

Aesthetic Literacy for Educator Excellence: A Competency Development Framework in China's Vocational Education

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ABSTRACT

Aesthetic literacy has become a crucial aspect of education in China, particularly within the framework of national education reforms aimed at fostering cultural awareness and artistic appreciation. This study investigates the development of aesthetic literacy competencies among educators in China's higher vocational education system, focusing on Anhui province. Using a three-phase research methodology, this study identifies key literacy components, assesses competency gaps, and proposes a structured framework for professional development. The research examines four core components: Aesthetic Knowledge Literacy, Aesthetic Teaching Literacy, Professional Aesthetic Literacy, and Activity Management Literacy. A needs assessment conducted among 240 vocational educators revealed significant gaps, particularly in Activity Management Literacy, indicating a need for enhanced organizational and leadership training in aesthetic education. A structured professional development program, validated by expert evaluations, was designed to address these gaps through experiential, social, and formal learning approaches. The findings confirm the necessity of integrating aesthetic literacy into vocational education to bridge the gap between technical skill development and cultural education. The study suggests further research on the integration of digital tools in aesthetic education, a comparative analysis of regional variations in aesthetic literacy, and the long-term impact of professional development programs on vocational educators. By enhancing educator literacy in aesthetic education, this research contributes to policy initiatives aimed at improving the overall quality of vocational education in China.

Key words: Aesthetic Literacy, Vocational Education, Educator Competency, Professional Development, China

INTRODUCTION

Aesthetic literacy has emerged as a critical component of education in China, aligning with the country's broader educational reforms aimed at fostering well-rounded individuals. Recognizing the significance of aesthetic literacy, General Secretary Xi Jinping has emphasized its role in cultivating cultural awareness and artistic appreciation among citizens, contributing to national cultural rejuvenation (Lan & Phanlukthao, 2024; Xi, 2018). In response, policymakers have incorporated aesthetic education into national education policies, aiming to integrate it into various levels of the curriculum (Haslip & Gullo, 2018; Reimers & Chung, 2019; Zhou & Wang, 2019). However, despite these high-level policy endorsements, the implementation of aesthetic literacy in higher vocational education remains inconsistent. Research suggests that vocational institutions often prioritize technical skill development over aesthetic literacy, leaving a gap in students' cultural and artistic competencies (Lili & Hang, 2023; Zhao & Liu, 2021). This discrepancy highlights a need for systematic strategies to enhance the aesthetic literacy of

both educators and students in China's vocational education system.

Aesthetic literacy among educators plays a crucial role in shaping students' creative expression, cultural engagement, and artistic development. International studies confirm that educator competence significantly impacts learning outcomes, particularly in aesthetic education (Darling-Hammond, 2017; Hattie, 2012). However, in China's vocational education system, research on aesthetic literacy competencies among educators remains limited (Chen & Li, 2020; Jian, 2024; Tatin et al., 2024). Structural challenges further exacerbate this issue, including the lack of specialized aesthetic education programs in vocational institutions (Retnawati et al., 2016; Wang & Zhang, 2022). Liu et al. (2021) found that existing art educator training programs focus primarily on technical skills, with insufficient emphasis on pedagogical literacy and curriculum integration. As a result, many educators enter the field with limited understanding of aesthetic literacy and its role in holistic education. These gaps underscore the need for a comprehensive

framework to develop aesthetic literacy competencies among vocational educators, ensuring that they can effectively integrate aesthetic education into their teaching practices.

Comparative studies of aesthetic literacy frameworks in other countries highlight different approaches to integrating arts education in vocational training. In Finland, aesthetic literacy is deeply embedded within teacher education programs, with a strong emphasis on creativity, critical thinking, and pedagogical integration. Similarly, Japan implements a cross-disciplinary model, where aesthetic literacy is integrated into vocational curricula through hands-on artistic projects that connect traditional and contemporary artistic expressions. In contrast, the United States and the United Kingdom focus on competency-based frameworks that combine visual arts, performing arts, and digital media literacy to enhance vocational training. Recent research in South Korea further supports the role of aesthetic literacy in vocational education, where cultural education policies emphasize aesthetic competence as a fundamental aspect of holistic development. These international frameworks provide valuable insights for China's vocational education system, underscoring the need for a competency-driven approach that balances technical skills with aesthetic education (Eisner, 2002; Hallam, 2015; Kantonen & Suominen, 2021). While China has made policy strides in incorporating aesthetic literacy, challenges remain in the form of implementation inconsistencies and insufficient educator training, necessitating a more structured and globally informed strategy.

Given these challenges, this study aims to investigate the development of aesthetic literacy competencies among educators in China's higher vocational education system. Specifically, it seeks to identify key literacy components necessary for vocational educators, assess current and desired literacy levels, and propose a structured framework for enhancing aesthetic literacy. This research employs a three-phase methodology: (1) identifying and validating core aesthetic literacy components, (2) assessing existing gaps and priority needs, and (3) designing a professional development program based on established educational frameworks. By systematically addressing these aspects, the study provides both theoretical insights and practical solutions for strengthening aesthetic literacy in vocational education.

The significance of this study lies in its potential contributions to educational policy and practice. While focused on Anhui province, its findings offer broader implications for vocational education across China. By enhancing educator literacy in aesthetic education, this research supports China's ongoing efforts to integrate cultural and artistic literacy into technical and vocational training. Furthermore, it bridges a critical research gap by providing a competency-based framework tailored to vocational educators. This study thus serves as a foundation for future research and policy initiatives aimed at advancing aesthetic literacy in vocational education and fostering a more holistic approach to learning.

Research Question

- How do aesthetic literacy competencies develop among educators in China's higher vocational education system?

SCOPE OF THE RESEARCH

Scope of Content

This study investigates the development of aesthetic literacy competencies among educators in higher vocational colleges in Anhui province, China. It focuses on identifying key literacy components, assessing current competency levels, and proposing a structured framework for enhancing aesthetic literacy in vocational education. The research is grounded in a comprehensive literature review and expert validation to ensure its relevance and applicability. Through an extensive synthesis of scholarly works (Wang, 2013; Du, 2022; Xie & Guo, 2022; Liu & Wu, 2022), four core components of aesthetic literacy were identified:

1. **Aesthetic Knowledge Literacy:** Educators' understanding of aesthetic theories, historical developments, and the intersection of aesthetics with educational psychology.
2. **Aesthetic Teaching Literacy:** Pedagogical competencies necessary for delivering aesthetic education, including curriculum design, instructional strategies, digital teaching integration, and assessment methodologies.
3. **Professional Aesthetic Literacy:** The ability to demonstrate, interpret, and facilitate creative expression, enabling educators to guide students in artistic engagement.
4. **Activity Management Literacy:** Organizational and leadership capabilities essential for planning, implementing, and evaluating aesthetic education initiatives, such as co-curricular programs, community engagement, and cross-disciplinary collaboration.

By examining these components, the study aims to bridge existing literacy gaps in vocational education, fostering a more structured and impactful approach to aesthetic literacy development among educators.

Population, Sample Group, and Data Sources

To achieve its objectives, this study follows a three-phase research design, incorporating expert evaluations, educator surveys, and program development strategies.

Phase 1: Identification of aesthetic literacy components

1. Five aesthetic education experts were selected through purposive sampling to assess the suitability and relevance of the identified literacy components.
2. The experts included academics, educators, and institutional leaders with extensive experience in aesthetic education.
3. The evaluation process aimed to validate the literacy framework and indicators, ensuring their applicability within China's vocational education system.

Phase 2: Needs assessment of educator literacy

1. The study targeted all aesthetic education administrators and teachers in higher vocational colleges in Anhui province, encompassing approximately 600 individuals.

2. A representative sample of 240 educators was selected using stratified random sampling, ensuring proportional representation based on job roles and institutional contexts.
3. Data collection utilized a dual-response Likert scale questionnaire, measuring both current literacy levels and desired competency levels.
4. The Priority Needs Index (PNI_{modified}) was applied to identify the most critical literacy gaps requiring development.

Phase 3: Development of the aesthetic literacy enhancement program

1. A panel of five experts participated in in-depth interviews to provide strategic insights on enhancing aesthetic literacy competencies.
2. Another expert panel evaluated the suitability and feasibility of the proposed professional development framework, ensuring its alignment with educational best practices and institutional requirements.

This structured research approach enables a comprehensive understanding of aesthetic literacy competencies among educators, ensuring that the findings contribute meaningfully to vocational education reform in China.

METHODOLOGY

This study employs a Research and Development (R&D) methodology to systematically investigate the development of aesthetic literacy competencies among educators in China's higher vocational education system. The research follows a three-phase structure, ensuring a structured approach to identifying key literacy components, assessing current competency levels, and designing an enhancement framework (Abuhassna et al., 2024; Calafato, 2024; Widowati et al., 2017).

Phase 1: Identification of Aesthetic Literacy Components

The first phase aimed to establish a framework for aesthetic literacy competencies by validating key components through expert evaluation. Five experts specializing in aesthetic education, vocational education, and teacher development were selected using purposive sampling to assess the suitability and relevance of the literacy components. These experts were chosen based on their academic expertise and practical experience in aesthetic literacy instruction.

To assess the validity of the identified components, a structured checklist questionnaire was developed and refined through expert feedback. The instrument was designed to evaluate the appropriateness of each aesthetic literacy component and its indicators for vocational educators. Experts rated the suitability of each component using a 5-point Likert scale to determine its applicability within the vocational education context.

Phase 2: Assessment of Current Literacy Competencies and Priority Needs

To determine the existing competency levels and areas requiring improvement, a needs assessment was conducted among vocational educators. The target population consisted of 600 educators from higher vocational institutions in Anhui province, from which 240 participants were selected through stratified random sampling. This sampling technique ensured proportional representation of educators based on their teaching roles and institutional contexts. The sample size was determined using Krejcie and Morgan's (1978) guidelines and validated with Yamane's formula (1973) at a 95% confidence level.

Phase 3: Development of the Aesthetic Literacy Enhancement Program

Based on the findings from Phases 1 and 2, a structured professional development program was designed to enhance aesthetic literacy competencies among vocational educators. The program aimed to address the competency gaps identified in the needs assessment while aligning with effective pedagogical strategies for aesthetic education. Five experts in aesthetic education and vocational training participated in in-depth interviews to provide strategic insights into effective literacy development methods.

RESULTS

The data analysis is structured according to the research objectives, focusing on the identification of aesthetic literacy components, assessment of current and desired competency levels, and the development of an enhancement program to improve educators' aesthetic literacy in China's higher vocational education system.

Components of Aesthetic Literacy for Educators

Identified components and indicators

Through an extensive literature review and expert validation, four primary aesthetic literacy components essential for vocational educators were identified. These components provide a comprehensive framework for evaluating and enhancing educators' competency in aesthetic education, as shown in Table 1.

These components provide a structured competency model for aesthetic literacy, ensuring that educators are equipped with both theoretical knowledge and practical skills to effectively teach and manage aesthetic education initiatives.

Expert validation of components

Expert validation confirmed that all four components were highly relevant for vocational educators. The evaluation demonstrated that Professional Aesthetic Literacy received the highest validation scores, followed by Aesthetic Teaching Literacy, Aesthetic Knowledge Literacy, and Activity Management Literacy, as shown in Table 2.

The expert evaluations confirmed the strong relevance and applicability of these literacy components in the vocational education context. The results highlight the importance of developing educators' artistic proficiency, pedagogical expertise, and organizational capabilities to enhance aesthetic literacy.

Assessment of Current and Desired Competency Levels

The assessment of current and desired literacy levels among vocational educators revealed significant gaps between existing competencies and the required standards. Educators demonstrated moderate competency in all four literacy domains, with Professional Aesthetic Literacy and Aesthetic

Teaching Literacy ranking the highest in the current state assessment. However, Activity Management Literacy emerged as the most critical area for development, indicating a need for stronger organizational and leadership training in aesthetic education, as shown in Table 3.

The findings highlight that while educators possess a moderate level of aesthetic literacy, there are notable competency gaps that require targeted interventions. Activity Management Literacy ranked as the highest priority need, followed by Aesthetic Knowledge Literacy, Aesthetic Teaching Literacy, and Professional Aesthetic Literacy. These results emphasize the necessity of structured professional development to bridge the gap between current competencies and desired proficiency levels in aesthetic literacy.

Table 1. Components and Indicators of Aesthetic Literacy for Educators

Components	Indicators
Aesthetic Knowledge Literacy	Understanding of aesthetics, history of aesthetic education, educational psychology, and pedagogy
Aesthetic Teaching Literacy	Curriculum design, instructional strategies, digital teaching skills, student engagement, and assessment methods
Professional Aesthetic Literacy	Ability to demonstrate artistic expression, interpret creative works, foster students' creativity, and facilitate emotional communication through aesthetics
Activity Management Literacy	Organizing community activities, integrating aesthetic education with discipline-based learning, providing professional guidance, and fostering innovative artistic projects

Table 2. Expert Validation of Aesthetic Literacy Components

Components	Mean Score	Interpretation
Aesthetic Knowledge Literacy	4.60	Highest Suitability
Aesthetic Teaching Literacy	4.70	Highest Suitability
Professional Aesthetic Literacy	4.80	Highest Suitability
Activity Management Literacy	4.60	Highest Suitability
Overall	4.70	Highest Suitability

Table 3. Summary of Current and Desired Literacy Levels and Priority Needs

Components	Current State (Mean)	Desired State (Mean)	PNI Modified	Priority Ranking
Aesthetic Knowledge Literacy	3.29	4.32	0.313	2
Aesthetic Teaching Literacy	3.52	4.50	0.278	3
Professional Aesthetic Literacy	3.53	4.44	0.258	4
Activity Management Literacy	3.37	4.44	0.318	1
Overall	3.43	4.43	0.292	-

Development of the Aesthetic Literacy Enhancement Program

Based on the findings from Phases 1 and 2, a structured professional development program was designed to enhance aesthetic literacy competencies among vocational educators. The program was developed with expert input and structured around five key areas:

1. Principles: Based on the 70:20:10 Learning Model, integrating experiential learning, social learning, and formal education.
2. Objectives: Addressing competency gaps identified in the literacy assessment.
3. Content: Developed into four training modules, each targeting a specific aesthetic literacy component.
4. Development Process: Implemented through workplace practice, coaching, mentoring, training, and interactive workshops.
5. Evaluation: Designed as a three-phase assessment model, incorporating pre-program assessment, formative evaluation, and post-program evaluation.

Evaluation of the Enhancement Program

The enhancement program was evaluated by five independent experts, who assessed its suitability and feasibility for implementation in vocational education settings. The expert review confirmed high validation scores for all program components, indicating strong confidence in its applicability and effectiveness, as shown in Table 4.

The high evaluation scores across all program components confirm the program's strong theoretical foundation

Table 4. Expert Evaluation of the Enhancement Program

Program Component	Suitability (Mean Score)	Feasibility (Mean Score)
Principles	4.60	4.80
Objectives	4.80	4.60
Content	4.70	4.55
Development Process	4.75	4.65
Evaluation Methods	4.80	4.60
Overall	4.73	4.64

and practical applicability for enhancing aesthetic literacy competencies in higher vocational education. These results highlight the program's potential to significantly improve educators' knowledge, teaching effectiveness, and management capabilities in aesthetic education. This research provides empirical evidence and practical solutions for advancing aesthetic literacy development in vocational education settings. The structured training program offers a replicable model for ensuring the successful integration of aesthetic education in China's vocational institutions.

DISCUSSION AND CONCLUSION

The findings of this study confirm the significance of aesthetic literacy in vocational education and highlight critical gaps in educators' competencies. The research supports existing literature emphasizing the role of aesthetic education in holistic student development and national cultural rejuvenation (Xi, 2018; Lan & Phanlukthao, 2024). The study's identification of four primary aesthetic literacy components—Aesthetic Knowledge Literacy, Aesthetic Teaching Literacy, Professional Aesthetic Literacy, and Activity Management Literacy—aligns with the theoretical framework of aesthetic education, which emphasizes both knowledge acquisition and practical application (Chen & Li, 2020; Zhou & Wang, 2019). These components are consistent with previous research advocating for a competency-based approach to aesthetic education in vocational institutions (Wang, 2013; Retnawati et al., 2016).

A key finding of this study is that educators exhibit moderate competency in all four literacy domains, with notable gaps in Activity Management Literacy. This aligns with previous studies indicating that vocational educators often receive insufficient training in organizational and leadership skills for aesthetic education (Wang & Zhang, 2022; Liu et al., 2021). The significant discrepancy between current and desired competency levels, as indicated by the Priority Needs Index (PNI_{modified}), underscores the need for targeted professional development interventions. These findings support the argument that while vocational educators may possess technical expertise in art-related subjects, they lack systematic training in curriculum integration and activity facilitation (Haslip & Gullo, 2018; Jian, 2024).

The structured professional development program designed in this study addresses these competency gaps through an evidence-based approach. The inclusion of the 70:20:10

Learning Model ensures a balanced integration of experiential, social, and formal learning, which is consistent with best practices in teacher education (Darling-Hammond et al., 2017; Hattie, 2012). Expert evaluations of the program confirmed its theoretical and practical applicability, validating its potential to enhance aesthetic literacy in vocational education settings. These results align with previous research indicating that well-structured educator training programs significantly improve teaching effectiveness and student engagement in aesthetic education (Lili & Hang, 2023; Xie & Guo, 2022).

However, some inconsistencies with prior research were noted. While past studies have suggested that digital tools and new media could enhance aesthetic literacy education (Lili & Hang, 2023), this study did not extensively address the role of technology in vocational educators' aesthetic training. Future research should explore the integration of digital platforms in aesthetic literacy development, particularly in virtual and hybrid learning environments. Additionally, while this study focused on Anhui province, variations in aesthetic literacy competencies across different regions of China remain unexamined. Given the diversity of vocational education policies and institutional practices, a comparative analysis across multiple provinces would provide deeper insights into regional disparities and policy effectiveness.

Despite its potential, implementing the proposed professional development framework faces several challenges. First, vocational institutions often lack adequate funding and resources for aesthetic education initiatives, prioritizing technical skill development over holistic education (Zhao & Liu, 2021). Without sustained financial support, many institutions may struggle to implement comprehensive training programs for educators. Second, resistance to pedagogical change remains a significant barrier. Some vocational educators perceive aesthetic literacy as secondary to technical competency, leading to a lack of motivation in engaging with professional development programs (Wang & Zhang, 2022). Third, the availability of trained facilitators and mentors in aesthetic literacy is limited. Most current training models focus on general education settings, and vocational educators require specialized programs tailored to their professional context (Liu et al., 2021).

Additionally, digital literacy presents both an opportunity and a challenge in implementing aesthetic literacy training. While technology-enhanced learning can improve access to training materials and facilitate interactive engagement, many vocational educators in China have limited digital proficiency (Reimers & Chung, 2019). Without adequate training in digital tools, educators may struggle to integrate online resources, virtual art platforms, and multimedia tools into their teaching practices. The integration of digital literacy into the proposed framework would require additional investment in technological infrastructure and continuous professional support.

The qualitative perspectives of educators also indicate concerns regarding the practical implementation of aesthetic literacy within existing vocational curricula. Interviews with

educators reveal that many face heavy workloads, limiting their time and capacity to engage in professional development (Chen & Li, 2020). Additionally, the lack of clear national guidelines for aesthetic literacy in vocational education leads to inconsistencies in implementation across institutions. Developing a standardized yet flexible model that aligns with institutional constraints while promoting engagement in aesthetic education is essential for the success of the proposed framework.

This study contributes to the growing body of research on aesthetic literacy by systematically investigating the competencies required for vocational educators and proposing a structured framework for professional development. The findings confirm that aesthetic literacy is a crucial but underdeveloped component of vocational education in China. Despite policy-level support for aesthetic education, its implementation remains inconsistent due to insufficient educator training, a lack of curriculum integration, and limited institutional resources. The identification of key literacy components and the prioritization of competency gaps offer a practical roadmap for improving aesthetic education within vocational institutions.

The professional development program designed in this study provides a replicable model for enhancing aesthetic literacy competencies among vocational educators. By addressing key deficiencies in knowledge, pedagogical skills, and organizational capacities, the program aligns with national educational reforms and international best practices in aesthetic education. The high validation scores from expert evaluations further reinforce the program's feasibility and effectiveness, suggesting that it could serve as a blueprint for broader implementation across China's vocational education system.

However, several areas warrant further research. First, a longitudinal study assessing the long-term impact of the professional development program on educators' competencies and student outcomes would be valuable. Second, given the growing role of technology in education, future studies should explore how digital tools and media can be integrated into aesthetic literacy training. Third, comparative research across different provinces and educational institutions would provide a more comprehensive understanding of regional differences in aesthetic literacy implementation. Fourth, further research should investigate policy mechanisms that can support the institutionalization of aesthetic literacy training in vocational education, ensuring its sustainability beyond short-term initiatives. Finally, an in-depth analysis of vocational educators' attitudes toward aesthetic literacy and their professional development needs would provide valuable insights into designing more effective and engaging training models.

By addressing these research gaps, future studies can build upon the findings of this study to further advance the integration of aesthetic literacy into vocational education. Strengthening aesthetic literacy among educators will not only enhance the quality of teaching but also contribute to the broader goal of cultural enrichment and holistic student development in China's vocational education system.

REFERENCES

- Abuhassna, H., Alnawajha, S., Awae, F., Adnan, M. A. B. M., & Edwards, B. I. (2024). Synthesizing technology integration within the Addie model for instructional design: A comprehensive systematic literature review. *Journal of Autonomous Intelligence*, 7(5), 1-28. <https://doi.org/10.32629/jai.v7i5.1546>
- Calafato, R. (2024). Literature in language education: exploring teachers' beliefs, practices, creativity, and literary competence. *Pedagogies: An International Journal*, 19(1), 80-98. <https://doi.org/10.1080/1554480X.2022.2164500>
- Chen, L., & Li, M. (2020). Aesthetic education competence and its influence on student development in vocational contexts. *Chinese Vocational Education Research*, 15(3), 82-91.
- Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development*. Learning Policy Institute. <https://doi.org/10.54300/122.311>
- Du, W. (2022). Talk about the basic ability and quality of school aesthetic education teachers and strengthen and improve the normal art education. *Journal of Aesthetic Education*, 13(2), 1-7.
- Eisner, E. W. (2002). *The arts and the creation of mind*. Yale University Press.
- Hallam, S. (2015). The power of music: A research synthesis on the impact of actively making music on the intellectual, social, and personal development of children and young people. *International Journal of Music Education*, 33(3), 287-304. <https://doi.org/10.1177/0255761415584296>
- Haslip, M. J., & Gullo, D. F. (2018). The changing landscape of early childhood education: Implications for policy and practice. *Early Childhood Education Journal*, 46, 249-264. <https://doi.org/10.1007/s10643-017-0865-7>
- Hattie, J. (2012). *Visible learning for teachers: Maximizing impact on learning*. Routledge. <https://doi.org/10.4324/9780203181522>
- Jian, L. (2024). Aesthetic education and personality cultivation among college students. *International Journal of Advanced Research in Education and Society*, 6(2), 443-453.
- Kantonen, L., & Suominen, A. (2021). Art educators as facilitators of aesthetic literacy: A Finnish perspective. *International Journal of Art & Design Education*, 40(2), 371-389. <https://doi.org/10.1111/jade.12321>
- Lan, D., & Phanlukthao, P. (2024). Cultural landscape of industrial heritage: Aesthetic literacy education of the spatial production thought. *International Journal of Education and Literacy Studies*, 12(3), 187-196. <https://doi.org/10.7575/aiac.ijels.v.12n.3p.187>
- Lili, P., & Hang, X. (2023). Development and innovation of college aesthetic education from the perspective of new media. *Advances in Educational Technology and Psychology*, 7(13), 22-29. <https://doi.org/10.23977/aetp.2023.071305>
- Liu, J. Y., & Wu, X. L. (2022). Thinking and exploration of competency training and promotion of university public art teachers under the perspective of aesthetic education. *Art Education*, (8), 245-248.

- Liu, J. Y., Wang, L., & Zhang, C. (2021). Analysis of aesthetic education teacher preparation programs in China's higher education institutions. *Educational Research and Development, 17*(3), 45-52.
- Reimers, F. M., & Chung, C. K. (Eds.). (2019). *Teaching and learning for the twenty-first century: Educational goals, policies, and curricula from six nations*. Harvard education press.
- Retnawati, H., Hadi, S., & Nugraha, A. C. (2016). Vocational high school teachers' difficulties in implementing the assessment in curriculum 2013 in Yogyakarta Province of Indonesia. *International journal of instruction, 9*(1), 33-48. <https://doi.org/10.12973/iji.2016.914a>
- Tatin, I. A. G., Triyono, S., Jacobs, G. M., Trett, S., Bangsa, A. A. S., & Zhu, C. (2024). An analysis of environmental education in Indonesian EFL elementary school textbooks. *International Journal of Education and Literacy Studies, 12*(3), 3-16. <https://doi.org/10.7575/aiac.ijels.v.12n.3p.3>
- Wang, X. (2013). Competence model for aesthetic education teachers: A structural analysis. *Journal of Educational Studies, 9*(4), 78-86.
- Wang, Y., & Zhang, S. (2022). Structural challenges in aesthetic education teacher preparation: Implications for policy development. *Educational Policy Studies, 14*(3), 45-57.
- Widowati, A., Widodo, E., & Anjarsari, P. (2017, November). The development of scientific literacy through nature of science (NoS) within inquiry based learning approach. In *Journal of Physics: Conference Series* (Vol. 909, No. 1, p. 012067). IOP Publishing. <https://doi.org/10.1088/1742-6596/909/1/012067>
- Xi, J. (2018). *The governance of China (Vol. 3)*. Foreign Languages Press.
- Xie, C. L., & Guo, L. L. (2022). Construction of the core literacy framework of music normal university students under the concept of aesthetic education in the new era. *Music Education in China, 1*, 5-16.
- Zhao, T., & Liu, B. (2021). Policy and practice in aesthetic education: An analysis of implementation gaps in China's educational system. *Educational Policy Analysis, 23*(4), 67-79.
- Zhou, J., & Wang, L. (2019). Aesthetic education in China's educational reform: Policy evolution and implementation challenges. *Comparative Education Review, 63*(3), 123-142.