

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 study 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; and senior teachers need autonomy, distributed leadership, and trust. The Differentiated Adaptive Leadership–Motivation Model highlights career-stage-adapted leadership for sustainable teacher well-being and for sustainability in higher education.

Keywords: Educational Leadership; Teacher Well-being; Higher Education Sustainability; 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 examines 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) (Ryan & Deci, 2023), Self-efficacy theory (SET) (Bandura, 2024), and Expectancy-value theory (EVT) (Wigfield & Eccles, 2000) with transformational-distributed leadership frameworks, this article addresses a critical gap in understanding how leaders foster 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 (Brice et al., 2024; Liu & Hallinger, 2022). However, despite growing recognition, empirical evidence on the specific mechanisms linking leadership practices to teacher motivation across career stages remains limited in Shenzhen, China.

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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 intrinsic factors that drive teachers' engagement in professional learning (Ryan & Deci, 2023). Furthermore, how leadership support, such as mentoring, collaborative communities, and instructional coaching, interacts with intrinsic motivation remains unclear. This gap raises a pertinent question. Without in-depth insights into motivational dynamics, optimal conditions for sustainable teacher development cannot be established. By situating the problem in Shenzhen, a national education reform model, this article 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 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

Intrinsic motivation, TPD, and educational leadership are 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 (Polatcan et al., 2021; Ryan & Deci, 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.

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 value its outcomes.

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

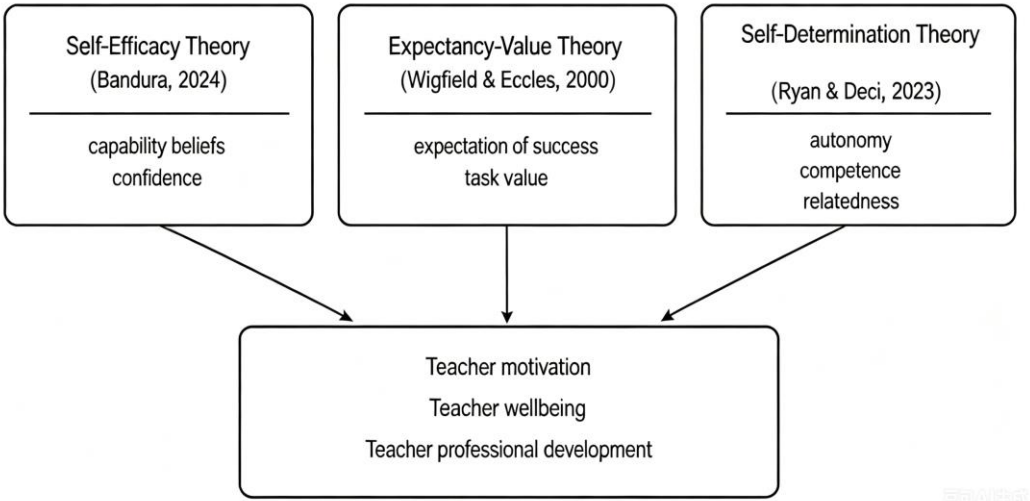


Fig. 1: Theoretical Framework

Existing applications of SDT, SET, and EVT often assume that the three psychological needs are universally salient. This theoretical framework reflects the application of these theories in a career-stage-dependent context. Novices rely on SET's self-efficacy and EVT's expectancy; mid-career teachers rely on SDT's relatedness and EVT's task value; and seniors rely on SDT's autonomy and EVT's attainment value. Thus, we propose a career-stage-sensitive integration as the theoretical foundation of DALM.

2.2 Supporting Teacher Professional Development

Effective TPD relies on mentorship, coaching, and Professional Learning Communities (PLCs). Most TPD literature treats mentoring, coaching, and PLCs as universally beneficial. Veteran or peer mentoring provides novice teachers with guidance and role modeling

(Brice et al., 2024; 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., 2021).

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 et al., 2025; Liu & Hallinger, 2022). 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 novice teachers and autonomy for experts.

Previous research often treats transformational, instructional, and distributed leadership as distinct paradigms. We argue that they should be deployed adaptively: instructional leadership for novice teachers and transformational and distributed leadership for mid-career and senior teachers, respectively. In China's managerialist context, leadership effectiveness depends on the fit between leadership style and teachers' evolving career-stage needs.

3.0 Methodology

3.1 Research Design

A qualitative case study design was adopted 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 (≤ 5 years of teaching experience), mid-career (6-15 years), and senior (≥ 16 years). A total of 21 academics voluntarily participated, seven per career stage, representing diverse disciplines (STEM, humanities, and social sciences). Participants were recruited via departmental emails and personal networks to ensure 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 using 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 (2021) six-phase approach: familiarization, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. NVivo 14 was used for systematic coding and organizing themes. 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 distinct forms of leadership support to sustain motivation and well-being. Table 1 presents the thematic coding from the NVivo analysis, linking career stages, types of leadership support, outcomes, and contextual barriers.

Table 1. Thematic Coding

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
Leadership approach	Senior teachers	Autonomy needs, trust, reduced bureaucratic approvals, innovation freedom, professional agency
	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
Outcomes	Distributed leadership	PLC empowerment, decentralised decision-making, budget autonomy, trust-based empowerment
	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 2 summarizes the main themes of 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 that each need maps to the corresponding leadership support. This alignment informs the DALM (Figure 2).

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, reporting 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 boosted 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 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)

Competence support is closely linked to technology adoption. Novice teachers value AI-enhanced teaching, diagnostics, and structured mentoring cycles. None prioritized autonomy or relatedness over competence. Mid-career teachers (6-15 years) showed 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)

Mid-career teachers also expressed frustration with administrative silos that hinder the formation of PLCs. Senior teachers (≥ 16 years) unanimously prioritized autonomy. Having developed strong competence and networks, they valued trust-based empowerment and freedom from bureaucratic approvals. The senior professors noted:

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 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 effectiveness varying by career stage.

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

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 evaluation from my head of department was tough but fair. Each time I addressed one weakness, 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 resonate 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: PLCs and trust-based empowerment, as well as decentralised decision-making, were uncommon experiences:

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 discourages 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)

When distributed leadership was ineffective, teachers reported lower motivation and less innovation.

4.3 Interaction Between Motivation and Leadership Support

Three interaction mechanisms were evident:

Mechanism 1: Competence scaffolding for novices. Novice teachers' competence needs are best met through instructional leadership that offers 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, novice teachers reported feeling overwhelmed and considered leaving the profession. Scaffolding is essential because novice teachers lack the experiential schema required for self-regulation; thus, external structure substitutes for internal competence until that competence is internalized.

Mechanism 2: Cultivating relatedness for mid-career teachers. Mid-career teachers' relatedness needs are met through transformational and distributed leadership, which enable 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. Although mid-career teachers have basic competence, they lack peer validation and a shared space for problem-solving that 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 standardized 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 senior teachers are subjected to rigid requirements, they feel disrespected and eventually 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) is proposed. A career-stage-sensitive model, DALM is dynamic: as teachers progress through their career stages, their dominant motivational need shifts, and leadership styles should be adapted 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).

Figure 2 presents the Differentiated Adaptive Leadership–Motivation Model for Higher Education Teachers' Well-Being. It shows that leadership styles should align with 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, explicitly supports teachers' well-being (SDG3).

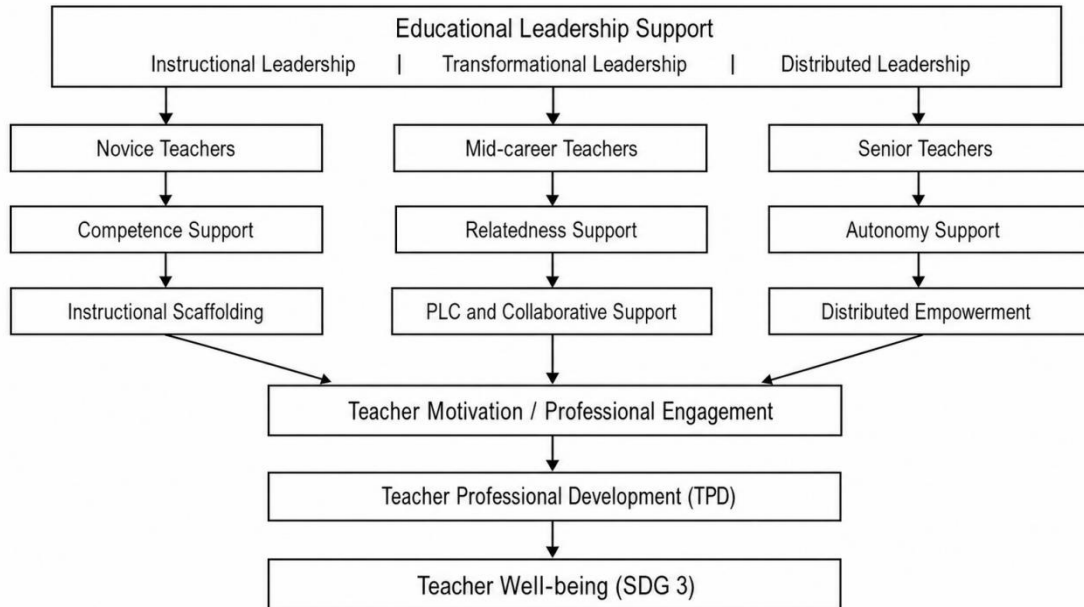


Fig. 2: Differentiated Adaptive Leadership–Motivation Model

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 show that their salience varies by career stage. Novice teachers' emphasis on competence reflects the acute demands of acquiring professional skills in a hierarchical, research-intensive environment. Mid-career teachers' peak need for relatedness aligns with their "sandwich generation" position, in which they are expected to lead teaching teams while advancing research. In this context, professional communities provide essential protection against burnout. Senior teachers' priority on autonomy aligns with an expert identity and a desire for legacy-building innovation. Our evidence shows that mentoring primarily benefits novice teachers. PLCs engage mid-career teachers only when genuine collaboration exists, and structured supports may feel patronizing to seniors. Effective TPD must therefore match career-stage needs rather than apply a one-size-fits-all approach. These findings challenge one-size-fits-all leadership approaches and suggest that educational leaders must identify 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, and misaligned incentives, undermines distributed leadership and the building of relatedness. Even when leaders seek to empower teachers, structural constraints limit effectiveness, echoing the World Bank's 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. Novice teachers who received structured competence scaffolding reported lower teaching anxiety, better sleep quality, and stronger professional self-efficacy. For mid-career teachers, participation in PLCs buffered against burnout; peer recognition reduced emotional exhaustion, a key predictor of turnover intention. Senior teachers granted autonomy reported renewed vigor and less "moral distress" stemming from excessive administrative control. Conversely, unmet motivational needs among novice teachers, siloed work experiences among mid-career teachers, and micromanagement among senior teachers 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 overhaul of the system.

6.0 Conclusion & Recommendations

These findings empirically validate the need to differentiate and adapt educational leadership support: 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. Basic psychological needs are not equally salient across career stages. This finding challenges the universal application of SDT and 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. Career-stage-sensitive professional development curricula are recommended for teachers.

The study's limitations include a single-institution sample and a qualitative design, both of which constrain generalizability. As a result, the findings on the "Shenzhen model" are contextually embedded. In addition, focusing 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 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. They could also examine AI-mediated leadership and its capacity to compensate for structural barriers. In conclusion, teacher effectiveness 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 higher-education sustainability.

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Paper Contribution to Related Field of Study

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

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