

Exploration on Integrating General Secretary Xi Jinping's Important Remarks on Inspections of Institutions of Higher Education into Ideological-Political Elements for the Newly-compiled Textbook *Mine Ventilation and Safety*

Jufeng Zhang*, Lan Yu, Fengfeng Yang, Chao Zheng, Rili Yang and Shengling Jiang

College of New Energy, Longdong University, Qingyang, Gansu 745000, P.R. China

*Corresponding author: 422622510@qq.com

Abstract: To implement the fundamental task of fostering virtue through education in universities and address the fragmentation, superficiality and homogenization in integrating ideological-political elements into textbooks for mining-related majors, this paper takes the newly-compiled textbook *Mine Ventilation and Safety* as a carrier. Based on the core essence of General Secretary Xi Jinping's series of important remarks on inspecting institutions of higher education, it combines educational cores including the energy security strategy, green development philosophy, self-reliance and self-improvement in science and technology, and the mission and responsibility of young people. This paper deeply explores the meeting points between professional knowledge points in textbooks and ideological-political elements, and constructs an ideological-political integration system for textbooks featuring "forging soul through theories, empowering via specialty, educating through practice and fulfilling missions". By sorting out the logic for integrating ideological-political elements into textbooks, optimizing content integration paths and innovating teaching implementation modes, this study realizes the organic penetration and in-depth integration of the spirit of General Secretary Xi Jinping's important remarks and the content of professional textbooks. It helps cultivate high-quality applied talents in the field of mine safety in the new era who possess solid professional competence, lofty devotion to the country and nation, and strong sense of responsibility, and provides a reference paradigm for the construction of ideological-political textbooks for mining-related majors.

Keywords: General Secretary Xi Jinping's important remarks on higher education; *Mine Ventilation and Safety*; textbook construction; curriculum-based ideological and political education; educational exploration.

1. Introduction

Textbooks serve as core carriers for implementing the fundamental task of fostering virtue through education, undertaking ideological-political education, and transmitting professional knowledge and value concepts, and constitute an important support for talent cultivation in universities. General Secretary Xi Jinping's series of important remarks made during inspections of various institutions of higher education have profoundly illustrated the educational mission, development direction and core requirements for talent cultivation of higher education in the new era[1]. They clarify that universities should run education rooted in China, adhere to educating people for the Party and for the country, focus on serving national strategies, supporting industrial development and cultivating new-era talents, and guide young students to set lofty aspirations, cultivate noble virtues, achieve great accomplishments and shoulder significant responsibilities, so as to integrate personal ideals into the great cause of national development and national rejuvenation.

Mine Ventilation and Safety is a core compulsory course for mining-related majors such as safety engineering, mining engineering and resources and environment. Its textbook covers core contents including mine ventilation theories, disaster prevention and control technologies, safety specifications and standards, and practical emergency disposal. It features strong engineering practicality, industrial policy nature and safety responsibility, and acts as a key

carrier for mining students to shape professional quality, consolidate professional foundations and establish industrial missions[2]. The newly-compiled textbook keeps pace with the new development trends of intelligent, green and safe mines, and updates cutting-edge contents such as intelligent ventilation, compound disaster early warning and green mine construction, which provides broad space for in-depth integration of ideological-political elements.

At present, most textbooks for mining-related majors attach importance to professional knowledge while neglecting value guidance, and stress technical instruction while ignoring mission cultivation. Ideological-political integration is mostly simple grafting and rigid stacking, failing to systematically align with the spiritual essence of General Secretary Xi Jinping's important remarks on higher education. Accordingly, based on the revision of the newly-compiled textbook *Mine Ventilation and Safety* and teaching reform practices, this paper systematically explores the normalized, systematic and in-depth integration paths of the spirit of General Secretary Xi Jinping's important remarks on university inspections into textbooks, so as to realize the concerted progress of professional knowledge imparting, competence cultivation and value guidance.

2. Core Logic and Value Implication of Integrating General Secretary Xi Jinping's Important Remarks on Universities into Textbooks

2.1. Adhere to fostering virtue through education and conform to the core educational mission of universities

General Secretary Xi Jinping has repeatedly emphasized that fostering virtue through education is the foundation for universities to establish themselves. Ideological-political work should run through the whole process of education and teaching to realize whole-process and all-round education[1,2]. Mining-related majors shoulder important missions of serving national energy security, guaranteeing mine work safety and promoting the green transformation of the coal industry, which are directly related to the stability of the national economy and energy strategic security. Integrating General Secretary Xi Jinping's important educational remarks into the newly-compiled textbook *Mine Ventilation and Safety* can break the "two skins" problem between professional education and ideological-political education, implement the fundamental task of fostering virtue through education into textbook details, knowledge instruction and the whole process of competence cultivation, and guide students to establish correct world outlook, outlook on life, values and professional outlook.

2.2. Connect with national strategies and empower high-quality development of the energy industry

During university inspections, General Secretary Xi Jinping has repeatedly stressed that higher education should proactively serve major national strategic demands, promote in-depth integration of industry-university-research institutes, and facilitate high-level self-reliance and self-improvement in science and technology. As China's principal energy source, coal serves as the cornerstone for safeguarding national energy security. The mine industry in the new era is accelerating its transformation toward intelligence, greenness and safety. Closely following industrial development trends, the newly-compiled textbook incorporates new technologies and theories such as intelligent ventilation regulation, compound disaster prevention and control, and green mine construction. Meanwhile, it embeds General Secretary Xi Jinping's important remarks on energy security, scientific and technological innovation and green development. It can guide students to base themselves on industrial pain points, focus on technical challenges, establish the professional belief of "serving the country via energy and safeguarding safety", and proactively respond to the demands of industrial transformation and upgrading[3].

2.3. Cultivate new-era talents and consolidate young people's sense of mission and responsibility

General Secretary Xi Jinping encourages young students to shoulder the mission of the times, dare to take responsibility, work at the grassroots level, serve the front lines, and make contributions where the country needs them most. The mine industry features complex working conditions and great safety responsibilities, imposing high requirements on

practitioners' awareness of responsibility, professionalism and dedication. Integrating General Secretary Xi Jinping's important remarks on youth growth and mission responsibility into textbooks can rely on professional scenarios such as mine safety prevention and control, life protection and front-line tackling to cultivate students' craftsmanship of revering life, adhering to bottom lines and pursuing excellence, as well as their devotion to the country characterized by dedication, working in mines and serving the industry.

3. Mining Ideological-Political Elements and Content Integration in Textbooks Based on General Secretary Xi Jinping's Important Remarks on Universities

Relying on the chapter system of the newly-compiled textbook *Mine Ventilation and Safety*, closely following the core connotation of General Secretary Xi Jinping's important remarks on inspecting institutions of higher education and combining the professional characteristics of the course, this paper systematically mines and accurately matches ideological-political elements from five dimensions: educational mission, scientific and technological self-reliance, green development, putting people and lives first, and youth responsibility, so as to realize one-to-one correspondence and in-depth integration between professional knowledge points and ideological-political key points.

3.1. Rooted in "Educating people for the Party and for the country", integrate elements of devotion to the country and educational mission

Centering on chapters including the introduction and the current situation of mine safety development in textbooks, integrate General Secretary Xi Jinping's important higher-education remarks on "educating people for the Party and for the country". Combined with the strategic status of China's coal energy security, explain the development history and contemporary value of mine safety disciplines, and clarify that mine ventilation and safety technologies constitute core technologies for guaranteeing mine work safety, protecting the lives of industrial workers and building a barrier for national energy security[4]. By sorting out the struggle history of China's mine safety cause from backward catch-up and independent breakthrough to leading development, tell touching stories of generations of mine researchers and front-line technicians taking root in the industry and making quiet contributions. Guide students to deeply understand the professional value, establish devotion to the country characterized by devoting themselves to the energy industry, safeguarding mine safety and serving national development, and fully comprehend the core mission of higher education in serving national strategies.

3.2. Rooted in "Self-reliance and self-improvement in science and technology", integrate elements of innovative spirit and scientific research responsibility

Closely follow General Secretary Xi Jinping's important

remarks on “adhering to scientific and technological innovation and realizing high-level self-reliance and self-improvement in science and technology”, and combine chapters on cutting-edge technologies in textbooks such as mine intelligent ventilation, intelligent gas monitoring, compound disaster early warning and ventilation system optimization. In view of key technical challenges in preventing and controlling compound disasters of gas and coal spontaneous combustion under complex coal mine working conditions in China, explain innovative achievements of domestic research teams in breaking foreign technical barriers and independently developing intelligent ventilation systems and disaster early-warning equipment. Compare the iteration course of industrial technologies and analyze paths for tackling core technical bottlenecks and realizing innovation breakthroughs[4,5]. Guide students to establish awareness of innovation and tackling difficulties, abandon the mindset of technical dependence, inspire them to delve into specialties and conduct earnest research, and proactively engage in intelligent mine technological innovation to boost self-reliance and self-improvement in science and technology in the field of mine safety.

3.3. Rooted in “Lucid waters and lush mountains are invaluable assets”, integrate elements of green development and ecological education

Implement General Secretary Xi Jinping’s important remarks on ecological civilization construction and the philosophy of green development, and combine relevant contents in textbooks including mine ventilation emission reduction, underground waste gas treatment, mine ventilation energy conservation and green mine construction. Explain the vital role of optimized mine ventilation technologies in reducing energy consumption, cutting waste-gas emissions, improving underground working conditions and restoring mining-area ecology, and elaborate on the transformation and development path of the coal industry featuring “safety, greenness and intelligence” in the new era. Combined with cases of green upgrading of regional energy industries, guide students to establish a professional philosophy of ecological priority and green development, deeply recognize that mine safety refers not only to production safety and life safety but also ecological safety and development safety, and cultivate their sense of responsibility for protecting lucid waters and lush mountains and empowering the development of green energy[5].

3.4. Rooted in “Putting people and lives first”, integrate elements of professional ethics and responsibility

Practice General Secretary Xi Jinping’s development philosophy of “putting people and lives first”, and combine core chapters in textbooks including mine disaster prevention and control, analysis of ventilation safety accidents, safety operation specifications and emergency rescue disposal. Review typical domestic and international mine ventilation safety accidents, analyze problems such as lack of responsibility, non-standard operations and inadequate technology implementation behind accidents, and emphasize the post responsibilities and professional bottom lines of safety-engineering practitioners in combination with mine-safety laws, regulations and professional norms.

Integrate General Secretary Xi Jinping’s important instructions on work safety and life safety, guide students to foster professional quality of revering life, rules and responsibilities, and cultivate their craftsmanship of being rigorous, meticulous, pursuing excellence, sticking to bottom lines and fulfilling duties.

3.5. Rooted in “Youth responsibility and becoming capable through hard-won achievements”, integrate elements of fighting spirit and grassroots dedication

Combined with General Secretary Xi Jinping’s messages to young people in the new era, integrate practical cases of front-line mine technicians and grassroots engineers taking root in mining areas, sticking to posts and overcoming difficulties based on content modules in textbooks such as engineering practice, on-site training and emergency practical operation. In view of the characteristics of grassroots work in the mine industry, guide students to abandon impetuous attitudes and eliminate industrial prejudices, establish the professional philosophy of “taking root in the front line, growing into talents through hard work and making achievements at posts”, and encourage them to transform professional knowledge into performance competence, proactively engage in the front lines of mine work safety, technological transformation and disaster prevention and control, and realize personal value in serving industrial development and safeguarding industrial safety[6,7].

4. Implementation Paths for Systematic Integration of Ideological-Political Elements into the Newly-compiled Textbook

4.1. Optimize the textbook content system to realize accurate embedding of ideological-political elements

During the revision of the newly-compiled textbook, break the additional and annotated integration mode of ideological-political contents, and deeply embed the spirit of General Secretary Xi Jinping’s important remarks on universities and corresponding ideological-political elements into chapter knowledge points, case materials, thinking questions and extended reading modules. Each chapter defines three-dimensional teaching objectives covering professional objectives, competence objectives and ideological-political objectives, and is equipped with ideological-political cases, policy interpretations and industrial stories conforming to industrial realities, the development of the times and educational requirements. Meanwhile, update policies for mine-safety development in the new era, intelligent innovation achievements and green-transformation cases, so that textbooks reflect both professional cutting-edge features and value-guiding characteristics, and realize the organic unification of professional knowledge and ideological-political education.

4.2. Innovate textbook teaching carriers and enrich ideological-political education scenarios

Relying on the newly-compiled textbook, build a three-dimensional ideological-political education carrier of

“textbook + cases + practice + expansion”. Based on core textbook contents, supporting teaching resources including ideological-political case libraries, collections of industrial pioneer stories and policy-interpretation handbooks that incorporate General Secretary Xi Jinping’s important remarks are developed. Combined with practical scenarios such as front-line production of mining enterprises, intelligent demonstration mines and safety training bases, carry out “mobile ideological-political courses”, integrate textbook theoretical knowledge with on-site practice, industrial development and national strategies, and enable students to perceive the mission of the times and strengthen their sense of responsibility in professional learning and practical experience.

4.3. Improve teachers’ educational competence to consolidate the foundation for the implementation of textbook-based ideological-political education

Teachers constitute the core subject for implementing textbook-based ideological-political education, so it is necessary to strengthen the ideological-political education competence of professional course teachers. Organize teachers to systematically study General Secretary Xi Jinping’s important remarks on inspecting universities, accurately grasp the educational core and requirements of the times, and fully understand the ideological-political integration logic and educational key points of the newly-compiled textbook. Guide teachers to flexibly conduct ideological-political guidance in class based on textbook contents, industrial development trends, current-political hot topics and typical cases, avoid rigid preaching, realize value guidance in a subtle way, and build a teaching team for professional courses that “understand specialties, excel in ideological-political education and are good at talent cultivation”.

4.4. Improve the evaluation system and construct a long-term educational mechanism

Break the traditional single knowledge assessment mode and construct a trinity curriculum evaluation system of “knowledge mastery + competence improvement + value shaping”. Integrate ideological-political quality assessment indicators into curriculum assessment, assignment design and practical training evaluation, with focus on investigating students’ professional ethics, innovation awareness, sense of responsibility and devotion to the country. Meanwhile, establish a dynamic optimization mechanism for textbook-based ideological-political education, continuously iterate ideological-political contents of textbooks in combination with General Secretary Xi Jinping’s latest important remarks, new trends in industrial development and new educational requirements, and realize the normalized, long-term and high-quality development of textbook-based ideological-political construction.

5. Educational Effects and Practical Enlightenments

By systematically integrating the spirit of General Secretary Xi Jinping’s important remarks on inspecting institutions of higher education into the newly-compiled

textbook *Mine Ventilation and Safety*, the problems of superficiality and fragmentation in integrating ideological-political elements into textbooks for mining-related majors have been effectively solved, and a textbook-based ideological-political system featuring mine-industry characteristics and conforming to educational requirements of the new era has been constructed. In terms of educational effects, students’ professional identity, sense of belonging to the industry and devotion to the country have been significantly enhanced, and their awareness of innovation, sense of responsibility and spirit of hard work have been continuously strengthened. They can proactively respond to the intelligent and green transformation demands of the energy industry, and establish professional ideals of taking root in the industry, serving the grassroots and serving the country through science and technology.

Practice shows that as a core carrier for curriculum-based ideological-political education, professional textbooks must closely follow the educational mission of higher education in the new era, base on national strategies and industrial demands, and deeply align with the spirit of General Secretary Xi Jinping’s important remarks to tap unique ideological-political educational resources of professional courses. The ideological-political construction of textbooks for mining-related majors should always adhere to the fundamental task of fostering virtue through education, base on industrial characteristics, focus on industrial pain points and cater to youth growth, realize the in-depth integration of value guidance, knowledge imparting and competence cultivation, and cultivate more high-quality, specialized, responsible and dedicated new-era engineering and technical talents for the high-quality development of the energy industry.

6. Conclusion

The construction of textbooks for mining-related majors in new-era universities must adhere to the original mission of educating people for the Party and for the country, take General Secretary Xi Jinping’s important remarks on higher education as the fundamental guideline, and run ideological-political education through the whole process of textbook revision, teaching implementation and talent cultivation. Through systematic and in-depth integration of ideological-political elements, the newly-compiled textbook *Mine Ventilation and Safety* realizes concerted progress and collaborative empowerment between professional and technical education and ideological-political education. In the future, we should continuously optimize ideological-political contents of textbooks, innovate integration paths and improve educational systems based on national energy strategies, industrial development trends and university educational requirements, give full play to the soul-forging and talent-cultivating functions of professional textbooks, and help cultivate more new-era mining talents who serve national energy security and boost the transformation and upgrading of the mine industry.

Acknowledgements

The authors gratefully acknowledge the financial support from 2024 Special Research Project on Curriculum and Textbooks for Primary, Secondary, and Higher Education in Gansu Province (GSJC-Z2024035), 2024 Key Project of the Demonstration Center for Ideological and Political Education

in Curriculum at Longdong University (LYKCSZ2024E03) funds.

References

- [1] Wu, L. (2020). Research on General Secretary Xi Jinping's important remarks on higher education [Master's thesis, China Jiliang University].
- [2] Zhang, Y. (2025, October 10). Thoughts on integrating the spirit of General Secretary Xi Jinping's important speeches during inspection of Henan into the outline course in universities. Xinyang Daily, p. 004.
- [3] Ministry of Education. (2020). Guidelines for the construction of curriculum-based ideological-political education in institutions of higher education.
- [4] Liang, H., Li, Q., Bai, X., et al. (2025). Teaching practice and exploration of curriculum-based ideological-political education for the course mine safety and environmental protection. *Modern Salt and Chemical Industry*, 52(4), 163–165.
- [5] Zhang, J. (2022). Exploration on teaching reform of curriculum-based ideological-political education for the course mine ventilation. *Industry and Science & Technology Forum*, 21(22), 170–171.
- [6] Qian, H., & Cai, Y. (2019). Discussion on ideological-political education in core courses of mining engineering major — A case study of the course mine ventilation and safety. *Inner Mongolia Education*, (2), 41–42.
- [7] Zuo, S., Wu, G., & Pan, Q. (2022). Selection of ideological-political materials for professional courses -A case study of the course mine ventilation and safety. *Journal of Higher Education*, 8(17), 165–168.