

The Distinct Roles of Dual Supervision in Music Teacher Preparation: A Research Proposal Using Structural Equation Modelling

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Abstract – This study proposes a structural equation modelling investigation into the distinct predictive effects of dual supervisors—university advisors and school-based mentors—on the teaching readiness of music education majors in Jining, China. The teaching practicum, a cornerstone of pre-service teacher education, relies on this supervisory collaboration, yet the specific contribution of each supervisor remains underexplored, particularly within the specialized context of music pedagogy. In China, a dual supervisory model involving a university advisor and a school-based mentor is mandated. This study investigates the distinct predictive effects of these two supervisors on the teaching readiness of music education majors in Jining, China. A quantitative, cross-sectional survey design will be employed. Data will be collected from a stratified random sample of 339 music teacher candidates who completed their practicum within the past five years. Participants will complete a questionnaire measuring the perceived quality of guidance from both supervisors and their self-assessed teaching readiness, operationalized into professional beliefs, knowledge, and competencies based on national standards. Data analysis will utilize Structural Equation Modelling (SEM). The anticipated results are: 1) both supervisory sources will significantly predict overall teaching readiness; 2) university advisor guidance will be a stronger predictor of professional beliefs and knowledge integration; and 3) school-based mentor guidance will be a stronger predictor of professional competencies. The findings will provide empirical evidence for refining the collaborative dual supervision mechanism to enhance the effectiveness of music teacher preparation programs.

Keywords – Teaching practicum, Teaching readiness, Dual supervision, University advisor, School-based mentor, Music education, Structural equation modelling

I. INTRODUCTION

The transition from teacher candidate to a classroom-ready professional is a central objective of teacher education globally. The student teaching practicum is the most critical experiential component in this process, serving as the primary bridge between pedagogical theory learned at the university and the complex realities of classroom practice (Zhao, 2022). The success of this transition is often measured by a candidate's teaching readiness—their perceived confidence and competence in the knowledge, skills, and dispositions required for effective teaching. In China, the practicum is structured around a dual supervisory system, as emphasized in national policy guidelines. This system pairs a university-based advisor, who provides theoretical and reflective guidance, with a school-based mentor

(Cooperating teacher), who offers practical, coaching and formative assessment within the authentic school context. Empirical evidence indicates that school mentors, serving as assessors, evaluate and promote the progressive development of pre-service teachers' competences during the practicum (Rodríguez et al., 2022). While this model is designed to provide comprehensive support, empirical research distinguishing the specific contribution of each supervisor to the multifaceted development of teacher readiness remains scarce. This gap is particularly evident in specialized disciplines like music education, where pedagogical content is unique. Therefore, this study focuses on music teacher candidates in Jining to examine how guidance from the university advisor and the school-based mentor distinctly influences their teaching readiness.

II. PROBLEM STATEMENT

Broadly speaking, the effectiveness of the practicum experience hinges on the quality of supervision. Although the dual supervisory model is widely implemented in China, its operational dynamics and differential impact are not well understood. Broader literature acknowledges that supervisory quality and professional identity development significantly affect practicum outcomes (Zhao, 2022), yet studies seldom dissect the unique variance in readiness explained by each supervisor. In practice, the roles of the university advisor and the school-based mentor are often ambiguously defined, leading to potential gaps or overlaps in support for the teacher candidate. Without a clear, empirical understanding of how each supervisor specifically contributes to developing professional beliefs, knowledge, and competencies, teacher education programs cannot optimize this collaborative model. Consequently, the potential of the practicum to fully prepare music teachers may not be realized. This study addresses the problem by quantitatively analyzing the distinct pathways through which each supervisor influences the teaching readiness of pre-service music educators.

III. LITERATURE REVIEW

Teaching Readiness

Teaching readiness, or preparedness, is a multidimensional construct. This study adopts the framework from China's Professional Standards for Primary and Secondary School Teachers (Trial) (Ministry of Education, 2012), which conceptualizes readiness through three core, interdependent dimensions: 1) Professional Beliefs (understanding of and commitment to the profession, educational philosophy, ethics), 2) Professional Knowledge

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(content mastery, pedagogical knowledge, curriculum knowledge), and 3) Professional Competencies (skills in planning, instruction, classroom management, and assessment). This framework provides a comprehensive lens for evaluating practicum outcomes.

The Dual Supervision Model

Supervision is the most significant factor influencing teaching readiness during the practicum (Zhao, 2022). The dual model assigns complementary roles: The university advisor connects theory to practice and facilitates critical reflection to ensure academic standards, profoundly impacting belief formation and theoretical integration. Meanwhile, the school-based mentor engages in co-mentoring and 'coaching in the moment' within authentic classrooms, processes that characterize effective supervisor-cooperating teacher collaboration (Thompson & Schademan, 2019). The school-based mentor, embedded in the practice field, provides modelling, immediate feedback on teaching performance, and socialization into the school culture. Empirical studies confirm that school mentors' assessments indicate a progressive development of pre-service teachers' competences throughout the practicum period (Rodríguez et al., 2022). Effective collaboration between them is ideal but often challenged by logistical and communicative barriers, which can fragment the candidate's learning experience.

Linking Supervision to Readiness Dimensions

Prior research establishes a general link between supervision and readiness but lacks granularity. This study posits that the advisors' distinct positions—one in the academic "theory" space and the other in the practical "field" space—lead to differential impacts. University advisor guidance, with its focus on reflection and theory, is hypothesized to be more strongly associated with the development of Professional Beliefs and Knowledge. Conversely, school-based mentor guidance, with its hands-on coaching, is hypothesized to be more directly linked to the enhancement of Professional Competencies. Testing these hypotheses is necessary to move from affirming the model's general value to providing precise guidance for its implementation.

IV. METHOD

This study employs a quantitative, non-experimental correlational design using a survey strategy. The target population is all music education majors from universities in Jining, China, who completed their teaching practicum in the past five years ($N = 2867$). A stratified random sampling method will be used to ensure representation from different institutions. Based on Krejcie and Morgan's (1970) sample size table, a target sample of 339 participants will be sought for a 95% confidence level with a 5% margin of error.

Data will be collected via a self-administered online questionnaire with three parts. Part A collects demographics. Part B contains the Perceived Supervision Scale, with two subscales (University Advisor Guidance and School-Based Mentor Guidance) using 5-point Likert items (e.g., "My university advisor helped me connect theories to my

classroom practice"). Part C is the Teaching Readiness Scale, developed from the 2012 Professional Standards, measuring the three dependent variables (Professional Beliefs, Knowledge, Competencies) also via 5-point Likert items. The instrument will be piloted for validity and reliability. Specifically, content validity will be established through expert review, and internal consistency reliability will be assessed using Cronbach's alpha.

The collected data will be analyzed using Structural Equation Modelling (SEM) with IBM SPSS AMOS. SEM is chosen for its ability to model latent constructs and test complex relationships. The hypothesized model positions University Advisor Guidance and School-Based Mentor Guidance as exogenous latent variables predicting the higher-order latent construct of Teaching Readiness, which is indicated by the three first-order factors (Beliefs, Knowledge, Competencies). The analysis will test the direct paths from each supervisor to overall readiness and the specific paths to each readiness dimension, assessing the model's goodness-of-fit.

V. PROPOSED METHODS AND ANTICIPATED

As this paper presents a research proposal, empirical findings are not yet available. The data analysis plan, as detailed in the METHOD section, is designed to test the following specific hypotheses derived from the literature:

H1a: University Advisor Guidance will have a significant positive direct effect on overall Teaching Readiness. H1b: School-Based Mentor Guidance will have a significant positive direct effect on overall Teaching Readiness.

H2: University Advisor Guidance will be a stronger predictor of Professional Beliefs and Professional Knowledge than School-Based Mentor Guidance.

H3: School-Based Mentor Guidance will be a stronger predictor of Professional Competencies than University Advisor Guidance.

The SEM analysis will quantify these relationships, and model fit indices (χ^2/df , CFI, TLI, RMSEA, SRMR) will be used to evaluate how well the proposed theoretical model fits the observed data.

VI. EXPECTED CONTRIBUTIONS AND IMPLICATIONS

The anticipated results, supporting H1a and H1b, would reaffirm the critical importance of both supervisory roles in the practicum ecosystem. More importantly, confirmation of H2 and H3 would provide novel, empirical evidence for the specialized contributions of each supervisor. It would suggest that the university advisor's strength lies in shaping the foundational "why" and "what" of teaching (beliefs and knowledge), while the school-based mentor excels at developing the practical "how" (competencies). This finding underscores that the dual model's efficacy relies on structured complementarity rather than redundant oversight. A lack of synergy or communication between the two could lead to a fragmented professional identity in the candidate, where theory remains disconnected from practice. Therefore, the discussion will emphasize that the model's success depends not merely on the presence of two supervisors, but on intentional, collaborative alignment of their distinct yet

interconnected roles to foster a coherent and integrated development of teacher readiness.

VII. CONCLUSION AND IMPLICATIONS

This study proposes a rigorous quantitative investigation into the dual supervision model's impact on music teacher readiness. By differentiating the influence of each supervisor on specific readiness dimensions, the findings aim to provide actionable insights for optimizing practicum design. The practical implications are significant. For teacher education programs, results would highlight the need to strategically train university advisors for their "theoretical bridge" function. For partner schools, it underscores the necessity of selecting, training, and supporting skilled mentors. Most critically, the study argues for institutionalizing structured collaboration mechanisms, such as shared observation frameworks, regular triad meetings, and co-developed assessment tools, to ensure the two supervisory inputs are synergistic. This would transform the practicum from a simple field experience into a powerful, integrated learning journey that fully prepares music teachers for the demands of the profession. A limitation of this design is its quantitative nature, which may not capture the nuanced qualitative experiences of supervision. Future research could employ a mixed-methods approach to explore the "how" and "why" behind the statistical relationships identified.

REFERENCES

- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610.
- Ministry of Education of the People's Republic of China. (2012). Professional standards for primary and secondary school teachers (trial).
- Rodríguez, I., Barceló, M.-L., Poveda, B., & López-Gómez, E. (2022). The development of competences in teaching practicum: Perspective of school mentors as assessors. *Educational Process: International Journal*, 11(2), 7–25.
- Zhao, Q. (2022). On the Role of Teachers' Professional Identity and Well-Being in Their Professional Development. *Frontiers in Psychology*, 13, 913708.
- Thompson, M., & Schademan, A. (2019). Gaining fluency: Five practices that mediate effective co-teaching between pre-service and mentor teachers. *Teaching and Teacher Education*, 86, 102903.