

Professional Accreditation Systems and Their Enlightenment for Forensic Science Education in China

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Abstract: Competence of forensic appraisers determine the quality of forensic appraisal services. Forensic appraisers' capacity depends not only on continuing professional training but also the academic education concerning forensic science they have received. However, forensic science education in China faces the inconsistencies in objectives and teaching among universities, making it difficult to guarantee the quality of education. Professional accreditation is an important means of guaranteeing education quality. After 20 years of exploration, prominent progress has been achieved in professional accreditation. Therefore, it is imperative to introduce professional accreditation into forensic science education to improve and guarantee its quality. The three most mature professional accreditation systems in China were reviewed and compared systematically. On this basis, enlightenment for further development of forensic science education was also proposed. It is recommended that a professional accreditation body for forensic science education be established under the leadership of the judicial administration and managed by the association of forensic science. A hierarchical professional accreditation system needs to be constructed. A categorized accreditation standard system is essential for forensic science education. It is necessary to create a link between forensic science education and the admission of forensic appraisal resorting to professional accreditation..

Keywords: Professional Accreditation, Forensic Science Education, Forensic Appraisal, Comparative Study, Policy Enlightenment

1. Introduction

Forensic appraisal refers to that a forensic appraiser utilizes science and technology or specialized knowledge to examine and evaluate questioned issues related to cases and provide an expert opinion during litigation ^[1]. Currently, it has become an integral part of the public legal service system in China, providing strong support for judicial fairness ^[2]. As the primary operator carrying out forensic appraisal activities, the competence and qualification of forensic appraisers determine the quality of forensic appraisal services. At present, judicial administration provide continuing education and training for certificated forensic appraisers to improve their capacity ^[3]. However, the competence of forensic appraisers depends not only on their accumulated professional experience but is also directly related to their education background. Therefore, forensic science education is of paramount importance for forensic appraisal services.

Currently, forensic science education in China has made significant progress. A comprehensive educational system encompassing vocational, undergraduate and graduate education has been constructed ^[4]. However, there is a lack of uniformity among forensic science education in terms of program names, educational objectives and curriculum structures, making it difficult to guarantee the quality of education. Although the major of forensic science has been admitted into the discipline of law in 2023 ^[5], it is limited to the undergraduate level and only involved with a prerequisite for offering the program without mandating uniformity of talent development processes. Therefore, it is necessary to standardize forensic science education to improve and guarantee its quality.

Professional accreditation refers to that an authoritative body evaluates the professional competence of individuals or educational programs to determine their eligibility ^[6]. It is one of the crucial measures of enhancing the quality of higher education. Professional accreditation has been gradually promoted since 2000 in China ^[7]. As of 2023, 2,395 programs at 321 general higher education institutions in China

have passed engineering education accreditation ^[8]. The relatively outperformed accreditation systems include teacher education accreditation ^[9], basic medical accreditation ^[10] and engineering education accreditation ^[6], which have improved their educational quality effectively and accumulated a wealth of development experience. Therefore, it is necessary for forensic science education in China to absorb the development experience from these fields and take professional accreditation measures to improve and guarantee the quality of talent cultivation and further promote the continuous improvement of forensic appraisal services.

2. Comparative Analysis of Major Professional Accreditation Systems in China

2.1. Professional Accreditation Concepts and Principles

Professional accreditation for teacher education, basic medical education and engineering education are the areas that began relatively early and showed strong growth in China. All three types of accreditation is based on the fundamental principles of “student-centered, outcomes-based education and continuous improvement”. These principles take on different connotations for the specific characteristics of each discipline. Teacher education accreditation ^[11] emphasizes allocating educational resources with a focus on teacher-training students, evaluating the quality of talent cultivation in teacher education programs based on learning outcomes and improving teaching based on comprehensive and process-oriented evaluation. In contrast, engineering education accreditation ^[12] places greater emphasis on competency-based learning, outcome-based design of the education system and the establishment of a closed-loop management system involving monitoring, feedback and improvement by identifying quality issues in the talent development.

Although the accreditation concepts remain consistent, the three types of accreditation have distinct accreditation principles. The principles of teacher education accreditation include establishing a unified accreditation system, emphasizing provincial-ministerial collaboration, strengthening the primary responsibility of higher education institutions and integrating a variety of accreditation methods. It emphasizes the standardization of the accreditation process and the consistency of outcome. At the same time, it also highlights the allocation of administrative resources, namely provincial-ministerial collaboration ^[11]. This attributes to that teacher education play a foundational role in China’s education system. Basic medical education accreditation ^[13] includes voluntary application with strict entry requirements, strengthened standards with an emphasis on evidence, equal consultation with objective fairness and a focus on development with continuous improvement. The latter emphasizes on the objectivity of the evaluation process and improvement measures following the accreditation results.

2.2. Professional Accreditation Bodies

Professional accreditation bodies are both the implementing bodies and the regulatory authorities for professional accreditation. Factors such as the nature of the accreditation body, its affiliation and its level of authority would influence the promotion of professional accreditation activities and the implementation of specific accreditation initiatives. Although they all fall under the umbrella of higher education, the accreditation bodies for teacher education, engineering education and basic medical education adopt distinct models, as shown in Table 1.

Table 1: Comparison of professional accreditation bodies.

	Accreditation bodies	Affiliation	Institution property
Teacher Education	Education Quality Evaluation Agency	the Ministry of Education	Governmental
Basic Medical Education	the Working Committee for the Accreditation of Medical Education (WCAME)	the Ministry of Education	Non-governmental
Engineering Education	China Engineering Education Accreditation Association (CEEAA)	/	Non-governmental

Teacher education accreditation is directly overseen by the Education Quality Evaluation Agency (EQEA), which is affiliated with the Ministry of Education ^[11]. This accreditation body assumes administrative approval functions for teaching evaluations and thus has a distinctly governmental property. It is responsible not only for overall coordination, guidance and supervision but also for formulating accreditation standards and implementation measures. Basic medical education accreditation

is overseen by the Working Committee for the Accreditation of Medical Education (WCAME) ^[13]. This accreditation body is a specialized organization established by the Ministry of Education to organize and carry out basic medical education accreditation. Although it is structurally subordinate to educational administration, it does not perform administrative approval functions and is dedicated exclusively to education accreditation. Hence, it is considered as a non-governmental accrediting body. Engineering education accreditation is overseen by the China Engineering Education Accreditation Association (CEEAA) ^[12]. This accreditation body is a national social organization composed of institutions and individuals involved in engineering education. In nature, it is a third-party organization independent of education administration completely. The organization is authorized by the Ministry of Education to carry out the organization and implementation of engineering education accreditation. Thus it possesses a distinctly non-governmental property.

Each accreditation body described above has its own advantages and disadvantages. The accreditation bodies directly or indirectly led by educational administration are beneficial for promoting and implementing accreditation activities through administrative measures, such as teacher education and basic medical education. However, the drawbacks are also evident. On one hand, the functions of program approval and evaluation overlap significantly with those of professional accreditation, which might hinder targeted management and lead to mutual interference between the two activities. On the other hand, a decline in both administrative and accreditation efficiency of education administration might emerge. This is due to the fact that education administration are responsible for coordinating education affairs nationwide, while professional accreditation is also complex and time-consuming. More importantly, professional accreditation is not an administrative approval process. It involves in-depth examinations of various disciplines, which requires a high level of specialized expertise and the active participation of experts. In contrast, third-party organizations are able to dedicate themselves exclusively to accreditation activities and operate with greater flexibility, despite they do not conduct administrative approvals. If the accreditation is under the leadership of education administrative departments, a win-win outcome could be achieved.

2.3. Professional Accreditation Standards

2.3.1. General Comparison

Accreditation standards are at the core of professional accreditation activities and determine the quality and effectiveness of accreditation. The three approaches adopt distinctly different strategies for formulating standards. Engineering education accreditation standards consist of one general standard and 20 supplementary professional standards covering the fields such as mechanical engineering, computer science, and materials science ^[14]. This structure is beneficial for balancing the uniformity and specificity of the standards, in view of a broad range of disciplines within engineering education. Basic medical education accreditation standards consist of basic standards and developmental standards, aiming at accommodating differences in education resources and capabilities among teaching institutions ^[15]. Teacher education accreditation standards can be viewed as integrating the standard-setting approaches of the first two categories, with standards divided into three levels from lowest to highest ^[16]. The first level consists of the state's basic requirements for the operation of teacher education. The second level comprises the minimum requirements for teaching quality. The third level sets the standards for excellence in teaching quality. Additionally, above standards are further categorized by educational levels, including preschool education, elementary education and secondary education, to accommodate the education characteristics of students with different ages.

Above accreditation standards could be divided into two main components, including requirements for students' competencies upon graduation and requirements for the institution's operations. Specifically, the competency requirements for graduates of basic medical education include scientific and academic competencies, clinical competencies, health and society and professional ethics and conduct. Graduation requirements for engineering education accreditation can be broken down into specific competency requirements such as engineering knowledge, problem analysis, research and the design and development of solutions. Graduation requirements for teacher education accreditation are further subdivided into professional ethics, teaching, student development and professional growth. It is evident that all the frameworks share a common focus on the development of professional competencies. Both engineering education and basic medical education accreditation regard research competence as an indispensable skill. Meanwhile, both basic medical education and teacher education accreditation highlight the vital role of professional ethics.

In terms of requirements for running a program, there are both similarities and differences among the

three accreditation systems. Teacher education accreditation covers curriculum and instruction, faculty, collaboration and practical training, supporting conditions, quality assurance and student development. Basic medical accreditation covers mission and objectives, curriculum, students and faculty. Engineering education accreditation contains curriculum, faculty, support conditions and continuous improvement. A common feature is that all three sets of standards include minimum requirements for faculty, support conditions and curriculum as the three foundational elements to guarantee education quality.

2.3.2. Curriculum

All the accreditation systems stipulate curriculum frameworks within their respective standards, as shown in Table 2. Overall, the accreditation standards for teacher education demonstrate strong continuity in their curriculum frameworks ^[16]. For the level 1 standards, quantitative requirements are proposed only for the curriculum structure. The level 2 and level 3 standards also adopt the same phrasing regarding these curriculum structure requirements. In addition, the three accreditation systems show a progressive trend in terms of curriculum design requirements, course content and implementation. For example, the aim of level 2 is to meet basic standards, while the level 3 highlights using cutting-edge and pioneering approaches as well as the cultivation of students' independent learning abilities.

Table 2: Comparison of curriculum standards.

Education type		Observation point 1	Observation point 2	Observation point 3
Teacher Education	Level 1	Teacher education total course $\geq$ 14 credits	/	/
	Level 2	Meet the requirements of professional and curriculum standards	Focus on basic, scientific and practical course content	Using teaching methods to improve the learning effect
	Level 3	Curriculum tracking docking basic education curriculum reform frontier	Extra Focus on comprehensive course content	Improve autonomous learning ability by on subject participation
Engineering Education	General Standards	Involve industry expert supports in the curriculum	Engineering practice and graduation design at least 20% credits	General education courses in humanities and social sciences
Basic Medical Education	Basic standards	Curriculum is compatible with the aims, objectives and educational outcomes	Training in Medical Research Methods	Evidence-based medicine education
	Development Standards	Cultivate the ability of autonomous learning and lifelong learning	Incorporate cutting-edge research into teaching process	Include scientific methods, medical research methods and innovative consciousness

The curriculum framework for engineering education accreditation is more practical ^[14]. It focuses on specifying the composition of curriculum modules. In contrast, basic medical education accreditation tends to focus more on principled guidelines ^[15]. It emphasizes the objectives for cultivating students' competencies. A comparison of the standards reveals that the curriculum framework of engineering education is easier to standardize and are more practical. These standards regulate students' competencies and education quality through curriculum design requirements.

2.3.3. Faculty

As the key actor in education, the quantity and quality of the teaching faculty are among the most important factors in guaranteeing education quality. All the professional accreditation describe requirements for faculty. Teacher education accreditation standards specify requirements regarding personnel composition, educational and work experience, competency profiles and the planning and management of the faculty ^[16]. With the accreditation level increasing, the requirements become more

stringent. A distinguished example is the reduction in the student-to-faculty ratio and the increase in the proportion of faculty holding master's or doctoral degrees. Engineering education accreditation underlines requirements related to quantity, competencies and professional ethics ^[14]. More detailed provisions will be outlined in the supplementary standards for each discipline. Unlike the aforementioned accreditation, basic medical accreditation focuses on the measures to support faculty development, such as the involvement of practicing clinicians in teaching, the establishment of faculty development plans and the safeguarding of faculty rights to decision-making and collaboration ^[15].

2.3.4. Eligibility requirements

Support conditions form the foundation for ensuring the smooth conduct of teaching and the quality of education. Teacher education accreditation sets specific requirements in funding, facilities and resources, as shown in Table 3. The requirements are even meticulous to the funding ratios and the number of books per capita, to provide quantifiable evaluation indicators. Engineering education accreditation and basic medical education accreditation also stipulate funding requirements. The latter even explicitly defines the autonomy in the allocation of funds. Furthermore, both types of accreditation emphasize practical teaching resources, to guarantee the quality of practical instruction.

Table 3: Comparison of eligibility requirements.

Education type		Observation point 1	Observation point 2	Observation point 3
Teacher Education	Level 1	Daily operating expenses of teaching to the sum is more than 13%	Operating expenditure of teaching is higher than average level	Expenditure on educational practice is higher than average level
	Level 2		Teaching facilities meet training requirements	Professional teaching resources and digital teaching resources are rich and the utilization rate is high
	Level 3	Daily operating expenses of teaching to the sum is more than 15%	Vocational skills training platform for education teachers	
Engineering Education	General Standards	Guarantee teaching funds to meet the teaching needs	Provide the necessary learning infrastructure	Specialized laboratories and professional teaching equipment
Basic Medical Education	Basic standards	Reliable and diversified funding channels	Sufficient education funds and resources to support medical education program	Adequate infrastructure to ensure effective implementation of lesson
	Development Standards	Autonomy in the overall use of medical education funds and resources	Education funds that can support exploration of medical education reform and development	Regularly update, add and expand infrastructure to improve learning, living environment

2.4. Accreditation Conclusions and Their Use

2.4.1. Accreditation Conclusions

Accreditation conclusion is the final result of professional accreditation. In basic medical education accreditation, the conclusions are categorized as “approval” or “disapproval” ^[15], as shown in Table 4. The former indicates that all requirements of the accreditation standards have been met, while the latter indicates that the applicants do not meet the criteria. In contrast, teacher education accreditation and engineering education accreditation further subdivide the results into “approval” and “conditional approval” ^[11]. The purpose of this distinction is to enable the institutions that do not fully meet the standards but have the potential to pass accreditation to improve continuously, without having to restart from scratch. This would enhance accreditation efficiency and increase the enthusiasm of participants.

For the education institutions that receive “approval” or “conditional approval” status, the valid period is for six years. However, the applicants that fail to pass the accreditation are permitted to reapply after a 1- to 2-year reform and development period.

Table 4: Comparison of accreditation conclusions.

	Accreditation conclusions	Validity period	Reform and development
Teacher Education	Approval Conditional Approval Disapproval	6 years	/
Engineering Education	Approval Conditional Approval Disapproval		Application for accreditation again is allowed 1 year after the last application
Basic Medical Education	Approval Disapproval		The period of reform and development is required to be no less than 2 years

2.4.2. Linking of Professional Accreditation and Practice

Graduates of teacher education who wish to be a certificate teacher must pass the National Teacher Certificate Examination (NTCE) and obtain a Teacher Qualification Certificate (TQC) ^[17]. As a professional entry-level examination, this test needs teacher-training students to spend large amount of time in preparing for it during their studies and even after graduation, which might affect the quality of education adversely ^[18]. Professional accreditation has played a significant role in addressing this issue. The results of professional accreditation reflect the education standards of the institutions. Consequently, the accreditation conclusions serve as a reference for policy-making, resource allocation and college entrance exam application choices. Similarly, teacher education accreditation organically links education with practice under the leadership of educational administration. For education institutions that have passed accreditation, teacher education graduates from accredited programs at Level 2 may have their interviews for teacher qualification examination administered by the university itself. Furthermore, graduates from the accredited programs at Level 3 may have both the written and interview portions of the examination administered by the university itself ^[11]. The direct application of professional accreditation conclusions in professional certificate examinations has significantly alleviated the pressure on teacher-training students regarding professional entry requirements. This allows them to devote more time and endeavor to their professional coursework and focus on enhancing their relevant competencies, which is beneficial for improving and guaranteeing teaching quality. It is believed to be a highly effective initiative. Of course, such linkage in teacher education and the practice is under the premise that the accreditation is led by education administration, which facilitates better quality control and the coordination of relevant administrative resources.

2.4.3. International Mutual Recognition

Globalization has not only facilitated the circulation of goods but has also the flow of talents. The unity of professional accreditation standards has further enabled the cross-regional mobility of talents. In 2015, the CEEAA was established and it became the 18th member country under the framework of the Washington Accord (WA) in 2016 ^[19]. On this basis, the CEEAA and the International Engineering Alliance (IEA) signed a joint statement to launch the establishment of an international mutual recognition agreement for graduate-level engineering education ^[20]. This means that graduates from accredited universities in China will be recognized across member states, ensuring seamless transition and adaptability in areas such as employment and further studies. It facilitates the orderly mobility of engineering talent and establishes a training benchmark for international engineering education. Furthermore, the WCAME was officially recognized as a medical education accreditation body by the World Federation for Medical Education (WFME) ^[21] on June 2020. In other words, China’s medical education standards and accreditation system have achieved substantive equivalence with international standards and the quality of its medical education accreditation has gained international recognition. At the same time, this has also made the global mobility of medical professionals possible.

3. Enlightenment for Forensic Science Education in China

3.1. Establishment of a Professional Accreditation Body for Forensic Science Education

It is recommended that a non-governmental professional accreditation body for forensic science

education be established by the judicial administration and managed by the association of forensic science. Based on the experience from the aforementioned professional accreditation, a professional accreditation body under the leadership of administration has been proven to be effective. This not only helps promote professional accreditation but also facilitates the transition to professional practice for graduates. However, the competent authority is the judicial administration and it also serves as the administrative approval body for subsequent enrollment, given the specific nature of the forensic appraisal industry and its education. Therefore, it is more appropriate for the judicial administration, rather than the education administration, to take the lead in establishing the professional accreditation body for forensic science education.

On this basis, administration are not appropriate to serve directly as professional accreditation bodies as aforementioned. A specialized and non-governmental professional accreditation committees should be selected to oversee professional accreditation. This is because non-governmental accreditation bodies are independent of the administrative system and thus free from administrative pressure, ensuring objectivity and fairness. Additionally, non-governmental accreditation bodies could focus on professional accreditation matters exclusively and have more flexible organizational structures compared to administration, which ensures the implementation of professional accreditation and enhances its efficiency.

Given the current state of forensic appraisal, it is appropriate to establish this body within the Association of Forensic Science (AFS). This association serves as the primary body for industry self-regulation and can consolidate resources of the forensic appraisal effectively. It could guide the development of forensic science education from a practical perspective to enable professionals to handle professional matters. This approach aligns more closely with the industry's actual needs and transform industry demands into educational requirements smoothly and timely. It also facilitates the convening of experts from both the education and industry sectors to conduct professional accreditation activities. Therefore, a professional accreditation body for forensic science education under the leadership of the judicial administration and managed by the association of forensic science is reasonable and appropriate, given the nature of the forensic appraisal industry.

3.2. Constructing a Hierarchical Professional Accreditation System

It is recommended that a hierarchical professional accreditation system be established. There are variations in faculty qualifications and resources among different forensic science education institutions, given the realities of the education. Thus, adopting a single accreditation standard would serve only as a screening tool rather than a catalyst for the improvement of forensic science education. Therefore, forensic science education accreditation is recommended to be divided into three levels, from level 1 to level 3, to promote the sustainable development. Level 1 means basic requirements for offering the program and applies to all forensic science-related majors registered with the Ministry of Education. In their enrollment promotions, these institutions may state that they have passed professional accreditation and are committed to continuous improvement. However, graduates from institutions that have passed level 1 accreditation will not receive preferential treatments in the professional licensing examination. Level 2 represents acceptable teaching quality standards. Forensic science education institutions with at least three graduating classes may apply for level 2 accreditation. Upon passing level 2 accreditation, they may indicate in their enrollment promotions that they have achieved this level to highlight their excellent educational quality. Additionally, these programs may administer the written portion of the forensic appraisal practitioner licensing examination. The practice admission period for their graduates could be reduced to two years. Level 3 represents the standard for excellence in teaching quality. Generally, institutions that intend to apply level 3 accreditation must have successfully passed level 2 professional accreditation twice in a row. However, institutions with a long history of education and the capacity to play a leading role in forensic science education may apply directly for level 3 accreditation. Programs that passed level 3 accreditation may highlight this achievement in program rankings and admission promotions, which would generate positive feedback in student recruitment. Additionally, they are exempt from accreditation for one cycle, retaining only self-assessment, which allows them to focus on improving educational quality and conducting appropriate exploration to lead the entire industry. For their graduates, the required period of service as an assistant forensic appraiser prior to practicing could be reduced to one year.

3.3. Establishing a Categorized Accreditation Standard System

A professional accreditation standards system, comprising general standards and specialized

supplementary standards, is suitable to be established for forensic science education in China. In essence, forensic appraisal is the application of science in the service of law and falls within the interdisciplinary field of law and the natural sciences. Similar to engineering education, forensic science education covers a broad range of fields. It is involved with various disciplines such as physics, chemistry, biology, medicine and computer science. Therefore, it cannot be regulated by a single and uniform standard mechanically. In other words, it is more appropriate to establish uniform regulations at the overall level like engineering education. On this basis, supplementary standards for separate discipline are developed according to their specific characteristics.

As an integral part of public legal services, forensic appraisal serves as a vital tool for grassroots social governance and is closely tied to judicial fairness and public trust. Compared to other legal services, it is distinguished by its neutrality and public-interest orientation. The practitioners are often referred to as “judges in white coats”. Consequently, high standards are set for the competence and professional qualities of forensic appraisers. In terms of curriculum standards, the competencies centred strategy through a modular approach is viable to be adopted by referring to engineering education accreditation standards. These competencies include scientific and technical skills, legal expertise and professional ethics. Furthermore, cultivating their professional ethics is also highlighted in forensic science education.

3.4. Creating a Link between Forensic Science Education and Forensic Appraisal Practice

Based on the conclusions of professional accreditation, a link between forensic science education and professional certificate requirements are necessary to be created. Currently, the forensic science industry faces issues such as a shortage of personnel and an unbalanced age structure. The cause lies in the inability to recruit high-quality young talent into the industry promptly. This problem arises from the requirement that individuals must undergo a five-year internship as an assistant forensic appraiser after completing forensic science education. Since forensic assistant appraisers do not have the authority to issue reports during this period, their salaries are relatively low, leading talented individuals to leave the industry before completing this phase. Inspiration could be drawn from the application of teacher education accreditation results to the teacher certificate examinations. Specifically, forensic science education institutions that have passed level 2 and level 3 of professional accreditation can directly administer the written and oral components of teacher certificate examinations. This approach can be applied by aligning it with the professional certificate process for forensic appraisers. Universities that have passed professional accreditation could directly administer the judicial expert certificate examinations, reducing the original five-year licensing period to one or two years. This would shorten the duration of the assistant expert internship effectively and encourage outstanding young professionals who have received high-quality forensic science education to pursue careers in the field. Consequently, this is beneficial for addressing the structural challenges of talent shortages and an unbalanced age distribution within the judicial expert industry effectively.

4. Conclusions

This paper systematically reviewed and comparatively analyze the three most successful and well-established professional accreditation systems in China, including teacher education, basic medical education and engineering education. Additionally, enlightenment for future development of forensic science education is further proposed based on its characteristics. These three accreditation systems share many similarities, such as a student-centered accreditation philosophy. Even so, distinguished differences among them also exist and lie in the structure of the accrediting bodies and the accreditation standards systems. The accreditation body for teacher education is the educational administration, while basic medical education also fall under the jurisdiction of education administration. Their accreditation body is a non-governmental organization in nature. Engineering education accreditation is conducted by a non-governmental and third-party organization independent of administration completely. Regarding accreditation standards, teacher education employ a three-level accreditation standards system. Engineering education utilizes general standards supplemented by discipline-specific standards. Basic medical education is categorized into basic standards and developmental standards. Based on the analysis of the above accreditation systems and the characteristics of forensic science education, it is recommended that a professional accreditation body for forensic science education be established under the leadership of judicial administration and managed by the association of forensic science. A hierarchical accreditation system needs to be established, which is beneficial for granting the education programs corresponding rights and privileges after passing accreditation. A categorized accreditation standard system is necessary for forensic science education, which includes general standards for all the

orientations and supplementary professional standards for the specific orientations. It is necessary to create a link between forensic science education and the admission of forensic appraisal resorting to professional accreditation, aiming at shortening the preparatory duration as assistant examiners before they become certificated forensic appraisers.

References

- [1] *Opinions of the ministry of justice on further deepening reforms, strengthening supervision and improving the quality and credibility of forensic appraisal.* Available from: https://www.moj.gov.cn/policyManager/policy_index.html?showMenu=false&showFileType=2&pkid=20d67423d74243bbbf7cbf50cd42754f. [2026-06-29]
- [2] *Opinions of the ministry of justice on strictly controlling access, strengthening supervision, and improving the quality and credibility of forensic appraisal.* Available from: https://www.moj.gov.cn/policyManager/policy_index.html?showMenu=false&showFileType=2&pkid=86d922d7432a46c6b876ec38b7a95a91. [2026-06-29]
- [3] *Notice of the ministry of justice on issuing the measures for the administration of education and training in forensic appraisal.* Available from: https://www.moj.gov.cn/pub/sfbgwapp/zwgk/tzggApp/202105/t20210517_395916.html. [2026-06-29]
- [4] Duan L Y, Jia Z H. On the dilemma and resolutions of the development of judicial expertise discipline in colleges and universities of political science and law in China — From the perspective of postgraduate education[J]. *Legal education research*, 2024, 44(01):285-303.
- [5] *2022 Annual record and approval results for undergraduate programs at regular higher education institutions.* Available from: http://www.moe.gov.cn/srcsite/A08/moe_1034/s4930/202304/W020230419336779647503.pdf [2026-06-29]
- [6] Lin J. The accreditation, reformation and development of engineering education[J]. *Research in Higher Education of Engineering*, 2015, 151(02):10-19.
- [7] Gao B, Shi X G, Sun H Y. Research on the development process and internal mechanism of clinical medical professional accreditation system in China: Based on the theory of support alliance framework[J]. *China Higher Education Research*, 2022, 38(11):75-80.
- [8] *Notice from the China engineering education accreditation association and the education quality assessment center of the ministry of education on the release of the list of programs that have passed engineering education accreditation.* Available from: http://www.moe.gov.cn/s78/A08/tongzhi/202408/t20240802_1143910.html [2026-06-29]
- [9] Zhao Q, Wang L L, Zhang H W. The path for teacher education program accreditation: Evolution, illusion and redirection[J]. *Journal of South China normal University (Social Science Edition)*, 2022, 255(01):53-60.
- [10] *Professional accreditation of clinical medical education in China: Retrospect and prospect.* Available from: http://www.moe.gov.cn/jyb_xwfb/moe_2082/zl_2020n/2020_zl34/202006/t20200623_467928.html [2026-06-29]
- [11] *Implementation measures for the professional certification of teacher education programs in regular institutions of higher education.* Available from: http://www.moe.gov.cn/srcsite/A10/s7011/201711/t20171106_318535.html [2026-06-29]
- [12] *Interpretation and usage guide for general criteria of engineering education accreditation.* Available from: <https://www.ceeaa.org.cn/upload/files/20251201/fea135ab75e1fcad/2022111509200347615.pdf> [2026-06-29]
- [13] *Guidelines for the accreditation of basic medical education (2025).* Available from: <https://wcame.meduc.cn/show.php?cid=21&id=550> [2026-06-29]
- [14] *Engineering education accreditation criteria.* Available from: <https://www.ceeaa.org.cn/upload/files/20251201/c317575d047451fe/2023041221094369512.pdf> [2026-06-29]
- [15] *Standards for basic medical education in China--the 2022 Revision.* Available from: <https://wcame.meduc.cn/uploads/soft/20230308/Standards%20for%20Basic%20Medical%20Education%20in%20China--the%202022%20Revision.pdf> [2026-06-29]
- [16] *Standards for secondary education professional accreditation.* Available from: <http://www.moe.gov.cn/srcsite/A10/s7011/201711/W020171107554716178110.docx> [2026-06-29]
- [17] Feng J G. Research on the transformation of the development form of national teacher certification examination system[J]. *Education sciences in China*, 2024, 7(1):140-149.

[18] He L M. *Reflections on the Repercussive Role of the Teacher Qualification Examination in the Training of Qualified Normal Students and the Controversies of the Examination*[J]. *Journal of Hubei University of Economics (Humanities and Social Sciences)*, 2022, 19(1):131-133.

[19] *China Advances International Mutual Recognition of Engineering and Technical Talents to a New Level*. Available from: https://www.cast.org.cn/2025kfhzy/xxsd/art/2025/art_650744489.html [2026-06-29]

[20] *The China association for science and technology and the international engineering alliance have jointly launched the construction of an international mutual recognition agreement for postgraduate-level engineering education*. Available from: https://www.cast.org.cn/xw/KXYW/art/2025/art_5f418fc5e9fc43e189deb872d61a0309.html [2026-06-29]

[21] *A major breakthrough has been achieved in the internationally substantive equivalent medical professional accreditation system*. Available from: http://www.moe.gov.cn/jyb_xwfb/s271/202006/t20200623_467766.html [2026-06-29]