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EDITED BY
Rany Sam,
National University of Battambang, Cambodia

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Pedro Schimmelpfeng,
Universidade Católica de Brasília, Brazil
Da Vuthea,
University of Battambang, Cambodia

*CORRESPONDENCE
Jiaying Chen
✉ 757556945@qq.com

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Competition pressure and psychological resilience among university teachers: a mixed-methods study of teaching competitions in Chinese higher education

Jiaying Chen[1]*, Danting Sui[1], Yuxia Yu[1] and Mengchun Zhang[2]

[1]Academic Affairs Office of Jiangxi Institute of Fashion Technology, Nanchang, China, [2]Mental Health Education and Counseling Center of Jiangxi Institute of Fashion Technology, Nanchang, China

Teaching competitions are an important way to enhance teachers' teaching abilities. However, the traditional management model of school competitions generally has a tendency of "emphasizing skills over mental effort," with a single evaluation dimension and a lack of systematic attention to teachers' mental health and psychological resilience. This study focuses on the model innovation of "Mental Education Empowerment Dual-track Drive," and builds a institution-level (school-level) competition management paradigm for the collaborative evaluation of teaching academic ability and psychological resilience development. This study conducted empirical verification in combination with the Yerkes–Dodson motivation-Efficiency inverted U theory. Based on semi-structured interviews with 14 participating university teachers and two rounds of questionnaire surveys, the study found that the competition pressure of the participating university teachers presented an "inverted U-shaped" distribution, with the peak pressure in the provincial competition selection stage being the highest (averaging 8.2 points). The psychological resilience of teachers presents a three-dimensional structure of "persistence–iteration–breakthrough," and its functional exertion is context-dependent. There is a "triple disconnection" in current psychological support–disconnection in timing, disconnection in form and disconnection in evaluation. The research further revealed the notable differences in stress perception and support needs among independent participating university teachers and teachers of different teaching ages. Based on the negative case analysis method, the conclusion of the singularity of psychological support was corrected, and the optimal pressure range of university teaching competitions was calculated through quantitative questionnaires. Based on this, this paper proposes a four-dimensional reform

path for the "dual-track drive" institution-level (school-level) competition management model: hierarchical psychological intervention, personalized support principles, full-cycle resilience cultivation, and reconstruction of the evaluation mechanism. The research provides theoretical basis and practical path for the innovation of the management mode of teaching competitions for university teachers.

KEYWORDS

competition pressure, management of school-level competitions, psychological resilience, teacher development, teaching competition

1 Research origin: the dual dilemma of teachers' psychological resilience and competition management

Teaching competitions are widely valued for their demonstrative and value-enhancing effects on faculty teaching (Cao, 2020). The disciplinary origin of the topic "Teacher Resilience" can be traced back to the exploration of children's resilience in developmental psychology in the 1960s and 1970s. Scholars such as Norman Garmezy questioned "Why do some children still develop well in major adversities?", laying the core issue awareness for the study of psychological resilience. Among early-career teachers, emotional intelligence is associated with mental health through the chained mediating roles of coping styles and psychological resilience (Chen and Yan, 2026). Since then, as the theoretical paradigm has shifted from regarding resilience as an inherent heroic trait of an individual to defining it as a dynamic process that emerges in daily interactions and can be supported by the environment, the concept of psychological resilience has gradually migrated to the fields of organizational behavior and education.

From the mid-2000s to the late 2000s, scholars represented by Caroline Day, Qing Gu, Susan Beltman, etc., rooted resilience in the professional context of teachers. It is proposed that teachers' psychological resilience is the process-oriented ability of teachers to effectively mobilize personal and environmental resources to cope with daily teaching challenges, maintain professional commitment and happiness, thereby establishing the independent research status of this field.

It is worth noting that this theory has undergone significant localization transformation during its introduction into the Chinese educational context. Around 2012, scholars represented by Li Qiong from the Hong Kong Institute of Education and Chen Xiangming from Beijing Normal University shifted their research focus from the major traumatic adversity concerned in the Western context to the "daily teaching emotional erosion" commonly faced by Chinese teachers–that is, the ability to maintain teaching enthusiasm in the structural contradiction of long-term examination pressure, high emotional investment and low social return.

As a result, relational resilience is highlighted: the resilience of Chinese teachers is not rooted in isolated self-beliefs, but is deeply embedded in the emotional community between teachers and students and the informal support network among colleagues, presenting a distinct cultural embeddedness. This understanding directly promoted the update of the intervention logic. In recent years, the implementation path has gradually shifted from the early focus on individual psychological skills training for teachers to building a micro-ecosystem at the school level that supports teachers' psychological resilience. This includes systematic attempts such as establishing teacher psychological narrative tribes, setting up relational resilience workshops, and incorporating an organizational environment that respects boundaries into teacher care policies. Against the backdrop of accelerating the building of an education power and promoting high-quality development of education, enhancing teachers' teaching capabilities is the core task for consolidating the foundation of educational quality. As an important way to measure and enhance teaching ability, the organization and management model of teaching competitions urgently need innovation. At present, in the closely related teacher evaluation system, there are widespread problems such as "ambiguous standards, single subjects, and fragmented incentives." In private universities, competition management has been reformed around the principle of 'promoting teaching through competitions' (Luo et al., 2025). These problems not only restrict the individualized development of teachers but also weaken the internal driving force for teaching innovation. Psychological resilience, as an individual's ability to quickly recover and continuously grow in the face of pressure and challenges, has received attention in the field of education in recent years. Recent studies have shown that teachers' psychological resilience is closely related to their professional well-being, and different teachers exhibit notable heterogeneity when facing professional stress (Pöysä et al., 2026). Teachers with high psychological resilience are more capable of effectively addressing teaching challenges, maintaining job satisfaction, and thereby promoting the improvement of teaching quality. Meanwhile, explorations in the field of social work education have shown that innovative mind-body methods such as sophrology can effectively enhance the well-being and resilience of students and educators (Rees et al., 2026), which provides new ideas for teachers' stress management and psychological support, emphasizing the importance of enhancing teachers' psychological resilience. Furthermore, the classic Yerkes-Dodson motivation-Efficiency inverted U model provides a core theoretical reference for the pressure distribution law in this study. Recent reviews of the Yerkes-Dodson hypothesis across sport and labor settings confirm that stakes-based pressure improves performance only

up to a task-dependent optimum (Grove et al., 2025). This theory distinguishes the matching relationship between motivation (pressure) and performance under different task complexities: simple mechanical tasks can enhance efficiency through high pressure, moderately difficult tasks are suitable for moderate pressure, and highly creative and highly integrated complex tasks can only achieve optimal output within the low to moderate pressure range. Teaching competitions for university teachers are a complex and highly cognitive creative task that integrates curriculum design, classroom innovation, on-site performance, and material refinement. Existing research has not yet combined this theory to explain the differentiated performance impact of pressure during the competition stage, which is also a theoretical gap that this study needs to fill.

However, existing research has paid limited attention to the issue of psychological resilience in teaching competitions among university teachers. How do the multiple pressures that teachers face when participating in teaching competitions–long-term preparation, repeated rejection of materials, expert negation, time conflicts, and identity anxiety–shape their psychological experiences? How can teachers develop coping strategies under structural constraints? What institutional gaps exist in the current management model of institution-level (school-level) competitions? These issues urgently need to be addressed through empirical research. This study is precisely based on this gap, taking in-depth interviews with 14 participating university teachers as the empirical foundation, to explore the theoretical logic and practical path of integrating psychological resilience cultivation into the management of school competitions.

Building on this gap, the present study addresses the following research questions concerning university teachers who participate in teaching competitions: (RQ1) How do the multiple pressures that university teachers encounter across competition stages shape their psychological experiences? (RQ2) How do university teachers mobilize psychological resilience and coping strategies under structural constraints? (RQ3) What institutional gaps exist in the current management model of institution-level competitions, and how can psychological support be improved?

Teaching competitions in the Chinese higher-education context. In mainland China, university teaching competitions are staged, competitive events organized at three nested levels: the institutional (university, often called "school-level") competition, the provincial selection, and the national competition. Participating university teachers typically progress through these stages sequentially: they first prepare course designs, teaching materials, and recorded or live lessons at the institutional level; winners advance to the provincial selection; and provincial finalists proceed to the national competition. What teachers are expected to do includes designing innovative curricula, refining lesson materials through repeated expert feedback, and delivering polished on-site demonstrations under time pressure. These competitions are professionally relevant because strong performance yields teaching-excellence award, recognition, and, at some institutions, consideration for promotion or research credit. This study focuses on university teachers (faculty) as the participant population.

2 Theoretical framework and research design

(1) Theoretical perspective: an integrated analytical framework for competition pressure and psychological resilience

This study aims to explore the characteristics of psychological stress in university teachers' teaching competitions, the mechanism of psychological resilience, and the optimization path of the management model of institution-level (school-level) competitions. To systematically respond to the above issues, this study integrates four theoretical perspectives and constructs a multi-level analytical framework.

1. Pressure cognitive evaluation theory: understanding teachers' subjective construction of competition pressure

According to Lazarus and Folkman's (1984) theory of stress and coping, stress is not the objective event itself, but rather the subjective evaluation result of an individual on the event. This theory distinguishes between two evaluation processes: primary evaluation (where an individual determines whether an event poses a threat, challenge or loss to themselves) and secondary evaluation (where an individual assesses whether they have the ability to deal with the event). Stress experiences arise when teachers feel that the requirements of competitions are beyond their capabilities.

This study adopts this theory as the fundamental perspective for understanding the stress of teachers' competitions, with a focus on: (1) How do teachers evaluate the nature of stress at different competition stages (is it a challenge or a threat?); (2) How does a teacher's assessment of their own coping ability affect their anxiety level? (3) Are there any differences in stress evaluation among teachers of different teaching years and professional titles? This perspective helps to reveal the subjective constructiveness of stress experiences and avoid simply equating stress with external stimuli.

2. Process model of psychological resilience: from traits to dynamic processes

Early research on psychological resilience tended to view it as an inherent "heroic trait" of an individual. However, contemporary research has turned to understanding resilience as a dynamic, context-dependent process–the ability of an individual to successfully mobilize personal and environmental resources and maintain positive adaptation when facing significant adversity (Masten, 2014). In the field of education, Gu and Day (2007) further proposed that teachers' psychological resilience is a process-oriented ability for teachers to effectively cope with daily teaching challenges, maintain professional commitment and happiness, and its formation is deeply influenced by environmental factors such as school culture, colleague support, and leadership care.

This study adopts this process perspective, understanding psychological resilience as: the ability of participating university

teachers to mobilize personal (cognitive strategies, emotional regulation) and environmental (organizational support, teamwork) resources to maintain competition motivation and mental health throughout the entire competition cycle when facing stressful events. This perspective prompts this study to not only focus on the "intrinsic resilience traits" of teachers, but also on how the management environment of school competitions "nurtures" or "restrains" the exertion of resilience.

3. Organizational support theory: an analysis of the Institutional environment for school competition management

Organizational support theory holds that employees' perception of whether an organization values their contributions and cares about their well-being (i.e., "perceived organizational support") directly affects their work attitude, stress levels, and willingness to stay (Eisenberger et al., 1986). Applying this theory to the management context of school competitions: Teachers' perception of the resource support, psychological care, flexible arrangements and other aspects provided by the school (academic Affairs Office, college) during the competition process will affect their competition experience, stress level and willingness to continue participating in the future.

This study, with the aid of this theory, systematically assesses the perception and evaluation of participating university teachers on various aspects of the school competition management, including: the efficiency of resource integration, the degree of psychological care integration, the smoothness of cross-departmental collaboration, and the rationality of the rewards system, etc. By identifying the connection between "support perception" and "pressure experience," it provides empirical basis for optimizing the management system of school competitions.

4. Motivation-efficiency inverted U theory: a threshold analysis tool for stress and competitive performance

The core conclusion of this theory, first reported by Yerkes and Dodson (1908), is that there is an inverted U-shaped relationship between stress (motivation intensity) and task performance, and the optimal stress threshold varies inversely with task complexity: for low-complexity tasks, high motivation stress leads to higher performance. Tasks that are highly creative and difficult to integrate can lead to cognitive blockage and rigid thinking due to excessive pressure. Only moderate to low pressure can ensure stable performance.

This study applies this theory to two major analyses: ① explaining the causes of the inverted U-shaped distribution of pressure for participating university teachers in the three stages of school-level competition, provincial-level selection, and national-level competition; ② by combining the quantified scores of the two rounds of questionnaires with the final competition results, calculate the indicative optimal pressure threshold for university teaching competitions, distinguish the appropriate pressure ranges for teachers of different competition levels and different teaching experiences, and respond to the core controversy of "whether high pressure is conducive to the performance in teaching competitions."

5. The integration logic of four theoretical perspectives

Four theoretical perspectives play different but complementary roles in this study:

The cognitive evaluation theory of stress is used to explain "where stress comes from"–emphasizing the subjective constructiveness of stress and avoiding attributing stress to individual vulnerability or the competition itself.

The process model of psychological resilience is used to explain "how teachers respond"–viewing resilience as a cultivable dynamic process rather than a fixed trait, providing a basis for intervention design. Organizational support theory is used to explain "how the institutional environment works"–shifting the focus of analysis from "individual teachers" to "the management mechanism of school competitions," providing direction for the reform path.

The Yerkes-Dodson Motivation Efficiency theory is used to explain "how stress levels affect competition outputs," quantitatively identify the optimal stress range for adapting teaching competitions, and distinguish the stress adaptation standards for different types of events.

The four together form a complete analytical chain of "stress perception → resilience invocation → organizational regulation → performance output," which not only focuses on the subjective experience of teachers but also on the supporting function of the institutional environment and the performance impact of stress.

Based on the four major theories, this study designs a dual-track parallel research approach (Figure 1): The first is the qualitative interview main line, which conducts grounded analysis through semi-structured interviews with 14 teachers. It elaborates on the research design considerations, data coding logic, and core research conclusions in four dimensions: stress, resilience, support systems, and group differences, and incorporates negative case analysis to enhance the credibility of the qualitative research. The second is the sub-line of the quantitative questionnaire. Relying on the quantitative data of anxiety from two rounds of competitions, combined with the Yerkes–Dodson inverted U model to calculate the corresponding relationship between stress motivation and the output of teaching competitions, the optimal stress threshold is quantitatively identified to achieve mutual verification between qualitative experience and quantitative data.

(2) Research Design

1. Research methods

This study adopted a hybrid method combining semi-structured interviews with questionnaire surveys. The qualitative part aims to deeply understand the specific manifestations of teacher competition pressure, the process of invoking psychological resilience, and the deep-seated demands for the management of school competitions. The quantitative part aims to measure the phased changes in anxiety levels and provide triangulation

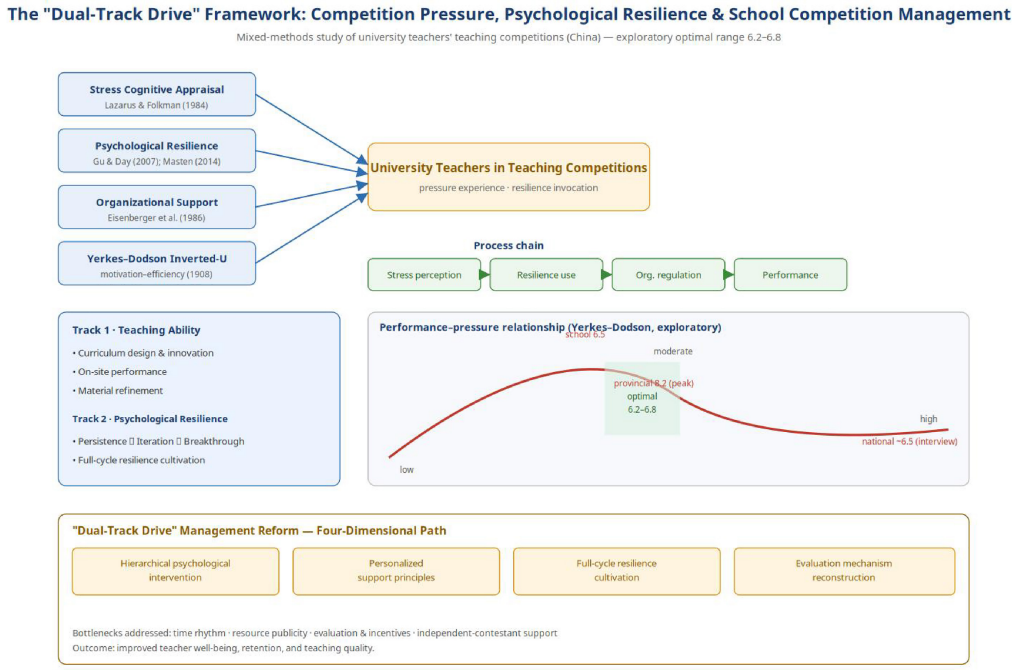


FIGURE 1
The proposed dual-track drive model of teacher competition anxiety and coping.

validation for qualitative discoveries (Figure 1). Because the inquiry is situated in the teacher-researcher tradition, the design follows an action-research logic in which research and practice improvement are intertwined (Mills, 2018).

2. Research Subjects

Following Patton (2015), this study adopted a purposive, criterion-based sampling strategy stratified by professional title, in order to select information-rich cases. This study adopted a purposive, criterion-based sampling strategy stratified by professional title. First, divide the teaching staff into four levels based on their professional titles (professor, associate professor, lecturer, and assistant lecturer) to ensure that there are teacher representatives selected for each professional title level. Then, within each level, teachers who have participated in teaching competitions at the school level or above in the past 3 years are purposively selected as interviewees. Inclusion criteria: (1) Have participated in at least one teaching competition at the school level or above (such as the Teacher Teaching Innovation Competition, the Young Teacher Teaching Competition, the Teaching Ability Competition, etc.); (2) Be willing to share the stress experiences and coping strategies during the competition preparation process.

A total of 14 teachers were interviewed in the end. The sample distribution is as follows: 2 professors, 2 associate professors, 8 lecturers, and 2 teaching assistants. The teaching experience spans from 3 to 26 years, covering different development stages from novice teachers to senior professors, and the professional fields include fashion design and engineering, visual communication design, fashion and apparel design, animation, Marxist theory, economic mathematics, drama and film art design, logistics service and management, blockchain technology application and many other disciplines (Table 1).

3. Data collection

Interview section: a semi-structured interview will be adopted, with each interviewee's interview duration controlled within 1–1.5 h. The interview outline is designed around the following dimensions: competition experience and role, the stage and intensity of competition preparation pressure, emotional and physical signals, coping strategies, evaluation of school competition management, and suggestions for integrating psychological support. The interviews were completed from September 2025 to April 2026.

Questionnaire section: at two key points, before the final of the school competition (December 2025) and before the provincial competition (April 2026), the "Self-Assessment Questionnaire on Competition Anxiety" was distributed to the participating university teachers. The questionnaire was developed by adapting the three-dimensional structure of the Competitive State Anxiety Inventory-2 (CSAI-2; Martens et al., 1990) to the context of university teaching competitions. It consists of 27 items grouped into three subscales–physical response (somatic anxiety; 10 items), cognitive anxiety (10 items), and self-confidence (7 items)–as determined by content validity review. Items were rated on a 4-point Likert scale (1 = not at all, 2 = a little, 3 = moderate, 4 = very much). Three positively worded items in the physical-response subscale were reverse-scored so that higher scores indicate greater somatic anxiety; cognitive-anxiety items are scored in the anxious direction; and self-confidence items are scored so that higher scores reflect greater confidence. Internal consistency

TABLE 1 Statistical table of information of the interviewed research subjects.

Coding	Teaching experience	Professional title	Professional	The number of participations in the past 3 years	Participation method
R01-25-P	25	Professor	Clothing design and engineering	3	Independent participating teachers
R02-6-L	6	Lecturer	Visual communication design	2	Team competition–main speaker
R03-3-AL	3	Teaching assistant	Linear algebra	5	Team competition–main speaker
R04-20-AP	20	Associate professor	Clothing and accessories design	2	Team competition–main speaker
R05-18-AP	18	Associate professor	Clothing and accessories design	2	Independent participating teachers
R06-8-L	8	Lecturer	Animation	4	Team competition–main speaker
R07-7-L	7	Lecturer	Marxist theory	2	Team competition–main speaker
R08-26-P	26	Professor	Clothing and accessories design	1	Team competition–main speaker
R09-11-L	11	Lecturer	Marxist theory	3	Independent participating teachers
R10-5-L	5	Lecturer	Economic mathematics	2	Independent participating teachers
R11-10-L	10	Lecturer	Art design for drama, film and television	1	Independent participating teachers
R12-5-L	5	Lecturer	Clothing and accessories design	3	Independent participating teachers
R13-7-L	7	Lecturer	Logistics service and management	3	Team competition–main speaker
R14-3-AL	3	Teaching assistant	Application of blockchain technology	2	Independent participating teachers

The coding format is "RXX - Teaching Years - Professional Title," where RXX is the respondent number (ID). Teaching experience refers to the number of years a teacher has been teaching. Title: P = Professor, AP = Associate Professor, L = Lecturer, AL = teaching assistant (Lecturer).

was evaluated with Cronbach's α in the school-competition wave (n = 17): total scale α = 0.81; subscale αs: physical response = 0.85, cognitive anxiety = 0.92, self-confidence = 0.90. Content validity was established through expert review by two specialists in sports psychology and higher-education teaching. Because the provincial-competition wave included only three respondents, its reliability was not reported.

4. Data analysis

Qualitative analysis followed a three-level coding procedure based on grounded theory (Chen, 2024), proceeding from open coding through axial coding to selective coding. First, conduct open coding, read the interview text paragraph by paragraph, extract the initial concepts, and constantly compare the extracted concepts and categories. Subsequently, axial coding is carried out. Through the paradigm model, the relationships between categories are constructed, and the primary and secondary categories are determined. Finally, selective coding is carried out to extract the core category (Table 2).

Quantitative analysis: descriptive statistics were employed to calculate the mean and standard deviation of the anxiety scale at each stage. The score differences in each item between the school-level competition and the provincial-level competition were compared to identify the changing trend of the anxiety structure (Table 3).

3 Research findings

(1) Spatio-temporal distribution of competition pressure: a structural transformation from somatization to cognitive anxiety

3.1 The "inverted U-shaped" distribution of pressure peaks

The research found that the competition pressure of the participating university teachers did not increase linearly with the improvement of the competition level, but presented an "inverted U-shaped" distribution: the peak pressure was the highest in the provincial selection stage, with an average self-assessment of anxiety of 8.2 points (1–10 points), which was higher than that in the school competition stage (6.5 points) and the national competition stage (6.5 points). (R01-25-P) has a profound understanding of this: "During the provincial selection competition, the selection was basically made from among the 40 first prize winners..." The other four are all from public universities, so the competition will be quite fierce. On the contrary, the national competition felt that standing on that podium was already a very good account.

This "inverted U-shaped" distribution reveals the complex mechanism of competition pressure perception: when teachers

TABLE 2 Examples of the conceptualization process of the original interview data.

Original data	Initial concept	Initial category	Main category
I fell seriously ill before the competition because I went to bed too late and often stayed up late, which made my immunity weak	Staying up late leads to physical illness	Somatization symptoms	Pressure signal
Before the game, I had insomnia and nightmares, and my heart felt like it had an electric flu	Insomnia heart discomfort	Somatization symptoms	
Symptoms such as irritability, insomnia, lower back pain and stomachache occur	Multiple somatic symptoms occur concurrently	Somatization symptoms	
Loss of appetite, irritability, insomnia	Decreased appetite; emotional fluctuations	Somatization symptoms	
After staying up late, I had a severe headache, but the materials haven't been revised yet, so I can only keep going	Keep working despite being ill	Somatization symptoms	
Break down the target tasks into detailed small tasks and complete them step by step according to the time points	Task decomposition progress management	Refined management strategy	Coping strategies
Make the most of the breaks in class and the lunch break to deal with the competition materials	Make use of fragmented time	Time squeeze strategy	
I finish teaching work during the day and stay up all night after work to complete the competition tasks	Teaching during the day and preparing for competitions at night	Time squeeze strategy	
The day before the deadline for uploading materials, I suddenly found a problem. I prepared the lesson all night and recorded it again the next morning	Sudden problems are solved by staying up late	Emergency response/high-intensity emergency work	
According to the method taught by Professor Zhang in his lecture, use mindful breathing to relieve tension	Application of mindfulness techniques	Psychological self-adjustment	
Teaching takes priority because as a teacher, one must first complete the teaching tasks	Teaching takes precedence over competitions	Dual-track task coordination	
The dean of teaching in the college fully supports and proactively coordinates class adjustments and resolves unexpected issues	The college leaders took the initiative to support	The college supports culture	Support resource differences
Our college is quite good in this regard. Whenever there's something going on, everyone will help each other because getting an honor is also an honor for the college	College mutual assistance culture; sense of collective honor	The college supports culture	
As an independent participating teacher, one needs to be fully responsible for all aspects of the competition without the collaboration of team members	Independently undertake all the work	The predicament of independent contestants	
Some colleges will arrange dedicated teams to help polish materials and coordinate course recording, but our college basically has to rely on itself	The differences in support among colleges	The college supports cultural differences	
It is hoped that psychological support will be noted when the competition notice is released, so that we can consciously and proactively seek help in advance	Support the demand for information in advance	Psychological support optimization suggestions	Suggestions for management improvement
It is very necessary for the school to track the psychological conditions of the contestants during the final of the school competition and summarize the psychological reasons for their poor performance	Psychological attribution analysis demands	Psychological support optimization suggestions	
Full-process companion psychological counseling depends on the teacher's needs and is not mandatory	Support personalization; respect autonomy	Psychological support optimization suggestions	
The psychological counseling is good, but I hope to incorporate some content of competition posture and etiquette guidance	Embodied support preferences	Psychological support optimization suggestions	
The simulation presentation of the competition organized by the Academic Affairs Office is extremely necessary; otherwise, the scene will be very tense and chaotic	Simulation exercises relieve tension	Training support demands	

move from the "relatively safe" school-level competition environment to the selection stage where they "compete on the same stage with stronger opponents," identity anxiety (private colleges vs. public colleges), fear of uncertainty, and a sense of responsibility to "represent the school" all erupt, forming a peak of pressure. However, after entering the national competition, the sense of achievement of "having completed the entire course" actually serves as a pressure buffer.

This inverted U distribution is consistent with the motivation–efficiency theory: teaching competitions are highly creative and complex tasks. Under the high pressure range of 8.2 points in the provincial competition selection, many teachers have experienced

TABLE 3 Summary table of questionnaire survey subjects' information.

Indicator	Before the final of the school competition (n = 17)	Before the provincial competition (n = 3)
Proportion of women	88.24%	100%
Age concentration range	31–35 age (47.06%)	Aged 36–40 (66.67%)
The concentrated period of teaching experience	Balance of each section (29.41%)	More than 10 years (66.67%)
Total average score of the scale	2.02	2.28
The sum of the average scores of the questions	54.65	61.67

performance losses such as rigid thinking, repeated revisions of materials but difficulty in innovation, and stuttering in on-site expression. Teachers in the medium-pressure range with a score of 6.5 in the school competition have the highest iteration efficiency. Teachers in the low-pressure range of 6.5 points in the national competition have a more relaxed mindset and more natural creative expression. A comparison of the three types of tasks can clearly distinguish the appropriate pressure: simple classroom presentation competitions can moderately tense up and improve the state, standardized lesson presentation competitions are suitable for moderate pressure, and comprehensive teaching competitions that require curriculum reconstruction and teaching innovation must control pressure to avoid cognitive blockage.

3.2 Special analysis of negative cases

Among the 14 respondents in this study, R06-8-L (with 8 years of teaching experience, an animation professional lecturer, and the main lecturer for team competitions) is a typical negative case in this research. On the core issue of full-process accompanying psychological counseling for high-level competitions, his viewpoint is completely opposite to that of the other 13 teachers. He is a typical deviation sample from the mainstream coding conclusion in qualitative research. Based on the negative case analysis method, it is necessary to conduct separate dissection and analysis to enhance the fidelity of research data and the validity of theoretical explanations.

The mainstream group has a unified understanding: All 13 teachers agree that the school's provision of full-time psychological counseling for the contestants advancing to the provincial and national competitions has positive value. They believe that having dedicated personnel track emotions and promptly relieve frustration can effectively buffer the self-denial and cognitive anxiety brought about by high-pressure competition preparation, and it is a practical organizational support measure.

However, R06-8-L holds a clear opposing stance. During the interview, he put forward two core reasons: first, he prefers an independent closed-loop mode in his personal competition preparation, resists the continuous and active care from his superiors and psychological teachers. Excessive psychological care will constantly remind him that he is "being evaluated as a key person and closely monitored," magnifying identity anxiety and increasing psychological internal consumption. Secondly, the time resources for preparing for the competition are highly scarce.

The offline psychological lectures and one-on-one psychological counseling sessions organized uniformly by the school occupy the core preparation time for teaching design, courseware refinement, and lesson recording modification. Under the tight deadline for competition materials, the input-output ratio of psychological counseling is relatively low, and it is not as efficient as low-cost self-adjustment methods such as self-organized fragmented exercises and mindfulness regulation.

Research considerations on the dimension of negative cases. The core principles of qualitative research require the complete presentation of the original viewpoints of all interviews. Conflicting samples should not be excluded to distill a unified theoretical framework. Negative cases are not invalid noise but key evidence used to explore theoretical boundaries and identify potential boundary conditions. Good qualitative research is characterized by openness to disconfirming evidence, empirical grounding, and analytic insight (Huang and Zou, 2026). This study specifically retains and deeply analyzes the opposing viewpoints of R06-8-L, aiming to break the single presupposition that "companion-style psychological counseling is effective for all participating university teachers," explore the prerequisite constraints for psychological support to play a role, and avoid the homogenization and one-size-fits-all reform suggestions.

3.3 Core conclusion of the negative case dimension

The effect of companion-style psychological counseling has notable individual boundaries. The prerequisite for its positive effect to hold is that teachers have the need for external emotional support and acceptance. For teachers who prefer to prepare for competitions independently and pay attention to the boundaries of their personal space, high-intensity full-process companionship and care will inversely increase their anxiety about competition cognition, resulting in counterproductive negative effects.

The value judgment of psychological support forms is dependent on the time resource constraints of teachers: during the preparation stage when the battle line is long and the pressure of material iteration is high, teachers will prioritize allocating their time to the refinement of teaching achievements. Unified offline centralized psychological services are easily regarded as a waste of time. Lightweight and self-selective psychological support is more suitable for high-pressure competition preparation scenarios.

By integrating mainstream and negative cases, the original single conclusion can be corrected: the full-process accompanying psychological counseling cannot be implemented as a standardized and universal solution. It is necessary to establish a pre-selection mechanism for autonomous choice, allowing participating university teachers to independently choose different support models such as remote text guidance, intermittent psychological communication, and self-adjustment without accompaniment, which is in line with the principle of personalized support reform proposed earlier.

This dimension sets the research considerations for the multi-stage stress self-assessment problem: breaking through the limitations of the existing single static stress measurement, tracking the psychological changes across the two competition stages throughout the entire event cycle, and distinguishing between physical and cognitive anxiety levels; After integrating negative cases and common data of the group, the core conclusion of the dimension is drawn: The overall pressure of teaching competition shows an inverted U distribution, but there is group heterogeneity. High pressure has a association with reduced performance on highly creative teaching competitions. Only the medium pressure range can balance the motivation for competition preparation and innovative thinking.

1. Typological analysis of stressors

Based on the statements of 14 teachers, the sources of competition pressure can be classified into four categories, ranked by the frequency of mention: repeated rejection and refinement of materials (40%), time conflicts (30%), expert negation (15%), and identity pressure (15%). Material polishing became the most prominent source of pressure. Chinese research describes young faculty as 'trapped in time,' with time anxiety produced by the structural compression of teaching, research, and administrative demands (Li, 2021). (R05-18-AP) described an extreme situation where there were only 3 days left until submission after expert comments: "When the experts were giving us comments and polishing, they found that the materials might not be as perfect as expected, but there were only 3 days left until submission." There's no choice but to stay up late at night to work.

The psychological crisis triggered by experts' denial is particularly worthy of attention. (R01-25-P) During the selection stage, you were completely rejected by an expert and fell into a negative state for several weeks: "Suddenly, an expert completely rejected you, and you had a lot of doubts at that time..." Self-denial. Later, I came out with a metaphor–the fact that the cup itself is exquisite, while the evaluations given by others are merely opinions.

This case vividly demonstrates how external evaluation impacts teachers' self-efficacy and the crucial role of cognitive reconstruction strategies in crisis response. The research considerations for the classification and coding of this dimension: standardize and categorize external events based on the sources of stress, quantitatively count the frequency of mentions of various types of stress, and accurately identify the stress sources that need to be prioritized for resolution in the management of school competitions. Conclusion of this dimension: Repeated polishing of materials and conflicts of time resources are the core sources of pressure for participating university teachers. Optimizing the material polishing cycle at the institutional level and coordinating the teaching preparation time for the competition can significantly reduce the basic pressure on teachers.

2. The phased differentiation of anxiety structures

The comparison of the data from the two rounds of questionnaires further reveals the intrinsic transformation of the anxiety structure. During the school competition stage, teachers' anxiety was mainly manifested as somatization symptoms: the items with the lowest scores were concentrated on "I feel my stomach sinking" (1.12), "I feel my stomach is tense" (1.29), and "I feel my body is stiff" (1.29), suggesting that physiological arousal is the core anxiety manifestation during the school competition stage. By the provincial competition stage, the anxiety structure differentiated: the scores of the confidence and relaxation items increased simultaneously ("I am confident in facing this challenge" rose from 2.59 to 3.00), but the cognitive anxiety item also rose markedly ("I am worried about losing in the competition" rose from 2.06 to 2.67). This transformation from "somatization to cognition" implies that as competition experience accumulates, teachers gradually shift from "physical tension" to deep reflection on their abilities, results, and self-expectations.

This dimension sets up two rounds of time-point questionnaire research considerations: through the comparison before and after the school competition and the provincial competition, a two-wave, repeated cross-sectional comparison is achieved to make up for the limitations of the cross-sectional data of the interview. Combining the motivational efficiency theory to distinguish the impact of two types of anxiety on competition output–somatization anxiety only consumes energy in the short term, while cognitive anxiety directly interferes with the innovation of instructional design. The final conclusion of this dimension: the pressure of low-level events is mainly physiological consumption and is more controllable. High-level selection competitions are prone to generating deep cognitive anxiety, which has a greater negative impact on teaching innovation achievements and is the core target of psychological intervention in institution-level (school-level) competitions.

3.4 Quantitative dual-line analysis–pressure motivation and calculation of the optimal threshold for competition output

Based on the quantitative data of 17 anxiety questionnaires from the school-level competition and 3 from the provincial-level competition, a corresponding index system of "stress score range–competition results" was established, and the average anxiety score was divided into three grades:

Low-pressure range (1–4 points): insufficient motivation for competition preparation, few material iterations, and low innovation in teaching design.

Moderate optimal pressure range (5–7 points): the teaching design is fully iterated, the on-site presentation is smooth, and the probability of winning is the highest, corresponding to the average pressure level of the school competition.

High-pressure range (8–10 points, the peak range of the provincial competition selection): cognitive anxiety erupted, innovative thinking was hindered, and many teachers made mistakes in reworking materials and performing on the spot.

Quantitative calculation conclusion: the indicative pressure threshold for comprehensive teaching competitions in colleges and universities is 6.2–6.8 points, which is close to the average pressure of 6.5 points in institution-level (school-level) competitions. When the pressure exceeds 7.5 points, the competition output tends to decline as pressure continues to rise, which is broadly consistent

with the law of highly creative tasks in the Yerkes-Dodson inverted U model. The logic explanation of the dual-line research: qualitative interviews are used to explain the internal psychological mechanism of "why excessive stress inhibits performance," while quantitative questionnaires are used to precisely calculate the optimal stress threshold. The two complement each other, forming a complete chain of qualitative and quantitative evidence.

(2) The three-dimensional structure of psychological resilience: perseverance, iteration and breakthrough

1. Perseverance: the foundation for dealing with long-term cycles and outcome uncertainties

The 14 teachers' understanding of psychological resilience is highly concentrated on three key words: persistence, iteration, and breakthrough. Among them, "perseverance" was mentioned most frequently by teachers (12/14). (R01-25-P) pointed out: "The competition is a very long process..." The mental test for teachers, or rather, the physical test, is also a huge challenge. With the tenacity of persistence, one can walk from the very beginning to the final point.

(R04-20-AP) links persistence with "belief": "Only through continuous persistence can one eventually achieve some results." There were many stages when I wanted to give up, but the help from the school and the support from my colleagues enabled me to persevere.

2. Iteration: a dynamic optimization mechanism that promotes teaching through competitions

The concept of "iteration" reveals how teachers can achieve dual renewal of their courses and themselves through repeated refinement. (R08-26-P) proposed that iteration is "a dialogue between yourself and the course": "Drive the course through the projects of the competition, keep iterating, and present the course to students in a newer and better way."

This expression transforms the competition from an "external assessment" into an "internal growth" opportunity, echoing the core concept of "promoting teaching through competition." (R05-18-AP) added from the perspective of material refinement: "When experts give you comments, you need to quickly understand their meaning and make adjustments based on your own materials." If you can't understand the expert's meaning, the material won't change in the direction you want.

3. Breakthrough: a cognitive leap out of the comfort zone

The "breakthrough" dimension reveals how competitions force teachers to break away from conventional thinking and achieve a qualitative change in professional development. The "cup metaphor" of (R12-5-L) provides the most enlightening case: It is a fact that the cup itself is very exquisite, capable of drinking water, and combines functionality and decoration. But the evaluation given by others is just an opinion. Viewpoints may change due to different perspectives, but facts remain the same. So no matter what the situation is, always believe in yourself.

This cognitive reconstruction is not only a strategy for coping with stress, but also a self-awakening at the ontological level: teachers shift from being "the evaluated" to "self-definers," and from anxiety over external evaluations to confirmation of intrinsic values.

4. Situational dependence of psychological resilience

It is worth noting that the same teacher will invoke different resilience traits at different competition stages: in the school competition stage, they rely more on "perseverance" to deal with the initial confusion and physical exhaustion; the material polishing stage relies more on "iteration" to accept repeated negations and continuously optimize. When encountering expert rejection or major setbacks, one relies on "breakthroughs" to achieve a cognitive leap. This discovery suggests that the cultivation of psychological resilience should not adopt a one-size-fits-all intervention plan, but rather design differentiated support strategies for different stages and situations.

This dimension adopts the research consideration of extracting resilience keywords through open interviews: based on the teaching competition scenarios of local teachers, a localized three-dimensional structure is refined, which conforms to the cultural characteristics of "relational resilience" of domestic teachers. At the same time, the differences in resilience invocation at different stages are included for context analysis. The core conclusion of this dimension is that teachers' psychological resilience is a dynamic contextualized process rather than a fixed trait. The three-dimensional resilience elements play primary and secondary roles at different stages of the competition. The cultivation of resilience requires the design of intervention content in stages according to the competition cycle.

(3) Type spectrum of individual coping strategies: from self-tuning to cognitive reconstruction

Based on the statements of 14 teachers, individual coping strategies can be classified into five categories, ranked by frequency of use: the first one is psychological self-adjustment (13/14 people). This is the most common and fundamental way of coping. The expression of (R11-10-L) is quite representative: "Never give up, never give up, keep going." (R03-3-AL) emphasized the "calmness after submitting materials": "After I handed in the items, I adjusted myself. The outcome is no longer within my control."

The second is to divert attention (10 out of 14 people). (R01-25-P) mentioned "reading psychology books, mountain climbing for exercise, and communicating with friends." (R08-26-P) chose

"doing exercises and physical activities" to relieve tension. The common logic of such strategies is to break the vicious cycle of anxiety through physical activity or situation switching.

The third is to seek support from colleagues (8/14 people). (R14-3-AL) couldn't find a suitable class when recording the video. The problem was finally solved through the coordination of the teaching secretary and the student affairs director: "This is very good in our college. Everyone will do their best to help when there is anything." (R02-6-L) then, when under the greatest pressure, "called the director, who broke down the steps with me and gave me some suggestions."

The fourth step is to formulate alternative plans (3/14 people). This type of strategy is mostly applied at the specific operational level, such as the "two sets of lesson recording plans" designed by Teacher (R13-7-L). But most teachers admitted that in the face of the uncertainty of the competition results, "there are no alternative plans, so we can only go for it with gritted teeth."

The fifth is cognitive reconstruction (5/14 people). This is the most profound and most difficult strategy to master. The "cup metaphor" of (R12-5-L) provides a model case. When drawing an unfamiliar topic, (R09-11-L) adopted a combined strategy of "quickly changing concepts, micro-actions focusing on controllable items, and mindful breathing."

The above-mentioned strategy spectrum shows that the way teachers cope with competition pressure presents a gradient distribution from "behavioral regulation" to "cognitive reconstruction." However, the frequency of using deep strategies is much lower than that of surface strategies, suggesting that the focus of psychological resilience cultivation should be placed on empowerment at the cognitive level.

This dimension comprehensively reviews the research considerations of the five types of coping strategy spectra: hierarchical coding based on the gradient from behavioral regulation to cognitive reconstruction, distinguishing between superficial emotion relief and deep cognitive reshaping strategies, facilitating the implementation of hierarchical psychological training in school competitions. By referring to the negative case R06-8-L, it can be found that teachers who prefer to prepare for competitions independently rarely actively seek external psychological support and only rely on superficial self-regulation. Conclusion of this dimension: there is a significant generational stratification and individual preference stratification in the coping strategies of the participating university teachers. Young teachers and independent participating university teachers lack cognitive reconstruction training and are the key groups for psychological support assistance.

(4) Evaluation and Gaps of the existing support system

1. Structural assessment data

In the structured assessment ranging from 1 to 5 points, the average scores given by the 14 teachers for each dimension of the school competition management are as follows: 4.2 points for the efficiency of school competition resource integration, 3.8 points for the degree of psychological care integration, 4.5 points for college support, 3.9 points for the smoothness of cross-departmental collaboration, and 3.5 points for the rationality of the rewards system. Among them, the scores for "the degree of integration of psychological care" and "the rationality of the rewards system" were the lowest, revealing the weak links in institutional support.

2. Triple disconnection: timing, form and evaluation

A comprehensive analysis of teacher evaluations reveals that there are "triple disconnections" in current psychological support:

First, the timing is out of sync. Psychological intervention is mostly carried out after problems arise or after the game, lacking preventive empowerment before the game. (R03-3-AL) suggested: "When issuing the competition notice, make a note of psychological counseling. This way, teachers can be aware of it in advance when preparing for the competition." This suggestion directly points to the necessity of moving the intervention time point forward.

Secondly, there is a disconnection in form. At present, psychological support mainly relies on lectures and group counseling, but some teachers have reported that they feel even more nervous after listening. The experience of (R06-8-L) is particularly typical: "After listening to the online meeting, I actually get nervous." I would rather teach some etiquette, such as how to stand as soon as you come in and what your hands should do. I think this will be more effective.

This feedback reveals the "individual differences" in the forms of psychological support–the same intervention may have completely opposite effects on different teachers.

Thirdly, there is a disconnection in evaluation. The current management of school competitions has not yet incorporated psychological care into the assessment indicators, resulting in a lack of systematicness and sustainability in the support work. Many teachers pointed out that psychological support "mostly relies on teachers' self-regulation" and "previously, psychological counseling was lacking, and teachers' stubbornly resisted pressure."

3. The "double-edged sword" effect of companionate support

It is worth noting that the seemingly positive support strategy of "full-process accompanying psychological counseling" holds completely different meanings in the eyes of different teachers. Some teachers approved of this approach and pointed out (R01-25-P): "When the leaders went to the national competition, I knew in the camera room that they could see me. Actually, I was quite nervous." "If no one goes with me and I go to the competition alone, I actually don't care and feel more at ease."

This indicates that psychological support must respect individual differences and autonomy. As two of the teachers put it, "Companion support depends on the needs of the teachers. Some prefer remote support, while others prefer message encouragement. It should be equipped in a way that suits the needs of each contestant."

This dimension sets up a research consideration for the multi-dimensional scoring scale of the support system:

quantitatively scoring from multiple dimensions such as resources, psychology, collaboration, and motivation to accurately identify the shortcomings of the system. At the same time, incorporate the bipolar feedback of teachers on companion-style tutoring, and combine negative cases to explore the personalized contradictions of support services. Conclusion of this dimension: the current school-level competition support system has three disconnections in terms of timing, form, and evaluation. The standardized and unified psychological services have poor adaptability. It is necessary to establish a personalized, full-cycle, and stratified psychological support mechanism.

(5) Bottlenecks and reform demands of the management mechanism

Based on the suggestions of 14 teachers, there are four major bottlenecks in the current management mechanism of school competitions:

Bottleneck one: disordered time rhythm. (R11-10-L) pointed out: "The cycle of the Youth Teachers' Competition is too short, while that of the Teachers' Innovation Competition is too long, which leads to people thinking that things have been put on hold and then picked up again, repeating this process many times." (R13-7-L) also mentioned that "the battle line was stretched for too long, with slackness in the early stage and overexertion in the later stage, and the body and mind were in a state of long-term high-pressure consumption." In applied undergraduate institutions, competition organization has been restructured around process management and cross-departmental coordination (Liang et al., 2024).

Bottleneck two: inadequate promotion of psychological support resources. Many teachers admitted that they had never used the school's psychological support resources. (R08-26-P) pointed out the common predicament: "I always thought it was for the students. It seems that not much attention was paid to the teachers." Teachers are not without psychological support, but they simply have no idea that schools also provide such services for them, resulting in idle resources and a mismatch between demands and needs.

Bottleneck three: imbalance in evaluation and incentives. (R12-5-L) put forward the core demand: "Can rewards be counted as a bit of research points?" (R01-25-P) pointed out from a comparative perspective: "The rewards mechanism of the Teaching Innovation Competition is not as good as that of the national first-class courses, but the probability of reaching the national competition in the Teaching Innovation competition is much lower than that of the national first-class courses. The rewards mechanism should be matched with its value."

Bottleneck four: the predicament of independent contestants. Most teachers expressed their views on this predicament. For instance, (R14-3-AL), as an independent participating teacher, profoundly described the situation of "no one to divide the work, everything to be done by oneself": "One needs to be fully responsible for all aspects: topic selection, teaching design, material preparation, on-site presentation, and pressure management."

This dimension distinguishes between independent/team participation and comparative interviews with teachers of different teaching ages. Research considerations: focus on the structural contradiction of uneven resource distribution, and avoid attributing all competition pressure to the insufficient psychological endurance of individual teachers. Compare the support cultures of different colleges and identify institutional bottlenecks at the organizational level. Conclusion of this dimension: currently, there are four structural bottlenecks in the management of institution-level (school-level) competitions, namely time, publicity, incentives, and participation models. Young teachers who participate independently are a high-risk group under pressure and require preferential and specialized support.

(6) The shaping of differentiated support resources: the structural influence of teaching years, experience and college culture

Although the participating university teachers generally face structural pressure, their coping abilities and access to support are not evenly distributed. Research has found that teachers' access to resources is structurally influenced by three types of factors:

One is the difference in teaching experience and professional title. Teachers with different teaching experiences and professional titles show notable differences in terms of stress perception, coping strategies and support needs. Young teachers (with 3–8 years of teaching experience) tend to attribute their stress to "lack of experience" and "not knowing where to start with materials," and rely more on "seeking support from colleagues" and "shifting attention" in dealing with it. Senior teachers (with over 15 years of teaching experience) tend to focus their pressure more on "the identity responsibility of representing the school" and "self-doubt of expert negation," and rely more on "psychological self-adjustment" and "cognitive reconstruction" in their responses.

For instance, R03-3-AL (teaching assistant with 3 years of teaching experience) repeatedly emphasized, "I hope to see successful cases and take a look at their thinking." However, R08-26-P (professor with over 20 years of teaching experience) emerged from the crisis through the cognitive reconstruction of "cup facts vs. opinions." In addition, the resource differences brought about by professional titles cannot be ignored–professors often have more stable team support, while teaching assistants and lecturers mainly participate in competitions independently, and their access to support is more limited.

The second difference lies in the experience of participating in competitions (first-time/multiple times). Teachers who participated for the first time and those who participated multiple times showed systematic differences in stress experience and coping strategies. First-time participants generally face the confusion of "not knowing where to start," lacking a basic understanding of the competition process, material standards and presentation requirements. The pressure mainly stems from the "unknown" and "uncertainty."

Description of R11-10-L (First-time Participant): "It was my first time participating and I had no experience. After watching the presentations of other teachers, I wanted to make adjustments, but the time gap between the college competition and the school competition was very tight, and the pressure was extremely high." In contrast, although teachers who have participated in

the competition many times are under higher-level competitive pressure, they have already made predictions about the competition schedule and the rules of material refinement, and can more calmly utilize the resources they have accumulated in the early stage. R04-20-AP (who has participated multiple times) pointed out: "The teachers who won award in the previous session shared their experiences, which made us familiar with the entire competition schedule and reassured us." This comparison suggests that the "pre-competition general training" and "experience sharing" for first-time participating university teachers have significant psychological buffering value.

The third point is that the college supports cultural differences. Different colleges have developed differentiated organizational cultures in competition support, which directly affects teachers' competition experience and psychological burden. Some colleges have established systematic support mechanisms: the dean of teaching takes the initiative to coordinate course adjustments, the student affairs and teaching secretaries assist in organizing recorded classes, and the colleges provide financial and equipment support at the college level.

(R08-26-P) Special thanks to the Dean of Teaching for his 100% support and for helping us solve any unexpected problems as much as possible. However, some teachers have also reported that the support from certain colleges is relatively weak and the procedures for cross-departmental coordination are cumbersome. The cultural differences supported by colleges are essentially a microcosm of the degree of emphasis placed by organizational management on cultivating teachers' psychological resilience, and they are also the gap that the reform of school competition management needs to focus on bridging. The research considerations for the stratified comparison of interview samples in this dimension: to explore the structural stratification patterns of teachers' stress and support needs, and to break the homogenization assumption that "all teachers have the same stress experience." Conclusion of this dimension: the three variables of teaching experience and professional title, competition experience, and college organizational culture are associated with differences in teachers' perception of stress and the effect of obtaining support. Psychological intervention for school competitions must be designed in a stratified and classified manner.

4 Discussion: from individualized response to institutionalized support

(1) Re-interpretation of the theoretical connotation of "dual-track drive"

The core findings of this study point to a fundamental proposition: the psychological resilience support in current school competition management is essentially an individualized response in the absence of systems. Whether it is the self-cultivation of teachers through "persistence, iteration and breakthrough," or the self-exploitation through "compressed sleep and precise time cutting," its effectiveness is highly dependent on individual resources and comes at the cost of physical and mental consumption.

This does not deny the subjective initiative of teachers. On the contrary, the resilience demonstrated by the 14 teachers under extreme pressure is truly admirable. But the problem lies in that structural contradictions should not be shifted to individual responsibility. As Zhao et al. (2026) pointed out in their research on "The Time Game of Doctoral Students": "Individuals transform the time contradictions of social structures into self-management techniques, relieve anxiety through a sense of 'control,' but also fall into deeper self-exploitation." This insight also applies to the participating university teachers–when they are forced to repeatedly choose between "perfect teaching demonstration" and "motherhood/family responsibility," and struggle to balance "expert expectations" and "self-identity," the absence of institutional support makes "success" a survivorship bias.

Therefore, the essential meaning of the "dual-track drive" is: while evaluating teachers' academic teaching abilities, systematically assess and cultivate their psychological resilience development levels simultaneously and equally. This means that psychological resilience should not be an "accompanying goal" or "supportive means" of competition, but should become an evaluation dimension as important as teaching ability. The resilience evaluation indicators should cover the entire competition cycle–the management of expected pressure during the preparation period, the ability to regulate emotions during the competition period, and the recovery from setbacks and meaning construction after the competition.

1. Comprehensive discussion of negative cases

The theoretical value of the negative case analysis method in qualitative research is reflected in two aspects: first, it is to test the theoretical boundaries. Sample R06-8-L's complete rejection of companion psychological counseling overturns the initial single inference that "companion psychological support generally benefits participating university teachers," suggests that there are individual differences in the effect of psychological support, clarifies the applicable boundaries of the relevant conclusions of the support system in this study, and avoids the absolutization of the research conclusions. Second, refine our understanding of the boundary conditions. Through this negative case, two factors that may shape, namely personal spatial boundary preferences and the scarcity of competition preparation time, are identified, enriching the theoretical explanatory power of the psychological support system for school competitions. This study fully incorporates this conflict case in the empirical analysis and discussion section, presenting all the original interview data in full. It adheres to the core principle of qualitative research, which is to be faithful to the original data and not deliberately simplify the contradictory data, significantly enhancing the credibility and rigor of the research conclusion.

2. Comprehensive discussion on the efficiency theory of inverted U-shaped motivation

Based on the data from this study, the optimal pressure adaptation standards for three types of teaching competition tasks

can be clearly distinguished: ① High-creativity Comprehensive Teaching Competition (the subject of this study): it is a complex cognitive activity that integrates multiple tasks and requires curriculum innovation. It is suitable for moderate pressure of 5–7 points. High pressure can cause cognitive blockage. Field research on creative time pressure likewise reports an inverted-U pattern, with creativity highest at moderate time pressure and declining when pressure becomes excessive (Baer and Oldham, 2006). A diary study of daily time pressure and daily creativity further showed that this relation is curvilinear and is moderated by job control (Binnewies and Wörnlein, 2011). The more relaxed, the easier it is to produce high-quality teaching designs.

② Standardized short-term lesson presentation and micro-lesson display: moderately complex tasks, suitable for a moderately high pressure of 7–8 points. Moderate tension can enhance on-site performance.

③ Mechanical assessment of teaching skills (blackboard writing, operation of teaching AIDS): low-complexity mechanical tasks, high pressure will not significantly reduce performance, and moderate tension can enhance the proficiency of movements.

In the past, there was a common misconception in the management of teaching competitions in colleges and universities that "high pressure forces output," believing that the higher the competition intensity, the better the teaching results. This study, combining the inverted U theory with empirical data, overturns this perception and provides a theoretical basis for the design of the pace and competition intensity of school competitions.

(2) Principles of stratified intervention and personalized support

Research has found that there are notable differences among different groups of teachers in terms of stressors, coping preferences, and support needs. This requires that the cultivation of psychological resilience must follow the principles of "stratification, classification, and personalization."

The first level: universal support for all. For all participating university teachers, the psychological support channels will be informed simultaneously when the competition notice is released. A 5–10 min psychological micro-lesson or relaxation audio will be provided, and a pre-competition simulation report will be organized to reduce uncertainty and anxiety.

The second layer: targeted support for key groups. Independent participating university teachers should receive "companied but non-intrusive" support–regular progress checks, assistance in material review, but not mandatory participation in group activities. Teachers participating in the competition for the first time should be provided with the resources of "Successful Case Library" and "Senior Pairing." Teachers with less than 5 years of teaching experience should be given priority to receive technical support for teaching design and PPT beautification.

The third level: in-depth intervention for high-risk cases. For teachers who score 8 or above in self-assessment anxiety, experience persistent insomnia or have a tendency toward self-denial, professional psychological counseling personnel should proactively reach out and provide individual counseling, but it must be "based on the teacher's needs and not forced" (emphasized by Teacher R06-8-L).

The core objective of stratified intervention is to stably control the stress of all participating university teachers within the optimal range of 6.2–6.8 points. For teachers with a high pressure exceeding 8 points, in-depth case intervention will be carried out. For those with insufficient low pressure motivation, experience sharing and competition incentives will be provided to achieve precise regulation of stress motivation and match the optimal performance range of teaching competitions.

(3) Evaluation transformation from "efficiency first" to "respecting differences"

The current management of school competitions is deeply governed by the logic of "efficiency first": the submission deadlines for materials are rigid, the competition schedule is tight, and the evaluation criteria are highly unified. This institutional design implicitly presupposes an image of an "ideal participant"–one without family burdens, capable of fully devoting oneself, and able to quickly absorb expert opinions and make immediate revisions. Management research warns that rigid, form-driven procedures may degenerate into 'pseudo-management,' in which procedural compliance replaces substantive improvement (Zhao, 2012). However, the experience of 14 teachers clearly shows that this presupposition has a fundamental tension with the actual situation of the majority of teachers.

Therefore, the management of school competitions urgently needs to shift from "efficiency first" to "respecting differences." Specifically, in terms of time arrangement, the competition schedule should be released in advance to avoid conflicts with peak teaching periods such as the final exam marking. In terms of evaluation criteria, "process growth" should be incorporated into the evaluation system to recognize the resilience demonstrated by teachers in the process of material iteration. In terms of resource allocation, a cross-departmental rapid coordination mechanism should be established to simplify the approval process for shooting locations and technical equipment.

(4) Comparison with previous empirical research

The present findings are consistent with, and extend, a growing body of empirical work on teacher resilience and occupational stress. Pöysä et al. (2026) identified distinct resilience and burnout profiles among teachers shaped by both individual and contextual factors, paralleling this study's finding that stress perception and support needs vary systematically by teaching experience, title, and college culture. Skaalvik and Skaalvik (2017) established robust negative associations between teacher stress and teacher self-efficacy, with consequences for job satisfaction, which resonates with the present observation that cognitive anxiety directly interferes with instructional-design innovation. Mellifont et al. (2016) applied the Yerkes-Dodson framework to workplace performance and showed that performance peaks at a moderate level of pressure and declines at both extremes, converging with the present inverted-U pressure-performance

pattern, while Eisenberger et al.'s (1986) organizational-support theory is corroborated here by teachers' reliance on collegial and leadership support. Fabbro et al. (2020) showed that an 8-week mindfulness-oriented meditation program reduced teachers' stress and burnout, with benefits varying according to teachers' personality profiles, and Procter et al. (2021) cautioned that uniform, one-size-fits-all staff well-being interventions can be ineffective or counterproductive; together, this evidence supports the present negative-case finding that full-process companion counseling is not universally beneficial. Gong et al. (2025) further showed that Chinese university teachers' anxiety is mediated by self-efficacy, aligning with the present somatization-to-cognition anxiety transformation. Consistent with work/family border theory, the permeability of the work-family boundary determines how far competition preparation spills into family life (Clark, 2000). At the family–work interface, Tian et al. (2024) showed that work–family conflict significantly predicts teachers' negative working emotions, including anxiety, underscoring the family–work spillover that the present dual-track model explicitly incorporates. Taken together, the patterns reported here are well grounded in, and contribute to, the international empirical literature on teacher resilience, occupational stress, organizational support, and retention. Limitations and directions for future research. This study has several limitations that qualify its conclusions. First, the qualitative sample was small (n = 14 interviewed university teachers from a single private university), which limits the breadth of perspectives and the transferability of findings. Second, the quantitative arm relied on an extremely small sample (n = 17 valid institution-level questionnaires and n = 3 provincial questionnaires); consequently, the estimated pressure–performance patterns are indicative rather than inferentially robust, and the 6.2–6.8 interval and the >7.5 threshold should not be presented as an established contribution.

No independent performance measure was collected, and no inferential statistical tests (e.g., significance or effect-size estimation, or a curvilinear/quadratic model) were conducted. Third, possible self-selection bias may operate, because teachers who volunteered for interviews may differ systematically from those who declined. Fourth, all measures were self-reports (interviews and a self-assessment anxiety questionnaire), introducing common-method bias; moreover, the competition-anxiety instrument's psychometric properties (reliability, validity, factor structure) were not reported. Fifth, the study's institutional specificity (a single private university) and the Chinese provincial competition context constrain generalizability. Future research should enlarge and diversify samples across institution types and regions, pre-register and report the anxiety scale's psychometrics, adopt multi-source or observational measures and an independent performance outcome, and apply appropriate inferential statistics to test the tentative pressure-threshold claims.

5 Conclusion

This study, based on in-depth interviews with 14 participating university teachers as the core experience material, supplemented by two rounds of pre-school competition questionnaire surveys, systematically revealed the structural characteristics of teachers' psychological resilience in teaching competitions, the differentiation rules of stress experience, and the institutional gaps in the existing support system. The main contributions of the research lie in the following: first, two empirical propositions, namely the "inverted U-shaped distribution of competition pressure" and the "somatization → cognitive transformation of anxiety structure," were proposed.

Combined with the Yerkes-Dodson motivation efficiency theory, an indicative moderate-pressure band of approximately 6.2–6.8 points, deepening the understanding of the psychological dynamics of teachers' competitions. Secondly, a three-dimensional model of psychological resilience of "persistence–iteration–breakthrough" was constructed, and the situational dependence of its functional exertion was revealed. Thirdly, the diagnosis shows the "triple disconnection" of psychological support–timing disconnection, form disconnection and evaluation disconnection. The introduction of the negative case analysis method corrects the homogenized conclusion of psychological support, providing a problem-oriented basis for the system reform. Fourth, a four-dimensional reform path of "stratified intervention, personalized support, full-cycle cultivation, and evaluation transformation" was proposed.

The core stance of the research is that teachers' psychological resilience is not an individual's ability to "get through it," but rather a mirror reflecting whether the institutional design is inclusive. The true "dual-track drive" does not lie in requiring teachers to run simultaneously on the two tracks of "teaching ability" and "psychological strength," but in reconstructing the underlying logic of competition management–making the system adapt to the diverse life rhythms of teachers, rather than having all teachers adapt to a single system rhythm.

Data availability statement

The original contributions presented in this study are included in this article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

This study involved human participants. Semi-structured interviews and questionnaire surveys were conducted with university teachers who participated in teaching competitions. The study received approval from the Ethics Committee of the Science and Industry Department of Jiangxi Institute of Fashion Technology (江西服装学院科技产业处) under an expedited review (approval No. JF-LLSC-001, dated 10 December 2025). All participants provided informed consent prior to data collection, were informed of the study's purpose, voluntary nature, and right to

withdraw at any time, and identifying information was anonymized through coding (e.g., R01–R14). The study was conducted in accordance with the Declaration of Helsinki.

Author contributions

JC: Data curation, Project administration, Resources, Formal analysis, Conceptualization, Writing – review & editing. DS: Data curation, Investigation, Supervision, Resources, Writing – review & editing. YY: Methodology, Formal analysis, Project administration, Conceptualization, Supervision, Writing – review & editing. MZ: Investigation, Data curation, Writing – review & editing, Formal analysis, Visualization.

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Conflict of interest

The author(s) declared that this work was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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