

The Construction of Competency Indicators for Dance Education Programs in Chinese Universities

Dongyun Chen^{1,2,*} & Peng-Fei, Chen¹

¹Chinese International College, Dhurakij Pundit University, Bangkok, Thailand

²School of Teacher Education, Hezhou University, Guangxi, China

*Correspondence: Chinese International College, Dhurakij Pundit University, Bangkok, Thailand. Tel: 66-972-106-366. E-mail: blissfulalice@gmail.com

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Abstract

Current traditional dance education models in Chinese higher education institutions place excessive emphasis on technical training and performance skills, while neglecting the cultivation of comprehensive abilities such as innovation and cultural literacy among teacher trainees. Furthermore, existing research predominantly addresses individual competency elements in a fragmented manner, lacking systematic integration and rigorous quantitative analysis of indicator weightings, thereby failing to adequately support high-quality talent development. Consequently, this study, grounded in competency-based education theory, employs literature analysis, a two-round modified Delphi method, and the Analytic Hierarchy Process (AHP) to construct a three-tiered indicator system. This framework encompasses three primary dimensions—dance knowledge, dance skills, and dance attitude—comprising nine secondary and 24 tertiary indicators. These indicators are then allocated across the four-year undergraduate programme according to weighted priorities, forming a progressive development pathway. This provides a scientific basis for curriculum design, talent cultivation, and quality assessment within dance education programmes.

Keywords: competency-based education, dance education major, competency indicators

1. Introduction

Teacher professionalism exerts a direct and significant influence on students' competency development; enhancing students' capabilities necessitates elevating teachers' professional standards (Singh, 2023). The Dance Management Committee contends that cultivating future educators constitutes not merely a practical matter but a philosophical concern for the discipline of dance (Hagood, 2000). Traditional dance education models have prioritised technical training and performance skill enhancement, yet neglected the cultivation of comprehensive competencies among trainee teachers, such as innovative capacity, cultural literacy, artistic appreciation, and teamwork (Chen, 2024). Consequently, how to elevate the pedagogical quality of dance education programmes and cultivate dance educators possessing both professional expertise and comprehensive literacy has become an urgent issue requiring resolution.

Competency-based education (CBE) is a transformative educational approach that adopts a learner-centered and outcome-oriented model. It emphasizes tailoring instructional content to students' interests and needs, thereby stimulating their engagement and initiative (Marcellis et al., 2024; Waladi & Lamarti, 2024). The implementation of this learning method in higher education institutions has demonstrated positive impacts on students (Pambudi et al., 2024). Grounded in competency-based theory, this study employs document analysis, a modified Delphi method, and the Analytic Hierarchy Process (AHP) to construct an indicator system. The aim is to address issues related to the conceptualization of professional competencies, the identification of specific competency indicators, and the allocation of weighting factors in dance education within higher institutions. Ultimately, this research seeks to provide guidance for the training of prospective dance teachers.

2. Literature Review

The literature review comprises three sections. It first introduces competency-based education theory, then elucidates the impact of this theory on the cultivation of dance education professionals, and finally outlines how

competency-based education can be employed to construct a preliminary draft of competency indicators for dance education.

2.1 Competency-Based Education Theory

Competency-based education is an evolving field with no universally accepted definition to date (Holmes, 2021). Spady (1977) defined it as a data-driven, adaptive, performance-oriented integrated process; Gervais (2016) characterised it as an outcome-focused educational approach where progression is contingent upon students demonstrating mastery of specific competencies. Competency-based education constitutes a competency-centred educational model, emphasising specific occupational competencies as objectives. It cultivates students' comprehensive qualities and practical work abilities through modularised teaching content and flexible learning pathways (Li et al., 2023; Rajesh & Joseph, 2023). This study defines it as a modern educational model centred on competencies, prioritising practical application and characterised by flexibility and adaptability (Holubnycha et al., 2022).

2.2 The Impact of Competency-Based Education on Dance Education

Competency-based education has profound implications for dance education. Traditional dance education emphasised knowledge transmission, whereas competency-based education prioritises cultivating students' practical abilities, innovative thinking, and problem-solving skills (Fortin & Siedentop, 1995; Yoonkyung & Mihye, 2019). This has driven reforms in dance education concerning curriculum design, teaching methodologies, and assessment approaches (Lin, 2024; Yao, 2024). Specifically, it requires dance curricula to prioritise practicality, interdisciplinarity, and student agency, employing diverse assessment methods (Leijen et al., 2009; Shin & Cho, 2019). This approach effectively enhances students' professional dance competencies, laying the foundation for their career development (Kim, 2023; Yoonkyung & Mihye, 2019).

2.3 Developing a Competency Indicator Framework for Dance Education Majors Through Competency-Based Education

This study, underpinned by competency-based education theory, has preliminarily established professional competency indicators for dance education through a systematic review of the literature. These indicators are structured around the three core elements of knowledge, skills, and attitudes as posited by the theory.

The sub-core competencies of knowledge include three categories with seven indicators. In dance pedagogy, they are: understanding educational and psychological knowledge (Nuraidah et al., 2023) to grasp student psychology and teaching principles, and mastering dance subject teaching knowledge (Jegere & Jegere, 2022) to ensure professional and targeted instruction. In dance theory and culture, the indicators are: understanding dance history (Peng, 2024) to follow its development and trends; understanding dance culture (McCarthy-Brown, 2009) to enrich cultural connotation; and possessing dance aesthetic and critical thinking skills (Juxia, 2022) to foster aesthetic sensibility and critical reflection. In human movement science, the indicators are: understanding biomechanics (Fotaki et al., 2020) to guide training and performance, and comprehending exercise physiology (Geber & Wilson, 2010) to optimize physical function and movement.

The sub-core competencies of skills comprise three categories with eight indicators. In professional dance skills, the indicators are: mastering fundamental dance techniques (Chen, 2023) to provide a solid foundation for performance and demonstration; mastering dance style skills (Huang, 2019) to accurately convey the characteristics of different dance genres; and applying choreography skills (Liu, 2020) to create innovative dance works. In dance pedagogy skills, the indicators include: classroom organization and management (Clark, 2007) to ensure orderly instruction; course design and implementation (Lu & Sungkawadee, 2023) to enhance teaching effectiveness and relevance; and teaching assessment and feedback (Dong, 2023) to monitor student learning and improve instruction. In dance performance skills, the indicators are: mastering dance performance techniques (Li, 2023) to deliver high-quality performances, and mastering dance expression (Zejing & Luen, 2023) to fully convey the emotion and artistic intent of dance.

The sub-core competencies of attitudes comprise three categories with seven indicators. In artistic responsibility and professional ethics, the indicators are: possessing artistic responsibility (Westerlund et al., 2021) to uphold a passion and commitment to the arts, and demonstrating professional ethics (Lumpkin, 2008) to adhere to industry standards and professional conduct. In teamwork and communication, the indicators include: mastering teamwork skills (Wang, 2024) to leverage individual strengths in collective research and creation; mastering communication skills (Wangdi & Lhendup, 2022) to convey ideas effectively; and mastering leadership (Van Rossum, 2004) to guide a team collaboratively. In innovation and self-reflection, the indicators are: applying innovative thinking (Xue, 2024) to

continuously explore new teaching methods and dance expressions, and practicing self-reflection (Alaways, 2020) to consistently evaluate and enhance one's dance teaching performance.

Assessing educational quality necessitates effective indicators to evaluate the attainment of educational system objectives. Without competency metrics, it proves challenging to evaluate student performance and formulate improvement plans (Bantilan, 2024). Most existing research merely touches upon isolated competency elements, lacking systematic integration of the professional competency framework for dance education. Furthermore, the determination of indicator weightings lacks rigorous quantitative analysis (Lu & Sungkawadee, 2023). This study integrates competency-based education into the research of professional competency indicators for dance education in Chinese higher education institutions. This approach can transform traditional assessment and teaching models, meeting students' individualised and practical competency development needs (Catacutan et al., 2023; Hao, 2024).

3. Methods

This study first screened potential competency indicators for higher education dance programmes through a literature review, then refined these using a modified Delphi method, and finally assigned weights via the Analytic Hierarchy Process. Goodarzi et al. (2017) recommended expert panels of 15–20 members. This study selected 15 experts holding doctoral degrees with over 10 years' experience in dance education and administration, encompassing dance pedagogy, teacher certification evaluation, and faculty recruitment to form the advisory panel (Wright, 2007). The Analytic Hierarchy Process decomposes complex structures into hierarchical concepts, clarifying logical decision-making pathways (Srebrenkoska et al., 2023), which is crucial for constructing indicator weightings; As expert selection influences weight matrices and decision outcomes (Gompf et al., 2021), this study additionally selected 15 distinct experts encompassing university and primary education practitioners. All possessed over 10 years' teaching experience, doctoral qualifications, and extensive expertise in dance education and management to ensure the assessment's authority and comprehensiveness.

3.1 Procedures

The modified Delphi method will incorporate literature on dance education professional competencies, relevant policies, and competency-based education principles to design an initial questionnaire. This will be distributed and collected online via email, adhering to non-interference and anonymity principles to ensure experts express themselves fully (Slade et al., 2014). Following the first round, consolidated feedback will form the basis for a second questionnaire. Experts will refine their responses and proposals based on initial feedback and adjustments to indicators, ensuring the finality of their input (Hartman & Baldwin, 1995). Throughout both rounds, experts will revise their contributions in light of peer feedback and suggestions until consensus is achieved (Khodyakov & Chen, 2020).

The Analytic Hierarchy Process first decomposes capability indicators into a three-tier structure comprising the objective layer (core capabilities), criterion layer (secondary core capabilities), and indicator layer (capability indicators). Experts are then invited to pairwise compare elements across each tier and construct a judgement matrix. Subsequently, the judgement matrix is processed using the consistency matrix method to derive raw weights, which are normalised to obtain final weight values. Next, the consistency ratio (*CR*) is calculated for verification; a *CR* < .100 indicates satisfactory consistency, otherwise the matrix is adjusted to ensure accuracy and reliability (Shyamprasad & Kousalya, 2020). Finally, the weights across all levels are synthesised to determine the relative weight of each indicator against the overall objective, thereby constructing the competency indicator system.

3.2 Data Analysis

In processing expert opinions using the modified Delphi method, expert feedback and forecast data were first compiled into a dataset, with completeness and accuracy verified, and missing or anomalous values addressed to ensure reliable subsequent analysis. Three types of selection criteria with quantitative standards were then applied. First, the proportion of participating experts was calculated, requiring at least 70% (Goodarzi et al., 2017) to reflect adequate expert engagement (Gostyunina et al., 2019). Second, indicator reliability and consensus were assessed using a mean importance score $M > 4$ (Zhong et al., 2015) and a full-score frequency $K > 30\%$ (Zheng et al., 2020) (Landeta & Lertxundi, 2024). Third, the boundary value method was applied to screen and revise indicators according to the criteria: $M > 4$ (Zhong et al., 2015), $SD < 1$ (Weinstein et al., 2024), $K > 30\%$ (Zheng et al., 2020), and $CV \leq .300$ (Von Der Gracht, 2012). Indicators meeting these thresholds were retained, while those failing were revised or removed.

When employing the Analytic Hierarchy Process (AHP), the functions, formula editing capabilities, and automatic calculation features of spreadsheets (Excel) assist in constructing hierarchical structures, conducting pairwise comparisons, and calculating weights. This facilitates the derivation of element weights at each level and verifies the consistency of expert ratings (Kim & Choi, 2007). The consistency ratio (*CR*) serves as a crucial metric for assessing the consistency of the judgement matrix, calculated as the ratio of the consistency index (*CI*) to the random index (*RI*) ($CR = CI / RI$). The calculation process is as follows: first compute $CI = (\lambda_{\max} - n) / (n - 1)$ (where $\lambda_{\max}$ is the maximum eigenvalue of the matrix and n is the order of the matrix), then compute $CR = CI / RI$. Should $CR < .1$, the judgement matrix is deemed consistent, with weight allocations being reasonable and reliable. Should $CR > .1$, the judgement matrix requires adjustment to enhance decision quality (Shyamprasad & Kousalya, 2020), ultimately yielding the weight allocations for each capability indicator.

4. Results

4.1 Results of the First Round of the Modified Delphi Survey

The expert questionnaire in the modified Delphi method employed a five-point Likert scale, where “1” indicated “extremely inappropriate” and “5” indicated “extremely appropriate.” Results from the first round showed that for the knowledge dimension (K1), the mean $M = 4.933$, standard deviation $SD = .258$, full-score frequency $K = 93.33\%$, and coefficient of variation $CV = .052$. For the skills dimension (K2), $M = 4.933$, $SD = .258$, $K = 93.33\%$, and $CV = .052$. In the attitudes dimension (K3), $M = 5.000$, $SD = .000$, $K = 100\%$, and $CV = .000$. These results indicate high positivity and consensus among expert opinions.

This study adjusted indicators based on expert input: K1.2.2 “Understand dance cultural knowledge” was revised to “Understand personalized cultural dance knowledge”; K2.2.2 “Master course instructional design and implementation skills” was revised to “Master personalized course instructional design and implementation skills”; New tertiary indicators added: K1.1.3 Understand and utilize digital dance teaching tools and resources, and K3.3.3 Possess reflective abilities to improve teaching practices through big data analysis.

4.2 Results of the Second Round of the Modified Delphi Survey

The second-round modified Delphi questionnaire was designed based on the first-round analysis and maintained the same structure. Results showed a mean $M = 4.746$, exceeding the threshold of 4 (Zhong et al., 2015), and a full-score frequency $K = .750$, above the 0.300 threshold (Von Der Gracht, 2012), indicating strong consensus among experts. No suggestions for adding or deleting indicators were proposed. Accordingly, the second-round revised competency indicator system for dance education majors was finalized (see Table 1).

Table 1. Second-round Revised Professional Competency Indicators for Dance Education

Primary Indicators	Secondary Indicators	Tertiary Indicators
K1 Knowledge	K1.1 Dance Teaching Knowledge	K1.1.1 Understanding of Educational and Psychological Knowledge
		K1.1.2 Mastery of Dance Subject Teaching Knowledge
		K1.1.3 Understanding and Application of Digital Dance Teaching Tools and Resources
	K1.2 Dance Theory and Cultural Knowledge	K1.2.1 Understanding of Dance History
		K1.2.2 Understanding of Diverse Dance Cultures
		K1.2.3 Possess Dance Aesthetic and Critical Thinking Skills
	K1.3 Knowledge of Human Movement Science	K1.3.1 Understanding of Biomechanics Knowledge
		K1.3.2 Understanding of Kinesiology Knowledge

Table 1. Second-round Revised Professional Competency Indicators for Dance Education(continued)

Primary Indicators	Secondary Indicators	Tertiary Indicators
K2 Skills	K2.1 Dance Professional Skills	K2.1.1 Mastery of Fundamental Dance Techniques
		K2.1.2 Mastery of Dance Style Skills
		K2.1.3 Application of Choreography Skills
	K2.2 Dance Teaching Skills	K2.2.1 Possess Classroom Organization and Management Skills
		K2.2.2 Master Personalized Course Design and Implementation Skills
		K2.2.3 Master Teaching Evaluation and Feedback Skills
	K2.3 Dance Performance Skills	K2.3.1 Mastery of Dance Performance Skills
		K2.3.2 Mastery of Dance Expression Skills
K3 Attitude	K3.1 Artistic Responsibility and Professional Ethics	K3.1.1 Possess Artistic Responsibility
		K3.1.2 Possess Professional Ethics Awareness
	K3.2 Teamwork and Communication Skills	K3.2.1 Mastery of Teamwork Skills
		K3.2.2 Mastery of Communication Skills
		K3.2.3 Mastery of Leadership Skills
	K3.3 Innovation and Self-Reflection Skills	K3.3.1 Capacity for Practicing Innovation
		K3.3.2 Capacity for Practicing Self-Reflection
		K3.3.3 Reflective Ability to Improve Teaching Practices Using Big Data Analysis

Note: Source of data is the present study.

4.3 Results of the Analytic Hierarchy Process (AHP) Survey

This study employed a two-round modified Delphi method to determine item elements, integrating hierarchical frameworks and judgment matrices to construct an AHP questionnaire framework. The questionnaire was distributed to AHP experts and yielded valid responses. Excel data analysis revealed that all item consistency ratios (*CR* values) were < .100 (Saaty, 1990), indicating ideal consistency within the Chinese higher dance education professional competency indicator system. The results comprise three primary indicators, nine secondary indicators, and twenty-four tertiary indicators. Each tier of indicators was reordered and recoded according to their weighting, as presented in Table 1.2.

The skill dimension (.429) carries the highest weighting, accounting for 42.9% of the total weighting and representing the most significant dimension. Dance performance skills (.461) and teaching evaluation and feedback capabilities (.058) underscore the importance of practice and assessment. This simultaneously underscores the dance education programme's emphasis on practical competencies, particularly dance performance technique (.154) and teaching evaluation and feedback (.058) as pivotal for skill development. The knowledge dimension (.302) accounts for 30.2% of the total weighting, with knowledge of human movement science (.420) forming its core, reflecting dance education's dual demand for scientific theory and principles of bodily movement. Within this, knowledge of human movement science (.420) holds greater weight than dance theory and cultural knowledge (.323), indicating the priority accorded to scientifically grounded training methodologies. The Attitude dimension (.269) constitutes 26.9% of the total weighting, with artistic responsibility and professional ethics (.625) forming its core, underscoring the foundational role of professional conduct. Within this, the weighting for professional ethics (.113) exceeds that of innovative spirit (.010), indicating that professional ethics form the prerequisite for competency development. This emphasises that dance education professionals must possess sound professional conduct and ethical standards to ensure teaching quality and uphold the industry's reputation.

5. Discussion

This study employs the Analytic Hierarchy Process to analyse the weighting of competency indicators for dance education programmes in Chinese higher education institutions (see Table 2). It explores the allocation of these

indicators across the four academic years of dance education programmes to construct a progressive training framework.

Table 2. Weighting Table for Professional Competency Indicators in Dance Education

Primary Indicator	Secondary Indicator	Tertiary Indicator
K1 Dance Skills (.429)	K1.1 Dance Performance Skills (.461)	K1.1.1 Mastery of Dance Performance Skills (.154)
		K1.1.2 Mastery of Dance Expression Skills (.044)
		K1.1.3 Mastery of Dance Style Skills (.022)
	K1.2 Dance Teaching Skills (.334)	K1.2.1 Mastery of Teaching Evaluation and Feedback Skills (.058)
		K1.2.2 Classroom Organization and Management Skills (.043)
		K1.2.3 Mastery of Personalized Curriculum Design and Implementation (.042)
	K1.3 Dance Professional Skills (.205)	K1.3.1 Mastery of Fundamental Dance Techniques (.038)
		K1.3.2 Application of Choreography Skills (.028)
		K1.3.3 Mastery of Dance Style Skills (.022)
K2 Dance Knowledge (.302)	K2.1 Knowledge of Human Movement Science (.420)	K2.1.1 Understanding of Biomechanics Knowledge (.094)
		K2.1.2 Understanding of Kinesiology Knowledge (.032)
	K2.2 Dance Theory and Cultural Knowledge (.323)	K2.2.1 Possess Dance Aesthetic and Critical Thinking Skills (.040)
		K2.2.2 Understanding of Diverse Dance Cultures (.034)
		K2.2.3 Understanding of Dance History (.024)
	K2.3 Dance Teaching Knowledge (.257)	K2.3.1 Understanding and Application of Digital Dance Teaching Tools and Resources (.034)
		K2.3.2 Mastery of Dance Subject Teaching Knowledge (.023)
		K2.3.3 Understanding of Educational and Psychological Knowledge (.020)
		K2.3.4 Understanding of Dance History (.024)
K3 Dance Attitudes (.269)	K3.1 Artistic Responsibility and Professional Ethics (.625)	K3.1.1 Professional Ethics Awareness (.113)
		K3.1.2 Possess Artistic Responsibility (.055)
	K3.2 Teamwork and Communication Skills (.252)	K3.2.1 Mastery of Teamwork Skills (.024)
		K3.2.2 Mastery of Communication Skills (.022)
		K3.2.3 Mastery of Leadership Skills (.022)
	K3.3 Innovation and Self-Reflection (.124)	K3.3.1 Reflective Ability to Improve Teaching Practices Using Big Data Analysis (.014)
		K3.3.2 Capacity for Practicing Innovation (.010)
		K3.3.3 Capacity for Practicing Self-Reflection (.009)
		K3.3.4 Capacity for Practicing Self-Reflection (.009)

Note: Source of data is the present study.

5.1 Freshman Year

The first year of university marks a pivotal transition period for students moving from secondary school dance education to professional higher education training. The core objectives are to consolidate technical foundations and establish professional awareness alongside ethical standards. Mastery of fundamental dance skills (K1.3.1, weighting = .038) underpins performance technique, while proficiency in dance performance skills (K1.1.1, weighting = .154) represents the highest-weighted indicator. Positioning both within the first year aligns with Blanco and Cancio's (2024) perspective that the freshman stage requires concentrated, systematic physical technique training to establish foundations for subsequent learning.

Understanding biomechanics (K2.1.1, weight = .094) and understanding exercise physiology (K2.1.2, weight = .032) necessitate early intervention to assist students in scientifically comprehending bodily structure, principles of force application, and training safety boundaries, thereby reducing sports injuries. This aligns with the conclusions of Fuhrmann et al. (2010) and Russell (2013), who concluded that early intervention in exercise science knowledge reduces dance injuries. Professional ethics awareness (K3.1.1, weight = .113) requires initiation in the first year and

continuation throughout the four-year programme, as early stages are more conducive to shaping professional values and identity. This aligns with research by Nickel and Crosby (2022) indicating that professional identity formation should commence early in the learning journey.

5.2 Sophomore Year

Second-year students have established a solid foundation in fundamental skills, with the focus of training shifting towards skillful expression and knowledge expansion, laying the groundwork for subsequent teaching and creative abilities. The ability to master dance expression (K1.1.2, weight = .044) and the skill to grasp dance styles (K1.3.3, weight = .022) require solid technical foundations and are appropriately scheduled for the second year, aligning with the perspectives of Kim (2023) and Li (2023)'s assertion that dance expression relies on foundational skills, and aligns with Liu (2024)'s perspective that precise control of dance styles demands advanced technical proficiency.

Understanding diverse dance cultures (K2.2.2, weight = .034) and understanding dance history (K2.2.3, weight = .024) can provide cultural nourishment for skill acquisition, aiding students in comprehending dance contexts and connotations while accurately grasping stylistic emotions. This aligns with Hoss Jameson's (2018) conclusion that integrating dance history education in lower grades enhances cultural literacy, and Kaeppler's (2001) assertion that mastering dance styles requires support from cultural-historical contexts. Mastery of dance subject teaching knowledge (K2.3.2, weight = 0.023) and understanding of educational and psychological knowledge (K2.3.3, weight = .020) require systematic study in the second year to lay theoretical foundations for third-year teaching practice. This aligns with Li et al. (2024) that early theoretical education enhances teaching efficiency, and research by Jegere and Jegere (2022) and Nuraidah et al. (2023) indicating pedagogy and psychology form the core foundation for evaluating dance education talent.

5.3 Junior Year

The third year of undergraduate study represents a pivotal period for integrating theory with practice, requiring the enhancement of teaching and creative abilities upon a foundation of technical skills and knowledge. The capacity to master teaching evaluation and feedback skills (K1.2.1, weight = .058) is well-suited for cultivation at this stage, aligning with the perspectives of Dong (2023) and Li (2023) that teaching evaluation requires foundational pedagogical skills as a prerequisite. Moreover, senior students possess sufficient professional grounding and practical experience to undertake systematic training (Bock et al., 2024; Emara, 2024).

Possessing classroom organisation and management skills (K1.2.2, weighting = .043) and mastering personalised course teaching design and implementation capabilities (K1.2.3, weighting = .042) require reinforcement through simulated teaching sessions and placements. As the third year marks the critical period for concentrated placements, students have already accumulated sufficient knowledge reserves. This aligns with O'Flaherty et al. (2023) that practical training is central to developing operational competencies, and aligns with Prieto-Prieto et al. (2024) that internships constitute the pivotal setting for acquiring teaching competencies. The ability to employ choreographic skills (K1.3.2, weight = .028) requires a foundation of robust technical proficiency and multicultural understanding to prevent superficial creative output, aligning with Chzhizho (2024)'s research that enhancing choreographic capability necessitates prior mastery of artistic expression and imagery. Furthermore, mastering team collaboration skills (K3.2.1, weight = .024) and communication expression abilities (K3.2.2, weight = .022) can be cultivated through group rehearsals and teaching placements. This aligns with Theurl et al. (2024)'s finding that authentic teaching collaborations enhance collaborative communication skills, and Michos et al. (2022) that internship tasks can stimulate competence and enhance teaching efficacy.

5.4 Senior Year

The fourth year of undergraduate study marks the culmination of academic pursuits and a transitional phase towards professional life, with a focus on integrating skills, fostering reflection and innovation to support career development. Possessing artistic responsibility (K3.1.2, weighting = .055) constitutes a core requirement for students transitioning into educators and artistic practitioners, necessitating focused cultivation. This aligns with Hoss Jameson's (2018) assertion that social artistic responsibility must be reinforced in the final stages of dance education, and Eisner's (2003) view that the ultimate goal of arts education is the cultivation of values and responsibility. The capacity for dance aesthetic appreciation and critical thinking (K2.2.1, weighting = .040) must be grounded in solid technical skills and broad knowledge. Independent analytical abilities are cultivated through advanced academic activities, aligning with Moffett (2012) and Yang and Heong (2024)'s conclusions that higher-order aesthetic thinking requires systematic development in senior years.

At the level of technological application, the ability to comprehend and utilise digital dance teaching tools and resources (K2.3.1, weighting = .034) can enhance classroom interactivity and engagement, aligning with research by Liu (2024) and Gingrasso (2019) on the value of digital tools for dance instruction; Mastering leadership (K3.2.3, weight = .022) requires cultivation through graduation projects and practical team roles during internships, aligning with Anyanugo et al. (2024) and Judijanto et al. (2024) that leadership requires real-world task training. Furthermore, possessing reflective capacity to utilise big data analytics for teaching improvement (K3.3.1, weight = .014), practising innovative spirit (K3.3.2, weight = .010), and practising self-reflection (K3.3.3, weight = .009) are best cultivated in the final year through data-driven internships and graduation projects. This aligns with findings from Cabı and Türkoğlu (2025) and Yan et al. (2024) that data facilitates teaching reflection and improvement, as well as conclusions from Farrell (2018) and Hikmat et al. (2022) that innovation stems from accumulated reflective practice.

Based on the aforementioned analysis, this study has developed a competency development framework for dance education that aligns with the progression of academic years (see Table 3). This framework facilitates a progressive enhancement of competencies, advancing from foundational to comprehensive skills and from theoretical understanding to practical application.

Table 3. Dance Education Professional Competency Development Table

Year Level	Competency Indicators	Focus of Development
Freshman year	Mastery of Fundamental Dance Techniques (K1.3.1), Mastery of Dance Performance Skills (K1.1.1), Understanding of Biomechanics Knowledge (K2.1.1), Understanding of Kinesiology Knowledge (K2.1.2), Professional Ethics Awareness (K3.1.1)	Focus on foundational skills and professional orientation, strengthen technical training, apply exercise science to prevent injuries, and cultivate professional values early.
Sophomore year	Mastery of Dance Expression Skills (K1.1.2), Mastery of Dance Style Skills (K1.3.3), Understanding of Diverse Dance Cultures (K2.2.2), Understanding of Dance History (K2.2.3), Mastery of Dance Subject Teaching Knowledge (K2.3.2), Understanding of Educational and Psychological Knowledge (K2.3.3)	Emphasize skill application and knowledge expansion, transform foundational skills into artistic expression, integrate cultural and historical knowledge to broaden perspectives, and lay the groundwork for teaching theory.
Junior year	Mastery of Teaching Evaluation and Feedback Skills (K1.2.1), Possession of Classroom Organization and Management Skills (K1.2.2), Mastery of Personalized Curriculum Design and Implementation (K1.2.3), Application of Choreography Skills (K1.3.2), Mastery of Teamwork Skills (K3.2.1), Mastery of Communication Skills (K3.2.2)	Focus on practical application, strengthen teaching practice and choreography skills through internships, and develop collaboration and communication abilities via team-based tasks, achieving integration of theory and practice.
Senior year	Artistic Responsibility (K3.1.2), Possession of Dance Aesthetic and Critical Thinking Skills (K2.2.1), Understanding and Application of Digital Dance Teaching Tools and Resources (K2.3.1), Mastery of Leadership Skills (K3.2.3), Reflective Ability to Improve Teaching Practices Using Big Data Analysis (K3.3.1), Capacity for Practicing Innovation (K3.3.2), Capacity for Practicing Self-Reflection (K3.3.3)	Emphasize professional transition by integrating competencies, cultivating artistic responsibility and advanced aesthetic reflection, applying digital tools, and developing leadership through real-world tasks, facilitating the shift to educator and practicing artist.

Note: Source of data is the present study.

6. Conclusion

This study, grounded in competency-based education theory (Holubnycha et al., 2022), systematically constructed a competency indicator system for Chinese higher education in dance. An initial framework comprising 3 first-level, 9 second-level, and 22 third-level indicators was developed through literature review. Following two rounds of the modified Delphi method, the system was refined to include 3 first-level indicators (dance skills, dance knowledge, and dance attitudes), 9 second-level, and 24 third-level indicators. Hierarchical analysis was then applied to rank the relative importance of each indicator, resulting in a scientifically validated competency framework. This system

provides a basis for evaluating graduation requirements, enhancing teaching quality, and guiding the professional development of dance education students.

7. Implications

Theoretically, this study addresses the shortcomings of traditional dance education, which has overemphasised technical training while neglecting the cultivation of comprehensive abilities (Chen, 2024), thereby expanding the application scope of competency-based education theory within the discipline of dance education. Practically, the proposed competency indicator system and development framework provide a scientific basis for formulating talent cultivation programmes, designing course objectives, and establishing evaluation standards in higher education dance programmes. They also offer quantifiable references for teacher training and educational quality monitoring (Benbernou et al., 2022; Holmes et al., 2021).

8. Limitation and Suggestions

This study retains certain limitations. It primarily relies on expert consensus and weighting analysis, lacking empirical validation of the indicator system's feasibility and effectiveness within actual teaching contexts (Zhang et al., 2024). Consequently, future research is advised to conduct empirical studies based on the existing indicator system within authentic teaching contexts. This should involve designing controlled experiments with different competency development pathways and teaching models to examine their specific impact on student learning outcomes, thereby enabling dynamic revision and optimisation of the indicator system (Wu & Lin, 2023).

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