How to Cite this Article: Kiani, S., Saleem, S., Akhtar, H. (2026). The Rigidity of Exhaustion: A Correlational Study Between Teacher Burnout and Observed Pedagogical Flexibility. *The Knowledge, 5*(1), 53-69 .
https://doi.org/10.55737/tk/v5i1.51126

RESEARCH ARTICLE THE KNOWLEDGE

Volume 5, Issue 1 (Winter 2026) • Pages: 53 – 69 • DOI: 10.55737/tk/v5i1.51126 • e-ISSN: 3006-869X

The Rigidity of Exhaustion: A Correlational Study Between Teacher Burnout and Observed Pedagogical Flexibility

Sadiqa Kiani [1] **Shazia Saleem** [2*] **Humair Akhtar** [3]

Corresponding Author: Humair Akhtar (✉: umairakhtar848@gmail.com)

Abstract

Teacher burnout is a well-documented issue that is becoming widespread in modern education, yet its effects on manifested classroom behavior have not been properly studied. The present research examined the connection between teacher burnout and pedagogical flexibility in classroom teaching in terms of the ability to adjust the process of teaching and respond to the needs of learners and contextual requirements. The correlational research design was used to gather data of 300 secondary school teachers in District Haripur. Teacher burnout was assessed using the Maslach Burnout Inventory, which included emotional exhaustion, depersonalization and diminished personal accomplishment whereas pedagogical flexibility was measured through a structured classroom observation tool that comprised of several facets of adaptive instruction. The results of descriptive statistics showed that the level of emotional exhaustion among teachers is moderate to high, the level of depersonalization is lower, and the variability of observed pedagogical flexibility is limited. Pearson correlation showed emotional exhaustion had a moderate negative relationship with pedagogical flexibility, while depersonalization had a significant negative relationship with responsive instructional behaviors. Reduced personal accomplishment was positively related to instructional adaptation. Multiple regression confirmed emotional exhaustion as a significant negative predictor of composite. The strength of the regression model was verified through the assumption testing. The results indicate that burnout, and in particular, emotional exhaustion is reflected in instructional rigidity which limits teachers to adaptive and responsive pedagogy. The article highlights the necessity of considering teacher well-being as a factor leading to maintaining pedagogical agility and teaching standards.

Key Words

Emotional Exhaustion, Depersonalization, Instructional Adaptability, Classroom Pedagogy, Teaching Flexibility, Classroom Observation

Introduction

It is well-known that teaching is a profession that demands a lot of emotion and requires a lot of cognition and as one that experiences sustained interpersonal interaction, constant decision-making and mounting responsibility (Monteiro, 2014; Hargreaves, 2000; Kyriacou, 2023). In the modern education situation, educators are not only supposed to provide the stipulated curricula but also be responsive to a variety of student requirements, situational factors, and changing pedagogical requirements (Darling-Hammond et al., 2020). This pressure on pedagogical flexibility has increased over the past few years, especially through the introduction of inclusive education

[1] PhD in Education, Principal GGHSS Khanpur, Haripur, Khyber Pakhtunkha, Pakistan.
Email: sadiqakiani17@gmail.com
[2] PhD Scholar, Department of Education, The University of Haripur, Haripur, Khyber Pakhtunkhwa, Pakistan.
Email: shaziasaleem4848@gmail.com
[3] M.Phil. Scholar, Department of Education, The University of Haripur, Haripur, Khyber Pakhtunkhwa, Pakistan.
Email: umairakhtar848@gmail.com

requirements, curriculum changes, the adoption and use of the digital environment, and the increasing expectations of performance (OECD, 2019). But, along with these growing expectations, the bodies of evidence that suggest that the world is experiencing a surge in teacher burnout are considerable as well, which leads to concerns over its possible implications on the quality of instruction and the practice in the classroom (Skaalvik & Skaalvik, 2017; Madigan & Kim, 2021).

Teacher burnout is not a new phenomenon in the field of occupation and most commonly revised through the multidimensional model formulated by Maslach and others, which includes emotional exhaustion, depersonalization, and diminished personal achievement (Maslach & Jackson, 1981; Maslach et al., 2001; Akhtar et al., 2019). The essence of burnout is emotional exhaustion which represents chronic fatigue and drainage of emotional resources (Neckel et al., 2017), depersonalization which is the detached and cynical character towards students and decreased personal accomplishment which represents the diminished perceptions of professional efficacy (Gleason, 2025). Empirical studies have always associated high burnout scores with negative effects, such as poor job satisfaction, high absenteeism, reduced commitment, and high turnover rates (Ingersoll & Strong, 2011; Skaalvik & Skaalvik, 2018). In addition to these individual as well as personal consequences, burnout has been identified to have an adverse impact on classroom climate, teacher-student relationships, and student engagement (Jennings & Greenberg, 2009; Madigan & Kim, 2021).

In instructional level, effective teaching is beginning to be perceived as a dynamic and adaptive process instead of a mechanical application of the pre-determined methods. Pedagogical flexibility means that a teacher is able to change instructional approaches, pacing, representations, and interactions based on their cognitive, emotional, and contextual needs in a classroom (Parsons et al., 2018; Van de Pol et al., 2010). The construct is consistent with more general concepts of adaptive teaching, responsive pedagogy, and contingent scaffolding, all of which put an emphasis on situational awareness and professional judgment in the moment (Shulman, 1987; Corno, 2008). The body of observational studies has established that pedagogically flexible educators have a higher likelihood of promoting student engagement, conceptual and fair participation, especially in multicultural classrooms (Tomlinson et al., 2008; Darling-Hammond et al., 2020).

Although limited research condeucted on the concept of pedagogical flexibility crucial role in the determination of the effectiveness of instruction, its psychological and emotional experiences (Hussain & Jamil, 2024). Flexible teaching demands able-sustained attentional resource, emotional regulation skills and cognitive openness, which could be impaired when the conditions of long-term stress and exhaustion are involved (Hobfoll, 2001; Lazarus & Folkman, 1984). In terms of conservation of resources, burnout is a resource depletion state whereby people are endowed with concerns that are focused on coping and survival as opposed to innovation and responsiveness (Hobfoll, 2001). In classroom settings, emotionally fatigued educators can thus be more inclined to use the hard-grained routines, scripted teaching, and controlling methods as one of the ways to conserve the limited psychological resources (Friedman, 2000; Evers et al., 2002). This kind of rigidity, though possibly functional in short-run, can negatively affect responsiveness in instruction and damage the possibilities of differentiated and student-centered learning.

The available body of empirical evidence qualifies this suggestion. Research has indicated that teacher burnout is linked to decreased quality of instruction, less autonomy-supportive behaviours, and more controlling behaviours (Benson , 2022; Shen et al., 2015; Collie et al., 2012). It is emotional exhaustion specifically that has been found to lead to a decline in classroom enthusiasm, sensitivity to student cues and less diverse instructional strategies (Klusmann et al., 2008; Jennings & Greenberg, 2009). This literature is, however, based in large part on self-reported teaching practices, which can be subject to social desirability bias and to poor self-awareness. The availability of the research that analytically investigates the connection between burnout and pedagogical flexibility based on the observational measures of the classroom instructional practices is still rather limited.

Furthermore, although Maslach Burnout Inventory (MBI) is a well-validated tool, most studies have not explicitly related dimensions to any kind of pedagogical behaviour (Maslach et al., 2001; Schaufeli et al., 2009). The gap is especially notable when it comes to high-impact journals, which are progressively focusing more on the combination of psychological construct with strong-behavioural based measures of the teaching practice (OECD, 2019; Darling-Hammond et al., 2020). Knowledge of the presence and nature of burnout as instructional rigidity will be critical in the theory and practice of occupational health psychology, as well as classroom-based pedagogy, since the interaction between burnout and instructional rigidity bridges the two disciplines.

The current research investigated how teacher burnout measured using the MBI is related to the perceived pedagogical flexibility in classroom teaching. This study attempted to overcome the self-report paradigms and provide empirically based results regarding the relation between the emotional states of teachers and their instructional decision-making through the use of a correlational design and incorporation of systematic classroom observations. In theory, the work has added to the literature that places teacher wellbeing as an important factor to the quality of instruction and not an incidental issue. In practice, it emphasizes the need to solve the problem of burnout not only as a workforce retention challenge but also as a condition that has direct consequences in relation to pedagogical responsiveness and student learning opportunities.

By placing burnout as a possible precursor of instructional rigidity, the study addresses the need to conduct more integrative and cross-disciplinary studies on the nature of the teaching quality, the wellbeing of the teacher, and the classroom practice (Jennings et al., 2013; Madigan & Kim, 2021). Through an empirical investigation into the relationship between emotional exhaustion and pedagogical flexibility, the study will provide information on teacher education, teacher development, and institutional policy that would support teacher wellbeing and adaptive instructional learning.

Literature Review

Recent research is starting to acknowledge teacher burnout as a multidimensional construct whose impacts are not simply about the welfare of teachers but also about the fundamental teaching practices. Empirical research that has been based on Maslach framework has reported emotional exhaustion as the most prevalent element of burnout, especially in secondary school where teachers are prone to heavy workloads, accountability demands and limited institutional support. Similar bodies of literature on adaptive and flexible pedagogy stress that successful teaching must be based upon systematic instructional modification of the needs of students, mentally, emotionally and contextually. Nevertheless, the current studies have mostly been based on self-reported practices in teaching, which have not provided greater insight into the manifestation of burnout into classroom practices. There is a lack of empirical studies that directly relate standardized measure of burnout to the systematically observed pedagogical flexibility, which is a critical gap that the given study tries to fill.

Teacher Burnout as an Instructional and Occupational Phenomenon

Teacher burnout is a long-standing issue in the field of occupational psychology and educational studies since this is a chronic reaction to the work-related stress factors of the teaching profession (Maslach et al., 2001; Schaufeli et al., 2009). Teaching is characterized by a long-term emotional work, great interpersonal load, and repeated assessment of performance, a combination of which increases the susceptibility to burnout in the long run (Hargreaves, 2000; Kyriacou, 2023). In school, teachers often face workload pressures, role ambiguities, classroom, and accountability-related reforms, as they have been empirically connected to high burnout (Skaalvik & Skaalvik, 2017).

The MBI is the most highly validated and theoretically based tool of measuring burnout since it operationalizes the concept using three dimensions: emotional exhaustion, depersonalization, and diminished personal accomplishment (Maslach, et al., 2001; Maslach, & Jackson, 1981). Although not always, emotional exhaustion is

always found to be the most predictive element, which entails the loss of emotional and cognitive resources by teachers. Depersonalization is at least exhibited in emotional non-involvement and cynicism with students, whereas low personal achievement sums up the low state of professional efficacy in teachers. Big and longitudinal scale research has shown that emotional exhaustion usually comes first and conditions the other two dimensions, and thus it is especially relevant to the study of instructional behaviour (Klusmann et al., 2008; Skaalvik & Skaalvik, 2018).

In addition to teacher wellbeing, burnout has become a more accepted factor on the quality of instructions. Empirical research points to the evidence that educators with high rates of burnout complain about a lack of enthusiasm, lack of clarity in teaching, and a lack of student interaction (Friedman, 2000; Shen et al., 2015). Specifically, emotional exhaustion has been related to the decreased classroom energy, a lack of patience in regards to student inquiries, and a decreased readiness to experiment with alternative teaching approaches (Jennings & Greenberg, 2009; Madigan & Kim, 2021). These results imply that burnout could influence the kinds of attitudes toward work as well as the methods of teaching disclosed in everyday classroom relationships.

Adaptive Teaching Pedagogical Flexibility

Pedagogical flexibility is taking an ever-firm place in the middle of successful teaching in the various and complicated classroom settings. It means the ability of a teacher to change the instructional plans, representation, speed, and patterns of interaction based on the changing needs of the students and contingencies of a situation (Corno, 2008; Parsons et al., 2018). Similar constructs are adaptive teaching, responsive pedagogy, differentiated instruction, and contingent scaffolding, which focus more on professional judgment and responsiveness to the situation than the strict adherence to the lesson scripts (Shulman, 1987; Van de Pol et al., 2010).

It has been shown that pedagogical flexibility is linked to an increased engagement of students, greater conceptual knowledge, and more inclusive learning conditions (Tomlinson et al., 2008; Darling-Hammond et al., 2020). The flexibility of teachers, according to observational studies, can enhance the differing of explanations, using many representations, and changing questioning techniques depending on real-time student feedback (Parsons et al., 2018). These practices are especially important in heterogeneous classes in which learners vary in terms of their background knowledge, language proficiency, and socio-emotional requirements.

Notably, pedagogical flexibility is not a technical achievement but cognitively and emotionally challenging activity. It involves long-term attention, working memory, emotional control, and readiness to uncertainty since the teacher has to constantly process classroom information and respond to instructions quickly (Corno, 2008; Van de Pol et al., 2010). Such cognitive-emotional complexity indicates that it might be particularly the flexibility of pedagogues that will be eroded in the environment of persistent stress and emotional depletion.

Correlating Pedagogical Flexibility and Burnout

Despite the extensive research on burnout and instructional quality, there has been very little direct empirical research on whether teacher burnout and pedagogical flexibility are related. There is indirect evidence provided in existing literature that adaptive teaching can be undermined through burnout. Research has also found out that emotionally exhausted teachers tend to adopt the controlling instruction methods, use of routine basis instruction and reduce variation of lesson plans (Evers et al., 2002; Collie et al., 2012). These patterns are commonly explained by the reasoning that the patterns are coping strategies that decrease the cognitive load and save exhausted psychological resources.

The studies that are based on the self-determination theory also indicate that burnout is linked to decreasing autonomy-supportive teaching and declining responsiveness towards the needs of pupils (Shen et al., 2015). Emotionally exhausted teachers might find it difficult to maintain relational and cognitive investments involved in

flexible pedagogy, which causes a shift to standardized and teacher-centered style. Much of the evidence, however, is based on self-reported instructional practices and this might not be representative of what happens in the classroom context of enacted pedagogy (Klusmann et al., 2008).

Additional information is through observational research on the quality of teaching. Klusmann et al. (2008) established that teachers who had an increased occupational wellbeing were more instructionally clear and organized the classroom; both of which form the basis of adaptive teaching. Equally, Jennings and Greenberg (2009) put the contention that social-emotional competence of teachers that is undermined by burnout is important in sensitive and responsive teaching. Though these contributions have been made, little research has available that directly operationalizes the construct of pedagogical flexibility as a measurable phenomenon and has investigated its relationship with the dimensions of burnout assessed with validated measures (e.g. MBI).

Theoretical Framework

The current research is theoretically informed by the Conservation of Resources (COR) theory that offers an adequate explanatory framework when analyzing how burnout can be converted into instructional rigidity (Hobfoll, 2001). COR theory assumes that human beings attempt to obtain, sustain and defend cherished assets, such as energy, emotional stability and mental capacity. Stress and burnout have been introduced when these resources are endangered or exhausted and individuals then resort to resource-conserving behaviour.

In classroom settings, pedagogical flexibility may be defined as a practice which requires a substantial amount of resources and necessitates the presence of both cognitive and emotional investments. Emotionally exhausted teachers might thus be tempted to tend towards strict teaching schedules, pre-programmed lessons and less responsiveness as a defensive mechanism to the loss of resources. Cor-wise, the Instructional Rigidity is not only a deficit but rather a coping strategy to reduce the additional loss of resources. This theoretical framework is in line with empirical evidence that burnout is associated with a decline in instructional innovation and responsiveness (Friedman, 2000; Evers et al., 2002).

Incorporated with COR theory, transactional theories of stress and coping refer to the contribution of appraisal and emotional control to behavior under stress (Lazarus & Folkman, 1984). When teachers perceive classroom demands to be beyond their coping levels, they may be emotionally exhausted, and such exhaustion limits their flexibility to respond to students in an instructional process. All these theoretical viewpoints can be combined to give a clear ground to the hypothesis of the negative correlations between burnout, especially emotional exhaustion and the observed pedagogical flexibility.

Conceptual Framework

Based on the aforementioned theoretical backgrounds, the conceptual framework of the study puts teacher burnout as the antecedent variable and pedagogical flexibility as the outcome variable. The operationalization of burnout takes place in the three dimensions of MBI namely: emotional exhaustion, depersonalization, and lessened personal accomplishment. Pedagogical flexibility is theorized as a manifested instructional phenomenon which includes adaptive pedagogical tactics, attentiveness to student prompts, flexibility of representations, and immediate adjustment of pedagogical activities within classroom instructions.

The model presupposes the most significant effect of the element of emotional exhaustion on pedagogical flexibility, as it is a central factor in the depletion of resources. Depersonalization will also limit responsiveness by corrosively impacting teacher-student relational engagement and a lowered personal accomplishment may indirectly influence flexibility by decreasing teacher instructional confidence. The correlational character of the framework recognizes the complexity of the classroom processes and yet permits a systematic investigation of the connections between psychological states and the implemented pedagogy.

The conceptual framework fills a significant gap in the literature that high-impact journals have found, i.e. the necessity to connect teacher wellbeing and tangible classroom behaviours (OECD, 2019; Darling-Hammond et al., 2020). This integrative study will develop theoretical knowledge about instructional rigidity as a symptom of burnout and offer an empirically based foundation of interventions aimed at addressing the teacher and pedagogical wellbeing.

Research Objectives

The following were research objectives of the study;

1) To examine the extent of teacher burnout and observed pedagogical flexibility in classroom instruction.
2) To find out the relationship between teacher burnout (emotional exhaustion, depersonalization, and reduced personal accomplishment) and observed pedagogical flexibility in classroom instruction.
3) To assess the extent to which the dimensions of teacher burnout joinly predict observed pedagogical flexibility.

Research Methodology

The following methodology was used in this research;

Research Paradigm

The given research falls into the framework of the positivist paradigm of research according to which social phenomena are objectively measurable, quantifiable and can be analyzed based on systematic observation and statistical methods. The study is suitable to adopt this paradigm as it addresses the characteristics of research that are aimed at assessing quantifiable relationships among vividly defined variables, i.e., teacher burnout and the observed pedagogical flexibility. In line with the positivist assumptions, the study is focused on objectivity, empirical measurement, and replicability, and attempts to identify patterns of association by statistical analysis, but not subjective interpretation (Creswell & Creswell, 2017).

Research Design

A non-experimental correlational research was used which is quantitative. Such a design was chosen to investigate how strong and directional are the relationships between teacher burnout and perceived pedagogical flexibility without any manipulation of variables and causation. Moreover, the predictive contribution of burnout dimensions on the pedagogical flexibility was evaluated by multiple regression analysis. This type of design is commonly used in high-impact educational and psychological studies in the investigation of relationships between psychological constructs and instruction (Klusmann et al., 2008; Madigan & Kim, 2021).

Population

The sample of the study consisted of secondary school teachers that instructed core academic subjects at the public sector schools. These educators work in a teaching context where curricular needs, diversity in the classroom, and long-lasting interaction with other people are the defining features and are, therefore, specifically applicable to studying burnout and pedagogical flexibility. The sample size was made up of teachers who have different teaching experience, subjects taught, and professional experiences.

Sample and Sampling Technique

Simple random sampling was used to draw a sample of the target population which is the teachers in order to make them representative and minimize selection bias. The study included teachers who volunteered to be part of the study and teachers taking part in classroom teaching within the data collection period. The sample size was selected so as to fulfill minimum statistical conditions of correlational and regression analysis, which would result in sufficient power to establish significant relationship between variables (Tabachnick & Fidell, 2019).

Research Instruments

The current study used the following research instruments;

Maslach Burnout Inventory

The Maslach Burnout Inventory Educators Survey (MBI-ES) was used to measure teacher burnout and it is a highly-validated instrument, specifically constructed to apply to an educational context (Maslach & Jackson, 1981; Maslach et al., 2001). The scale has three subscales namely: emotional exhaustion, depersonalization and diminished personal accomplishment. The answers are measured on a Likert-type scale according to the frequency of an experience related to burnout.

Pedagogical flexibility Classroom Observational Protocol

Pedagogical flexibility was evaluated on the basis of a structured classroom observation rubric derived on the basis of the existing frameworks of adaptive teaching and contingent instruction (Corno, 2008; Parsons et al., 2018; Van de Pol et al., 2010). The rubric reflected evident clues to instructional adaptation, representational flexibility, pacing adaptation, responsive questioning and responsiveness to student cues. The rating of each indicator was done on a five-point scale which indicated the level of flexibility observed at the time of instruction.

Validity of Instruments

The theoretical grounding and empirical application of the MBI provide adequate content validity (Maslach et al., 2001). In the case of the observation rubric, indicators were validated according to internationally accepted models of adaptive teaching, and the rubric was reviewed by professional educators and educational researchers, which is a way to guarantee content validity. Construct validity was taken care of through the presence of conceptual consistency between theoretical definitions, literature-based measures and empirical measurement of both burnout and pedagogical flexibility.

Reliability Procedure

The MBI is highly internally consistent, and the coefficients of Cronbach alpha it reports are also generally above.70 among its subscales (Schaufeli et al., 2009). In the current research, internal consistency reliability was once again determined on the sample before analysis. In the case of observation rubric, internal consistency reliability of the classroom observation tool was tested with Cronbach alpha to establish the consistency of indicators of pedagogical flexibility with acceptable levels or values of.70 or more that are in tandem with methodological requirements of observational research. The following table represented reliability of research instruments;

Table 1

Relaibility of Research Instruments

S. No.	Research Tools	Dimensions	No. of Items	Reliability Coefficient
1	Maslach Burnout Inventory (MBI)	Emotional Exhaustion	7	.899
		Depersonlization	7	.930
		Reduced Personal Accomplishment	8	.946
2	Classroom Observational Protocol	Instructional Strategy Adoption	3	.744
		Representational Flexibility	3	.836
		Pacing and Sequencing Adjustment	3	.856
		Responsive Questionining and Feedback	3	.729
		Responsiveness to Students Cues	3	.881

Data Collection Procedure

Data collection was conducted in two phases. First, participating teachers completed the MBI under standardized conditions. Second, classroom observations were conducted during regular instructional periods. Each teacher was observed during full lesson sessions to capture authentic instructional practices. Observations were non-participant and unobtrusive, minimizing disruption to classroom routines. Data from questionnaires and observation protocols were coded and securely stored for analysis.

Data Analysis

Data were analyzed using statistical software. Descriptive statistics were computed to summarize burnout levels and pedagogical flexibility scores. Pearson product–moment correlation analysis was used to examine bivariate relationships between burnout dimensions and observed pedagogical flexibility. Multiple regression analysis was then conducted to assess the extent to which emotional exhaustion, depersonalization, and reduced personal accomplishment jointly and individually predicted pedagogical flexibility. Assumptions of normality, linearity, multicollinearity, and homoscedasticity were examined prior to regression analysis in accordance with established statistical guidelines (Tabachnick & Fidell, 2019).

Ethical Consideration

Ethical approval was obtained from the relevant institutional authority prior to data collection. Participation was voluntary, and informed consent was secured from all participants. Teachers were assured of anonymity and confidentiality, and no identifying information was included in the dataset. Participants were informed of their right to withdraw from the study at any stage without penalty. All data were used solely for research purposes and handled in accordance with ethical standards for educational research.

Interpretation of Findings

Table 2

Demographic Profile of Teachers (N = 300)

Variable	Category	f	%
Gender	Male	176	58.7
	Female	124	41.3
Academic Qualification	Bachelor's	92	30.7
	Master's	168	56.0
	M.Phil/ MS	40	13.3
Professional Qualification	B.Ed.	118	39.3
	M.Ed.	142	47.3
	Other	40	13.4
Teaching Experience	1-5 Years	66	22.0
	6-10 Years	94	31.3
	11-15 Years	78	26.0
	Above 15 Years	62	20.7

The demographic information shows that the sample included an equal representation of teachers in District Haripur, in secondary school. There was a slight majority of male teachers (176) and a significant percentage of female teachers (124) which mirrors the gender balance that is very characteristic of schools in the public sector. Most teachers were academically qualified, with a majority of 168 having a masters degree, 92 bachelors, and 40 MPhil or MS degree, which indicates that the teaching workforce was generally well-qualified academically. B.Ed

(118) and M.Ed (142) were the most common qualifications of professional qualifications, which showed training in formal pedagogical qualifications among most of the participants. Even distribution of teaching experience was observed (66, 94, 78, and 62 respectively) in 1-5 years, 6-10 years, 11-15 years, and over 15 years, respectively, permitting a substantial study of burnout and pedagogical flexibility at different levels of professional exposure.

Table 3

Descriptive Statistics Regarding Burnout and Observed Pedagogical Flexibility of Teachers (N = 300)

Variable	Min	Max	Mean	SD	SE Mean
Emotional Exhaustion	1.00	5.92	4.21	.74	.041
Depersonlization	1.00	4.31	2.08	.69	.056
Reduced Personal Accomplishment	1.00	5.68	3.96	.71	.068
Instructional Adaptation	1.00	4.32	3.41	.46	.011
Representational Flexibility	1.00	4.28	3.38	.44	.034
Pacing and Sequencing Adjustment	1.00	4.19	3.32	.43	.023
Responsive Questionining and Feedback	1.00	4.11	3.26	.48	.033
Responsiveness to Students Cues	1.00	4.05	3.19	.50	.031

Table 3 indicates that teachers indicated moderate to high level of emotional exhaustion (M = 4.21, SD = 0.74), with an observed level of emotional exhaustion ranging between 1.00 and 5.92. Conversely, depersonalization showed a relatively low mean (M = 2.08, SD = 0.69), which indicated that the emotional distancing among students and colleagues was less common in the sample. A moderate mean score (M = 3.96, SD = 0.71) recorded in reduced personal accomplishment showed that there was variability in perceived professional efficacy among teachers.

In regards to classroom teaching, every measure of identified pedagogical flexibility showed comparatively limited ranges and relatively low variability. The mean of instructional adaptation was found to be 3.41 (SD = 0.46), whereas representational flexibility (M = 3.38, SD = 0.44) and pacing adjustment (M = 3.32, SD = 0.43) had similar frequencies. The means of responsive questioning (M = 3.26, SD = 0.48) and responsiveness to student cues (M = 3.19, SD = 0.50) were slightly lower, which is indicative of higher demandingness of such instructional behaviors. All these values suggest that there is limited yet significant variability in the observed pedagogical flexibility.

Table 4

Correlation Matrix between Burnout Dimensions and Observed Pedagogical Flexibility of Secondary School Teachers (N = 300)

Variable	EE	DP	RPV	IA	RF	PAC	RQ	RSC
EE	1							
DP	.46***	1						
RPV	-.39***	-.35***	1					
IA	-.38***	-.29***	.33***	1				
RF	-.34***	-.31***	.29***	.62***	1			
PAC	-.36***	-.27***	.26***	.58***	.60***	1		
RQ	-.41***	-.52***	.24***	.55***	.57***	.53***	1	
RSC	-.43***	-.55***	.21***	.52***	.54***	.50***	.68***	1

Note: Emotional Exhaustion (EE), Depersonlization (DP), Reduced Personal Accomplishment (RPA), Instructional Adaptation (IA), Representational Flexibility (RF), Pacing and Sequencing Adjustment (PSA), Responsive Questionining (RQ), Responsiveness to Students Cues (RSC)

Significance levels: $p < .05^{*}$, $p < .001^{***}$

In Table 3, the Pearson correlation table showed statistically significant relations between the dimensions of burnout and pedagogical flexibility indicators. Instructional adaptation (r = -.38, p <.001), representational flexibility (r = -.34, p <.001), pacing adjustment (r = -.36, p <.001), responsive questioning (r = -.41, p <.001), and responsiveness to student cues (r = -.43, p <.001) showed a moderate negative relationship with emotional exhaustion. These results suggest that the increased exhaustion was always related to low adaptability in instruction.

Depersonalization displayed some of the most eminent negative correlations with responsive instructional behaviours, such as responsive questioning (r = -.52, p <.001) and responsiveness to student cues (r = -.55, p <.001), and its relationships with other indicators of flexibility were moderate. By contrast, instructional adaptation (r = .33, p <.001), representational flexibility (r =.29, p <.001), and pacing adjustment (r =.26, p < .001) had positive correlations with reduced personal accomplishment (inverse coded), indicating that the higher the perceived efficacy, the higher the instructional flexibility.

Table 5

Regression Assumptions Table

Assumptions	Test/ Indicator	Value	Decision
Normality of Residual	Histogram & P-P Plot	Approximately normal	Assumption met
	Skweness	-.042	Acceptable
	Kurtosis	.061	Acceptable
Linearity	Scattered Plot of Standardised Residual	Linear pattern observed	Assumption met
Homoscedacity	Residual VS. Predicted Values Plot	Random dispersion	Assumption met
Independence of Error	Durbin-Watson	1.94	Assumption met
Multicollinearity	Tolerance (EE)	.61	Acceptable
	Tolerance (DP)	.64	Acceptable
	Tolerance (RPA)	.69	Acceptable
	VIF (EE)	1.64	Acceptable
	VIF (DP)	1.56	Acceptable
	VIF (RPA)	1.45	Acceptable

All the assumptions that are necessary in multiple regression analysis were met as shown in Table 5. Normality was estimated using the values of skewness; these were -0.42 to -0.29 and kurtosis: 0.36- 0.69. Scatter plots were visually inspected to ensure the existence of linear relations and homoscedasticity since the residuals were distributed randomly across the predicted value. The Durbin-Watson value of 1.94 was a sign of an independent error. Multicollinearity diagnostics also indicated that the model was stable and the tolerance values were between 0.61 and 0.69 with the values of variance inflation factor between 1.45 and 1.64 all of which are in acceptable range.

Table 6

Multiple Regression Analysis Predicting Composite Pedagogical Flexibility (N = 300)

Predictor	B	SE B	β	t	p
Constant	4.15	0.17	-	24.41	.000
EE	-0.43	0.06	-.46	-7.17	.000
DP	-0.31	0.07	-.33	-4.43	.000
RPA	0.11	0.05	.13	2.21	.028

Note: Emotional Exhaustion (EE), Depersonlization (DP), Reduced Personal Accomplishment (RPA)
Model Summary: R^2 = .39, Adjusted R^2 = .38, F (3, 396) = 62.84, p < .001
Dependent Variable: Pedagogical Flexibility

The multiple regression model predicts composite pedagogical flexibility was significant, $F(3, 296) = 62.84$, $p < .05$, and it explained 39% of the variance in dependent variable ($R^2 = .39$; adjusted $R^2 = .38$). Table 4 shows that emotional exhaustion was the most effective predictor ($\beta = -.46$, $B = -0.43$, $SE = 0.06$, $p < .05$), indicating that higher levels of exhaustion corresponded to significant decreases in instructional flexibility.

The negative impact of depersonalization on pedagogical flexibility was also significant ($\beta = -.33$, $B = -0.31$, $SE = 0.07$, $p < .05$), but its contribution was smaller in magnitude than that of emotional exhaustion. A weak but statistically significant positive effect ($\beta = .13$, $B = 0.11$, $SE = 0.05$, $p < .05$) was shown under reduced personal accomplishment (inverse coded), which demonstrated a weak but significant relationship between perceived professional efficacy and instructional adaptability.

In summary, the results of the regression indicate differentiated impact of burnout dimensions on pedagogical flexibility, and the emotional exhaustion is the key primary factor of adaptive classroom instruction.

Discussion

The current research investigated the connection between teacher burnout and perceived pedagogical flexibility with a specific focus on how specific burnout dimensions are linked to adaptive classroom actions. In general, the results show convergent evidence of the systematic association of burnout, in particular the emotional exhaustion, with a decreased instructional flexibility along with a differentiated role of depersonalization on classroom behavior and personal accomplishment.

Pedagogical Flexibility and Burnout Levels: Descriptive Understandings

The descriptive analyses showed that teachers in District Haripur reported moderate to high degrees of emotional exhaustion, which is also consistent with the international research that reports teaching as an emotionally taxing profession (Maslach et al., 2001; Skaalvik & Skaalvik, 2017). Depersonalization, on the contrary, was not always as high, indicating that teachers experienced fatigue, but many of them did not lose contact with their students. This difference matters, because emotional exhaustion usually comes first in the burnout processes (Maslach & Leiter, 2016).

The indicators of pedagogical flexibility that were observed had limited but significant variability. These limited ranges are typical of research in classroom observation, where the norms of institutions and the constraints of the curriculum restrict the range of variation in the way behavior is practiced to an extremum (Bell et al., 2019). However, the dispersion observed was adequate to find systematic association with burnout dimensions, which highlights the sensitivity of the observation protocol.

Correlation between Burnout and Instructional Adaptability

Correlation tests showed that there existed a steady trend of negative relationships between emotional exhaustion and every measure of pedagogical flexibility. These results are consistent with conservation of resources theory, that is, depleted emotional resources decrease the ability of individuals to engage in adaptive and effortful behavior (Hobfoll et al., 2023). In the classroom setting, this depletion seems to be reflected in the form of a lack of instructional adaptation, a decrease in the flexibility of pacing, and an insensitivity to student needs.

The pattern of depersonalization was more differentiated. Although it had moderate correlations with the structural attributes of flexibility, it had strong negative correlations with responsive questioning and responsiveness to student cues. This implies that emotional distancing is majorly detrimental to relational and interactive aspects of instruction, as opposed to procedural changes in instruction. The same trends were documented in the previous research that has associated depersonalization and poor quality teacher-student interaction (Chang, 2009; Doyle et al., 2022).

Conversely, less personal accomplishment (inverse coded) was positively related to pedagogical flexibility, in this case especially instructional adaptation. This implies that educators who still manage to experience professional efficacy, despite the challenging circumstances, have more chances to use adaptive methods of instruction. The outcome confirms the presence of self-efficacy-linked theories of teacher action, which place the importance of perceived competence as a major force behind instructional innovation (Toraman et al., 2020; Tschannen-Moran & Hoy, 2007).

Strength of Regression Results and Assumption Tests

Regression assumptions were scrutinized prior to making interpretations of the predictive relationships. Diagnostic tests indicated that the results were normally distributed, linear, homoscedastic, errors were independent and there was no multicollinearity. The fact that these assumptions are met confirms the stability and interpretability of the regression coefficients and is consistent with high-impact quantitative research that is expected of a research methodology (Tabachnick & Fidell, 2019).

Burnout Dimensions Differential Predictive Effects

The multiple regression analysis also explained the contribution to pedagogical flexibility made by the various dimensions of burnout when compared with each other. The model showed that there was a significant relationship between the psychological states of teachers and the instructional behavior. The strongest negative predictor came out as emotional exhaustion, which supports the opinion that persistent fatigue is the major limitation of adaptive teaching. The result builds on earlier studies that employed self-reports to prove exhaustion but showed that it is a behavioral phenomenon in classroom teaching.

The effect of depersonalization was moderate and negative, indicating that the independence of emotional disengagement is a limiting factor to flexibility, especially in the processes of teaching and learning that are interaction-based. Interestingly, the effect of the personal accomplishment was weakly positive, which means that despite the positive impact of professional efficacy on adaptability, professional efficacy does not entirely offset the negative influence of exhaustion and depersonalization. This imbalance brings out the cumulative aspect of burnout where the loss of resources surpasses motivational resources in the case of excessive exhaustion.

Theoretical and Practical Implications

Taken together, the results allow adopting a rigidity-of-exhaustion approach, according to which emotional depletion provides a narrowing effect on instructional repertoires and a decrease in responsiveness to classroom interactions. The distinction of burnout dimension effects indicates that intervention needs to focus on workload management to reduce emotional exhaustion and institutional support to lessen the burnout dimension, instead of emphasizing motivational boosting. More so, the close connections between depersonalization and responsive instructional behaviors highlight the necessity of relational and emotional supports systems that maintain teacher-student interaction.

Conclusions

This paper aimed to analyze the association between teacher burnout and pedagogical flexibility as perceived in classroom teaching, especially the dimensions of burnout that are evident in apparent instructions. Based on the correlational and regression analyses performed on the data about 300 teachers in secondary schools in District Haripur, one can make a number of strong and theoretically valuable conclusions.

First, the results demonstrate that emotional exhaustion is the most salient aspect of teacher burnout among the sampled population. Descriptive statistics represented moderate and high levels of mean of emotional

exhaustion as compared to depersonalization and low levels of personal accomplishment. This trend supports the development of emotional exhaustion as the central and the first marker of burnout in pedagogical careers, particularly, in the educational settings, which are characterized by the lack of resources and high demand situations. Along with depersonalization, it was lower relative to other groups, which suggests that a significant number of teachers still tend to preserve the relationship between the professions even being emotionally exhausted.

Second, the research confirms that pedagogical flexibility as observed is rather limited, and not much variation exists between classrooms. The low flexibility indicators range indicates that instruction is still standardized and practice-driven, which may represent institutional pressures related to inflexible curricula, teaching that focuses on examinations, and low institutional autonomy. This observation suggests that flexibility scores should be interpreted with caution because low dispersion can obscure significant but invisible alterations in adaptive teaching behaviors.

Third, correlation analyses provided a stable negative relationship between emotional exhaustion and every dimension of pedagogical flexibility. When teachers reported an increased level of emotional exhaustion, they were much less likely to show responsiveness, instructional adaptation, and learner-centered adjustments in classroom instruction. The result is solid empirical evidence on the assumption of rigidity of exhaustion, according to which the characteristics of exhausted emotional resources limit the ability of teachers to respond flexibly to classroom processes.

Fourth, the depersonalization revealed the negative correlation with responsive instructional behaviors in particular. This indicates that when the teacher gets to be detached or impersonal towards students, the nearest effect of instructional impact is the decrease in responsiveness to student requirements, inquiries, and remarks. This aspect seems to be especially harmful to relational and interactional elements of pedagogy.

Fifth, personal accomplishment was associated with instructional adaptation negatively, that is, having a negative inversely coded relationship which means that teachers who hold themselves as the ones who are effective and competent are more committed to altering the instruction in a creative and strategic way. This correlation was lower than that of emotional exhaustion, but it does indicate the strengthening motivation of adaptive teaching practices by professional self-efficacy.

Lastly, the results of the multiple regression analysis have confirmed that emotional exhaustion is the most negative predictor of composite pedagogical flexibility, even under the conditions of controlling other dimensions of burnout. There were a moderate negative impact of depersonalization and a moderate weak predictive impact of reduced personal accomplishment. The model was robust as the regression diagnostics and assumption tests revealed that they had linear relationships, acceptable normality of residual values, no multicollinearity, and homoscedastic variance of errors.

Finally, the research offers strong arguments to support that teacher burnout, especially emotional exhaustion is not just an internal psychological condition but a phenomenon that has some pedagogical outcomes. Burnout is evident through instruction rigidity, which prevents the characteristics of adaptation, response and innovation of teachers in classroom practice. These results indicate the acute necessity of institutional policies and professional development programs that focus on teacher well-being as the condition of pedagogical flexibility and quality of instructions.

Recommendations

Concluding on the study results, the following recommendations are offered to improve the well-being of teachers and provide the pedagogical flexibility in classroom teaching:

1. Workload rationalization may be a priority area of educational authorities that may look into the teaching hours, administration duties, classroom sizes. The alleviation of surplus non-instructional demands can directly help to counter emotional exhaustion that became the strongest negative predictor of pedagogical flexibility.
2. Well-organized training activities, including mindfulness training, stress management workshops, and peer-support groups, may be implemented into in-service teacher development programmes. This kind of efforts can assist teachers to initiate coping habits that can maintain emotional resources to support adaptive teaching.
3. Adaptive instructional methods such as differentiated instruction, formative assessment-based teaching and responsive classroom management may be the explicit focus of the teacher training programs. The focus may be laid on practical methods that are applicable even in limited curricular systems.
4. There was negative relationship found between depersonalization and responsive instructional behaviors thus; schools may promote relational pedagogies as a way of reflecting on mentoring systems, collaborative teaching, and reflective practice. The development of professional empathy can help to reduce depersonalization and increase responsiveness.
5. Opportunities may be enhanced through recognition systems, positive feedback systems, and career development opportunities. The perception of competence and effectiveness among teachers could be supported indirectly, which could lead to the instructional adaptation and innovation.
6. School evaluation and quality assurance systems may also include teacher well-being indicators, such as dimensions of burnout. This integration would move the accountability systems towards more sustainable and human-oriented models of the educational effectiveness.

Future Directions

Despite its contributions, the study has several limitations that suggest directions for future research:

1. The research was only carried out in the District Haripur and this can make it less generalizable. The research may be repeated in different regions, school systems, and educational levels in future researchers to increase external validity.
2. Observations of classrooms can be observer biased or reactive. Future research may use observational data as a triangulation with data provided by teachers, student feedback, and video analysis to enhance construct validity.
3. The current research aimed at direct correlations between burnout and pedagogical flexibility only. The mediating variables may be investigated in future studies including teacher self-efficacy, organizational support, and school leadership, and the moderating factors such as teaching experience and specialization in the subject area may provide wider picture.
4. Based on the found associations, it is important to state that the further research may go beyond the correlational analysis and undertake the intervention model testing to alleviate burnout and improve pedagogical flexibility. Policy and practice would have more powerful evidence using experimental and quasi-experimental designs.

References

Akhtar, H., Saeed, M., & Ayub, S. (2019). Peer tutoring: An effective technique to enhance students' English writing skills. *Global Social Sciences Review, IV,* 299-305. https://doi.org/10.31703/gssr.2019(IV-III).39

Bell, C. A., Dobbelaer, M. J., Klette, K., & Visscher, A. (2019). Qualities of classroom observation systems. *School Effectiveness and School Improvement : An International Journal of Research, Policy and Practice*, *30*(1), 3–29. https://doi.org/10.1080/09243453.2018.1539014

Benson, J. R. (2022). *Assessing relationships among autonomy, supportive leadership, and burnout in public elementary teachers* [Unpublished doctoral dissertation]. Walden University, United States.

Chang, M.-L. (2009). An appraisal perspective of teacher burnout: Examining the emotional work of teachers. *Educational Psychology Review*, *21*(3), 193–218. https://doi.org/10.1007/s10648-009-9106-y

Collie, R. J., Shapka, J. D., & Perry, N. E. (2012). School climate and social–emotional learning: Predicting teacher stress, job satisfaction, and teaching efficacy. *Journal of Educational Psychology*, *104*(4), 1189–1204. https://doi.org/10.1037/a0029356

Corno, L. (2008). On teaching adaptively. *Educational Psychologist*, *43*(3), 161–173. https://doi.org/10.1080/00461520802178466

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, *24*(2), 97–140. https://doi.org/10.1080/10888691.2018.1537791

Doyle, N. B., Downer, J. T., Brown, J. L., & Lowenstein, A. E. (2022). Understanding high quality teacher-student interactions in high needs elementary schools: An exploration of teacher, student, and relational contributors. *School Mental Health*, *14*(4), 997–1010. https://doi.org/10.1007/s12310-022-09519-0

Evers, W. J. G., Brouwers, A., & Tomic, W. (2002). Burnout and self-efficacy: a study on teachers' beliefs when implementing an innovative educational system in the Netherlands. *The British Journal of Educational Psychology*, *72*(Pt 2), 227–243. https://doi.org/10.1348/000709902158865

Friedman, I. A. (2000). Burnout in teachers: shattered dreams of impeccable professional performance. *Journal of Clinical Psychology*, *56*(5), 595–606. https://doi.org/10.1002/(sici)1097-4679(200005)56:5<595::aid-jclp2>3.0.co;2-q

Gleason, L. G. (2025). *Self-Efficacy as a predictor of emotional exhaustion, depersonalization, and personal accomplishment among special education paraeducators* [Unpublished doctoral dissertation]. Grand Canyon University, Arizona, United States.

Hargreaves, A. (2000). Mixed emotions: teachers' perceptions of their interactions with students. *Teaching and Teacher Education*, *16*(8), 811–826. https://doi.org/10.1016/s0742-051x(00)00028-7

Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Psychologie Appliquee [Applied Psychology]*, *50*(3), 337–421. https://doi.org/10.1111/1464-0597.00062

Hobfoll, S. E., Neveu, J. P., & Westman, M. (2023). Conservation of resources theory. *An introduction to contemporary work psychology*, 215-232.

Hussain, T., & Jamil, I. (2024). Investigating the relationship between pre-service teachers' cognitive flexibility and techno-pedagogical competencies: A pathway to effective teaching in the digital age. *Annals of Human and Social Sciences, 5*(4), 220-229. https://doi.org/10.35484/ahss.2024(5-IV)23

Ingersoll, R. M., & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers. *Review of Educational Research*, *81*(2), 201-233. https://doi.org/10.3102/0034654311403323

Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research*, *79*(1), 491-525. https://doi.org/10.3102/0034654308325693

Jennings, P. A., Frank, J. L., Snowberg, K. E., Coccia, M. A., & Greenberg, M. T. (2013). Improving classroom learning environments by cultivating awareness and resilience in education (CARE): Results of a randomized controlled trial. *School Psychology Quarterly*, *28*(4), 374-390. https://doi.org/10.1037/spq0000035

Klusmann, U., Kunter, M., Trautwein, U., Lüdtke, O., & Baumert, J. (2008). Teachers' occupational well-being and quality of instruction: The important role of self-regulatory patterns. *Journal of Educational Psychology*, *100*(3), 702-715. https://doi.org/10.1037/0022-0663.100.3.702

Kyriacou, C. (2023). Teacher stress: Directions for future research. *Mapping the Field*, 41-49. https://doi.org/10.4324/9781003403722-4

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.

Madigan, D. J., & Kim, L. E. (2021). Does teacher burnout affect students? A systematic review of its association with academic achievement and student-reported outcomes. *International Journal of Educational Research*, *105*, 101714. https://doi.org/10.1016/j.ijer.2020.101714

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, *2*(2), 99-113. https://doi.org/10.1002/job.4030020205

Maslach, C., & Leiter, M. P. (2016). Understanding the burnout experience: Recent research and its implications for psychiatry. *World Psychiatry*, *15*(2), 103-111. https://doi.org/10.1002/wps.20311

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, *52*(1), 397–422. https://doi.org/10.1146/annurev.psych.52.1.397

Monteiro, A. R. (2014). Teaching as a Profession. In *The Teaching Profession: present and future* (pp. 61-100). Cham: Springer International Publishing.

Neckel, S., Schaffner, A. K., & Wagner, G. (Eds.). (2017). *Burnout, fatigue, exhaustion: An interdisciplinary perspective on a modern affliction*. Springer.

OECD (2019, April 11). *A flying start: Improving initial teacher preparation systems*. OECD Publishing, Paris. https://doi.org/10.1787/cf74e549-en

Parsons, S. A., Vaughn, M., Scales, R. Q., Gallagher, M. A., Parsons, A. W., Davis, S. G., Pierczynski, M., & Allen, M. (2018). Teachers' instructional adaptations: A research synthesis. *Review of Educational Research*, *88*(2), 205–242. https://doi.org/10.3102/0034654317743198

Schaufeli, W. B., Leiter, M. P., & Maslach, C. (2009). Burnout: 35 years of research and practice. *Career Development International*, *14*(3), 204–220. https://doi.org/10.1108/13620430910966406

Shen, B., McCaughtry, N., Martin, J., Garn, A., Kulik, N., & Fahlman, M. (2015). The relationship between teacher burnout and student motivation. *The British Journal of Educational Psychology*, *85*(4), 519–532. https://doi.org/10.1111/bjep.12089

Shulman, L. (1987). Knowledge and Teaching:Foundations of the new reform. *Harvard Educational Review*, *57*(1), 1-23. https://doi.org/10.17763/haer.57.1.j463w79r56455411

Skaalvik, E. M., & Skaalvik, S. (2017). Dimensions of teacher burnout: Relations with potential stressors at school. *Social Psychology of Education*, *20*(4), 775-790. https://doi.org/10.1007/s11218-017-9391-0

Skaalvik, E. M., & Skaalvik, S. (2018). Job demands and job resources as predictors of teacher motivation and well-being. *Social Psychology of Education*, *21*(5), 1251-1275. https://doi.org/10.1007/s11218-018-9464-8

Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson.

Tomlinson, C., Brimijoin, K., & Narvaez, L. (2008). *The differentiated school: Making revolutionary changes in teaching and learning*. ASCD.

Toraman, Ç., Özdemir, H. F., Kosan, A. M. A., & Orakci, S. (2020). Relationships between cognitive flexibility, perceived quality of faculty life, learning approaches, and academic achievement. *International Journal of Instruction, 13*(1), 85-100. https://doi.org/10.29333/iji.2020.1316a

Tschannen-Moran, M., & Hoy, A. W. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and Teacher Education*, *23*(6), 944–956. https://doi.org/10.1016/j.tate.2006.05.003

van de Pol, J., Volman, M., & Beishuizen, J. (2010). Scaffolding in teacher–student interaction: A decade of research. *Educational Psychology Review*, *22*(3), 271–296. https://doi.org/10.1007/s10648-010-9127-6