

The Acquisition of ISO 21001 Educational Management System Certification: Insights from the International Nuclear Nonproliferation and Security Academy

Junghyun Na

Korea Institute of Nuclear Nonproliferation and Control, 1418 Yuseong-daero, Yuseong-gu,
Daejeon 34101, Republic of Korea

Corresponding author: njh777@kinac.re.kr

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1. Introduction

The International Nuclear Nonproliferation and Security Academy (INSA), under the Korea Institute of Nuclear Nonproliferation and Control (KINAC), has distinguished itself as the sole institution dedicated to the development of human resource in the fields of nuclear nonproliferation and security within South Korea. Operating with the objective of contributing to the enhancement of nuclear transparency and reliability in the international arena, INSA offers a diverse array of education programs including international education, legal education, and awareness raising. In November 2016, INSA fortified its commitment to quality management by obtaining the ISO 9001 Quality Management System international certification, recognizing its construction of an excellent quality management system that meets customer requirements [1]. Moreover, the array of education programs conducted at INSA, grounded on the quality management system, have consistently received high evaluations from customers.

Commencing in 2022, INSA has sought to transcend customer satisfaction, aiming to elevate the educational satisfaction of learners, governmental agencies, and other stakeholders by advancing beyond its existing quality management system towards the establishment of a systematic education system [2]. This endeavor led to the pursuit of the ISO 21001 Educational Organization Management System certification. This paper aims to intricately illuminate the process undertaken by INSA in its quest for the ISO 21001 certification. Specifically, it will focus on the legal considerations necessary for educational institutions when implementing an educational organization management system and the principal insights identified during the certification audit process, with the intention of contributing to the qualitative improvement of educational institution management.

2. Methods and Results

2.1 ISO 21001

ISO 21001 constitutes an international standard devised specifically for the Educational Organization Management Systems (EOMS), with the aim of

augmenting the qualitative management and improvement of educational services. This norm furnishes a comprehensive framework that empowers educational providers to precisely ascertain and meet the needs and anticipations of learners. Through this understanding, it facilitates the systematic development, execution, and oversight of educational curricula and resources, thereby ensuring continual enhancement of educational quality. The scope of ISO 21001 is extensive, enveloping a diverse array of educational entities, including but not limited to, primary through to tertiary education institutions, vocational training centers, and digital education platforms. It accentuates the importance of education accessibility and fairness, customization, learner-educator interaction, data protection, and the promotion of sustainable development. This standard advocates for the adoption of internationally acclaimed best practices within educational organizations, thereby endorsing the quality of educational services on a global scale, enhancing the efficacy of education, and fostering learner satisfaction and engagement. Additionally, it encourages educational institutions to acknowledge and act upon their societal responsibilities by delivering education that aligns with the expectations of all stakeholders. ISO 21001 emerges as an indispensable instrument for educational institutions, enabling them to adeptly navigate the challenges posed by the evolving educational landscape and technological progressions, and to strategize effectively for sustainable growth.

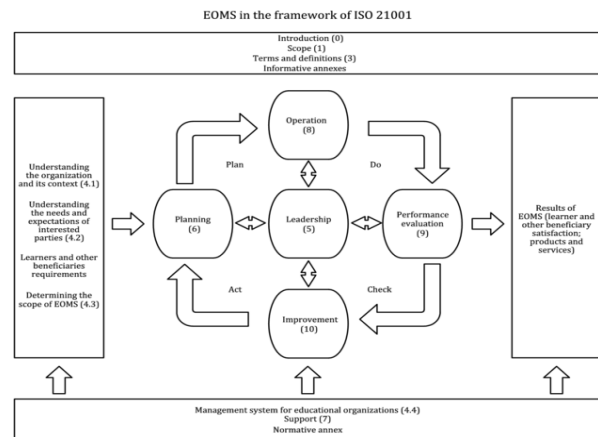


Fig. 1. Representation of the structure of ISO 21001 in the PDCA cycle [3]

2.2 Certification Procedure

ISO 21001 fundamentally builds upon the ISO 9001 Quality Management System, incorporating additional principles specifically tailored for educational institutions. Consequently, INSA has embarked on a strategic initiative to amalgamate the stipulations of ISO 21001 with its pre-existing quality documentation. This initiative was aimed at crafting and administering a comprehensive management system, aptly suited for the nuanced demands of an educational institution.

While revising the integrated management manual, the foundation was laid upon the pre-existing framework of the ISO 9001 management manual, to which the requisite policies and principles of the ISO 21001 Educational Organization Management System were adjoined. This endeavor led to the creation or modification of approximately 35 corporate standard documents, reflecting a meticulous approach towards alignment with the ISO 21001 standards.

The revision process heralded two pivotal shifts. Initially, a more lucid articulation of the management's educational policies and vision was achieved, marking a refinement over the existing quality-centric policies and vision, and addressing the explicit educational orientation necessitated by the ISO 21001 certification preparation. Subsequently, a comprehensive process for the development of educational programs was instituted, encompassing an array of stages from planning, review, and validation to execution. This process was complemented by detailed provisions for post-development educational evaluation and feedback mechanisms.

Moreover, the journey towards developing an integrated system compatible with both ISO 9001 and ISO 21001 standards saw the infusion of approximately ten additional educational processes. These processes spanned a broad spectrum, including the management of intellectual property rights for educational materials and equipment, upkeep of rest and digital spaces, website management for education inquiry handling, enhancement and facilitation of learning effectiveness, management of learner data and privacy, alongside the management of satisfaction levels among learners and staff.

Culminating this comprehensive preparatory phase, INSA underwent an extensive ISO certification audit conducted by the International Standards Organization over a two-day period, from October 12 to 13, 2023. The audit conclusively affirmed that INSA's educational management system not only met all the requisites of the ISO 21001 standard but was also effectively executing the envisioned system. This milestone underscores a significant case study in the successful implementation and operation of an Educational Organization Management System, delineating a robust framework for the qualitative elevation of educational institution management practices.

2.3 Results of Certification

In the endeavor to secure ISO 21001 certification, INSA meticulously delineated a multitude of processes pivotal for augmenting the caliber of its educational offerings. These ranged from articulating the institution's pedagogical direction and vision to the meticulous management of learners' recreational spaces. Such a methodical orchestration of the educational system has markedly propelled stakeholders closer to the ideal of an exemplary educational institution that aligns with their aspirations.

Nevertheless, the audit process unveiled several facets necessitating refinement, which were expeditiously addressed through prompt remedial actions. A primary concern highlighted pertained to the management of personal information. Although the utilization of essential personal data was conducted with due consent, the audit identified a lapse in acquiring distinct consent for the use of selective personal data for promotional endeavors, signaling an area for enhancement.

Furthermore, concerning the analysis of educational outcomes, the audit commended the systematic aggregation and organization of data through surveys encompassing aspects such as frequency of instruction, learner satisfaction, and feedback for improvements. However, it posited the imperative for a more profound analytical process to further distill insights from this collected data.

An additional critique was directed towards the institution's compliance with regulations intimately linked to its operational domain, such as nuclear safety and radiation emergency legislations. While adherence to these specific statutes was adequately addressed, the audit noted a deficiency in the examination of broader educational environment regulations encompassing fire safety, health, and general safety measures.

The concluding observation underscored the necessity for INSA to crystallize its educational ethos and objectives more distinctly. Although the overarching goals and management philosophies of KINAC were clearly centered around bolstering the nation's nuclear transparency, reliability, and the formulation of a comprehensive nuclear nonproliferation and security education framework, the audit underscored the exigency for INSA to carve out and elucidate its bespoke educational trajectory and objectives.

3. Conclusions

In contrast to conventional educational entities primarily established for workforce development and specific mission fulfillment, KINAC strategically founded INSA with a pivotal aim to augment the nation's nuclear transparency and reliability. This initiative simultaneously addresses the regulation of nuclear nonproliferation and nuclear security. Within

such a context, the procurement of ISO 21001 certification has served as a substantial catalyst in not only efficaciously executing its quintessential educational mission but also in fortifying the education system's organization and elevating the overall quality of education provided.

Historically, the architecture, development, and delivery of curricula pertaining to nuclear nonproliferation and nuclear security have been upheld at commendable standards of excellence. Nevertheless, the introspective examination facilitated by the ISO 21001 certification audit process unveiled critical avenues for enhancement, particularly in the domains of educational administration, the imperative for more vigorous promotional endeavors, and adherence to statutory requirements inherent to educational institutions. Remediation and strategic augmentation in these domains promise to elevate INSA's stature as a premier educational institution.

Following the achievement of ISO 21001 certification, INSA is poised to persistently spearhead international education within the realms of nuclear nonproliferation and nuclear security. This will be achieved through synergistic collaborations with entities such as the International Atomic Energy Agency (IAEA) and the execution of statutory training targeted at domestic professionals. Through these endeavors, INSA reaffirms its commitment to its unique and indispensable role as the preeminent institution specializing in nuclear nonproliferation and nuclear security education.

REFERENCES

- [1] D.H. Kim, "ISO 9001:2015 Quality Management System (QMS) for Nuclear Nonproliferation and Security Training Program", Transactions of the Korean Nuclear Society Virtual Autumn Meeting, December 17-18, 2020.
- [2] D.H. Kim, "A Study on the Necessity of ISO 21001 for Education on Nuclear Nonproliferation and Control by Comparing of ISO 9001 and ISO 21001", Korean Radioactive Waste Society, June 1-2, 2023.
- [3] ISO 21001:2018 Educational organizations - Management systems for educational organizations - Requirements with guidance for use, ISO, 2018.