The predictive effect of principals' adaptive leadership behaviour on teachers' workplace engagement in public secondary schools of Amhara, as perceived by teachers

Abebaw Ayana Alene
Department of Educational Planning and Management, College of Education, School of Educational Sciences, Bahir Dar University, Ethiopia

Misganaw Alene Tsegaye (Ph.D.)
Associate Professor, Department of Educational Planning and Management, College of Education and Behavioural Sciences, University of Gondar, Gondar, Ethiopia

Getu Shiferaw Wolle (Ph.D.)
Associate Professor, Department of Educational Planning and Management, College of Education, School of Educational Sciences, Bahir Dar University, Ethiopia

Abstract

The study examined the effect of principals' adaptive leadership behavior on teachers' work engagement in public secondary schools in the Amhara regional state. A correlational design with a quantitative approach was employed. Using multistage and proportionate stratified random sampling, data were collected from 967 teachers via questionnaire. The data were analyzed using Pearson product-moment correlation (r), multiple linear regression, and one-way ANOVA. A positive and statistically significant correlation was found between principals' adaptive leadership behavior and teachers' work engagement (r =.682, p <.001). Moreover, 46.1% of teachers' workplace engagement variation is explained by the combined effect of adaptive leadership behaviors. Significant differences were found in teachers' perceptions of adaptive leadership behaviors across zones (F (5,854) = 6.407, p < 0.01), but no significant differences were observed in their perceptions of workplace engagement (F (5,854) = 1.289, p =.267). In conclusion, principals' adaptive leadership behaviors significantly predict and enhance teachers' workplace engagement, highlighting its practical importance.

ARTICLE HISTORY
Received: 28 March, 2024
Accepted: 12 December, 2024

KEYWORDS
Adaptive leadership, teacher engagement, secondary school

Introduction

Work engagement is the state wherein an individual demonstrates resilience and energy, entirely focusing and joyfully immersing oneself in the work, feeling a sense of importance and having enthusiasm, and being actively involved (Hakanen & Schaufeli, 2012; Yi-wen & Yi-qun, 2017). This concept encompasses vigor, dedication, and absorption (Bakker & Demerouti, 2008), denoting the condition where workers feel engaged, enthusiastic, and optimistic about their tasks. Besides, Schaufeli (2017) acknowledges its rise

CONTACT Abebaw Ayana Alene abebawayana4@gmail.com

DOI: https://dx.doi.org/10.4314/bdje.v25i1.3

in the 1990s, through the efforts of the Gallup organization. Work engagement signifies the psychological state of personal involvement in one's work and is vital for job satisfaction and productivity (Kular et al., 2008).

Teachers' work engagement (TWE) is a positive psychology that manifests in an individual's emotional, cognitive, and physical involvement in their work (Tao et al., 2022). It affects students' achievement (Klassen, 2012) and is significant for describing teacher duties. Above all, engaged teachers are motivated, self-assured, and exhibit creativity and productivity (Bakker & Demerouti, 2008). Students who know their TWE exhibit academic motivation and performance (Arens & Morin, 2016). Therefore, TWE encourages students to participate in their learning.

There are various ways to measure work engagement. According to Kahn (1990), it can be evaluated physically, cognitively, or emotionally. Similarly, TWE falls into behavioral, cognitive, and affective categories (Klassen, 2012). Due to its multidimensional nature, scholars like Hellbusch (2022) stated that several tools are available to measure it. However, only a few of these tools are research-based. Klassen et al. (2013), for example, identified four domains of TWE: social engagement with students (SES), social engagement with colleagues (SEC), cognitive engagement (CE), and emotional engagement (EE). These scholars found out that these dimensions are key indicators of TWE and confirmed that they are crucial for the effective teaching-learning process. Thus, this study used the dimensions proposed by Klassen and associates. Besides, due to its emphasis on students' self-initiation for learning, this study added students' agentic engagement proposed by Reeve and Tseng (2011).

Moreover, these four elements of teachers' professional engagement are implied in many literary works and are crucial to the teaching-learning process' efficacy in a variety of ways. For example, CE, involving teachers' focused attention and absorption in work, is viewed as an active learning process (Elsayary et al., 2022), emphasizes cognitive resources devoted to tasks (Wang et al., 2022), and is linked to intellectual engagement (Hellbusch, 2022). Likewise, emotional engagement comprises enthusiasm, satisfaction, and constructive attention, which are crucial for teaching commitment (Mwesiga & Okendo, 2018), and linked to academic outcomes through fostering positive teacher-student relationships (Ji, 2021). Social engagement with students, emphasizing positive peer collaboration and nurturing the social well-being of students (Freeman & Fields, 2020), reflects organizational values, and correlates with effective collaboration (Wang et al., 2022). Similarly, SEC signifies interactions with teachers, leading to professional learning and improved teaching practices (Klassen et al., 2013). Student agentic engagement on the other hand focuses on students' proactive involvement in learning and predicting academic achievement, and it relies on mutual interaction to create supportive learning settings (Reeve & Tseng, 2011). Thus, the four dimensions put forth by Klassen et al. (2013) and the students' agentic engagement put out by Reeve & Tseng (2011) were used in this study. This is due to the necessity of emphasizing students' self-initiation for learning in addition to Klassen et al.'s focus on the social aspect of engagement.

While TWE has been shown to have a positive relationship with many outcomes, the question is what factors influence it. Perhaps, for Cai et al. (2022), supportive workplace resources like distributed leadership, trust, and self-efficacy are significant influencers of

teachers' work engagement. Nonetheless, leadership is the primary determinant (Ali et al., 2019; Ingersoll et al., 2017; Leithwood et al., 2019; Marshall, 2015; Zahed Babelan et al., 2019) which implies if leaders support, inspire, and coach, teachers will be highly engaged (Bakker et al., 2011).

Adaptive leadership involves mobilizing individuals to tackle intricate challenges, embodying traits like resilience-building and fostering adaptation (Hefitez et al., 2009; Northouse, 2019). Specifically, as of Northouse (2019), it is more follower-centered and focuses on how leaders help others do the work they need to do by adapting to their challenges. Therefore, AL is about how people adjust to new circumstances. Besides, Northouse (2019) claims that "adaptive leadership is a unique kind of leadership that focuses on the dynamics of mobilizing people to address change" (p. 395). Adaptive leadership is also viewed as a special model that is similar to a teacher helping students learn about and assume group responsibility (Nicolaides & McCallum, 2014).

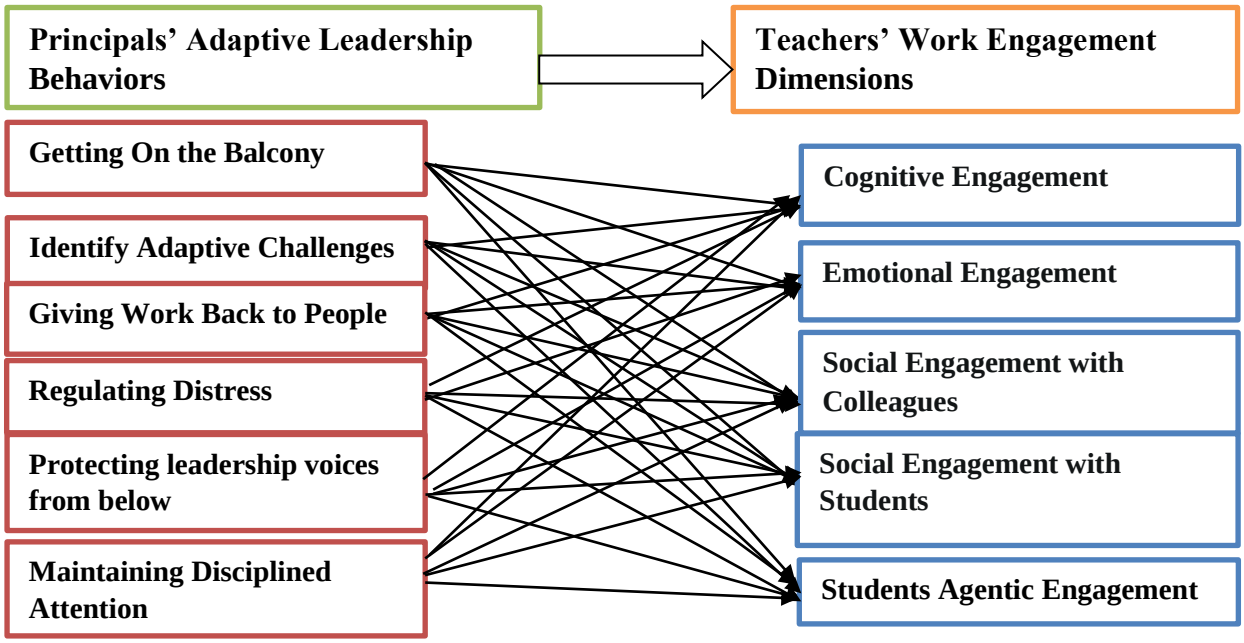
According to Northouse (2019), AL consists of six behaviors that were used for the present study due to the comprehensive nature of these behaviors: getting on the balcony (GOB), identifying adaptive challenges (IAC), regulating distress (RD), maintaining disciplined attention (MDA), giving the work back to the people (GWB), and protecting the leadership voices from below (PLV). Accordingly, GOB involves impartially observing complex situations to grasp broader contexts. IAC requires leaders to diagnose complex issues and mobilize others to address them while RD entails managing conflict and stress, creating an enabling environment (Wang, 2018). Likewise, MDA relates to ensuring teachers remain focused amid challenges and GWB is related to empowering individuals to make decisions and foster a culture of research. Finally, PLV involves listening to members and promoting social equilibrium (Sandra, 2021).

The study by Balagtas (2024) reported a positive relationship between AL and teachers' work motivation. Principals, who collaborate, solicit their input, include them in decision-making, encourage open communication, foster a positive school culture, and maintain supportive relationships with teachers are expected to increase TWE. Research also considers principals as catalysts in building positive TWE in areas with trust, leadership, school culture, and compassion **(**Hellbusch, 2022**).** Additionally, AL boosts employee motivation and becomes essential during tumultuous times when actions like empowering teachers are linked to delicate engagement (Muhammad & Ch, 2020). Adaptive leadership also connects with TWE in promoting trust and cooperation and impacts engagement (Cai et al., 2022). Besides, AL increases TWE by fostering social engagement (Alaina, 2017) and promoting quality instruction.

Research indicates that there is a need to examine the relationship between engagement and leadership. Similarly, it is stated that while research on engagement surged, its link with leadership needs further study (Carasco-Saul et al., 2014). Similarly, the specific contribution of AL behaviors to engagement needs further study, though a moderate link is observed (Sandra, 2021). Largely, even though scholars in the area stated research findings regarding the effect across AL and TWE, there is a shortage of research findings that initiate to conduct of research in secondary schools of Amhara regional state.

Figure 1

Conceptual Framework of the study



Adapted from Northouse (2019), Klassen et al (2013), and Reeve and Tseng (2011)

Problem Statement

Teachers' Work Engagement is crucial for students' academic success and quality education. Mwesiga and Okendo (2018) emphasize that improving school performance and achieving educational excellence require a strong commitment. Engaged teachers provide high-quality instruction, stay updated, track student progress, and adjust their methods to meet students' needs, fostering an inclusive learning environment. Equally, Menon et al. (2023) found that when teachers enjoy their work, students benefit academically, physically, and emotionally.

However, the Amhara Regional Education Bureau (AREB, 2022) report revealed that the failure of quality becomes apparent in the national exam results. In Amhara, only 4.2% attained the standard passing score of 50%. Despite any possible factors for low students' academic performance, it is noted that factors related to teachers are the pressing ones (Edomgenet, 2021). Similarly, teachers' absenteeism, missing class, and low motivation are problems noticed among teachers that affect their engagement. Besides, 25% of teachers in the region were not engaged in CPD (AREB, 2022). This report also shows that in Bahir Dar city administration (71%) and West Gojjam zone (66%) teachers were not engaged in CPD. MoE (2023) also noted that the low motivation of teachers for teaching and low engagement in professional development programs contribute to students' low achievement.

Teachers' work engagement is an international issue (Yerdelen et al., 2018), where an increasing number of teachers leave the profession, and many report low levels of engagement. Perhaps, Oehler and Adair (2019) reported that up to 85% of workers are not engaged at work. In the Netherlands, low TWE was observed (Schaufeli, 2017); in the United States, teachers quit the teaching profession (Billingsley & Bettini, 2019), and 69% of U.S. teachers are not fully engaged. Alternatively, Skaalvik and Skaalvik (2017) found a

strong link between low TWE and the intention to quit in their study of Norwegian teachers. Mwesiga and Okendo (2018) also identified low engagement in Tanzania, while Olurotimi et al. (2015) in Kenya found teachers disengaged. Recent studies also indicate high teacher lateness and attrition (Vermooten et al., 2020).

TWE is a concern in Ethiopian secondary schools and Amhara region too. For instance, only 29.5% of teachers in Bahir Dar city Administration engaged in action research (Mulualem et al., 2022). Teacher attitudes to the profession, subject knowledge, and preparedness (45%) are TWE-related challenges impacting education quality (Belay & Melaku, 2019) in Ethiopian Secondary Schools. The above study further indicates that 80.4% of teachers dislike their profession and take it as a transition. Gedefaw (2012) and Tadesse (2019) also indicated that teachers in secondary schools in Ethiopia are dissatisfied with their jobs. Besides, the study by Kindu et al. (2023) also found that teachers' negative attitudes toward their profession and low task devotion contribute to professional misconduct in Amhara public secondary schools. The same authors also assured that teachers' interest in their profession has become the lowest ever. Similarly, many teachers are engaged by meetings and paperwork exacerbating the situation in increasing rate of absenteeism, and tendency to be off-task behavior (MoE, 2018). Tamiru et al. (2021) also indicated that teachers' caring bond with students is low. A study by Demeke (2024) also endorsed that rigorous research on teacher motivation, teacher-student relationships, and student level variables need to be studied.

Research focusing on the effect of AL on TWE in secondary schools, addressing all six AL models with TWE domains is lacking. However, studies have been explored in HEIs by Kefale and Tilaye (2021), Bosch (2021), and Rodesch (2021), focused on AL and engagement separately. There are also findings by Alazmi and Al-Mahdy (as cited in Chen, 2022) on the relationship between principals' authentic leadership and TWE, by Balyer (2016) on transformational leadership and their effects on teacher commitment, by Carasco-Saul et al. (2014) on the influence of Ethical leadership practices on TWE. Studies focusing how principals view themselves as responsible for promoting TWE are understudied (Hellbusch, 2022). An analysis by Pujianto et al. (2023) of studies from 2007 to 2022 recorded in the scopus database reveals only 1.5% of research on AL has been conducted in education. Additionally, according to Osagie (2024), research on how AL affects teacher motivation, teamwork, and job satisfaction, which are crucial for TWE, is lacking. Little is known about the link between TWE and the classroom environments teachers create (Sokolov, 2017) directs further study.

Concerning the theoretical gap, Bakker et al. (2011) and Bakker et al. (2012), stated that while work engagement research is prevalent in business settings using vigor, dedication, and absorption dimensions, in education, it lacks context-relevant tools. Studies that measured TWE using the SAE dimension and dimensions by Klassen et al. (2013) are non-existent. Besides, the adoption of the AL model has been limited across organizations (Northouse, 2019). This hints at further examination of AL (Kingsley et al., 2022; Nelson & Squires, 2017), which is still in its early stages compared to traditional leadership theories (Orlich, 2019) though researched in the military and medical areas (Snyder, 2024) as well as in business organizations. Specifically, its link with leadership needs further investigation (Carasco-Saul et al., 2014).

Practically, unskilled and deterred teachers, unprepared learners, and principal leadership issues are prevalent in secondary schools in Amhara. TWE in their profession and the decline in education quality are daily concerns. Initial observations by the researchers suggest that many teachers exhibit low engagement with teaching. Principals' AL behavior matters, in this regard, and the need for conducting the issue is important. Therefore, to achieve the objective, the following research questions were considered.

1. Is there a significant relationship between principals' adaptive leadership and teachers' work engagement?
2. To what extent does principals' adaptive leadership predict teachers' work engagement?
3. To what extent does each adaptive leadership behavior predict each dimension of teachers' work engagement?
4. Are there statistically significant differences among teachers' perceptions of the practices of principals' adaptive leadership and teachers' work engagement across zones?

Methods

A correlational research design with a quantitative approach was used for this study as the basic questions are either relational or predictive-focused. This design is apt for a study focusing on relationships that measure the strength of variables (Creswell, 2014).

According to the AREB (2022) report, there are 13 zones and six city administrations, 167 woredas, 641 public secondary schools, and 45,325 teachers. Public secondary schools were chosen for TWE seems low, given the reports of poor performance in students' national examination results. Six zones, Awi Zone, West Gojjam, Bahir Dar City Administration, South Gondar, Central Gondor, and South Wello, were selected using a simple random sampling technique. Multistage stratified sampling was used to select respondents. Hence, 12 woredas (two per zone) and 24 schools (two per woreda) were selected using stratified random sampling.

The sample size was determined using the Cochran (1977) formula: $n = \frac{p(1-p)Z2}{e2}$ where, n = sample size, P = expected prevalence or proportion (P = 0.5), e = acceptable sampling error (e = 0.05), and Z = z value at reliability level (Z= 1.96). Then, running the formula, the sample size is 385 teachers. Here, if the population size is unknown the sample size will be 385 teachers, but since the population size is known, the reduced Cochran formula was employed with this total population using the finite population size correction formula $n = \frac{no}{1+(no-1)/N}$ where no is Cochran's sample size recommendation, N is the population size, and n is the new adjusted sample size. Then, running the formula, the sample size is 382. The design effect is calculated as N = 3× 382 = 1, 146. Due to political instability during the data gathering, the East Gojjam zone (179 sample teachers) was reduced and the sample size was 967 teachers. Individual teachers were selected using proportionate stratified random sampling.

Instrument

The questionnaire consisted of AL and TWE domains. A standardized ALQ developed by Northouse (2019) which consists of 28 items was used. The constructs were measured using a 5-point Likert scales ranging from strongly disagree to strongly agree. The second part consisted of TWE dimensions. The Engaged Teachers Scale (ETS) developed by Klassen et al. (2013) which consisted of a total of 16 items was employed. Besides, the teacher's role in students' agentic engagement was measured by a five single-item student agentic engagement scale developed by Reeve and Tseng (2011). Teachers' work engagement was assessed using a 5-point Likert scales ranging from strongly disagree to strongly agree, with authorized instrument use.

English language experts checked the language clarity and its feasibility, formatting issues, and readability were checked by four instructors from the department of the researchers. The questionnaire was also translated into Amharic. After changes, the instrument was re-translated into English to maintain its equivalence with the earlier one. The instrument's reliability was assessed using Cronbach's alpha and found to be .875 confirming that all dimensions were found acceptable.

Pearson Product movement correlation (r) was employed to examine the relationship between AL and TWE. Multiple linear regression analyses were used to explore the prediction of AL on TWE. To realize whether there is a significant difference among teachers in the practices of AL and TWE across zones, one-way ANOVA was utilized.

Permission to collect data from the sample schools was sought and a letter of permission was acquired from the Department of Educational Planning and Management. Participants were also told that the information would be kept private and utilized exclusively for academic purposes.

Results

Questionnaires were distributed to 967 teachers, with 77 not returned and 30 rejected for incomplete responses, resulting in a 92.3% response rate and 89% usability. Creswell (2014) and Gay et al. (2012) suggest a 50% response rate is sufficient for generalizing the population sampled.

As shown in Table 1, a positive and significant relationship between AL and TWE (r =.676) was observed. Except for GOB which has a positive moderate relationship with TWE and PLV which has a positive but weak relationship with TWE the other dimensions of AL have a positive relationship with TWE.

Table 1

Correlation Coefficient of Adaptive Leadership and Teachers' Engagement Dimensions

Dimension	GOB	IAC	RD	MDA	GWB	PLV	CE	EE	SEC	SES	SAE	ALB	TWE
GOB	1												
IAC	.479**	1											
RD	.391**	.661**	1										
MDA	.357**	.620**	.718**	1									
GWB	.344**	.566**	.657**	.687**	1								

Dimension	GOB	IAC	RD	MDA	GWB	PLV	CE	EE	SEC	SES	SAE	ALB	TWE
PLV	.284**	.355**	.383**	.454**	.455**	1							
CE	.325**	.465**	.469**	.465**	.426**	.283**	1						
EE	.252**	.442**	.450**	.442**	.455**	.298**	.575**	1					
SEC	.324**	.417**	.444**	.471**	.396**	.279**	.652**	.449**	1				
SES	.339**	.457**	.455**	.489**	.427**	.377**	.650**	.521**	.645**	1			
SAE	.377**	.466**	.485**	.478**	.434**	.293**	.451**	.477**	.397**	.508**	1		
ALB	.601**	.801**	.834**	.844**	.820**	.660**	.531**	.514**	.509**	.558**	.552**	1	
TWE	.408**	.571**	.585**	.593**	.545**	.386**	.835**	.786**	.773**	.824**	.733**	.676**	1

Note. ** Correlation is significant at the 0.01 level (2-tailed).

The Effect of principals' adaptive leadership behavior on teachers' work engagement

Multiple linear regression analyses were conducted to see the effect of principals' AL on TWE. It indicated that 46.1% of the change in TWE is explained by the composite effect of all AL behaviors (See Table 2).

Table 2

Model Summary on the Effect of Adaptive Leadership behaviors on Teachers' Work engagement

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.593[a]	.352	.351	.51501
2	.647[b]	.419	.418	.48791
3	.662[c]	.438	.436	.48016
4	.672[d]	.452	.449	.4746
5	.678[e]	.46	.457	.47117
6	.682[f]	.465	.461	.46944

Note: a. Predictors: (Constant), MDA, b. Predictors: (Constant), MDA, IAC c. Predictors: (Constant), MDA, IAC, RD d. Predictors: (Constant), MDA, IAC, RD, GOB e. Predictors: (Constant), MDA, IAC, RD, GOB, GWP f. Predictors: (Constant), MDA, IAC, RD, GOB, GWB, PLV

The effect of each AL behavior on TWE is shown in Table 3. The result shows that all dimensions of AL have an impact on TWE, but the most significant impact is noticed by MDA ($\beta = .202$) at $p<.001$.

Table 3

Coefficients on the Effect of Adaptive Leadership behavior on Teachers' work engagement.

Model		Unstandardized Coefficients		Standardized Coefficient		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	1.063	.114		9.345	.000
	MDA	.180	.036	.202	4.946	.000
	IAC	.171	.034	.186	5.078	.000
	RD	.151	.037	.163	4.029	.000
	GOB	.128	.031	.121	4.167	.000
	GWB	.100	.032	.116	3.096	.002
	PLV	.064	.024	**.079**	2.706	.007

Effect of each adaptive leadership behavior on each dimension of teachers work engagement

This notion provides a hint for examining the effect of each AL behavior on each teacher's work engagement dimension by treating each TWE factor as a single dependent variable and the entire AL set as an independent variable.

According to Table 4 AL dimensions generally enhance teachers' cognitive, emotional, social, and agentic engagement, with some exceptions. Cognitive engagement is positively influenced by all dimensions except protecting leadership voices below. Emotional engagement is affected by giving work back to people, identifying adaptive challenges, regulating distress, *and* protecting leadership voices below. Social engagement with colleagues is influenced by all dimensions except protecting leadership voices below and giving work back to people, while social engagement with students is affected by all except giving work back to people. Lastly, all dimensions except protecting leadership voices below contribute to students' agentic engagement.

Table 4

Effect of each ALB on each Dimension of TWE

Model	IV	DV	Unstandardized Coefficients		Standardized Coefficients	R^2	Adjusted R^2	t	Sig
			B	Std. Error	Beta				
5	(Constant)	CE	1.369	0.158		.292	.288	8.652	.000
	RD		0.162	0.054	0.141			3.029	.003
	IAC		0.201	0.048	0.176			4.17	.000
	MDA		0.172	0.052	0.155			3.341	.001
	GOB		0.13	0.044	0.098			2.964	.003
	GWB		0.101	0.045	0.094			2.22	.027
4	(Constant)	EE	0.85	0.176		.273	.270	4.836	.000
	GWB		0.264	0.052	0.209			5.057	.000
	IAC		0.263	0.054	0.195			4.866	.000
	RD		0.211	0.059	0.156			3.554	.000
	PLV		0.089	0.04	0.074			2.247	.025
4	(Constant)	SEC	1.696	0.145		.269	.266	11.734	.000
	MDA		0.266	0.044	0.264			6.035	.000
	GOB		0.152	0.04	0.127			3.773	.000
	RD		0.144	0.048	0.139			3.027	.003
	IAC		0.105	0.044	0.101			2.377	.018
5	(Constant)	SES	1.411	0.142		.315	.311	9.908	.000
	MDA		0.212	0.043	0.214			4.885	.000
	IAC		0.155	0.042	0.152			3.68	.000
	PLV		0.143	0.029	0.158			4.9	.000
	GOB		0.126	0.039	0.107			3.261	.001
	RD		0.102	0.046	0.099			2.231	.026
5	(Constant)	SAE	0.184	0.174		.316	.312	1.057	.291
	RD		0.206	0.059	0.16			3.489	.001
	GOB		0.241	0.048	0.163			5.009	.000
	MDA		0.206	0.057	0.165			3.631	.000
	IAC		0.169	0.053	0.132			3.181	.002
	GWB		0.102	0.05	0.085			2.051	.041

Teachers' perceptions of adaptive leadership and teachers' work engagement across zones

To realize the difference among teachers in their perception of AL and TWE across zones, a one-way ANOVA was employed.

Table 5

A One-Way ANOVA on the Perception of Adaptive Leadership across Zones

Adaptive leadership	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	8.972	5	1.794	6.407	.000
Within Groups	239.171	854	.280		
Total	248.143	859			

A statistically significant difference among teachers in their perceptions of AL practices across zones at F (5,854) = 6.407, p=0.00) was observed (see Table 5). A post hoc analysis in Table 6 shows where the difference was noticed.

Table 6

Post-Hoc on-perception differences of adaptive leadership among teachers across Zones

(I) Zone	(J) Zone	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower	Upper
Awi	South Wello	.11255	.0613	.643	-.0919	.317
	Central Gondar	.28773*	.06804	.003	.0608	.5146
	South Gondar	.22284	.07231	.092	-.0183	.464
	Bahir Dar	.24475*	.05545	.002	.0598	.4297
	West Gojam	.06983	.05872	.923	-.126	.2657

Note: * The mean difference is significant at the 0.05 level.

As can be understood from Table 6, significant differences in teachers' perception of ALB practices were observed between the Awi zone and Central Gondar zone at (p=.003) and Awi zone and Bahir Dar city admiration at (p=.002). The mean score value of the Awi zone (M=3.75, SD=0.55) was higher than that of Central Gondar (M=3.47, SD=0.29) and Bahir Dar City Administration (M=3.51, SD=0.49).

Table 7

A one-way ANOVA on the perception of teachers' engagement practices across zones

Variables	Zones	Sum of Squares	Df	Mean Square	F	Sig.
TWE	Between Groups	2.630	5	.526	1.289	.267
	Within Groups	348.569	854	.408		
	Total	351.199	859			

Note: TWE: Teachers' work engagement.

The one-way ANOVA in Table 7 showed no statistically significant variances between teachers' perceptions of work engagement in the study area (F (5,854) = 1.289, p =.267). Still, there were no significant disparities among teachers in their perceptions of engagement.

Discussion

The findings indicate that AL and TWE have a positive and significant connection, suggesting that a higher level of TWE led to a higher degree of AL engagement. Unlike Sandra (2021) who reported a medium correlation between employee engagement and leadership, this study demonstrated a strong relationship. The strong association of the

current study suggests that as principals practice AL in their daily practices, TWE increases in the same direction, which would contribute to dealing with the quality crisis. Again, this study supports Hefitez et al. (2009), who argued that Adaptive leaders can motivate employees to find creative and innovative solutions to problems, and Rodesch (2021), who argued that ALs inspire employees to invest more efforts in their work that goes beyond the requirements of their day-to-day job. The result is also similar to an earlier study by Park (2005), who argued that principal leadership affects teachers' willingness and attitude toward their occupational commitment. It is also similar to Osagie (2024), who argues that the positive correlation between AL and teacher motivation infers that ALs contribute to teachers' motivation. It is supported by Serrano and Reichard (2011) who argue that when individuals deploy AL, energy, involvement levels as well and communication increase, and so does shared responsibility which makes work more meaningful, which in turn increases TWE.

It is also indicated that AL dimensions have a positive relationship with TWE implying more principals practice the above five dimensions the better TWE. In contrast, PLV has a positive but weak relationship with TWE (r =.386), which indicates that the practice of PLV increases TWE inadequately. Similarly, GOB has a moderate relationship with TWE (r =.408). A positive association is found between AL behaviors and TWE domains. The result is supported by Muhammad and Chaudhary (2020), who confirmed a positive relationship between teachers' empowerment and teachers' commitment to the teaching profession.

Almost 46.1% of the variance in TWE is explained by the composite effect of all ALBs implying that principals' AL plays the most significant role in explaining TWE. This result seems similar to the works of Nicolaides and McCallum (2014), who argued that the best analogy for AL is the teacher who calls for learners to discover, invent, and take collective commitment. The current study's result is different from the study of Sandra (2021), who reported that AL explained TWE by 28.9%. This discrepancy may be due to sample size, study context, and other issues.

The effect of AL on TWE in this study reflects the idea stated by Northouse (2019), which implies the goal of AL is to encourage people to adapt, change, and grow by learning new ways. Thus, it is noticed that the AL model helps teachers engage in adaptive work because it is other-directed, stressing follower involvement and follower growth. This result is similar to Balagtas (2024), who stated that a positively significant relationship exists between AL behaviors and teachers' work motivation. Principals who exhibit certain AL behaviors create a work environment that supports teacher autonomy and increases teacher motivation, which later increases their engagement with work. The result supports the findings of Redondo Jr et al. (2024), who argued that principals had a significant influence on TWE and motivation by fostering a supportive and collaborative work environment, recognizing teachers' contributions, and offering Professional development opportunities.

The result shows that MDA has the most significant influence on TWE, which is explained by 20.2%, followed by IAC (18.6%), RD (16.3%), GOB (12.1%), GWP (11.6%) and lastly, PLV (7.9%). This implies that as principals practice the AL dimensions by one unit each, then it will increase TWE as to the percentages included in each dimension. It is indicated that all AL behaviors have contributed to TWE, but the largest share is

accompanied by the first three, MDA, IAC, and RD. This result is similar to the idea that MDA behavior is related to transformational leadership behavior, and literature shows that transformational leadership has a predictive effect on TWE (Caulfield & Senger, 2017; Gözükara & Şimşek, 2015). This is because adaptive leaders understand the importance of building trust, inspiring people, and listening with empathy as teachers' experiences change. It is also similar to the idea that adaptive leaders require time, dedication, and commitment (Hefitez et al., 2009) to run their functions, which shows their impact on TWE.

If principals make teachers focus on what they want to do, develop the culture of identifying adaptive challenges by developing both practices and mindset, and avoid the different stress that teachers face by providing direction, creating a conducive environment, and developing productive norms, then it would increase TWE. The above result is similar to empowered employees who showed commitment to teachers (Muhammad & Chaudhary, 2020) who stated that empowerment is one of the effective ways to enhance teachers' commitment to their teaching profession and also by Zahed Babelan et al. (2019). In addition, it is similar to Northouse (2019) who argued that one of the behaviors of adaptive leaders is RD, and creating a holding environment is a strategy of RD to enhance TWE. The reason is that learning about TWE presents opportunities for leaders to improve the work environment and promote positive change in settings where teachers make a direct impact on learners (Sokolov, 2017). It is also supported that AL is based on the interaction of different actors (Northouse, 2019), and the quality of interaction with school leaders impacts TWE in ways that require continued discussion and further study (Sokolov, 2017). This result is similar to Redondo Jr et al. (2024) who stated that positive interpersonal interactions have been dyed as important for promoting TWE.

This result implies that principals' practice of all AL behaviors except PLV has contributed to teachers' CE. This result is supported by Bellibaş et al., (2021), who argued that the distribution of leadership among staff can improve student learning outcomes, mainly through the development of teachers' academic capacity. Teachers' EE is best explained by principals' practices of giving the work back to teachers, identifying the adaptive challenges, and regulating distress. The literature indicates that AL behaviors affect teachers' social engagement. Concerning the effect of each ALB on teachers' SEC, the result shows that MDA, GB, RD, and IAC successfully predict teachers' SEC. On the other hand, SES is affected by all dimensions except PLV.

This result is supported by Nelson and Squires (2017), who argue that AL is highly collaborative and requires the engagement of stakeholders. This implies that collaboration is a critical element of AL with the belief that principals are in an ideal position to create enabling organizational structures, including collaborative work structures. This implies that if ALs perform the above issues, it has an overall effect on TWE especially on both teachers' SEC and SES, which implies that if ALs in the school develop a collaborative culture, the teachers' SEC and SES will be improved so that students' academic achievement will be improved. This result is supported by Balagtas (2024), who stated that principals collaborate with teachers, involve teachers in decision-making, encourage open communication, and foster a positive and teacher-supportive school culture that enhances collaboration with both students and the school's administrative bodies. The above result is supported by Shaw

(2022) who argued that principals' support for collaboration among teachers, and the quality of networks among professional staff are essential for catalyzing AL among teachers. Teachers' engagement in making students agentically engaged is best predicted by AL behaviors which imply that principals' AL practices play a significant role for teachers in making students independent learners.

The one-way ANOVA result indicated that statistically significant differences among teachers in their perceptions of AL practices across the different zones are observed at F (5,854) =6.407). The difference is observed between the Awi nationality zone and Central Gondar zone, as well as the Awi nationality zone and Bahir Dar city administration. This means that the principals' practices of AL are by far better in Awi compared with Bahir Dar City administration and central Gondar zone. This finding is supported by Balagtas (2024) who reported that some school heads vary the implementation of AL. The difference in the practices of AL across zones implies that the situation of the environment matters in the actual practices of this leadership framework. It may also be attributed to the good conception of AL though it needs further study. This result also supports the idea of Shaw (2022) who considers AL theory as a useful framework for helping individuals and organizations adapt to changing environments and address recurring issues within their specific organizational contexts. A key point is that environmental challenges differ across regions and lead to variations in AL practices.

It is indicated that there are no statistically significant differences among teachers in the perceptions of TWE practices across zones. This result is similar to the study by Sawhney et al. (2015) who reported an absence difference between the rural and urban government secondary school teachers concerning their engagement in the profession. A study by Ibrahim and Aljneibi (2022) found that teachers' commitment increased with staying at s school which implies that if teachers change their school, variation of TWE across places.

Conclusions and Recommendations

Principals' AL has a positive relationship with TWE in secondary schools of the Amhara regional state. Moreover, it was demonstrated that the AL practices of principals have a 46.1% impact on TWE variance, and the reset 53.9% variation is attributed to other factors. Lastly, TWE showed no statistical difference across zones, but AL practices showed a statistically significant difference. Hence, principals can use AL to boost TWE and effectively handle the education crisis.

Based on the results of the study, the following recommendations are suggested. Adaptive leadership behaviors need the intervention of the school principals to be realized in the school context. Therefore, the study suggests: First, as to MDA, principals should create an atmosphere where teachers can identify and focus on pressing issues independently. Principals should empower teachers to address challenges effectively by encouraging open communication and shared responsibility. This involves providing support and resources while allowing autonomy in problem-solving. Second, principals need to differentiate adaptive challenges from technical challenges. Technical challenges can be addressed via existing rules and procedures, but adaptive challenges require fundamental changes in values, culture, and norms. Therefore, principals must recognize the complexity of adaptive

challenges and avoid applying simplistic technical solutions to adaptive challenges. Instead, they should facilitate a process of reflection and innovation to address these more profound adaptive challenges. Third, principals should cultivate a supportive, low-stress environment conducive to teachers' professional growth and creativity. This can be possible by providing clear direction, developing conflict resolution strategies tailored to challenges, and promoting inclusive yet productive norms. Fourthly, principals must practice the AL model considered in the current study due to its effect.

Limitations and Future Research Directions

Further study involving principals and students using diverse data collection methods like interviews and FGD is needed. The relationship and predictive effect of AL and TWE in education have not been thoroughly explored, calling for more study. While AL is emerging in education, most research has focused on health, military, and business sectors pushing future research to explore its application in education alongside factors causing differences in its practices across zones.

Acknowledgments

The authors' appreciation for sample school principals and teachers is valued.

References

Alaina, D. (2017). Adaptive Challenges Require Adaptive Leaders. *Performance Improvement*, *56*(9), 18-26. https://doi.org/10.1002/pfi.21735

Ali, A., Wang, H., & Johnson, R. E. (2019). Empirical analysis of shared leadership promotion and team creativity: An adaptive leadership perspective. *Sustainability*, *11*(21), 405-423. https://doi.org/10.1002/job.2437

AREB. (2022). *Amhara Region Education Bureau: Annual performance evaluation report of the year 2022, Bahir Dar, Amhara Regional State*.

Arens, A. K., & Morin, A. J. (2016). Relations between teachers' emotional exhaustion and students' educational outcomes. *Journal of Educational Psychology*, *108*(6), 800-813. http://dx.doi.org/10.1037/edu0000105

Bakker, A. B., Albrecht, S. L., & Leiter, M. P. (2011). Key questions regarding work engagement. *European Journal of Work and Organizational Psychology*, *20*(1), 4-28. https://doi.org/10.1080/1359432x.2010.485352

Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, *13*(3), 209-223. https://doi.org/10.1108/13620430810870476

Bakker, A. B., Demerouti, E., & ten Brummelhuis, L. L. (2012). Work engagement, performance, and active learning: The role of conscientiousness. *Journal of Vocational Behavior*, *80*(2), 555-564. https://doi.org/doi:10.1016/j.jvb.2011.08.008

Balagtas, L. U. (2024). Adaptive Leadership Behavior And Practices Of School Heads: Input To Task Motivation Of Teachers.*International Journal of Research Publications*, *153*(1), 65-75. https://doi.org/10.47119/IJRP1001531720246967

Balyer, A. (2016). School principals' administrative competency: Teachers' views. *Yıldız Journal of Educational Research*, *1*(1), 16-36. http://www.eds.yildiz.edu.tr/yjer

Belay, G. S., & Melaku, W. (2019). Education Quality Challenges in Ethiopian Secondary Schools. *Journal of Education, Society, and Behavioral Science*, *31* (2), 1-15. https://doi.org/10.9734/JESBS/2019/v31i230147

Bellibaş, M. Ş., Gümüş, S., & Liu, Y. (2021). Does school leadership matter for teachers' classroom practice? The influence of instructional leadership and distributed leadership on instructional quality. *School Effectiveness and School Improvement*, *32*(3), 387-412. https://doi.org/10.1080/09243453.2020.1858119

Billingsley, B., & Bettini, E. (2019). Special Education Teacher Attrition and Retention: A Review of the Literature. *Review of educational research*, *89*(5), 697-744. https://doi.org/10.3102/0034654319862495

Bosch, J. (2021). *A case study of Adaptive Leadership in an institution of Higher Education[Unpublished Doctoral Dissertation]*.*Wichita State University.*

Cai, Y., Liu, P., Tang, R., & Bo, Y. (2022). Distributed leadership and teacher work engagement: the mediating role of teacher efficacy and the moderating role of interpersonal trust. *Asia Pacific Education Review* https://doi.org/10.1007/s12564-022-09760-x

Carasco-Saul, M., Kim, W., & Kim, T. (2014). Leadership and Employee Engagement: Proposing Research Agendas Through a Review of Literature. *Human Resource Development Review* 1-26. https://doi.org/10.1177/1534484314560406

Caulfield, J. L., & Senger, A. (2017). Perception is reality: Change leadership and work engagement. *Leadership & Organization Development Journal*, *38*(7), 927-945. https://doi.org/10.1108/LODJ-07-2016-0166

Chen, Q. (2022). The Relationship between Principal's Leadership Style and Teachers' Work Engagement in Hainan, China during COVID-19. *Frontiers in Educational Research*, *5*(6), 32-36. https://doi.org/10.25236/FER.2022.050606

Cochran, W. G. (1977). *Sampling techniques* (3rd ed.). John Wiley & Sons.

Cohen, L., Manion, L., & Morrison, K. (2000). *Research Methods in Education* (5th ed.).

Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE publications.

Demeke, A. W. (2024). Determinants of academic achievement among grade ten students at Menkorer secondary school, Ethiopia: the role of individual, familial and school characteristics. *Cogent Education*, *11*(1), 1-14. https://doi.org/10.1080/2331186X.2023.2299523

Edomgenet, I. H. (2021). Work Environment and the Teacher: A Qualitative Case Study of Public Secondary Schools in Addis Ababa, Ethiopia. *The Qualitative Report*, *26*(11), 3425-3456. https://doi.org/10.46743/2160-3715/2021.4945

Elsayary, A., Mohebi, L., & Meda, L. (2022). The Impact of the Relationship Of Social/Emotional, Cognitive, and Behavioral Engagements on Developing Pre-service Teachers' Digital Competencies. *Journal of Information Technology Education: Research*, *21*, 269-295. https://doi.org/10.28945/4982

Freeman, G. T., & Fields, D. (2020). School leadership in an urban context: complicating notions of effective principal leadership, organizational setting, and teacher

commitment to students *International Journal of Leadership in Education*, 1-21. https://doi.org/10.1080/13603124.2020.1818133

Gay, L. R., Mills, G. E., & Airasian, P. (2012). *Educational Research: Competencies for Analysis and Applications* (10th editio ed.).

Gedefaw, M. K. (2012). *Job satisfaction of secondary school teachers in Ethiopia[Unpublished Dissertation].University of South Africa, South Africa.*

Gözükara, İ., & Şimşek, O. F. (2015). Linking Transformational Leadership to Work Engagement and the Mediator Effect of Job Autonomy: A Study in a Turkish Private Non-Profit University. *Procedia - Social and Behavioral Sciences*, *195*, 963-971. https://doi.org/10.1016/j.sbspro.2015.06.274

Hakanen, J. J., & Schaufeli, W. B. (2012). Do burnout and work engagement predict depressive symptoms and life satisfaction? A three-wave seven-year prospective study. *Journal of Affective Disorders*, *141*(2-3), 415-424. https://doi.org/10.1016/j.jad.2012.02.043

Hefitez, R., Grashaw, A., & Linsky, M. (2009). *The practice of adaptive leadership: Tools and tactics for changing your organization and the world*. Harvard Business Press. https://doi.org/10.1111/j.1744-6570.2009.01168_4.x

Hellbusch, J. (2022). *Engagement is Everything: Principals' Perceptions of their Role in Teacher Engagement [Doctural Dissertation]. University of Nebraska, Lincoln, Nebraska.*https://digitalcommons.unl.edu/cehsedaddiss/345

Ibrahim, A., & Aljneibi, F. (2022). The influence of personal and work-related factors on teachers' commitment during educational change: A study on UAE public schools. *Heliyon*, *8*(11), e11333.

Ingersoll, R. M., Sirinides, P., & Dougherty, P. (2017). School Leadership, Teachers' Roles in School Decisionmaking, and Student Achievement. Working Paper. WP# 2017-2. *Consortium for Policy Research in Education*. http://repository.upenn.edu/cpre_workingpapers

Ji, Y. (2021). Does Teacher Engagement Matter? Exploring Relationship Between Teachers' Engagement in Professional Development and Teaching Practice. *International Journal of TESOL Studies 3* (4), 42-60 https://doi.org/https://doi.org/10.46451/ijts.2021.12.04

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, *33*(4), 692-724. https://doi.org/10.2307/256287

Kefale, N. S., & Tilaye, K. (2021). The Effects of Adaptive Leadership on Organizational Effectiveness at Public Higher Education Institutions of Ethiopia. *International Journal of Organizational Leadership 10*(Special Issue), 141-159. https://www.ijol.cikd.ca

Kindu, A. A., Muluken, G. A., Menber, Y. E., & Kindie, L. (2023). Causes of teachers professional misconduct in Ethiopian secondary schools: Implications for policy and practice. *Cogent Education*, *10*(1), 1-18. https://doi.org/10.1080/2331186X.2023.2188754

Kingsley, O. N., Cheah, K. S. L., & Sakiru, O. K. (2022). Impact of Principal Leadership Styles on Effectiveness of Schools: A Revisiting Review of the Literature (2018-

2022). *Asian Journal of Education and Social Studies*, *34*(4), 60-68. https://doi.org/10.9734/AJESS/2022/v34i4743

Klassen, R. M., SaiAldhafri, Caroline F Mansfield, Edy Purwanto, Angela F. Y. Siu, Marina W. Wong, Amanda WoodsMcConney (2012). Teachers' Engagement at Work: an International Validation Study. *Journal of Educational Psychology*, *104*(1), 150. https://doi.org/10.1080/00220973.2012.678409

Klassen, R. M., Yerdelen, S., & Durksen, T. L. (2013). Measuring teacher engagement: development of the engaged teacher's scale (ETS). *Frontline Learning Research*, *1*(2), 33-52.

Kular, S., Gatenby, M., Rees, C., Soane, E., & Truss, K. (2008). Employee engagement: A literature review.

Leithwood, K., Harris, A., & Hopkins, D. (2019). Seven strong claims about successful school leadership revisited. *School leadership & management*, 1-19. https://doi.org/10.1080/13632434.2019.1596077

Marshall, I. A. (2015). Principal leadership style and teacher commitment among a sample of secondary school teachers in Barbados. *Journal of Arts and Humanities*, *4*(5), 43-58.

Menon, V. V., Devika, S. S., Manoharan, M., Pasha, N., & Rajkumar, N. (2023). Work Engagement of Teachers Issues and Challenges: A Review. *Journal of Ecophysiology and Occupational Health*, *23*(3), 105-112. https://doi.org/10.18311/jeoh/2023/34106

Ministry of Education. (2018). Ethiopian education development roadmap (2018-30). *An integrated Executive Summary. Ministry of Education Strategy Center (ESC) Draft for Discussion: Addis Ababa*.

Ministry of Education. (2023). *Education and Training Policy*. Federal Ministry of Education. https://www.moe.gov.et/am/PliciesStrategies

Muhammad, N., & Chaudhary, A. H. (2020). Relationship of Teachers' Empowerment and Organizational Commitment at Secondary School Level in Punjab. *Bulletin of Education and Research*, *42*(2), 69-80.

Mulualem, A., Solomon, M., & Tadesse, M. (2022). Practices and challenges of secondary high school teachers' engagement in doing action research: With Bahir Dar City (Capital city of Amhara regional state), Ethiopia. *Global Scientific Journals*,*10*(2), 1305-1320. https://www.researchgate.net/publication/359091884

Mwesiga, A., & Okendo, E. (2018). Levels of Teachers Commitment to the Teaching Profession in Secondary Schools in Kagera Region, Tanzania. *Research on Humanities and Social Sciences*, *8*(14), 117-127.

Nelson, T., & Squires, V. (2017). Addressing Complex Challenges through Adaptive Leadership: A Promising Approach to Collaborative Problem Solving. *Journal of Leadership Education*, *16*(4), 111-123. https://doi.org/10.12806/v16/i4/t2

Nicolaides, A., & McCallum, D. C. (2014). Inquiry in Action for Leadership in Turbulent Times. *Journal of Transformative Education*, *11*(4), 246-260. https://doi.org/10.1177/1541344614540333

Northouse, P. G. (2019). *Leadership: Theory and Practice* (8th ed.). Sage Publishing.

Oehler, K., & Adair, C. (2019). Trends in global employee engagement. *Kincentric: Chicago, IL, USA*.

Olurotimi, O. J., Asad, K. W., & Abdulrauf, A. (2015). Motivational Factors and Teachers Commitment in Public Secondary Schools in Mbale Municipality. *Journal of Education and Practice*, *6*(15).

Orlich, P. J. (2019). Are School Principals Being Prepared to Lead in Today's Turbulent and Complex Educational Environment? *(Doctoral dissertation, Marian University).*

Osagie, C. I. (2024). Investigating the Impact of Principal Leadership Styles and Teachers Attitude to Work In Primary and Secondary Schools in Esan West Local Government Area of Edo State, Nigeria. *AAU Journal of Business Educators*, *4* (1), 279-287. www.aaujbe.com.ng

Park, I. (2005). Teacher commitment and its effects on student achievement in American high schools. *Educational Research and Evaluation*, *11*(5), 461-485.

Pujianto, W. E., Haque, S. A. u., Dyatmika, S. W., & Tedja, F. W. (2023). *Adaptive Leadership Model: A Systematic Literature Review and Future Research* [Paper Presentation]. The 2nd International Seminar of Multicultural Psychology (ISMP 2nd) Conference, Surabaya.

Redondo Jr, S. C., Mertola, D. E., & Bueno, D. C. (2024). The Impact of Academic Heads' Instructional Leadership on Faculty Engagement and Loyalty. *Institutional Multidisciplinary Research and Development Journal 7*(6), 228-248. https://www.researchgate.net/publication/382336576

Reeve, J., & Tseng, C.-M. (2011). Agency is a fourth aspect of students' engagement during learning activities. *Contemporary educational psychology*, *36*(4), 257-267. https://doi.org/10.1016/j.cedpsych.2011.05.002

Rodesch, L. (2021). *Adaptive Leadership Behaviour: The Roles of Time Pressure & Emotional Intelligence and its Influence on Follower OCB[Unpublished Doctoral Dissertation]. Faculty of Psychology and Neuroscience, Maastricht University.*

Sandra, S. K. (2021). *Measuring Employee Engagement and Adaptive Leadership During Higher Education's Accountability and Performance Era* (Publication Number 1100) UNF Graduate Theses and Dissertations. https://digitalcommons.unf.edu/etd/1100

Sawhney, N., Mohali, D., & Mohali, D. (2015). Professional commitment among secondary school teachers in relation to the location of their school. *Global Journal for Research Analysis*, *4*(8), 238-239.

Schaufeli, W. B. (2017). Applying the Job Demands-Resources model: A 'how to' guide to measuring and tackling work engagement and burnout *Organizational Dynamics 46*, 120—132. https://doi.org/10.1016/j.orgdyn.2017.04.008

Serrano, S. A., & Reichard, R. J. (2011). Leadership strategies for an engaged workforce. *Consulting Psychology Journal: practice and research*, *63*(3), 176.

Shaw, R. (2022). *School Leadership and Adaptation in Response to the COVID-19 Crisis* Northeastern University].

Skaalvik, E. M., & Skaalvik, S. (2017). Motivated for teaching? Associations with school goal structure, teacher self-efficacy, job satisfaction, and emotional exhaustion. *Teaching and Teacher Education*, *67*, 152-160.

Snyder, V. W. (2024). *Secondary Principals Perspectives of Adaptive Leadership Behavior[Doctoral Dissertation]. Walden University.* https://scholarworks.waldenu.edu/dissertations.

Sokolov, C. K. (2017). *Teacher engagement in grades 4-8 [Doctoral dissertation]*. *Pepperdine University*.https://digitalcommons.pepperdine.edu/etd/779

Tadesse, E. F. (2019). Teachers' organizational commitment at secondary school in Addis Ababa, Ethiopia. *International Journal of Education and Research, 7*(4), 55-68. https://www.researchgate.net/publication/358869415

Tamiru, M., Shiferaw, G., & Abebe, T. (2021). Teachers Caring Behavior and Its Relation with Students Achievement: The Case of East and West Gojjam Secondary Schools, Amhara Region, Ethiopia. *Journal of Education and Practice 12*(13), 43-49. https://doi.org/10.7176/JEP/12-13-05

Tao, Y., Meng, Y., Gao, Z., & Yang, X. (2022). Perceived teacher support, student engagement, and academic achievement: A meta-analysis. *Educational Psychology, 42*(4), 401-420.

Vermooten, N., Boonzaier, B., & Malan, J. (2020). Variance in employee engagement: A qualitative analysis amongst public school teachers in the Cape Winelands education district. *SA Journal of Industrial Psychology*, *46*(1), 1-14. https://doi.org/10.1177/1541344614540333

Wang, J., Zhang, X., & Zhang, L. J. (2022). Effects of teacher engagement on students' achievement in an online English as a foreign language classroom: The mediating role of autonomous motivation and positive emotions. *Frontiers in Psychology, 13*(0), 1-11. https://doi.org/10.3389/fpsyg.2022.950652

Wang, M. F. (2018). Adaptive Leadership and Student Achievement *All Electronic Theses and Dissertations*, 647. https://spark.bethel.edu/etd/647

Yerdelen, S., Durksen, T., & Klassen, R. M. (2018). An international validation of the engaged teacher scale, Teachers and Teaching. *Teachers and Teaching theory and practice*. https://doi.org/10.1080/13540602.2018.1457024

Yi-wen, Z., & Yi-qun, C. (2017). The Chinese version of Utrecht work engagement scale: an examination of reliability and validity. *Chinese journal of clinical psychology*, 1-19. https://doi.org/10.1080/13562517.2017.1301905

Zahed Babelan, A., Moeinikia, M., Rezaeisharif, A., & Koulaei, G. (2019). Modeling the role of school principals' instructional leadership in teacher job engagement through school culture. *Journal of New Approaches in Educational Administration, 10*(39), 1-24.