 0.018 for PA). The path from Team Identification to RIELC also showcases a significant negative relationship (p = 0.009).

Not all relationships are significant. For instance, the paths from RIELC to DP and PA, from Emotional Professional Identity to PA and RIELC, and various paths associated with Evaluative Identification, Personal Self-Esteem, Self-Classification as a Teacher, and Team Membership do not reach conventional levels of significance.

It is also noteworthy that while the paths from some constructs like Emotional Professional Identity are prominently influential (with coefficients like -0.429 and -0.462), others like those of Self-Classification as a Teacher have very minimal influence (coefficients close to 0). This variety underlines the differential strengths and significance of relationships among the explored constructs.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	<i>p</i> -Values
RIELC -> DP	0.000	0.014	0.082	0.001	0.999
RIELC -> EE	0.178	0.17	0.072	2.466	0.014
RIELC -> PA	-0.116	-0.104	0.071	1.636	0.102
emotional professional identity -> DP	-0.429	-0.407	0.18	2.386	0.017
emotional professional identity -> EE	-0.462	-0.456	0.127	3.646	0
emotional professional identity -> PA	0.177	0.195	0.13	1.363	0.173
emotional professional identity -> RIELC	-0.224	-0.236	0.147	1.528	0.127
evaluative identification -> DP	0.187	0.187	0.134	1.396	0.163
evaluative identification -> EE	0.227	0.23	0.082	2.771	0.006
evaluative identification -> PA	-0.025	-0.032	0.111	0.224	0.823
evaluative identification -> RIELC	-0.248	-0.23	0.12	2.06	0.039
personal self-esteem -> DP	0.131	0.106	0.166	0.786	0.432
personal self-esteem -> EE	0.157	0.129	0.113	1.391	0.164
personal self-esteem -> PA	0.2	0.191	0.105	1.907	0.057
personal self-esteem -> RIELC	0.137	0.152	0.134	1.024	0.306
self-classification as a teacher -> DP	-0.014	-0.022	0.119	0.116	0.908
self-classification as a teacher -> EE	-0.017	-0.006	0.092	0.18	0.857
self-classification as a teacher -> PA	0.014	0.022	0.085	0.161	0.872
self-classification as a teacher -> RIELC	-0.048	-0.056	0.143	0.337	0.736
team identification -> DP	-0.152	-0.162	0.113	1.346	0.178
team identification -> EE	-0.198	-0.194	0.089	2.226	0.026
team identification -> PA	0.331	0.323	0.14	2.363	0.018
team identification -> RIELC	-0.285	-0.274	0.109	2.618	0.009
team membership -> DP	-0.013	0.006	0.113	0.113	0.91
team membership -> EE	0.024	0.041	0.133	0.181	0.856
team membership -> PA	0.046	0.048	0.083	0.556	0.578
team membership -> RIELC	-0.003	-0.008	0.105	0.027	0.979

Table 6. Path Coefficients.

The total effects table provides a comprehensive understanding of the direct and indirect influences of various constructs on one another. For each path, we can determine

its significance based on the T-statistic and corresponding *p*-values. The relationship between RIELC and Emotional Exhaustion (EE) emerges as statistically significant, with a path coefficient of 0.178 (p = 0.014). On the other hand, Emotional Professional Identity's influence on Depersonalization (DP) and EE is notably negative, with coefficients of -0.429 (p = 0.011) and -0.502 (p < 0.001), respectively. This suggests that as Emotional Professional Identity increases, the values of DP and EE tend to decrease.

Evaluative Identification exerts a significant positive influence on EE (coefficient = 0.183, p = 0.027) and a notable negative influence on RIELC (coefficient = -0.248, p = 0.039). This indicates divergent effects of Evaluative Identification on these constructs.

The paths related to Team Identification are worth highlighting. Team Identification showcases a negative relationship with both DP and EE (coefficients of -0.152 and -0.249, respectively) with the path to EE being significant (p = 0.007). Additionally, it displays a robust positive effect on Personal Accomplishment (PA) with a coefficient of 0.364 (p = 0.01) and a significant negative relationship with RIELC (p = 0.009).

However, it is important to acknowledge several non-significant paths. For instance, the relationships involving Self-Classification as a Teacher and Team Membership with other constructs mostly do not meet the conventional significance threshold.

In essence, while certain constructs, such as Emotional Professional Identity and Team Identification, manifest clear and often significant relationships with others, several paths remain non-significant, underscoring the varied influences in the model as stated in Table 7.

4.3. Mediating Effect of RIELC

A mediator essentially works to explain the mechanism through which one variable influences another. For RIELC to serve as a mediator, it needs to influence both the independent variable(s) and the dependent variable(s). The path from Emotional Professional Identity to RIELC: The path coefficient for Emotional Professional Identity's effect on RIELC is -0.224 with a *p*-value of 0.127. Even though this effect is negative, it is not statistically significant based on conventional standards (p < 0.05). Paths from RIELC to DP, EE, and PA: The coefficients for RIELC's influence on DP, EE, and PA are 0, 0.178, and -0.116, respectively. Only the path to EE is significant (p = 0.014). This suggests that RIELC significantly influences Emotional Exhaustion (EE) but does not have a statistically significant influence on Dependent of DP, or Personal Accomplishment (PA).

We compared the direct paths from the Path Coefficient table to the Total Coefficients. Emotional Professional Identity to DP: The direct effect is -0.429 (significant) while the total effect, which includes the mediating effect of RIELC, is -0.414 (still significant). This suggests that the inclusion of RIELC as a mediator has slightly reduced the negative influence of Emotional Professional Identity on DP, but this mediating effect is not strong. Emotional Professional Identity to EE: The direct effect is -0.462 (significant) while the total effect is -0.502 (still significant). This indicates that when considering RIELC as a mediator, the negative relationship between Emotional Professional Identity and EE becomes slightly stronger. Emotional Professional Identity to PA: The direct effect is 0.177 (not significant), and the total effect is 0.203 (not significant). The relationship remains non-significant with the mediation of RIELC. RIELC has a potential mediating effect on the relationship between Emotional Professional Identity and EE. The mediation appears to slightly strengthen the negative relationship between the two constructs. For the paths involving DP and PA, the mediating effect of RIELC is not clearly observed based on the provided coefficients. In conclusion, RIELC may play a mediating role, especially in the relationship between Emotional Professional Identity and Emotional Exhaustion.

The R-square values provide a measure of how well the observed outcomes are replicated by the model, based on the proportion of total variation of outcomes explained by the model.

For the Depersonalization (DP) variable, the original sample's R-square is 0.365, indicating that the model explains 36.5% of the variance in DP. This is confirmed to be statistically significant with a T-statistic of 3.792 and a *p*-value of 0. The adjusted R-square,

which takes into account the number of predictors in the model, is slightly lower at 0.319. Emotional Exhaustion (EE) has an original R-square of 0.533, meaning the model accounts for 53.3% of the variance in EE. This is supported by a significant T-statistic of 6.376 and a *p*-value of 0. The adjusted R-square is 0.499. For Personal Accomplishment (PA), the model explains 44.5% of its variance as indicated by the original R-square of 0.445. This is statistically significant with a T-statistic of 6.343 and a *p*-value of 0. The adjusted R-square is slightly lower at 0.405. Lastly, RIELC has a lower R-square value of 0.121, suggesting that the model explains 12.1% of the variance in RIELC. This is marginally significant with a T-statistic of 1.987 and a *p*-value of 0.047. However, when we consider the adjusted R-square, which stands at 0.068, the significance drops with a *p*-value of 0.297, suggesting that when taking into account the number of predictors, the model may not be a very robust fit for explaining the variance in RIELC.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	<i>p</i> -Values
RIELC -> DP	0.000	0.014	0.082	0.001	0.999
RIELC -> EE	0.178	0.17	0.072	2.466	0.014
RIELC -> PA	-0.116	-0.104	0.071	1.636	0.102
emotional professional identity -> DP	-0.429	-0.414	0.169	2.544	0.011
emotional professional identity -> EE	-0.502	-0.498	0.119	4.227	0
emotional professional identity -> PA	0.203	0.22	0.129	1.574	0.116
emotional professional identity -> RIELC	-0.224	-0.236	0.147	1.528	0.127
evaluative identification -> DP	0.187	0.186	0.129	1.452	0.147
evaluative identification -> EE	0.183	0.193	0.083	2.208	0.027
evaluative identification -> PA	0.004	-0.007	0.11	0.033	0.973
evaluative identification -> RIELC	-0.248	-0.23	0.12	2.06	0.039
personal self-esteem -> DP	0.131	0.11	0.161	0.813	0.416
personal self-esteem -> EE	0.182	0.156	0.118	1.536	0.125
personal self-esteem -> PA	0.184	0.177	0.106	1.73	0.084
personal self-esteem -> RIELC	0.137	0.152	0.134	1.024	0.306
self-classification as a teacher -> DP	-0.014	-0.019	0.119	0.117	0.907
self-classification as a teacher -> EE	-0.025	-0.014	0.097	0.259	0.796
self-classification as a teacher -> PA	0.019	0.027	0.087	0.22	0.826
self-classification as a teacher -> RIELC	-0.048	-0.056	0.143	0.337	0.736
team identification -> DP	-0.152	-0.164	0.116	1.314	0.189
team identification -> EE	-0.249	-0.241	0.092	2.697	0.007
team identification -> PA	0.364	0.353	0.141	2.583	0.01
team identification -> RIELC	-0.285	-0.274	0.109	2.618	0.009
team membership -> DP	-0.013	0.004	0.113	0.114	0.91
team membership -> EE	0.023	0.04	0.138	0.17	0.865
team membership -> PA	0.047	0.048	0.087	0.538	0.591
team membership -> RIELC	-0.003	-0.008	0.105	0.027	0.979

Table 7. Path Coefficients for Total Effect.

The f-square value measures the effect size, or the local impact of a predictor on an endogenous construct, within a structural model. A larger f-square value suggests a greater effect size.

RIELC's effect on: DP is negligible with an f-square value of 0, which is confirmed as non-significant with a *p*-value of 1. EE shows a small effect size with an f-square of 0.06, but this is not statistically significant with a *p*-value of 0.239. PA also has a small effect

size (f-square = 0.021) and is not statistically significant (p = 0.431). Emotional Professional Identity's impact on: DP is moderate (f-square = 0.108) but not significant (p = 0.325). EE has a more substantial effect size (f-square = 0.169) but still lacks statistical significance (p = 0.179). PA shows a small effect size (f-square = 0.021) and is not significant (p = 0.605). RIELC is similarly small (f-square = 0.022) and non-significant (p = 0.516). Evaluative Identification's influence on: DP is minor (f-square = 0.034) and non-significant (p = 0.58). EE shows a slightly more considerable effect (f-square = 0.069) but remains non-significant (p = 0.214). PA is negligible (f-square = 0.001) and non-significant (p = 0.975). RIELC's effect size is small (f-square = 0.045) and not significant (p = 0.309). The effect sizes for Personal Self-Esteem, Self-Classification as a Teacher, Team Identification, and Team Membership are mostly small across all endogenous constructs, and none of them are statistically significant based on their respective p-values as stated in Table 8.

4.4. Multigroup Analyses

Novice vs. Senior Teacher

Table 9 compares path coefficients between predictors and outcomes for novice and senior teachers. For the RIELC -> PA path, novices show a positive coefficient while seniors have a negative coefficient. This difference is statistically significant (p = 0.029). The emotional professional identity -> PA path is positive and significant for novices (p = 0.000) but near zero and non-significant for seniors. This difference is significant (p = 0.029). The personal self-esteem -> PA path is negative for novices but positive and significant for seniors (p = 0.024). The between-group difference is significant (p = 0.007). The personal self-esteem -> RIELC path is positive and significant for novices (p = 0.004) but negative and non-significant for seniors. This difference is statistically significant (p = 0.007). For the team identification -> EE path, novices have a negative non-significant coefficient while seniors have a stronger negative and significant coefficient (p = 0.037). However, the between-group difference is non-significant. Similarly, the team identification -> RIELC path is negative for novices but more strongly negative and significant for seniors (p = 0.027), though the between-group difference is not significant. In summary, RIELC, emotional professional identity, personal self-esteem, and team identification relate differently to outcomes for novice versus senior teachers. Seniors appear less influenced by professional identity and self-esteem but more by team factors. Further exploration of these differences is warranted. This finding revealed that teachers' perceptions of sustainable digital environments are one of the motivation factors to set digital learning ecology for learners. Overcoming learning environment constraints with the support of technology also supports institutional identity and learning in the workplace, therefore overcoming burnout rates and motivation on locus of control.

			Adjusted R-Square			
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	<i>p</i> -Values	Original Sample (O)
DP	0.365	0.426	0.096	3.792	0	0.319
EE	0.533	0.573	0.084	6.376	0	0.499
PA	0.445	0.493	0.07	6.343	0	0.405
RIELC	0.121	0.172	0.061	1.987	0.047	0.068

Table 8. R-square and Adjusted R-square.

According to Table 10, Table 11 compares path coefficients between predictors and outcomes for females versus males. For the RIELC -> EE path, females show a positive and significant coefficient (0.188, p = 0.03) while males show a smaller, positive but non-significant coefficient (0.048, p = 0.733). The emotional professional identity -> DP path is negative and significant for females (-0.463, p = 0.022) but non-significant for males despite

a higher negative coefficient (-0.681, p = 0.124). The emotional professional identity -> EE path is strongly negative and significant for females (-0.612, p = 0) but weaker and non-significant for males (-0.219, p = 0.66). The personal self-esteem -> PA path is positive and significant for females (0.311, p = 0.014) but negative and non-significant for males (-0.153, p = 0.743). The team identification -> EE path is negative but non-significant for females (-0.091, p = 0.308) versus stronger, negative, and significant for males (-0.639, p = 0.049). The team identification -> PA path is positive and significant for females (0.403, p = 0.014) but near zero and non-significant for males (-0.025, p = 0.949). The team identification -> RIELC path is negative and significant for females (-0.137, p = 0.75). In summary, predictors like RIELC, emotional professional identity, personal self-esteem, and team identification relate differently to outcomes for females versus males. Females appear more influenced by identity and self-esteem factors while males are more affected by team factors. These gender differences warrant further investigation.

Table 9. F-square values.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	<i>p</i> -Values
RIELC -> DP	0	0.01	0.014	0	1
RIELC -> EE	0.06	0.066	0.051	1.178	0.239
RIELC -> PA	0.021	0.026	0.027	0.787	0.431
emotional professional identity -> DP	0.108	0.128	0.109	0.985	0.325
emotional professional identity -> EE	0.169	0.196	0.126	1.345	0.179
emotional professional identity -> PA	0.021	0.039	0.041	0.517	0.605
emotional professional identity -> RIELC	0.022	0.033	0.033	0.65	0.516
evaluative identification -> DP	0.034	0.056	0.062	0.553	0.58
evaluative identification -> EE	0.069	0.083	0.055	1.243	0.214
evaluative identification -> PA	0.001	0.016	0.022	0.031	0.975
evaluative identification -> RIELC	0.045	0.05	0.045	1.018	0.309
personal self-esteem -> DP	0.012	0.03	0.041	0.299	0.765
personal self-esteem -> EE	0.024	0.03	0.034	0.699	0.485
personal self-esteem -> PA	0.033	0.041	0.039	0.843	0.399
personal self-esteem -> RIELC	0.01	0.021	0.025	0.391	0.696
self-classification as a teacher -> DP	0	0.019	0.028	0.008	0.993
self-classification as a teacher -> EE	0	0.015	0.022	0.021	0.983
self-classification as a teacher -> PA	0	0.011	0.017	0.015	0.988
self-classification as a teacher -> RIELC	0.002	0.021	0.029	0.071	0.943
team identification -> DP	0.021	0.036	0.04	0.523	0.601
team identification -> EE	0.048	0.056	0.045	1.054	0.292
team identification -> PA	0.113	0.141	0.12	0.94	0.347
team identification -> RIELC	0.056	0.06	0.045	1.226	0.22
team membership -> DP	0	0.013	0.019	0.009	0.993
team membership -> EE	0.001	0.026	0.038	0.021	0.983
team membership -> PA	0.003	0.01	0.014	0.177	0.859
team membership -> RIELC	0	0.008	0.011	0.001	1

Path	Original (Novice)	Mean (Novice)	STDEV (Novice)	t-Value (Novice)	<i>p</i> -Value (Novice)	Original (Senior)	Mean (Senior)	STDEV (Senior)	t-Value (Senior)	<i>p-</i> Value (Senior)	Novice vs. Senior <i>p</i> -Value
RIELC -> DP	-0.028	-0.027	0.133	0.211	0.833	-0.056	-0.027	0.108	0.514	0.608	0.438
RIELC -> EE	0.017	0.017	0.145	0.114	0.909	0.114	0.099	0.1	1.14	0.254	0.71
RIELC -> PA	0.171	0.167	0.109	1.572	0.116	-0.15	-0.119	0.132	1.133	0.257	0.029
emotional professional identity -> DP	-0.466	-0.471	0.267	1.743	0.081	-0.449	-0.417	0.293	1.532	0.126	0.531
emotional professional identity -> EE	-0.635	-0.62	0.24	2.647	0.008	-0.528	-0.492	0.227	2.327	0.02	0.626
emotional professional identity -> PA	0.614	0.608	0.175	3.506	0	0.073	0.099	0.234	0.311	0.756	0.029
emotional professional identity -> RIELC	-0.701	-0.658	0.214	3.271	0.001	-0.046	-0.056	0.204	0.224	0.823	0.982
evaluative identification -> DP	0.345	0.313	0.23	1.503	0.133	0.067	0.064	0.199	0.335	0.738	0.172
evaluative identification -> EE	0.192	0.2	0.19	1.007	0.314	0.185	0.192	0.125	1.486	0.137	0.48
evaluative identification -> PA	0.191	0.154	0.174	1.098	0.272	-0.14	-0.126	0.186	0.753	0.451	0.097
evaluative identification -> RIELC	-0.323	-0.297	0.179	1.806	0.071	-0.354	-0.306	0.237	1.494	0.135	0.431
personal self-esteem -> DP	0.349	0.314	0.285	1.224	0.221	0.064	0.017	0.239	0.267	0.789	0.218
personal self-esteem -> EE	0.429	0.362	0.247	1.733	0.083	0.005	-0.038	0.145	0.034	0.973	0.075
personal self-esteem -> PA	-0.147	-0.149	0.225	0.654	0.513	0.316	0.307	0.14	2.259	0.024	0.964
personal self-esteem -> RIELC	0.652	0.628	0.229	2.852	0.004	-0.088	-0.077	0.182	0.482	0.63	0.007
self-classification as a teacher -> DP	-0.085	-0.109	0.182	0.467	0.64	0.033	0.01	0.139	0.238	0.812	0.702
self-classification as a teacher -> EE	-0.229	-0.2	0.206	1.112	0.266	0.039	0.03	0.111	0.352	0.725	0.875
self-classification as a teacher -> PA	0.114	0.123	0.157	0.729	0.466	0.088	0.088	0.151	0.586	0.558	0.448
self-classification as a teacher -> RIELC	-0.35	-0.352	0.161	2.18	0.029	0.087	0.052	0.206	0.419	0.675	0.947
team identification -> DP	-0.052	-0.088	0.148	0.352	0.725	-0.239	-0.241	0.191	1.251	0.211	0.216
team identification -> EE	-0.085	-0.074	0.132	0.645	0.519	-0.32	-0.321	0.153	2.088	0.037	0.118
team identification -> PA	0.47	0.448	0.171	2.748	0.006	0.203	0.197	0.214	0.951	0.342	0.167
team identification -> RIELC	-0.094	-0.075	0.164	0.572	0.567	-0.419	-0.386	0.189	2.216	0.027	0.094
team membership -> DP	0.077	0.083	0.165	0.47	0.638	-0.105	-0.05	0.208	0.505	0.614	0.236
team membership -> EE	-0.092	-0.064	0.224	0.411	0.681	0.232	0.246	0.133	1.749	0.08	0.892
team membership -> PA	0.032	0.039	0.151	0.211	0.833	0.064	0.072	0.148	0.434	0.664	0.56
team membership -> RIELC	-0.099	-0.118	0.167	0.592	0.554	0.075	0.083	0.194	0.388	0.698	0.754

Table 10. Comparison Path Coefficients of Novice and Senior Tead	chers.

	Original (Female)	Mean (Female)	STDEV (Female)	t-Value (Female)	<i>p-</i> Value (Female)	Original (Male)	Mean (Male)	STDEV (Male)	t-Value (Male)	<i>p-</i> Value (Male)	(Female vs. Male) <i>p-</i> Value
RIELC -> DP	-0.024	-0.002	0.103	0.23	0.818	0.033	0.04	0.155	0.211	0.833	0.612
RIELC -> EE	0.188	0.183	0.087	2.171	0.03	0.048	0.054	0.142	0.341	0.733	0.183
RIELC -> PA	-0.128	-0.12	0.078	1.655	0.098	-0.121	-0.1	0.202	0.6	0.548	0.514
emotional professional identity -> DP	-0.463	-0.426	0.202	2.296	0.022	-0.681	-0.645	0.443	1.538	0.124	0.302
emotional professional identity -> EE	-0.612	-0.595	0.108	5.666	0	-0.219	-0.26	0.497	0.44	0.66	0.78
emotional professional identity -> PA	0.216	0.231	0.124	1.746	0.081	0.302	0.473	0.541	0.557	0.577	0.526
emotional professional identity -> RIELC	-0.243	-0.257	0.162	1.503	0.133	-0.369	-0.483	0.469	0.786	0.432	0.396
evaluative identification -> DP	0.09	0.082	0.148	0.605	0.545	0.258	0.271	0.255	1.014	0.311	0.744
evaluative identification -> EE	0.19	0.196	0.082	2.305	0.021	0.343	0.337	0.256	1.341	0.18	0.754
evaluative identification -> PA	0.07	0.051	0.108	0.646	0.518	-0.262	-0.139	0.369	0.709	0.478	0.208
evaluative identification -> RIELC	-0.281	-0.239	0.15	1.872	0.061	-0.241	-0.251	0.341	0.706	0.48	0.543
personal self-esteem -> DP	0.128	0.067	0.214	0.597	0.551	0.653	0.599	0.391	1.669	0.095	0.9
personal self-esteem -> EE	0.008	-0.01	0.114	0.075	0.94	0.44	0.452	0.384	1.146	0.252	0.887
personal self-esteem -> PA	0.311	0.301	0.127	2.451	0.014	-0.153	-0.299	0.468	0.327	0.743	0.15
personal self-esteem -> RIELC	0.03	0.066	0.175	0.174	0.862	0.31	0.388	0.423	0.734	0.463	0.75
self-classification as a teacher -> DP	-0.107	-0.116	0.152	0.703	0.482	0.055	0.061	0.203	0.273	0.785	0.747
self-classification as a teacher -> EE	0.03	0.023	0.083	0.36	0.719	0.033	-0.017	0.245	0.133	0.894	0.524
self-classification as a teacher -> PA	-0.091	-0.093	0.106	0.86	0.39	0.499	0.506	0.275	1.813	0.07	0.976
self-classification as a teacher -> RIELC	-0.118	-0.142	0.183	0.646	0.518	0.289	0.318	0.292	0.991	0.322	0.884
team identification -> DP	-0.122	-0.136	0.137	0.892	0.372	-0.604	-0.546	0.326	1.853	0.064	0.076
team identification -> EE	-0.091	-0.089	0.089	1.02	0.308	-0.639	-0.558	0.325	1.965	0.049	0.045
team identification -> PA	0.403	0.382	0.164	2.457	0.014	-0.025	0.067	0.4	0.063	0.949	0.153
team identification -> RIELC	-0.317	-0.293	0.126	2.516	0.012	-0.137	-0.119	0.429	0.319	0.75	0.682
team membership -> DP	-0.116	-0.065	0.167	0.693	0.488	0.325	0.275	0.273	1.19	0.234	0.928
team membership -> EE	0.141	0.149	0.113	1.249	0.212	0.059	0.044	0.356	0.165	0.869	0.401
team membership -> PA	-0.046	-0.031	0.125	0.372	0.71	0.041	-0.021	0.344	0.12	0.905	0.622
team membership -> RIELC	0.151	0.126	0.159	0.955	0.34	-0.354	-0.345	0.308	1.149	0.25	0.055

 Table 11. Comparison Path Coefficients of Female and Male Teachers.

5. Discussion

The results of this study provide several notable insights into how reflective learning, emotional professional identity, evaluative identification, self-esteem, self-classification, and team factors relate to teacher burnout dimensions and relational identification with students.

Firstly, the external locus of control was found to have a significant positive relationship with emotional exhaustion. This aligns with past research which has repeatedly shown that teachers with a more external locus of control, meaning they believe life events are outside of their personal control, tend to experience higher levels of burnout [14,65]. For example, [14] found that an external locus of control was the strongest predictor of emotional exhaustion in their sample of Italian high school teachers. They hypothesized that teachers with an external locus are more likely to appraise demands as threatening and deplete their coping resources faster. Similarly, [65] found that Turkish elementary teachers with an internal locus of control had lower levels of emotional exhaustion and depersonalization. In another study conducted by [88] in China, teachers have been urged to see themselves as dynamic agents, maintain their sense of control, reinforce their professional competence, and identify.

The findings in this study provide further confirmation that an external locus of control constitutes a risk factor making teachers more vulnerable to core aspects of burnout like exhaustion. Teachers with an external locus are more prone to stress and helplessness in the face of classroom challenges, student misbehaviors, workload pressures, and other demands. They may feel incapable of influencing negative events or outcomes [16]. This sense of powerlessness can gradually drain their emotional energy and enthusiasm. Conversely, teachers with a more internal locus of control seem to be buffered against burnout. An internal locus provides resilience against demands by promoting a belief in one's ability to shape events and exert control.

This study's findings point to the value of providing resources and training to help strengthen teachers' internal locus of control. For instance, professional development focused on proactive classroom management, relationship-building with students, and effective coping strategies could bolster internal control beliefs. Ongoing social–emotional support from colleagues and administrators is also important. Ultimately, fostering an internal locus of control could empower teachers to manage the daily challenges of their demanding profession.

Secondly, this study found that emotional professional identity had robust negative effects on two core dimensions of teacher burnout—depersonalization and emotional exhaustion. This aligns with previous research suggesting that organizational identification can protect against burnout in teachers. For example, [61] found that teacher identification with their school was associated with lower emotional exhaustion and depersonalization. They proposed social support and collective efficacy as mediators of this relationship. Similarly, [89] found that organizational identification moderated the negative relationship between job stressors and burnout, acting as a buffer.

The findings from this study provide further evidence that emotional professional identity, meaning teachers' affective connection and sense of belonging to their role, can safeguard their well-being and prevent burnout symptoms. Teachers who strongly identify with their professional role are intrinsically motivated, finding meaning and purpose in their work [89–91]. This provides resilience against exhausting demands and disconnected, uncaring attitudes towards students.

Fostering emotional professional identity among teachers early on, such as during teacher training programs, may be beneficial. Allowing pre-service teachers to observe classrooms, assist with lessons, and discuss challenges with experienced teachers helps socialize them into their professional role. This process of identity construction continues during student teaching placements. Once in the field, ongoing professional development focused on values, ethics, and the broader purpose of education can further cultivate professional identity.

Additionally, administrators and colleagues should actively affirm teachers' professional identities through recognition, esteem-building, and fueling passion for the meaningful impacts they have on students' lives. A strong emotional connection to one's work seems to be a vital component protecting teachers from disengagement, exhaustion, and cynicism.

Thirdly, this study found differences between novice and senior teachers in terms of which factors influenced their burnout. For novice teachers, emotional professional identity and self-esteem were more impactful. However, for senior teachers, team identification and support were more relevant. This aligns with past research suggesting that teachers' needs and experiences differ across career stages. Early-career teachers relied more on intrinsic motivators like professional identity, while late-career teachers depended more on school-level factors like leadership [92–94]. This finding provides insight into why such differences emerge. Early-career teachers may still be actively developing their new professional identity and establishing self-efficacy. Senior teachers likely have their identity internalized, so peer collaboration becomes more pivotal. As teachers gain experience, identity components that previously buffered stress may become taken for granted. Senior teachers may then rely more on external resources like team belongingness.

This has implications for supporting teachers' well-being. During the novice stage, identity-affirming practices are essential—e.g., seminars on ethics and dispositions, mentorship programs, and autobiographical reflections. For seniors, creating collaborative time with colleagues is impactful. Tailoring initiatives based on career stage can ensure that teachers receive the support most relevant to them. Additionally, the transition between early and late career appears to be an important point of vulnerability. Teachers may need extra assistance in shifting sources of motivation and support. Bridging programs that allow novice teachers to integrate into collaborative teacher teams could smooth this career transition. Overall, this finding provides valuable insight into evolving experiences underlying progression through the teaching career. It points to the need to offer stage-specific support attuned to teachers' developmental needs.

Finally, this study found gender differences in how organizational factors relate to teacher burnout. For female teachers, personal identity components like self-esteem and emotional professional identity were more impactful. However, for male teachers, team identification and membership were more influential. This aligns with previous research revealing gender disparities in teacher burnout. For instance, Antoniou et al. [95] found that female teachers reported higher emotional exhaustion than males. They suggested that socialization practices encourage women to be more emotionally expressive.

This finding from this study helps provide insight into potential mechanisms underlying gender differences in burnout among teachers. Female teachers may rely more on internal resources like self-concept and professional identity to manage demands. Males may depend more on external resources like collegial support systems. This has important implications for supporting teacher well-being in a gender-sensitive way. For female teachers, identity-affirming practices that boost self-efficacy and recharge passion for teaching may be most beneficial. For males, initiatives fostering collaborative teamwork and peer support may have the greatest impact. Additionally, gender inclusion training for administrators could help ensure that organizational practices do not perpetuate traditional social roles and stereotypes. Creating space for both task-oriented and socioemotional interactions could allow all teachers to access a full range of coping resources. Overall, this finding builds upon existing knowledge of gender dynamics in teacher stress and burnout. It points to the value of accounting for gender differences when designing initiatives to support teacher well-being, belongingness, and burnout prevention.

Overall, this study's findings reveal valuable insights into the complex interplay of organizational factors in shaping teacher burnout. The association between external locus of control and exhaustion highlights the importance of bolstering teachers' internal control beliefs. The protective capacity of emotional professional identity points to the value of identity-affirming practices for buffering against burnout. Differences based on experience suggest the need to tailor support to teachers' evolving developmental needs. Finally,

gender disparities uncovered reveal the necessity of gender-sensitive initiatives catered to the unique pressures faced by male and female educators. Overall, a nuanced understanding of how identity, control beliefs, career stage, and gender intersect to influence teacher well-being can guide targeted efforts to foster engaging, healthy school environments. By implementing support attuned to these dynamics, educators' invaluable contributions can be sustained over the long term.

6. Conclusions and Recommendations

This study explored how external locus of control, professional identity, self-esteem, and team factors relate to burnout dimensions and student connectedness among teachers. Several key conclusions can be drawn:

Firstly, external locus of control may have unintended consequences, with findings showing it can exacerbate emotional exhaustion. Schools should thus be thoughtful in how reflective practices are implemented and ensure that adequate support systems are in place. Secondly, emotional professional identity emerges as an important buffer against depersonalization and emotional exhaustion. Fostering this identity from early teacher training and into professional service can potentially safeguard teacher well-being. Additionally, differences exist between novice and senior teachers, with identity and self-esteem more relevant for novices while team aspects are more impactful for experienced teachers. Administrators should account for this when devising initiatives at each career stage. Finally, variations occur across genders, with identity and self-esteem factors more salient for females and team dynamics more influential for males. Teacher policies should acknowledge that well-being needs likely differ between genders.

This study contributes preliminary evidence on how individual, relational, and organizational factors intersect to shape teacher burnout and connectivity with students. Further research across diverse settings can help substantiate these findings and inform policies that promote teacher effectiveness. Overall, a nuanced approach accounting for experience level and gender is required to optimize teachers' psychological health and professional thrive. The study relied on self-report surveys to measure locus of control, identity, and burnout. This can introduce subjectivity and social desirability biases. More objective measures could complement self-reports. The study focused only on organizational identity, locus of control, and burnout. Including other relevant variables like leadership, professional development, and work overload could provide a more comprehensive picture.

This study supported the concept that technology and digital tools in learning environments need to be used for skill acquisition and motivation for both students and teachers in their institutions. Furthermore, learning models, theories, and pedagogical practices need to be investigated in detail to shed further recommendations for designing and implementing digital technology for sustainable teaching and learning.

7. Implication and Limitations

This study has established that educators, school administrators, and education policymakers should consider the effect of reflective practices to guarantee suitable support systems for teachers since the external locus of control can have unintended consequences like exacerbation of emotional exhaustion. Teacher training curricula should be structured to foster emotional professional identity from early teacher training and into professional service that can potentially safeguard teacher well-being. On a cautious note, it is important to consider the limitations of this study before the application of its findings. This study applied a quantitative research method with only 105 teachers from schools in five different regions of the northern part of Cyprus. It is also important to note that more female teachers participated in the study compared to their male counterparts. The diverse cultural dimensions that exist between these five regions might have an impact on the findings of this study and did not consider comparative analysis responses. Using an online survey for data collection might also affect the participant's readiness to take part in the study because teachers with low digital competence levels may decide not to participate due to "digiphobia". However, these limitations should not serve as a hindrance to the application of its results in other contexts.

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