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Differentiated Adaptive Leadership–Motivation Model for Higher Education Teachers' Well-being

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Abstract:

In China's managerialist higher education context, academics' well-being is affected by salary disparities, excessive non-teaching tasks, and research-biased evaluation. This qualitative case research explores how leadership support sustains motivation and well-being across career stages. Semi-structured interviews were conducted with 21 academics, seven per career stage. Findings show that novice academics need competence support through instructional leadership, mid-career academics need relatedness through transformational leadership, and professional learning communities. In contrast, senior teachers need autonomy through distributed leadership and trust. The Differentiated Adaptive Leadership–Motivation Model highlights career-stage-adapted leadership for sustainable teacher well-being.

Keywords: Educational Leadership, SDG3, Teacher Well-being, Differentiated Adaptive Leadership–Motivation Model

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1.0 Introduction

Educational leadership and teachers' intrinsic motivation are pivotal yet underexplored drivers of sustainable professional development in China's higher education. This study investigates their dynamic interplay at a public university, a flagship innovation hub facing managerialist pressures, salary austerity, excessive non-teaching tasks, and motivational deprivation. By integrating Self-determination theory (SDT) (Deci & Ryan, 1985; Ryan & Deci, 2020), Self-efficacy theory (SET) (Bandura, 1997), and Expectancy-value theory (EVT) (Eccles & Wigfield, 2002) with transformational-distributed leadership frameworks, this paper addresses a critical gap in understanding how leaders cultivate autonomy, competence, and relatedness across career stages.

Globally, teacher professional development (TPD) has emerged as a critical factor in educational quality. International organizations such as UNESCO, the OECD, and the World Bank have repeatedly emphasized the need for educational leadership to foster sustainable teacher growth and improve student outcomes (Karakose et al., 2025). Contemporary leadership paradigms, i.e., transformational, instructional, and distributed, underscore the importance of empowering teachers and fostering intrinsic motivation (Liu & Hallinger, 2024; Brice et al., 2025). However, despite growing recognition, empirical research examining the specific mechanisms linking leadership practices to teacher motivation across career stages remains limited in Shenzhen, China.

In China's managerialist context, a one-size-fits-all approach overlooks academics' diverse motivational needs. Existing studies predominantly focus on external incentives and formal training, neglecting the internal factors that drive teachers' engagement in professional learning (Ryan & Deci, 2020). Furthermore, how leadership support, such as mentoring, collaborative communities, and instructional coaching, interacts with intrinsic motivation remains unclear. This knowledge gap raises a pertinent question. Without in-depth insights into motivational dynamics, optimal conditions for sustainable teacher development cannot be established (Akbaba & Yılmaz, 2025). By situating the problem in Shenzhen, a national education reform model, this research provides practical significance for Chinese higher education policy reform.

This research aims to propose a Differentiated Adaptive Leadership-Motivation Model (DALM) for Chinese higher education institutions. The specific objectives are: (i) to explore the types of motivation, i.e., autonomy, competence, and relatedness, that novice, mid-career, and senior teachers experience; (ii) to identify the types of educational leadership support provided at each career stage; and (iii) to develop a Differentiated Adaptive Leadership-Motivation Model that illustrates how career-stage-adapted leadership can sustain teacher well-being and professional engagement.

2.0 Literature Review

Internal motivation, TPD, and educational leadership form the three pillars of sustainable teacher growth. Globally, educational reforms prioritize intrinsic motivation as the driver of effective TPD, shifting the focus from extrinsic rewards to psychological drivers such as autonomy, competence, and relatedness (Ryan & Deci, 2020; Polatcan et al., 2023). Contemporary TPD moves beyond episodic workshops, embracing job-embedded, collaborative models (Darling-Hammond et al., 2017; Opfer & Pedder, 2021). Yet persistent challenges, including resource gaps and misaligned incentives, hinder implementation, particularly in hierarchical systems (Akyeampong & Asante, 2024).

2.1 Theoretical Underpinnings and Research Framework

As noted earlier, the three motivational theories, i.e., SDT, SET, and EVT, are widely used to understand teacher motivation and professional development. SDT highlights three intrinsic psychological needs: autonomy (a sense of volition), competence (mastery and effectiveness), and relatedness (belonging and connection). Satisfying these needs fosters intrinsic motivation and well-being. SET refers to teachers' beliefs in their ability to perform instructional tasks effectively. Higher self-efficacy is associated with greater persistence and willingness to engage in professional learning. EVT posits that effort is determined by the expectation of success and the subjective value attached to the task. Teachers are more likely to participate in professional development when they believe it will succeed and when they value the outcomes.

Although these theories have each informed research on teacher motivation, they are rarely integrated into a career-stage-sensitive leadership model. The theories are synthesized into a unified theoretical framework (Figure 1). Together, they explain why novice, midcareer, and senior teachers may respond differently to leadership support.

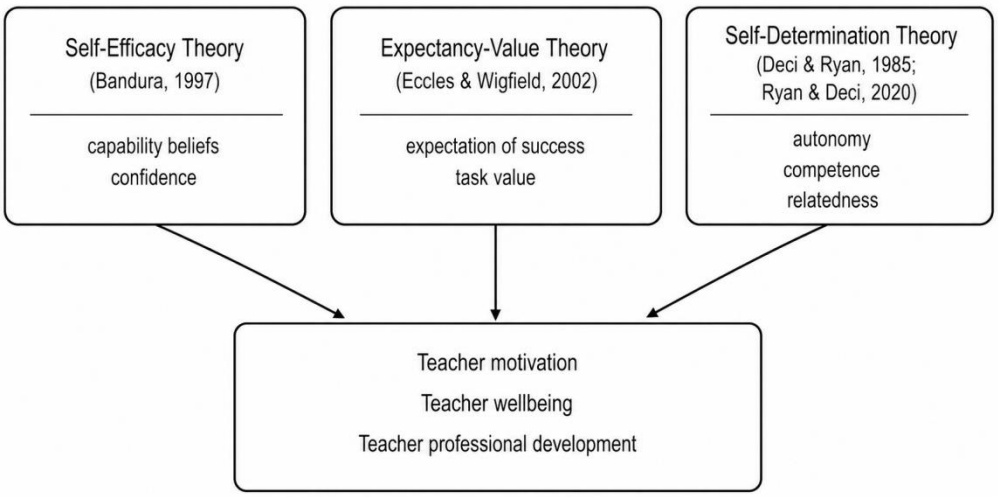

Fig. 1: Theoretical Framework of the study

2.2 Supporting Teacher Professional Development

Effective TPD relies on mentorship, coaching, and Professional Learning Communities (PLCs). Veteran or peer mentoring for novice teachers offers guidance and role modeling (Brice et al., 2025; Luo et al., 2024). Instructional coaching focuses on pedagogical improvement through observation and feedback cycles (Aslan et al., 2023). PLCs provide purposeful forums for collaborative problem-solving and peer-led knowledge construction, thereby fostering professional growth (Polatcan et al., 2023).

2.3 Educational Leadership and TPD

Educational leadership catalyzes TPD. Transformational leaders foster intrinsic motivation by co-constructing visions and addressing psychological needs (Hallinger, 2020). Instructional leadership strengthens pedagogical practices through AI-integrated feedback (Trust et al., 2022). Distributed leadership decentralizes decision-making, enabling teacher agency and PLCs, particularly for mid-career teachers (Daher-Armache & Armache, 2024; Liu & Hallinger, 2024). Leadership effectiveness varies across career stages. In China's managerialist environments, administrative fragmentation often reduces TPD to a jurisdictional contest (Qian et al., 2023). Technology-mediated leadership enhances equitable access, though success hinges on aligning with teachers' needs, including structured guidance for novices and autonomy for experts (World Bank, 2022; Erdoğan, O. et al., 2025).

3.0 Methodology

3.1 Research Design

A qualitative case study design was used because it enables in-depth exploration of how teachers at different career stages experience leadership support and motivation.

3.2 Sampling and Participants

Purposive sampling ensured representation across three career stages: novice ($\leqslant$5 years of teaching experience), mid-career (6-15 years), and senior ($\geqslant$16 years). A total of 21 academics voluntarily participated, seven per career stage, representing diverse disciplines (STEM, the humanities, and the social sciences). Participants were recruited via departmental emails and personal networks to ensure full representation across career stages. Exclusion criteria included part-time or adjunct faculty and administrative leaders.

3.3 Data Collection

Semi-structured interviews were the primary data collection method. The interview protocol covered types of motivation at work, specific leadership support practices, career-stage-specific challenges, enablers, and the perceived impact of leadership on professional development and well-being. All interviews were audio-recorded, transcribed verbatim, and anonymized with alphanumeric codes (e.g., T05-STEM-Novice). Back-translation was also conducted because the interviews were conducted in Mandarin.

3.4 Data Analysis

Thematic analysis followed Braun and Clarke's (2022) six-phase approach: familiarization, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. NVivo 14 supported systematic coding and theme organization. Coding was both deductive (using SDT dimensions: autonomy, competence, relatedness; and leadership types: transformational, instructional, distributed) and inductive (allowing unexpected patterns to emerge). Themes were refined iteratively and mapped to the research objectives.

4.0 Findings

The findings are organized around the three research objectives. Overall, the results indicate that academics at different career stages require different forms of leadership support to sustain motivation and well-being.

Table 1. Thematic Coding Hierarchy Derived from NVivo Analysis

Level 1 (Domain)	Level 2 (Theme)	Level 3 (Sub-theme)
Career-stage differentiation	Novice academics	Competence needs, structured mentoring, AI-enhanced feedback; teaching confidence, skill mastery
	Mid-career academics	Relatedness needs, professional learning communities, cross-departmental collaboration, peer recognition, and professional belonging
	Senior teachers	Autonomy needs, trust, reduced bureaucratic approvals, innovation freedom, professional agency
Leadership approach	Instructional leadership	Classroom observation, teaching diagnostics, AI-enhanced feedback, structured coaching, micro-goals
	Transformational leadership	Vision co-creation, moral modelling, intellectual stimulation, shared innovation culture
	Distributed leadership	PLC empowerment, decentralised decision-making, budget autonomy, trust-based empowerment
Outcomes	Teacher well-being	Reduced anxiety, lower burnout, renewed professional vigour, stronger self-efficacy, sustained motivation
Barriers	Administrative fragmentation	Budget silos, departmental jurisdiction, rigid approval procedures, and limited cross-departmental collaboration
Contextual pressures	Managerialist higher education context	Salary austerity, excessive non-teaching tasks, research-biased evaluation, and workload pressure

Table 1 presents the thematic coding hierarchy, linking career stages, types of leadership support, outcomes, and contextual barriers derived from the NVivo analysis. Table 2 summarizes the main thematic findings on career-stage motivational needs and leadership support. These findings show that each career stage prioritizes a distinct motivational need (competence for novices, relatedness for mid‑career, autonomy for seniors) and maps it to the corresponding leadership support. This alignment directly informs the DALM.

Table 2. Career-stage motivational needs and leadership support

Career Stage	Differentiated Support Need	Motivational Need	Leadership Support
Novice	Confidence Professional pedagogical skills	Competence	Instructional leadership
Mid-career	PLCs Professional Belonging	Relatedness	Transformational leadership
Senior	Trust Innovation	Autonomy	Distributed leadership

4.1 Internal Motivational Factors

The qualitative data reveal that autonomy, competence, and relatedness drive TPD engagement, but their salience varies markedly by career stage. Novice teachers (⩽5 years) consistently expressed a strong need for support in competence. They described uncertainty about their teaching effectiveness and a desire for structured guidance

…After receiving AI-generated feedback on my first lecture, I knew which skills to target. That precision built my confidence. Without that concrete feedback, I would have felt lost…(T01-Social Sciences-Novice)

…I need someone to show me the ropes – how to design a course syllabus and how to handle difficult classroom situations. Theory from my master's degree is not enough…(T02-STEM-Novice)

…When my mentor observed my class and gave me step-by-step advice on questioning techniques, I stopped feeling like an imposter. That concrete help mattered more than any praise…(T03-STEM-Novice)

Clearly, competence support is linked to technology adoption. Novices valued AI-enhanced teaching, diagnostics, and structured mentoring cycles. None prioritized autonomy or relatedness over competence. Mid-career teachers (6-15 years) demonstrated the strongest emphasis on relatedness. Having established basic competence, they sought professional communities for collaboration and peer recognition.

…Co-designing the 'FinTech Pedagogy Lab' with colleagues gave me a professional anchor amid heavy teaching loads. It was not just about learning new skills – it was about belonging to a community that values innovation…(T08-Social Sciences-Mid)

…Our 'failure-tolerant' PLC culture…where peers share flawed prototypes…convinced me that innovation was worth the risk. Without that relatedness, I would have stuck to traditional methods…(T09-Social Sciences-Mid)

…The cross-faculty teaching circle we formed last year saved me from burnout. Just knowing that others face the same research-teaching squeeze made me feel less alone…(T10-Social Sciences-Mid)

It is evident that mid-career teachers also expressed frustration with administrative silos that hinder PLC formation. Senior teachers (≥16 years) overwhelmingly prioritized autonomy. Having developed strong competence and networks, they valued trust-based empowerment and freedom from bureaucratic approvals. A senior professor stated

...When I skipped mandatory training to launch an AI-ethics industry project, leadership said: 'We trust your judgment.' That trust doubled my commitment. Autonomy is not about doing less – it is about doing what matters most in my own way….(T15-Humanities-Senior)

...I integrated VR simulations into my microbiology course without bureaucratic approvals – this freedom fuels my growth. If I had to ask permission for every innovation, I would have stopped innovating long ago….(T16-STEM-Senior)

...I don't need another training workshop. What I need is for leadership to say: 'We trust you to decide what's best for your students.' That kind of respect recharges me….(T17-STEM-Senior)

These findings confirm that SDT's universal dimensions are moderated by career stage.

4.2 Educational Leadership Support Practices

Participants described three types of leadership support, i.e., instructional, transformational, and distributed, with varying effectiveness by career stage.

Instructional support – AI-enhanced feedback, classroom observations, and structured coaching were most impactful for novices. A participant (mid-career reflecting on novice experience) describe

…The AI-generated classroom heatmap revealed my 20-minute monologue – now I design interactive segments using VR. My department head provided monthly teaching diagnostics with micro-goals: first master VR tools, then redesign lectures. This structure made growth feasible…. (T11-STEM-Mid)

…The weekly teaching diagnostics from my head of department were tough but fair. Each time I fixed one weak point, we moved to the next. It felt like a personal trainer for teaching….(T06-Social Sciences-Novice)

Transformational support -- vision co-creation, moral modeling, and intellectual stimulation -- resonated most with mid-career and senior teachers. A senior teacher shared: "When our dean taught a public demonstration class during the assessment storm, we felt inspired, not ordered. That moral authority made us want to improve, not because we were told to, but because we saw leadership walking the talk" (T18-Social Sciences-Senior). A mid-career teacher reflected: "When our dean shared her own failed experiment with a flipped classroom, it gave us permission to try and fail too. That vulnerability built more trust than any slogan" (T12-Social Sciences-Mid). However, novice teachers perceived these efforts as abstract – as one novice put it: "Vision talks don't help me grade faster" (T07-Social Sciences-Novice).

Distributed support -- empowering PLCs, decentralizing decision-making, and trust-based empowerment -- was the least commonly experienced. A focus group participant noted

...We proposed a blockchain education PLC, but three departments claimed jurisdiction. Innovation dies in bureaucracy….(T21-Social Sciences-Senior)

...We have the will to collaborate, but the system punishes it. Budgets are siloed, meeting times conflict, and there is no reward for cross-departmental teaching projects….(T13-Social Sciences-Mid)

...In our department, the leader gave us a small budget and said, 'Organise your own peer observation scheme.' That tiny autonomy produced more collaboration than five top-down meetings….(T19-STEM-Senior)

Where distributed leadership was effective, teachers reported higher motivation, innovation, and well-being.

4.3 Interaction Between Motivation and Leadership Support

The qualitative data illustrate three interaction mechanisms: Mechanism 1: Competence scaffolding for novices. Novice teachers' competence needs are best met through instructional leadership that provides structured, actionable feedback:

> *...My mentor's monthly diagnostics gave me micro-goals: first master VR tools, then redesign lectures. This structure made growth feasible*….(T04-STEM-Novice)
> *...The AI feedback report showed I talked 70% of the time. My mentor then co-planned a 'student talk' strategy with me. That combination of data and human guidance was powerful*….(T05-STEM-Novice)

When scaffolding was absent, novices reported feeling overwhelmed and considered leaving the profession. This scaffolding works because novices lack the experiential schema needed for self-regulation; thus, external structure substitutes for internal competence until it is internalized.

Mechanism 2: Cultivating relatedness for mid-career teachers. Mid-career teachers' relatedness needs are activated by transformational and distributed leadership, enabling PLCs and peer recognition

> *… Our dean created a 'teaching innovation lab' where we meet monthly to share failures and successes. That sense of community kept me going when the research pressure was high*….(T12-Social Sciences-Mid)
> *….Our PLC created a shared Google Drive of lesson plans. When I was swamped with marking, I could still contribute by editing a colleague's draft – that low-pressure collaboration kept me engaged*….(T14-Social Sciences-Mid)

Administrative fragmentation, which prevents PLC formation, has led to professional isolation. Because mid-career teachers already possess basic competence, what they lack is peer validation and shared problem-solving spaces, which transformational and distributed leadership can provide.

Mechanism 3: Autonomy empowerment for seniors: Senior teachers' autonomy needs are met through distributed leadership and trust in expertise. Senior professors lamented:

> *….When I wanted to redesign our entire curriculum for active learning, my dean said, 'You know your field best. Go ahead, and let me know if you need resources.' That trust made me work harder than any top-down mandate ever could*….(T15-Social Sciences-Senior)
> *Last year, I asked to replace a standardised test with a portfolio assessment. My dean simply said, 'approved, let me know if you need resources.' That one word approved made me work twice as hard*….(T20-Social Sciences-Senior)

Clearly, when seniors were subjected to rigid requirements, they felt disrespected and eventually became disengaged. Distributed leadership that delegates decision‑rights respects their professional identity and reignites purpose‑driven engagement.

Thus, synthesizing qualitative data and motivational theories into a unified theoretical underpinning, a Differentiated Adaptive Leadership Motivation Model (DALM), a career-stage-sensitive model, is proposed. As presented in Figure 2, DALM is dynamic: as teachers progress, their dominant motivational need shifts, and leadership should adapt accordingly. Contextual enablers (supportive culture, technology) and barriers (administrative fragmentation, managerialist pressures) moderate these outcomes, with teacher well-being as an integral outcome, aligned with Sustainable Development Goal (SDG) 3 (Good Health and Well-Being).

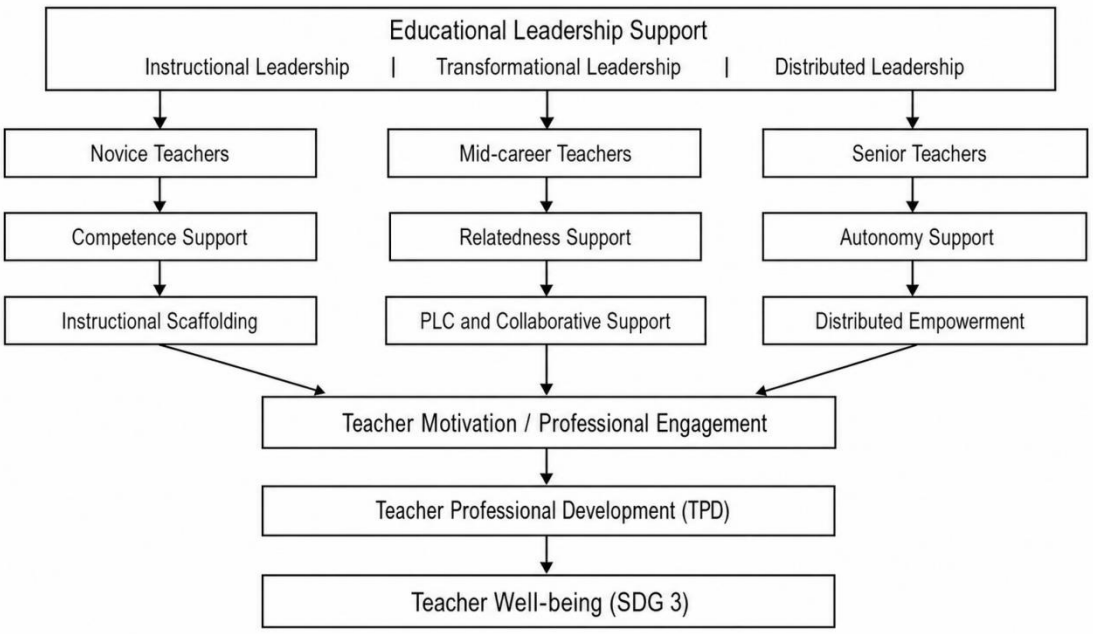

Fig. 2: Differentiated Adaptive Leadership–Motivation Model

Figure 2 presents the Differentiated Adaptive Leadership–Motivation Model for Higher Education Teachers' Well-Being, showing how leadership styles need to adapt to career-stage-specific motivational needs: instructional leadership scaffolds novices' competence, transformational and distributed leadership cultivate mid-career teachers' relatedness, and distributed leadership empowers seniors' autonomy. This dynamic alignment, moderated by enablers and barriers, directly supports teachers' well-being (SDG3).

5.0 Discussion

The findings extend the application of SDT, SET, and EVT within China's managerialist higher education context. While SDT posits that autonomy, competence, and relatedness are universal psychological needs, the findings demonstrate that their salience varies by career stage. Novice teachers' emphasis on competence reflects acute demands for acquiring professional skills in a hierarchical, research‐intensive environment. Mid-career teachers' peak need for relatedness corresponds to their "sandwich generation" position, in which they are expected to lead teaching teams while advancing research. In this context, professional communities provide essential buffering against burnout. Senior teachers' priority on autonomy aligns with expert identity and a desire for legacy-building innovation. These findings challenge one-size-fits-all leadership approaches and suggest that educational leaders must diagnose teachers' career-stage needs before selecting appropriate support strategies.

The findings also reveal systemic barriers to effective leadership. Administrative fragmentation, i.e., departmental silos, rigid budgeting, misaligned incentives, systematically undermined distributed leadership, and relatedness-building. Even when leaders wished to empower teachers, structural constraints limited effectiveness, echoing the World Bank's (2022) and Qian et al.'s (2023) sentiment that structural reforms must accompany technological innovation and leadership development.

Importantly, the findings explicitly link career-stage-adapted leadership to teacher well-being, directly supporting SDG3. Novices who received structured competence scaffolding reported lower teaching anxiety, improved sleep quality (as several participants voluntarily mentioned), and stronger professional self-efficacy. For mid-career teachers, participation in PLCs served as a buffer against burnout, i.e., peer recognition reduced emotional exhaustion, which could be a key predictor of turnover intention. Senior teachers who were granted autonomy reported renewed vigor and reduced "moral distress" stemming from excessive administrative control. Conversely, unmet motivational needs of novices without mentoring, mid-career teachers in silos, and seniors micromanaged are associated with demotivation, exhaustion, and intentions to leave. Thus, leadership differentiation is not merely a productivity strategy but a psychosocial intervention. In Shenzhen's managerialist context, where salary cuts and non-teaching workloads threaten well-being, adaptive leadership that aligns with psychological needs can partially mitigate structural stressors. This compensation occurs because need satisfaction mobilizes internal resources (e.g., self‐efficacy, belonging, sense of agency) that directly counteract the demotivating effects of structural constraints. The DALM provides an actionable pathway to achieve SDG3 in higher education without a radical system overhaul.

6.0 Conclusion & Recommendations

These findings empirically validate that educational leadership support must be differentiated adaptively: competence scaffolding for novices, relatedness nurturing for mid‐career teachers, and autonomy empowerment for seniors. DALM synthesizes these insights, offering a career‐stage‐sensitive model for sustaining teacher motivation, professional development, and well-being in managerialist higher‐education contexts. The DALM highlights that basic psychological needs are not equally salient across career stages. This finding challenges the universal application of self‐determination theory. It suggests that, in any domain involving career progression, such as organizational management, healthcare, or social work, motivation models must integrate career stage as a critical moderator of need salience.
The practical implications include implementing structured coaching and AI-enhanced feedback for novice teachers, facilitating PLCs and cross-departmental collaboration for mid-career teachers, and granting autonomy while reducing unnecessary bureaucratic approvals for senior teachers.

For policymakers, structural reforms are needed to dismantle administrative silos, incentivize collaborative teaching innovation, and rebalance research-teaching evaluation criteria. We recommend career-stage‐sensitive professional development curricula for teachers.

Limitations: The single‐institution sample and qualitative design limit generalizability. The findings on the unique "Shenzhen model" are therefore contextually embedded. In addition, the focus on only three career stages inadvertently excludes the establishment and potential retirement stages, limiting its representation of the full range of a teacher's career.

Future research: Future researchers could explore longitudinal qualitative designs to track motivation-leadership dynamics over time or conduct ethnographic studies of distributed leadership styles across multiple sites and diverse Chinese universities. Future researchers could also examine AI-mediated leadership and its capacity to compensate for structural barriers.

Conclusion: Sustainable teacher development and well-being require integrating psychologically attuned, differentiated leadership with pertinent institutional changes, rebalancing power, incentivizing collaboration, and fostering an ecosystem in which professional growth is individually meaningful and collectively supported to attain SDG 3.

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Paper Contribution to the Related Field of Study

The contribution of this paper is the proposed Differentiated Adaptive Leadership-Motivation Model, which reflects how differentiated leadership can sustain teacher well-being (SDG3). It provides empirical evidence from Shenzhen's managerialist higher education context for educational leaders' actionable strategies aligned to teachers' different career stages.

References

Salifu, I., Agyekum, B., & Nketia, D. (2024b). Teacher professional development (TPD) in Ghana: constraints and solutions. *Professional Development in Education*, *51*(8), 1951–1968. https://doi.org/10.1080/19415257.2024.2351947

Aslan, M., Arisoy, E., & Gören, T. (2023b). The Relationship between Learning-Centered Leadership and Professional Learning: A Study on SAC Teachers. *Kuramsal Eğitimbilim*, *16*(1), 142–162. https://doi.org/10.30831/akukeg.1179861

Braun, V., & Clarke, V. (2021). Conceptual and design thinking for thematic analysis. *Qualitative Psychology*, *9*(1), 3–26. https://doi.org/10.1037/qup0000196

Brice, L. D., Song, W., & Tetteh, L. (2024b). Examining the relationship between teacher reading education, perceptions of student behavior, and in-class independent reading environments: insights from the 2016 PIRLS dataset. *Learning Environments Research*, *28*(1), 27–44. https://doi.org/10.1007/s10984-024-09519-8

Daher-Armache, G., Armache, J., & Ismail, H. N. (2025). Leadership development in U.S. Higher education: Strategies for lifelong learning and upskilling. *Journal of Innovation & Knowledge*, *10*(4), 100754. https://doi.org/10.1016/j.jik.2025.100754

Darling-Hammond, L., Hyler, M., & Gardner, M. (2017). Effective Teacher Professional Development. *Darling Hammond, L., Hyler, M. E., & Gardner, M. (2017). Effective Teacher Professional Development. Learning Policy Institute. https://doi.org/10.54300/122.311*. https://doi.org/10.54300/122.311

Erdoğan, O., Kaymak, M. N., Çoban, Ö., & Bora, H. T. (2025d). Exploring the links between school principals' self-efficacy, open innovation mindset, transformational leadership, and artificial intelligence (AI) attitudes in Türkiye. *Educational Management Administration & Leadership*. https://doi.org/10.1177/17411432251351830

Hallinger, P. (2020). The Evolving Knowledge Base of Educational Leadership and Management. Springer. https://doi.org/10.1007/978-981-13-0876-6. (n.d.).

Karakose, T., et al. (2025). What factors mediate the relationship between principal leadership and teacher professional learning? Evidence from meta-analytic structural equation modelling (MASEM). *Journal of Educational Administration*, *63*(1):12–15. https://doi.org/10.1108/JEA-05-2024-0160

Liu, S., & Hallinger, P. (2022b). The effects of instructional leadership, teacher responsibility and procedural justice climate on professional learning communities: A cross-level moderated mediation examination. *Educational Management Administration & Leadership*, *52*(3), 556–575. https://doi.org/10.1177/17411432221089185

Luo, X., Alias, B. S., & Adnan, N. H. (2024b). Exploring the Interplay between Teacher Leadership and Self-Efficacy: A Systematic Literature Review (2013–2024). *Education Sciences*, *14*(9), 990. https://doi.org/10.3390/educsci14090990

Opfer, V. D., & Pedder, D. (2021). Professional learning and development in education. Routledge. https://doi.org/10.4324/9781003025653. (n.d.). Opfer, V. D., & Pedder, D. (2021). Professional Learning and Development in Education. Routledge. https://doi.org/10.4324/9781003025653.

Polatcan, M., Arslan, P., & Balci, A. (2021b). The mediating effect of teacher self-efficacy regarding the relationship between transformational school leadership and teacher agency. *Educational Studies*, *49*(5), 823–841. https://doi.org/10.1080/03055698.2021.1894549

Qian, H., Walker, A., & Zheng, Y. (2023c). Boundary-spanning practices of system leaders in China: Enabling conditions and inherent tensions. *Educational Management Administration & Leadership*, *53*(2), 238–257. https://doi.org/10.1177/17411432231174690

Vansteenkiste, M., Ryan, R. M., & Soenens, B. (2020b). Basic psychological need theory: Advancements, critical themes, and future directions. *Motivation and Emotion*, *44*(1), 1–31. https://doi.org/10.1007/s11031-019-09818-1

Trust, T., Krutka, D. G., & Carpenter, J. P. (2022). "Together we are better": Professional learning networks for teachers. Computers & Education, 185: 6–10. https://doi.org/10.1016/j.compedu.2022.104635. (n.d.).

World Bank. (2022). Using technology to power teacher professional development. Report No. 128234, 3–8. https://www.sohu.com/a/628234559_121124210. (n.d.).