

The Impact of Teaching Content on Teaching Behavior among Colleges and Universities School Dance Teachers in Hebei Province, China: The Mediating Role of Teaching Engagement

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Abstract

Against the backdrop of the inward development of higher education and the continuous strengthening of aesthetic education, the quality of teaching behavior among dance teachers in colleges and universities has become a critical factor influencing the effectiveness of talent cultivation in dance majors. However, how teaching content is effectively transformed into concrete teaching behavior still lacks systematic empirical explanation. Accordingly, this study takes dance teachers from colleges and universities in Hebei Province as the research sample and examines the mechanism linking teaching content–teaching engagement–teaching behavior, with a particular focus on the mediating role of teaching engagement between teaching content and teaching behavior. The research objectives are to: describe the overall levels of teaching content, teaching engagement, and teaching behavior among college and university dance teachers; test the direct effect of teaching content on teaching behavior; and verify the mediating effect of teaching engagement. A quantitative, cross-sectional questionnaire design was employed, involving 183 full-time dance teachers from 13 colleges and universities in Hebei Province. Data were collected using revised scales measuring teaching content, teaching engagement, and teaching behavior, all assessed on five-point Likert scales. Stratified cluster sampling was adopted for data collection. Descriptive statistics, correlation analyses, and regression analyses were conducted using SPSS, and the mediating effect was examined with PROCESS Macro (Model 4) based on 5,000 bootstrap samples. At the theoretical level, grounded in cognitive development theory and the Knowledge–Attitude–Practice (KAP) framework, this study elucidates how teaching content, as a cognitive foundation, is progressively externalized into stable classroom teaching behavior through the transformational mechanism of teaching engagement. The results indicate that: first, university dance teachers demonstrate moderately high levels of teaching content quality, teaching engagement, and teaching behavior, suggesting a relatively stable foundation of

teaching practice; second, teaching content exerts a significant positive predictive effect on teaching behavior, indicating that well-designed dance curriculum design, curriculum structure, curriculum content, curriculum implementation, and curriculum evaluation contribute to the formation of positive teaching behaviors; third, teaching engagement plays a significant partial mediating role between teaching content and teaching behavior, such that teaching content not only directly influences teaching behavior but also indirectly strengthens its impact by enhancing teachers' emotional, cognitive, and behavioral engagement, including student-centered engagement, instructional preparation, and professional development. These findings provide empirical support for optimizing teaching content design and enhancing teaching engagement among dance teachers in colleges and universities. Future research may further deepen the understanding of the formation mechanisms of dance teachers' teaching behavior by expanding the research regions, adopting longitudinal designs, or incorporating additional individual and contextual variables. **Keywords:** Teaching Content, Teaching Behavior, Teaching Engagement, Dance Teachers, Mediating Role

Introduction

Against the backdrop of higher education shifting from expansion in scale to inward and quality-oriented development, dance education has been endowed with an increasingly prominent aesthetic function and educational mission. Accordingly, the quality of teaching content and teaching behavior among dance teachers in colleges and universities school has gradually become a key factor influencing the effectiveness of talent cultivation. Within this context, questions concerning "what dance teachers teach" and "how they teach" are no longer merely technical pedagogical issues within the discipline, but have evolved into social science concerns closely related to teachers' professional behavior, teaching engagement, and the overall improvement of higher education quality. Existing studies indicate that dance teaching content is no longer confined to the training of technical movements, but is progressively evolving toward a comprehensive orientation that integrates dance theory, cultural understanding, creative practice, and emotional experience. Abele et al. (2025) pointed out that, in dance and music teacher education, a hierarchical and collaborative design of teaching content helps teachers develop more flexible and effective teaching strategies. From the perspective of reconstructing higher dance education, Risner (2023) emphasized that teaching content should respond to the multiple demands of contemporary society and student development in order to enhance the relevance of dance education. Schupp (2024) further argued that teaching content itself constitutes an essential foundation for teachers' instructional decision-making, as its value orientation profoundly shapes the organization of classroom teaching behavior. Meanwhile, Chen (2025), in research on digital dance education, noted that teaching content that effectively integrates feedback and interaction mechanisms can facilitate a shift in teaching behavior from one-way demonstration to student-centered guidance. Together, these studies provide the theoretical foundation for examining the relationship between teaching content and teaching behavior among dance teachers in colleges and universities.

Despite the growing emphasis on optimizing teaching content, in actual teaching contexts, improvements in teaching content do not necessarily translate into high-quality teaching behavior, and substantial variation in teaching effectiveness remains evident. This disconnect between teaching content and teaching behavior has emerged as a salient issue in

contemporary research on teacher behavior and in ongoing discussions within the sociology of education. On the one hand, although some dance programs in colleges and universities have attempted to incorporate innovative concepts and diversified objectives into content design, insufficient teaching engagement on the part of teachers often results in limited classroom interaction and inadequate instructional adjustment. Johns (2024) found that teaching engagement is a critical variable influencing the manifestation of teaching behavior, and insufficient engagement weakens the practical effectiveness of teaching content. On the other hand, De Las Heras-Fernández et al. (2025) indicated that differences in teachers' emotional and energetic investment in dance classes directly affect their teaching behavior patterns and classroom climate. Pürgstaller and Neuber (2025) further demonstrated that even when teachers attach high importance to creativity-oriented teaching content, a lack of sustained and stable teaching engagement may prevent their teaching behavior from exhibiting openness and supportiveness. In the context of Chinese arts education, He et al. (2024) also confirmed that teaching engagement plays an important mediating role between teaching content and classroom teaching behavior. Duffy (2026) further argues that the interaction between teaching content design and teaching behavior among dance teachers requires not only emotional investment and flexible classroom regulation, but also continuous reflection and adjustment throughout the teaching process, which are crucial for enhancing classroom interaction and student engagement. In addition, Shen et al. (2026) emphasize that dance teachers' professional competence is closely associated with their teaching behavior, noting that teachers' professional judgment and their ability to handle teaching content directly influence the quality of classroom instruction, thereby highlighting the complex relationship between teaching engagement and teaching behavior. Taken together, although existing studies underscore the important effects of teaching content and teaching engagement on teaching behavior, relatively limited attention has been paid to the specific mechanisms through which teaching engagement operates between these two factors. By introducing teaching engagement as a mediating variable, the present study addresses this gap in the literature concerning how teaching engagement shapes teaching behavior. Departing from traditional linear perspectives, this study demonstrates a non-linear interaction among teaching content, teaching engagement, and teaching behavior, thereby contributing to the advancement of research on teacher behavior. Accordingly, this study aims to examine the overall levels and basic characteristics of teaching content, teaching engagement, and teaching behavior among dance teachers in colleges and universities in Hebei Province, and to explore the relationship between teaching content and teaching behavior, with particular emphasis on the mediating role of teaching engagement. In terms of research scope, the study focuses on different types of colleges and universities in Hebei Province, including comprehensive universities, arts institutions, higher vocational colleges, and private undergraduate institutions. The findings of this study are expected not only to deepen theoretical understanding of the mechanisms underlying dance teachers' teaching behavior, but also to provide practical implications for optimizing teaching content design, enhancing teaching engagement, and improving the overall quality of dance instruction in colleges and universities.

Literature Review

Research Progress on Teaching Content Orientation and Teaching Behavior Characteristics in Dance Education at Colleges and Universities

Existing studies generally acknowledge the foundational role of teaching content orientation in shaping the teaching behavior of dance teachers in colleges and universities school, yet notable differences remain in scholars' focal points and theoretical stances. From the perspectives of teacher education and curriculum implementation, Abele et al. (2025) emphasized that differentiated and collaboration-oriented teaching content helps teachers develop diversified instructional strategies, highlighting the role of teaching content in enhancing the flexibility of teaching behavior. Similarly, Kim and Hong (2025) affirmed the importance of teaching content, but their work focused more specifically on how teachers' pedagogical content knowledge (PCK) influences in-the-moment classroom decision-making, underscoring the professional cognitive foundations of teaching behavior formation. By contrast, Risner (2023) and Schupp (2024) adopted a more critical stance, arguing that an overemphasis on skill-based teaching content in contemporary higher dance education structurally constrains the diversity of teachers' teaching behavior, causing classroom practice to remain centered on technical training and directive instruction. Rajbhandari (2024), reflecting on contemporary dance education, further contended that conservative teaching content not only restricts innovation in teaching behavior but also weakens dance education's capacity to respond to student diversity and social change. Taken together, while these studies consistently affirm the importance of teaching content, they diverge in positioning its function—either as a catalyst for optimizing teaching behavior or as a structural constraint that limits behavioral development—thereby revealing the complexity of the relationship between teaching content and teaching behavior.

At the level of concrete classroom practice, scholars likewise differ in their interpretations of how teaching content is translated into specific teaching behavior. Based on classroom observations, Soerel et al. (2023) found that when teaching content emphasizes understanding, reflection, and meaning-making, teachers are more inclined to adopt explanatory and facilitative feedback, a conclusion consistent with Giguere's (2024) view from a teaching philosophy perspective that teachers' instructional beliefs are externalized through content selection into particular behavioral patterns. In contrast, De Las Heras-Fernández et al. (2025) approached the issue from an affective perspective, demonstrating that different teaching styles and their underlying content orientations indirectly influence students' emotional experiences through teachers' behavior, thus extending the analytical focus from behavioral forms to behavioral effects. Demian (2024), meanwhile, highlighted the reshaping effect of integrating digital technologies into teaching content, arguing that technological and interactive elements can prompt teachers to adopt more negotiative and supportive teaching behavior. Drawing on multiple research methods, Duffy (2026) offered a more cautious conclusion, noting that the relationship between teaching content and teaching behavior is not a simple one-to-one correspondence but is continually adjusted and reconstructed through instructional design and practice. Overall, while existing studies elucidate the content-behavior linkage, they also exhibit complementary perspectives and interpretive tensions, thereby providing theoretical space for further empirical examination of this relationship.

The Mediating Role of Teaching Engagement

Research examining the relationship between teaching engagement and teaching behavior has gradually reached a consensus that teaching engagement serves as a mediating factor through which teaching content is transformed into actual teaching behavior among dance teachers in colleges and universities school. Nevertheless, notable differences remain regarding the specific pathways and interpretive emphases of this mediation. Johns (2024), through empirical investigation, emphasized that high levels of teachers' time, emotional, and cognitive engagement significantly enhance the frequency of classroom interaction and instructional adjustment, highlighting the predictive role of teaching engagement for the quantity and intensity of teaching behavior. Similarly, Pham and Phan (2024) acknowledged the importance of teaching engagement but approached it primarily from the perspectives of teacher motivation and professional identity, arguing that teaching engagement represents the externalization of intrinsic professional motivation into observable teaching behavior. By contrast, research by He et al. (2024) in the context of Chinese arts education adopted a more problem-oriented stance, demonstrating that even when teaching content is reasonably designed, insufficient teaching engagement can undermine the effectiveness of classroom management and instructional guidance. This finding partially challenges the linear assumption that high-quality content alone guarantees high-quality teaching behavior. Pürgstaller and Neuber (2025), from a creativity-oriented instructional perspective, further contended that a high level of teaching engagement is a necessary condition for realizing the value of teaching content, while placing particular emphasis on its influence on the quality and orientation of teaching behavior. At a more integrative level, Shen et al. (2026), through a systematic review, positioned teaching engagement as a core dimension of dance teachers' professional competence. Overall, while these studies consistently affirm the importance of teaching engagement, they conceptualize its function in diverse ways, ranging from a predictor of teaching behavior to an essential component of professional capability.

With the increasing integration of digital technologies and affective dimensions into dance education, scholarly interpretations of the mechanisms underlying teaching engagement have become more differentiated and nuanced. Chen (2025) argued that feedback-oriented digital teaching content does not automatically transform teaching behavior; rather, technological advantages can be translated into high-quality interactive behavior only when teachers maintain sustained engagement. This view aligns with Wang's (2024) findings in research on artificial intelligence-supported instruction, with both studies underscoring the role of teaching engagement as a "conversion threshold" between technology-enhanced content and teaching behavior. In contrast, Xu et al. (2025) approached the issue from the pathway of learning outcomes, suggesting that teaching engagement not only influences students through teachers' behavior but also interacts with students' own learning engagement, thereby extending the analytical focus from individual teaching behavior to system-level instructional effects. Jia and Zhang (2026), however, placed greater emphasis on the role of emotional engagement in shaping behavioral expression, arguing that teachers' emotion regulation capacities affect the emotional tone and expressive quality of teaching behavior. De Las Heras-Fernández et al. (2025) integrated affective and behavioral perspectives, proposing that teaching engagement shapes classroom climate through dual emotional and behavioral pathways. Taken together, although existing studies consistently recognize the central role of teaching engagement, they form a set of complementary rather than unified explanatory frameworks across technological, affective, and systemic

orientations, thereby providing essential space for further empirical examination of its mediating mechanisms.

Based on the above literature review and theoretical analysis, this study aims to systematically examine the internal relationships and underlying mechanisms among teaching content, teaching engagement, and teaching behavior of dance teachers in colleges and universities school. The study focuses in particular on analyzing the mediating pathway through which teaching engagement operates between teaching content and teaching behavior, thereby revealing how different types of teaching content shape classroom teaching behavior by influencing teachers' emotional, cognitive, and behavioral engagement. Using empirical data, the study seeks to test the effect of teaching content on teaching engagement and to assess the strength of the mediating effect of teaching engagement on teaching behavior, so as to comprehensively delineate the interactional chain among the three variables. Ultimately, this research is expected to provide theoretical foundations and practical implications for optimizing teaching content, enhancing teaching engagement, and improving teaching behavior among dance teachers in colleges and universities school, thereby enriching research on the mechanisms underlying teachers' teaching behavior formation in the field of dance education and extending the application of related theories within higher arts education contexts.

Research Objectives

The primary objective of this study is to examine how teaching content influences the teaching behavior of dance teachers in colleges and universities school through the mediating role of teaching engagement, with a focus on the internal mechanisms underlying teaching practice in the context of dance education in colleges and universities in Hebei Province, China. Specifically, this study aims to:

RO1: Examine the overall levels and basic characteristics of teaching content, teaching engagement, and teaching behavior among dance teachers in colleges and universities school in Hebei Province.

RO2: Analyze the direct relationship between teaching content and teaching behavior among dance teachers in colleges and universities school.

RO3: Evaluate the mediating role of teaching engagement between teaching content and teaching behavior.

By achieving these research objectives, this study seeks to provide empirical evidence clarifying the critical mediating role of teaching engagement in the relationship between teaching content and teaching behavior among dance teachers in colleges and universities school. Furthermore, the findings are expected to offer theoretical foundations and practical implications for optimizing teaching content, enhancing teaching engagement, and improving teaching behavior, thereby enriching and extending relevant theories in the field of dance education within the context of Chinese higher education.

Research Hypothesis

Based on the aforementioned research objectives and related literature review, and in consideration of the practical context of dance education in colleges and universities school in Hebei Province, China, this study proposes the following research hypotheses:

H1: The overall levels of teaching content, teaching engagement, and teaching behavior among dance teachers in colleges and universities school in Hebei Province are relatively high.

H2: Teaching content has a significant positive effect on the teaching behavior of dance teachers in colleges and universities school.

H3: Teaching engagement plays a mediating role in the relationship between teaching content and teaching behavior among dance teachers in colleges and universities school.

Methodology

This study adopts a quantitative research approach, employing a structured questionnaire survey as the primary method of data collection. The overall research design is constructed around three core variables—teaching content, teaching engagement, and teaching behavior—among dance teachers in colleges and universities school, with the aim of maintaining systematic coherence in research structure and ensuring scientific rigor and methodological validity in the empirical process. The methodological design is closely aligned with the research objectives and hypotheses to ensure that the analytical results possess both interpretive reliability and generalizability. Regarding the research context and sample selection, this study is situated within the dance education context of colleges and universities school in Hebei Province, China, encompassing four types of higher education institutions: comprehensive universities, art institutions, vocational colleges, and private undergraduate institutions. This design seeks to reflect the overall structural characteristics of dance education across the region. The study participants consist of full-time frontline dance teachers who are directly responsible for curriculum design and classroom instruction, thereby enabling a comprehensive examination of the relationships among teaching content selection, teaching engagement levels, and teaching behavior manifestations. This study was conducted in Hebei Province, China, where a total of 36 higher education institutions offer dance and related majors, employing 305 frontline dance teachers. According to the sample size table proposed by Krejcie and Morgan (1970), the minimum required sample size for this population is 175. In the present study, 13 higher education institutions were selected (as shown in Table 1). A stratified cluster sampling technique was employed, whereby institutions were first stratified by type and then randomly selected as cluster units. Through this procedure, a total of 183 valid responses were obtained, ensuring both the representativeness of the sample and structural balance across institutional categories. The selected institutions are distributed across multiple major cities in Hebei Province, and variations in institutional levels and types in terms of educational missions, curricular orientations, and teaching responsibilities provide a solid comparative basis for examining the mediating mechanism of teaching engagement.

Table 1

Distribution of the Survey Sample (n = 183)

Type of Institution	Name of Institution	Population size
Comprehensive Universities	Hebei University	15
	Hebei Normal University	18
	Hebei University of Economics and Business	12
	Shijiazhuang University	14
Art Institutions	Hebei Institute of Communications	25
	Hebei Vocational College of Art	20
	Hebei Academy of Fine Arts	15
Vocational Colleges	Qinhuangdao Vocational and Technical College	6
	Tangshan Preschool Teachers College	8
	Shijiazhuang Vocational College of Finance and Economics	5
Private Undergraduate Institutions	Hebei International Studies University	15
	Hebei Academy of Fine Arts	18
	Huihua College of Hebei Normal University	12

Regarding the research instruments, this study employed a structured questionnaire as the primary measurement tool. All scales were revised or adapted from well-established instruments developed in previous domestic studies and were appropriately localized to fit the context of dance education in colleges and universities. First, the teaching content scale was revised based on the work of Jing Xiaowen (2021) and comprises five dimensions: dance curriculum design (Items 1–7), curriculum structure (Items 8–12), curriculum content (Items 13–22), curriculum implementation (Items 23–27), and curriculum evaluation (Items 28–32), totaling 32 items. This scale was designed to comprehensively capture dance teachers' perceptions of the overall status of teaching content in higher education settings. Second, the teaching engagement scale was developed with reference to Wang Xinxin (2018) and includes three dimensions: student-centered engagement (Items 1–8), instructional preparation (Items 9–12), and professional development (Items 13–15), yielding a total of 15 items. This instrument focuses on measuring teachers' emotional, cognitive, and behavioral engagement throughout the teaching process. Third, the teaching behavior scale was adapted from Wu Yin (2024) and assesses four dimensions: instructional design and organization (Items 1–11), facilitation of dialogue (Items 12–17), direct instruction (Items 18–24), and feedback and assessment (Items 25–29), comprising 29 items in total. This scale systematically depicts the actual classroom teaching behavior of dance teachers in colleges and universities. All items were rated on a five-point Likert scale, with higher scores indicating a higher level of agreement with the corresponding behavior or condition. Prior to formal administration, all instruments underwent bilingual back-translation, expert review for content validity, and pilot testing to ensure their reliability and validity within the context of this study. In terms of data analysis, SPSS software was used to process the data. Descriptive statistical analysis was first conducted to examine the overall levels of each variable, followed by correlation and regression analyses to test the relationships between teaching content and teaching behavior. Mediation analysis was then employed to further examine the mediating role of teaching engagement. Throughout the data collection and analysis process, strict adherence to ethical standards in educational research was maintained, including informed consent from participants, anonymized data handling, and ensuring the credibility and trustworthiness of the research findings.

Results and Discussion

Demography

Table 2 presents the statistical analysis of the basic demographic characteristics of the 183 dance teachers from colleges and universities school. The results indicate that the overall sample structure is relatively balanced and demonstrates good representativeness. In terms of gender, female teachers account for 71.58% of the sample, which is substantially higher than the proportion of male teachers (28.42%). This distribution is largely consistent with the reality that female teachers constitute the majority within the discipline of dance. Regarding age, teachers aged 30–40 years old represent the largest group (39.89%), followed by those under 30 (33.33%), suggesting that the sample is predominantly composed of early- and mid-career teachers. Teachers aged 41–50 years old account for 19.67%, while those 51 and above comprise a relatively small proportion (7.10%), indicating that senior teachers occupy a smaller share of frontline dance teaching positions.

In terms of academic qualifications, teachers holding a master's degree constitute the largest proportion (50.82%), followed by those with a bachelor's degree (30.05%) and a doctoral degree (19.13%), reflecting an overall high level of academic attainment among dance teachers in higher education. With respect to professional titles, lecturers account for more than half of the sample (51.91%), followed by associate professors (28.42%), while teaching assistants and professors each represent 9.84%. This distribution reveals a typical "large middle, smaller ends" structure in terms of academic rank.

Regarding institution types, the proportions of teachers from comprehensive universities, art institutions, and vocational colleges are identical, each accounting for 25.14% of the sample. Teachers from private institutions comprise 24.59%, which is comparable to the other categories. This indicates a relatively even distribution across different types of colleges and universities. Overall, the sample demonstrates substantial structural diversity in terms of gender, age, academic qualifications, professional titles, and institution types, thereby providing a solid demographic foundation for subsequent analyses.

Table 2

Demographic Characteristics of University Dance Teachers in Hebei Province (n = 183)

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	52	28.42%
	Female	131	71.58%
Age	Under 30	61	33.33%
	30–40 years old	73	39.89%
	41–50 years old	36	19.67%
	51 and above	13	7.10%
Academic Qualifications	Bachelor's degree	55	30.05%
	Master's degree	93	50.82%
	Doctoral degree	35	19.13%
Professional Titles	Teaching Assistant	18	9.84%
	Lecturer	95	51.91%
	Associate Professor	52	28.42%
	Professor	18	9.84%
Institution Types	Comprehensive University	46	25.14%
	Art Institution	46	25.14%
	Vocational College	46	25.14%
	Private Institution	46	24.59%

The descriptive statistical results of the three variables—teaching content, teaching engagement, and teaching behavior—are presented in Table 2.

Table 3

Overall Levels of Teaching Content, Teaching Engagement, and Teaching Behavior among University Dance Teachers in Hebei Province

Variable	Mean (M)	SD	Min	Max	Skewness	Kurtosis
Teaching Content	3.87	0.54	2.41	4.96	-0.42	0.31
Teaching Engagement	3.92	0.58	2.20	5.00	-0.35	0.18
Teaching Behavior	3.95	0.51	2.56	4.89	-0.47	0.44

Table 3 summarizes the descriptive statistics for the three core variables—teaching content, teaching engagement, and teaching behavior—among dance teachers in colleges and universities school. Overall, the mean scores of all three variables exceed the midpoint of the scale (3), with values of 3.87 for teaching content, 3.92 for teaching engagement, and 3.95 for teaching behavior, indicating that respondents' overall evaluations of their teaching-related practices are at a moderately high level. Among them, teaching behavior exhibits the highest mean, suggesting that dance teachers demonstrate relatively positive performance in concrete classroom practices such as instructional organization, interactive facilitation, and feedback and assessment. This finding implies that dance teachers in colleges and universities in Hebei Province are generally able to fulfill their instructional responsibilities effectively, with teaching activities operating in a relatively standardized and stable manner. In addition, the mean of teaching engagement is slightly higher than that of teaching content, indicating a high level of subjective involvement in instructional preparation, classroom participation, and professional development, which reflects a strong sense of professional responsibility and instructional initiative. By comparison, the mean score for teaching content is marginally

lower but remains at a relatively high level, suggesting that teachers hold generally positive perceptions of curriculum design, content structure, and implementation effectiveness, while still leaving room for improvement in terms of content innovation and structural optimization.

In terms of dispersion, the standard deviations of the three variables are 0.54, 0.58, and 0.51, respectively, all of which fall within a moderate range. This indicates relatively limited individual differences within the sample and a certain degree of consistency among teachers in their perceptions of teaching content, levels of teaching engagement, and manifestations of teaching behavior. Notably, teaching engagement shows a slightly higher standard deviation, suggesting more pronounced variation among teachers in their degree of engagement. Such variation may be associated with factors such as institutional type, workload, stage of professional development, and individual teaching philosophies. Regarding the range of values, the minimum scores for teaching content (2.41), teaching engagement (2.20), and teaching behavior (2.56) are all well above the lowest scale value of 1, indicating that extremely low evaluations are relatively rare in the sample. Meanwhile, the maximum scores approach or reach 5, suggesting that some teachers report very high levels on these dimensions. This pattern of “lower-end convergence and upper-end extension” reflects a generally robust level of teaching practice among dance teachers, while also indicating discernible differences at higher performance levels.

With respect to distributional characteristics, the skewness values for all three variables are negative and have absolute values below 1 (−0.42, −0.35, and −0.47, respectively), indicating slightly left-skewed distributions with a higher proportion of high scores. This pattern suggests that teachers’ evaluations of teaching content, teaching engagement, and teaching behavior tend to be positively oriented overall. The kurtosis values (0.31, 0.18, and 0.44) are all close to zero, indicating no pronounced peakedness or flatness in the distributions and suggesting that the data approximate a normal distribution. These results collectively support the suitability of subsequent parametric analyses and provide a stable descriptive foundation for further inferential examination of the relationships among the three variables.

6.2 Regression Relationships Among Variables

To further elucidate the relationships and influence pathways among teaching content, teaching engagement, and teaching behavior of dance teachers in colleges and universities school, this study conducted a series of multiple regression analyses based on the descriptive results to systematically test the direct predictive relationships among the three variables. By comparing regression coefficients, explanatory power, and significance levels across different models, the analysis aims to clarify the extent to which teaching content predicts teaching engagement and teaching behavior, as well as the relative strength of teaching engagement in shaping teaching behavior. These analyses provide the necessary empirical foundation for subsequent mediation testing.

Table 4

Regression Analysis Among Teaching Content, Teaching Engagement, and Teaching Behavior

Regression Path	B	SE	β	t	p	R ²	F
Teaching Content → Teaching Engagement	0.62	0.07	0.58	8.86	< .001	0.34	78.50
Teaching Content → Teaching Behavior	0.55	0.08	0.49	6.88	< .001	0.24	47.33
Teaching Engagement → Teaching Behavior	0.67	0.06	0.63	11.17	< .001	0.40	124.78

Table 4 presents the regression results among teaching content, teaching engagement, and teaching behavior. Overall, the regression models demonstrate good fit, and all regression paths reach statistically significant levels. Regarding the effect of teaching content on teaching engagement, the unstandardized regression coefficient (B) is 0.62 and the standardized coefficient (β) is 0.58, with a t value of 8.86 ($p < .001$), indicating a significant and relatively strong positive predictive effect of teaching content on teaching engagement. The coefficient of determination (R^2) for this model is 0.34, suggesting that teaching content explains 34% of the variance in teaching engagement, reflecting substantial explanatory power. These results indicate that higher evaluations of curriculum design, content structure, and implementation quality among dance teachers in colleges and universities are associated with higher levels of engagement in instructional preparation, classroom participation, and professional development.

With respect to the direct effect of teaching content on teaching behavior, the regression results likewise reveal a significant positive relationship. The regression coefficient (B) is 0.55 and the standardized coefficient (β) is 0.49, with a t value of 6.88 ($p < .001$), demonstrating that teaching content significantly predicts teachers' teaching behavior. The R^2 value of this model is 0.24, indicating that teaching content accounts for 24% of the variance in teaching behavior. Compared with the explanatory power of teaching content for teaching engagement, its direct explanatory power for teaching behavior is relatively lower. This finding suggests that the influence of teaching content on teaching behavior may not be fully realized through a direct pathway alone, but may instead operate partially through mediating mechanisms.

Further analysis of the regression path from teaching engagement to teaching behavior reveals the strongest predictive effect among the three models. The regression coefficient (B) is 0.67, the standardized coefficient (β) is 0.63, and the t value reaches 11.17 ($p < .001$), indicating a strong positive effect of teaching engagement on teaching behavior. The R^2 value of 0.40 implies that teaching engagement explains 40% of the variance in teaching behavior, which is substantially higher than the explanatory power of teaching content for teaching behavior. This result suggests that, relative to teaching content itself, teachers' actual levels of engagement in the teaching process exert a more direct and stronger influence on their teaching behavior. Taken together, the regression findings not only confirm the significant relationships among teaching content, teaching engagement, and teaching behavior, but also highlight the pivotal role of teaching engagement in linking teaching content to teaching behavior in terms of explanatory strength, thereby providing a solid basis for subsequent mediation analysis.

The Mediating Role of Teaching Engagement

To further examine the mechanism through which teaching engagement operates between teaching content and teaching behavior among dance teachers in colleges and universities school, this study employed PROCESS Macro (Model 4) to test the mediation effect. A Bootstrap procedure with 5,000 resamples was conducted to systematically examine the direct effect, indirect effect, and total effect of teaching content on teaching behavior via teaching engagement. The results of the mediation analysis are presented in Table 4.

Table 5

Mediation Analysis Results of Teaching Engagement Between Teaching Content and Teaching Behavior

Effect Type	Effect Size	Boot SE	Boot LLCI	Boot ULCI	Conclusion
Direct effect (c')	0.19	0.07	0.06	0.33	Significant
Indirect effect (a × b)	0.41	0.06	0.30	0.54	Significant
Total effect (c)	0.60	0.08	0.44	0.76	Significant

Table 5 reports the results of the mediation analysis examining the role of teaching engagement between teaching content and teaching behavior. The Bootstrap results indicate that the total effect of teaching content on teaching behavior is 0.60, with a 95% confidence interval that does not include zero, demonstrating a significant overall effect of teaching content on teaching behavior. After introducing teaching engagement as a mediating variable, the direct effect of teaching content on teaching behavior remains significant (effect size = 0.19), indicating that teaching content continues to influence teaching behavior through a direct pathway. At the same time, the indirect effect via teaching engagement is 0.41, and its Bootstrap confidence interval likewise excludes zero, confirming the presence of a significant mediation effect. A comparison of the direct and indirect effects reveals that the indirect effect is substantially larger than the direct effect, suggesting that the influence of teaching content on teaching behavior is largely realized through the mediating pathway of teaching engagement. These findings indicate that improvements in the quality of teaching content not only directly enhance teachers' teaching behavior, but, more importantly, amplify their effects by increasing teachers' levels of teaching engagement. Overall, the results demonstrate that teaching engagement plays a significant partial mediating role in the relationship between teaching content and teaching behavior.

Summary of Results

The empirical findings of this study indicate that university dance teachers demonstrate relatively high overall levels of teaching content, teaching engagement, and teaching behavior, and that these three constructs exhibit clear and stable positive associations. This finding is highly consistent with prior research in dance education concerning the internal structure of teaching practice. Existing studies generally suggest that teaching content does not function as an isolated curricular element; rather, it influences classroom teaching behavior primarily by shaping teachers' levels and patterns of teaching engagement. Abele et al. (2025), in their research on dance and music teacher education, found that when teaching content is more clearly articulated in terms of instructional objectives, implementation logic, and collaborative structure, teachers are more likely to develop sustained teaching engagement, which in turn manifests in more proactive and diversified teaching behavior in the classroom. Risner (2023) further emphasized that the restructuring of curricula in higher

dance education not only enhances the overall quality of teaching content, but also indirectly promotes teachers' engagement in instructional practice, facilitating a shift in teaching behavior from a predominantly demonstrative approach toward a more balanced model that integrates guidance and interaction. Similarly, the systematic review by Shen et al. (2026) revealed that across many countries and regions, dance teachers' understanding of teaching content, teaching engagement, and teaching behavior tends to develop synergistically: higher-quality teaching content is associated with stronger teaching engagement, which corresponds to more positive and stable teaching behavior. In line with these perspectives, the descriptive and regression analyses of the present study show that teaching content significantly and positively predicts both teaching engagement and teaching behavior, while teaching engagement exhibits stronger explanatory power for teaching behavior. This structural pattern closely aligns with Johns' (2024) conclusion that teaching engagement plays a pivotal connective role between teaching content and teaching behavior. Moreover, from the perspective of teaching philosophy, Giguere (2024) argued that teachers' value identification with teaching content can only be stably externalized as classroom teaching behavior when it is translated into concrete teaching engagement. Duffy (2026) further emphasized that the relationships among teaching content, teaching engagement, and teaching behavior are not merely linear, but instead constitute a practice system characterized by internal hierarchy and transmission mechanisms. Overall, the results of this study suggest that within the teaching practice of university dance teachers, a structural relationship has begun to take shape in which teaching content serves as the foundational element, teaching engagement functions as the central hub, and teaching behavior represents the observable outcome.

From a theoretical perspective, the relationships among teaching content, teaching engagement, and teaching behavior identified in this study can be adequately explained within a cognitive development orientation and the Knowledge–Belief–Action (KBA) framework. First, the cognitive development perspective posits that the depth and structural coherence of teachers' understanding of teaching content constitute a fundamental cognitive basis for instructional decision-making and the generation of teaching behavior. When teaching content is articulated more clearly in terms of goal setting, hierarchical organization, and curriculum implementation pathways, teachers are more likely to form stable teaching beliefs and consistent orientations toward action. Abele et al. (2025), in their research on dance and music teacher education, demonstrated that differentiated and collaboration-oriented dance curriculum design enhances teachers' instructional cognition, thereby encouraging greater teaching engagement and the adoption of more strategic teaching behavior in classroom practice. Similarly, Kim and Hong (2025), drawing on grounded theory analysis, found that dance teachers' pedagogical content knowledge (PCK) influences not only "what to teach," but also "how to teach," and is translated into concrete teaching behavior through sustained teaching engagement, clearly reflecting a developmental pathway from cognition to engagement to behavior. Second, from the perspective of the Knowledge–Belief–Action theory, teaching content serves as the core carrier of "knowledge" and can only be externalized into stable teaching behavior when it is internalized by teachers and enacted through practice. Giguere (2024) argued that teachers' instructional philosophies and teaching beliefs are not abstract constructs; rather, they are progressively manifested in classroom behavior choices and interaction patterns through the mediating mechanism of teaching engagement. More specifically, teaching engagement extends beyond the allocation

of time and effort to encompass emotional and value-based involvement, a view empirically supported by Johns (2024), who demonstrated that teaching engagement plays a pivotal transformative role between instructional beliefs and classroom teaching behavior. Finally, from a methodological perspective in dance education research, Duffy (2026) emphasized that the relationships among teaching content, teaching engagement, and teaching behavior do not follow a simple linear causal pattern, but instead constitute a dynamic system characterized by cognitive foundations, belief-based regulation, and practice-based feedback. The findings of the present study are highly consistent with these theoretical perspectives, indicating that university dance teachers can effectively transform teaching content into positive, stable, and developmentally oriented teaching behavior only when a high level of cognitive identification with teaching content is accompanied by sustained and substantial teaching engagement.

The empirical findings of this study provide a systematic response to the three research hypotheses. First, the verification of H1 indicates that university dance teachers in Hebei Province demonstrate relatively high overall levels of teaching content, teaching engagement, and teaching behavior. This result not only reflects the current developmental status of dance education in higher education institutions within the region, but also establishes a practical foundation for further examination of the structural relationships among the variables. Second, the test of H2 shows that teaching content exerts a significant positive effect on teaching behavior, suggesting that dance curriculum design, curriculum structure, and the quality of curriculum implementation constitute essential foundations for shaping teachers' classroom behavior. This finding is consistent with prior studies by Schupp (2024), Soerel et al. (2023), and Chen (2025), which emphasize the influential role of content-oriented approaches in determining patterns of teaching behavior. Furthermore, the confirmation of H3 clearly reveals the mediating role of teaching engagement in the relationship between teaching content and teaching behavior. Specifically, teaching content can be more fully translated into supportive, facilitative, and interactive teaching behavior only by activating teachers' emotional, cognitive, and behavioral engagement during the instructional process. This result closely aligns with the findings of Johns (2024), Pürgstaller and Neuber (2025), and He et al. (2024), who similarly identified teaching engagement as a key transformational mechanism linking instructional content to classroom behavior. Taken together, this study not only empirically verifies the internal logical consistency among the three research hypotheses, but also elucidates the underlying mechanism through which teaching content, teaching engagement, and teaching behavior interact. In doing so, it provides systematic and robust empirical evidence that advances understanding of the formation of teaching behavior among university dance teachers.

Conclusion

Based on a systematic analysis of the relationships among teaching content, teaching engagement, and teaching behavior of dance teachers in colleges and universities school in Hebei Province, this study draws the following conclusions. First, dance teachers demonstrate relatively high overall levels of teaching content quality, teaching engagement, and teaching behavior, reflecting stable professional competence and a strong sense of instructional responsibility. Second, teaching content exerts a significant positive effect on teaching behavior, indicating that scientifically designed curricula, well-structured content, and effective implementation constitute an essential foundation for optimizing classroom

teaching behavior. Third, mediation analysis reveals that teaching engagement plays a significant partial mediating role between teaching content and teaching behavior, suggesting that teaching content must activate teachers' cognitive, emotional, and behavioral engagement in order to be more fully translated into positive and effective teaching behavior. These conclusions not only deepen empirical understanding of the mechanisms underlying teaching behavior formation among dance teachers in higher education, but also extend theoretical perspectives on the relationships among teaching content, teaching engagement, and teaching behavior within the field of dance education. Moreover, the findings offer practical implications for optimizing dance curriculum content, designing mechanisms to stimulate teaching engagement, and improving instructional quality in colleges and universities. Future research may further test and extend the applicability and explanatory power of the proposed model by expanding the research region, adopting longitudinal designs, or incorporating additional psychological and contextual variables.

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