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Identification of the Components of Standardizing School Principals' Duties for Presenting an Appropriate Model

ABSTRACT

The present study aimed to identify the components of standardizing school principals' duties in order to propose an appropriate model. This study was fundamental in nature and conducted using a qualitative approach. The research tradition employed was Grounded Theory. The statistical population consisted of academic experts, including faculty members holding doctoral degrees and possessing more than 10 years of teaching experience, who were selected through purposive sampling. The researcher achieved theoretical saturation after conducting interviews with 16 experts. In addition to the library research method, semi-structured interviews were used to collect data. Data analysis was carried out using the grounded theory approach. The findings indicated that identifying and analyzing the different dimensions of the standardized model of school duties requires simultaneous attention to causal, contextual, intervening, and strategic factors. Causal conditions include factors that directly influence the formation and performance of schools and provide the necessary foundation for designing and implementing standardized duties. The central phenomenon of the study was the "standardized model of school duties," which encompasses performance evaluation indicators and key components of quality education. Contextual conditions refer to environmental and socio-economic-cultural characteristics that affect school performance. Intervening conditions include barriers and limitations that may challenge the implementation of standardized school duties. Strategies consist of a set of actions designed to achieve the standardized model of school duties and to address anticipated barriers and limitations. Consequences represent the outcomes of the successful implementation of the standardized model of school duties and its associated strategies. Successful implementation of this model can enhance educational quality, reduce inequalities, and increase stakeholder satisfaction.

Keywords: school duties, standardization of school duties, school performance, educational strategies, educational system.

Introduction

The educational system is one of the most influential social institutions in shaping human capital, promoting sustainable development, and ensuring social cohesion. Within this system, schools operate as the primary executive units responsible for implementing educational policies and cultivating students' cognitive, social, and ethical competencies. The effectiveness of

schools largely depends on the quality of management practices, organizational structures, and the clarity of duties assigned to school administrators. In recent decades, educational systems across the world have increasingly emphasized standardization as a strategic mechanism for improving educational quality, ensuring accountability, and reducing disparities among schools. Standardization in education refers to the establishment of clear criteria, procedures, and operational frameworks that guide educational activities and managerial practices in a systematic manner (1). In this regard, school principals occupy a central role because they are directly responsible for coordinating educational processes, managing human and financial resources, and implementing educational policies within schools.

The rapid transformation of educational environments caused by technological development, globalization, and changing labor market demands has intensified the necessity of redefining and standardizing school management duties. Traditional models of school administration are no longer sufficient for responding to the complexities of contemporary educational systems. Modern schools require administrators who can integrate educational leadership, technological competencies, stakeholder engagement, and strategic planning into a coherent management framework. Educational institutions are increasingly expected to align their managerial processes with national educational standards and global educational trends in order to improve effectiveness and competitiveness (2). Consequently, the standardization of school principals' duties has emerged as a critical issue in educational management research and policy-making.

One of the primary reasons for emphasizing standardization in educational systems is the need to establish educational equity and consistency across schools. Educational inequality often originates from inconsistencies in managerial practices, unequal access to resources, and differences in the implementation of educational regulations. Standardized managerial duties can contribute to minimizing these inconsistencies by creating unified operational procedures and transparent accountability mechanisms. Research has shown that educational standards improve organizational coherence and facilitate the implementation of educational objectives at multiple institutional levels (3). Standardization also supports systematic monitoring and evaluation processes, enabling policymakers and stakeholders to assess school performance more effectively (4).

The growing influence of digital technologies and smart educational systems has also transformed expectations regarding school management. Contemporary school principals are expected not only to supervise traditional educational activities but also to manage digital infrastructures, support virtual learning environments, and integrate technological innovations into educational processes. The emergence of electronic educational standards has expanded the scope of educational standardization beyond physical and administrative dimensions toward technological and virtual learning environments (5). This transformation has created new managerial challenges that require school administrators to possess technological literacy, strategic adaptability, and the ability to coordinate digital educational resources effectively.

At the same time, educational standardization remains a controversial issue because excessive standardization may reduce flexibility, creativity, and responsiveness to local educational needs. Critics argue that rigid standardization may constrain teachers' autonomy and limit opportunities for personalized learning experiences. In many educational contexts, schools face the challenge of balancing centralized standards with the need for individualized and context-sensitive educational practices (6). Similarly, personalized learning models emphasize adaptive educational processes that respond to students' unique characteristics and learning needs, which may conflict with highly standardized educational structures (7). Therefore, designing standardized managerial duties requires a balanced approach that simultaneously promotes accountability, flexibility, and innovation.

The relationship between educational standardization and curriculum management has also attracted significant scholarly attention. Standardized educational frameworks contribute to improving curriculum coherence, instructional quality, and

institutional accountability; however, they may also create limitations regarding pedagogical diversity and contextual adaptation. Research on standardized curricula indicates that while standardized educational systems improve comparability and quality assurance, they may also generate pressure on educational institutions and reduce opportunities for creativity and local innovation (8). Consequently, the standardization of school principals' duties should not merely focus on administrative control but should also consider participatory leadership, adaptive management, and stakeholder collaboration.

Another important dimension of school standardization concerns the alignment between educational systems and labor market requirements. Contemporary educational systems are increasingly expected to develop practical competencies, technological skills, and entrepreneurial capacities among students. This expectation requires school principals to adopt management approaches that support skill-based learning and competency-oriented educational strategies. The development of educational standards based on practical and vocational competencies has become a central issue in educational policy-making (9). In this context, school principals play a significant role in facilitating coordination between educational objectives and societal expectations regarding workforce preparation and employability.

Educational leadership is also closely associated with teacher empowerment and professional development. Effective school principals are expected to support teachers through training programs, participatory management practices, and professional growth opportunities. Research demonstrates that the professional characteristics and competencies of teachers significantly influence educational quality, particularly in smart and technology-oriented schools (10). Accordingly, standardized managerial duties should include mechanisms for teacher empowerment, instructional supervision, and professional collaboration. Such standards can contribute to improving instructional effectiveness and fostering organizational commitment among teachers.

The COVID-19 pandemic further highlighted the importance of adaptive and standardized educational management. Educational institutions worldwide experienced unprecedented disruptions that exposed structural weaknesses in school management systems. School principals were required to rapidly coordinate remote learning, technological infrastructures, and crisis management strategies while maintaining educational continuity. Studies conducted during the pandemic revealed both challenges and opportunities associated with educational management and teacher preparation systems (11). These experiences emphasized the necessity of establishing standardized yet flexible managerial frameworks capable of responding to emergencies and rapidly changing educational conditions.

International experiences indicate that educational standardization is often linked to broader reforms in educational governance and institutional management. In several countries, centralized educational policies have sought to improve educational quality through the implementation of unified standards and performance indicators. Research on higher vocational education management systems demonstrates that personality-oriented and standardized educational reforms can contribute to institutional efficiency and educational quality improvement (12). Likewise, studies on national educational standards have emphasized the role of standardized management systems in improving organizational performance and educational accountability (2). These findings suggest that educational standardization is not limited to curriculum development but also includes leadership structures, managerial duties, and institutional governance.

In addition, educational systems increasingly operate within complex socio-cultural environments that require sensitivity to local contexts and stakeholder expectations. School principals must simultaneously respond to the demands of parents, teachers, students, and educational authorities while ensuring compliance with national regulations and educational standards. Educational management systems that ignore socio-cultural diversity may face resistance, inefficiency, and reduced stakeholder satisfaction. Consequently, contextual conditions such as regional cultural characteristics, economic conditions of families, and local educational regulations must be considered in designing standardized school management duties. Research on educational

space design and school planning also highlights the importance of aligning educational structures with environmental and contextual factors (13).

The standardization of student services and institutional operations has likewise become increasingly important in higher education and distance learning systems. Centralized and standardized educational services can improve accessibility, consistency, and administrative efficiency; however, they may also create bureaucratic rigidity if not implemented appropriately (14). Similar concerns are relevant in school management because excessive bureaucracy may reduce responsiveness to local educational needs and hinder innovation. Therefore, effective standardization requires a balanced integration of centralized guidance and decentralized implementation mechanisms.

Another emerging issue in educational management involves the integration of professional and educational standards within curriculum and institutional development processes. The alignment between educational standards and professional competencies is particularly important in technologically advanced and skill-oriented educational systems. Research on integrating professional and educational standards in information technology curricula emphasizes the importance of coherence between institutional goals, professional expectations, and educational implementation strategies (15). In school management, this alignment requires principals to coordinate educational planning, instructional quality assurance, and institutional development activities within a standardized framework.

Artificial intelligence and personalized learning technologies are also reshaping the future of educational systems and managerial responsibilities. Educational institutions are increasingly adopting data-driven decision-making processes, adaptive learning systems, and intelligent educational technologies. These developments require school principals to possess competencies related to technological leadership, digital governance, and educational innovation. The future of education is likely to involve a greater integration of artificial intelligence, personalized learning systems, and standardized digital infrastructures (16). Consequently, the standardization of school principals' duties must account for emerging technological and organizational transformations.

Educational quality is also strongly associated with resource management and institutional productivity. Financial limitations, inadequate educational facilities, and shortages of specialized human resources remain major barriers to educational improvement in many countries. Research demonstrates that educational operational costs significantly influence educational quality, particularly when moderated by school productivity and managerial effectiveness (17). Therefore, standardized managerial duties should include efficient resource allocation, financial management, and strategic planning mechanisms to enhance institutional productivity and educational outcomes.

Furthermore, educational reforms aimed at improving quality and competitiveness often depend on effective policy implementation and managerial coordination. Countries that have successfully improved educational performance typically emphasize strategic educational leadership, systematic evaluation processes, and institutional accountability. Educational policies focused on superior management and organizational reform have been identified as key drivers of educational improvement and community development (18). In this regard, school principals serve as essential intermediaries between educational policies and practical implementation processes within schools.

Despite the increasing importance of educational standardization, many educational systems continue to experience ambiguity regarding the roles, duties, and performance expectations of school principals. Inconsistent managerial practices, lack of clear evaluation indicators, insufficient training, and resistance to organizational change frequently hinder the effective implementation of educational standards. Moreover, many existing studies have focused primarily on curriculum standards, teacher competencies, or technological infrastructures while paying less attention to the comprehensive standardization of

school principals' managerial duties. This gap indicates the need for research that systematically identifies the dimensions, components, contextual conditions, and strategic mechanisms associated with standardizing school management duties.

Given the growing complexity of educational systems, the increasing demand for accountability and quality assurance, and the transformative impact of technology and globalization on educational institutions, it is essential to develop a comprehensive model for standardizing the duties of school principals. Such a model can contribute to improving educational quality, enhancing stakeholder satisfaction, reducing educational inequalities, and strengthening institutional effectiveness. Therefore, the present study aimed to identify the components of standardizing school principals' duties in order to provide an appropriate model.

Methods and Materials

This study was fundamental in nature and conducted using a qualitative approach. In qualitative research, data are collected and analyzed descriptively. In the qualitative section of the present study, which was based on Grounded Theory, the statistical population consisted of academic experts, including faculty members holding doctoral degrees and possessing more than 10 years of teaching experience. More specifically, the statistical population of this study included experienced specialists who possessed lived experience, held managerial positions, and had complete familiarity with the research topic. The researcher reached theoretical saturation after interviewing 16 experts. In the qualitative phase of the present study, which was grounded in the logic of grounded theory, the research process consisted of a set of activities such as observation, interviews, and extensive participation in research activities, each of which contributed to obtaining firsthand information regarding the subject under investigation. Accordingly, the collected information resulted in analytical, perceptual, and categorized descriptions. Purposive sampling was employed to explore the phenomenon under study. Unlike quantitative probability sampling, purposive sampling is based on the intentional and criterion-based selection of cases or units of analysis.

In this study, the required data were collected through the review of printed and electronic texts and articles, as well as library-based methods. Subsequently, based on the research background, semi-structured interviews were conducted. Semi-structured interviews are among the most common methods in qualitative research and enable researchers to collect in-depth and accurate information from participants. The validity of the research was established based on credibility, dependability, confirmability, and transferability. The reliability of the instrument was examined through the following procedures:

- Conducting interviews based on a predefined protocol and involving different interviewees
- Conducting interviews independently and simultaneously by two researchers and comparing their findings
- Using audio recording devices to ensure accurate registration of interview data
- Employing two coders to control coding results and interpret data while avoiding misunderstandings
- Reviewing the findings by interviewees and validating the results with supervising and consulting professors

The primary method of data analysis in the qualitative phase was grounded theory analysis. Grounded theory is a well-established method that has been widely applied in numerous research studies. It is a qualitative research method used to develop theories from data. In this approach, instead of beginning with a predetermined hypothesis or theory, theories are extracted from the collected data. The analysis was conducted in three stages: description, explanation, and interpretation, using MAXQDA software.

Findings and Results

In the present study, data were collected through face-to-face interviews with experts. The demographic characteristics of the statistical sample are reported in Table 1.

Table 1. Descriptive Variables of the Study

Variable	Frequency	Percentage	Cumulative Percentage
Gender			
Male	10	63	63
Female	6	37	100
Educational Degree			
Bachelor's Degree	3	19	19
Master's Degree	2	12	31
Doctoral Degree	11	69	100
Work Experience			
Less than 6 years	2	12.5	12.5
6 to 12 years	2	12.5	25
13 to 18 years	5	31.25	56.25
More than 18 years	7	43.75	100

As shown in Table 1, 63% of the respondents were male and 37% were female. Furthermore, 19% of the participants held bachelor's degrees, 12% held master's degrees, and 69% possessed doctoral degrees. Regarding work experience, 12.5% of the participants had less than 6 years of experience, 12.5% had between 6 and 12 years of experience, 31.25% had between 13 and 18 years of experience, and finally, 43.75% had more than 18 years of professional experience.

Data analysis was conducted using grounded theory and through three types of coding: open coding, axial coding, and selective coding.

During open coding, the data were broken down into separate sections, carefully examined to identify similarities and differences, and questions were raised regarding the phenomena reflected in the data. Two primary actions were carried out during open coding: conceptualization and categorization. From the 193 concepts extracted from the interviews, 272 open or initial codes were obtained. After removing repetitive codes and concepts, 108 open codes remained.

The process of axial coding represents the second stage of analysis in grounded theory. The purpose of this stage is to establish relationships among the concepts generated during the open coding stage. This process is conducted based on the paradigm model and assists theorists in facilitating theory construction. The essence of relational processes in axial coding lies in the expansion and development of one category. This classification is presented in Table 2.

Table 2. Concepts and Subcategories – Axial Coding

Subcategory	Concepts
Upstream Documents and Educational Regulations	Fundamental Transformation Document, Ministry of Education regulations, educational justice, comprehensive needs assessment, textbook content, attention to nature, alignment with national goals, global educational standards
Societal and Labor Market Needs	Need for technical skills, skill-oriented education, student socialization, implementation capability
Stakeholder Expectations (Parents, Teachers, Students)	Parents' expectations, attention to individual differences, consideration of teachers' requests, general demands of teachers and instructors
Cultural-Religious Demands	Islamic teachings, Iranian-Islamic culture, religious teachings
Standardized Model of School Duties	Standardization of processes, dynamic learning environment, flexibility in implementation, educational justice, content quality, valid models
Performance Evaluation Indicators	Digital evaluation indicators, cultural criteria, practical standards, combined evaluation, transparency of goals, assessability
Key Components of Quality Education	Desirable educational quality, student-centeredness, participatory design, essential skills, cultural alignment, effective implementation
Socio-Cultural Characteristics of the Region	Regional cultural differences, environmental cultural conditions, Islamic values, customs and traditions, attention to indigenous conditions, alignment with social needs, cultural needs
Physical Facilities of Schools	Condition of school buildings, level of access to facilities, urban infrastructure
Economic and Social Status of Families	Family income, demographic structure, students' family conditions, parents' educational level, family social conditions
Local Regulations, Guidelines, and Circulars	Provincial regulations, local traditions, directives, provincial and regional circulars

Shortage of Financial Resources and Equipment	Lack of school budget, low teacher salaries, shortage of educational spaces, absence of facilities, shortage of laboratory equipment
Resistance to Change	Lack of teacher training, teacher resistance, lack of stakeholder participation, weakness in evaluation, lack of transparency in goals
Weakness of Specialized Human Resources	Shortage of counselors, teachers' economic problems, teacher dissatisfaction, executive challenges
Technological Challenges	Lack of intelligent systems, weak technological infrastructure, incompatibility of standards
Teacher Training and Empowerment	Teacher training courses, utilization of successful experiences, enhancement of teachers' status, educational psychology
Development of Transparent Standards	Designing flexible models, feedback and revision, standardization of evaluation, attention to students' interests, continuous needs assessment, justice orientation
Encouraging Family Participation	Establishment of parent-teacher associations, stakeholder participation, cooperation with experts
Technology Updating	Smart schools, use of modern technologies
Improvement of Resource Management	Cost optimization, designing flexible models, recruitment of specialized personnel, cooperation with experts, dynamic educational environment
Improvement of Educational Quality	Improvement of students' grades, enhancement of national educational indicators, reduction of academic decline, quality of curricula
Enhancement of Stakeholder Satisfaction	Teachers' job satisfaction, increased social participation, effective communication
Reduction of Educational Inequality	Reduction of educational gaps, teamwork, critical thinking, desirable learning outcomes
Development of Students' Skills	Creativity development, problem-solving skills, media literacy, self-awareness
Improvement of School Performance	Enhancement of national educational indicators, quality of curricula, accountability, dynamic standards, alignment with labor market needs

As demonstrated in Table 2, the initial codes were categorized into 21 axial codes or subcategories based on similarity or shared meaning.

Selective coding, based on the results of open and axial coding, represents the principal stage of theory development. In this stage, the core category is systematically connected to other categories, and these relationships are presented within a narrative framework while categories requiring further refinement and development are modified. This stage is reported in Table 3.

Table 3. Classification of Selective Coding

Dimensions	Subcategories – Axial Codes
Causal Conditions	Upstream documents and educational regulations; societal and labor market needs; stakeholder expectations (parents, teachers, students); cultural-religious demands
Central Phenomenon	Standardized model of school duties; performance evaluation indicators; key components of quality education
Contextual Conditions	Socio-cultural characteristics of the region; physical facilities of schools; economic status of families; local regulations, guidelines, and circulars
Intervening Conditions	Shortage of financial resources and equipment; resistance to change; weakness of specialized human resources; technological challenges
Strategies	Teacher training and empowerment; development of transparent standards; encouraging family participation; technology updating; improvement of resource management
Consequences	Improvement of educational quality; enhancement of stakeholder satisfaction; reduction of educational inequality; development of students' skills; improvement of school performance

The coding paradigm model illustrates the relationships among causal conditions, strategies, contextual and intervening conditions, and consequences. The paradigm model of the present study is presented in Figure 1.

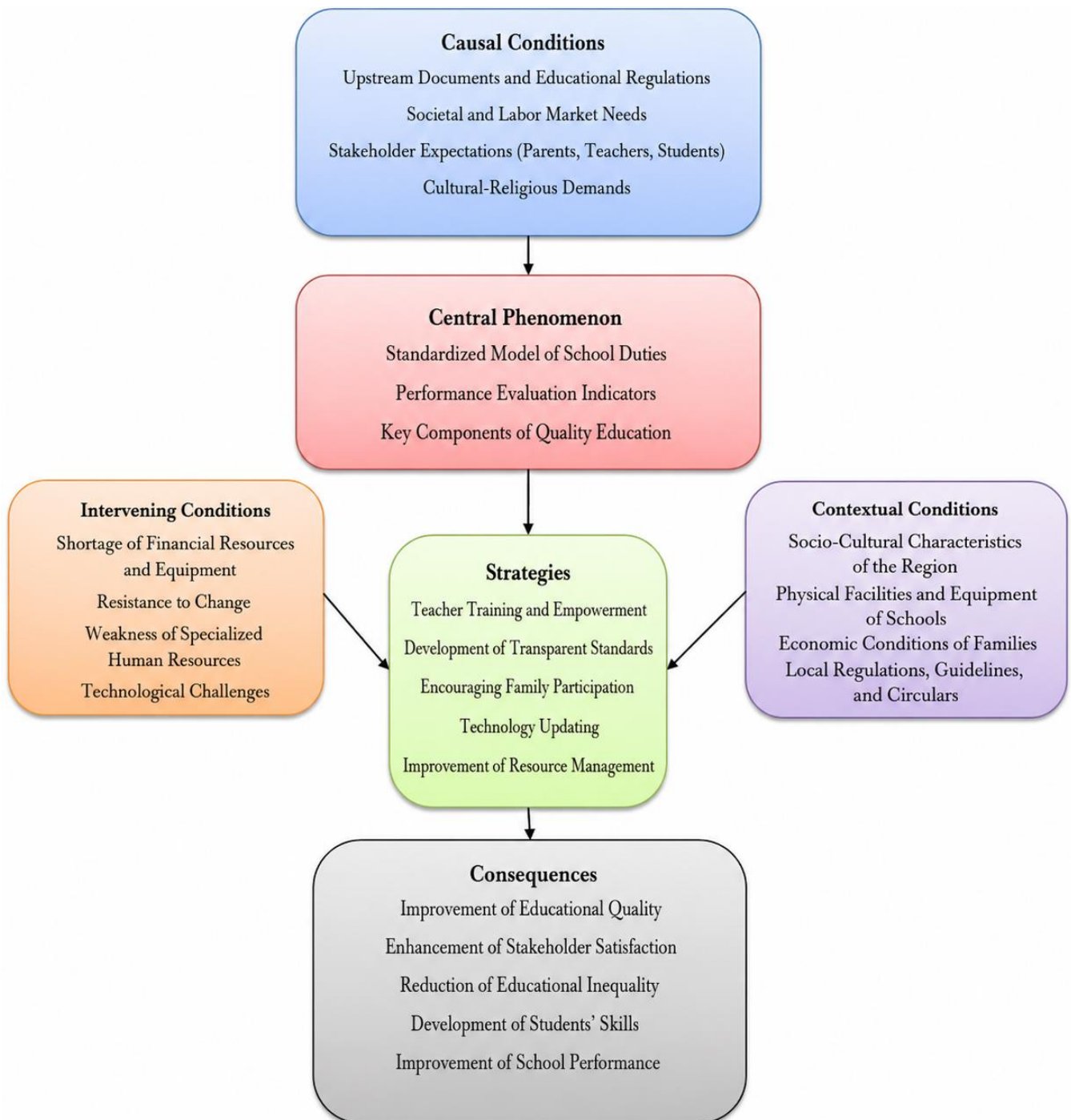


Figure 1. Conceptual Model of the Research

Discussion and Conclusion

The findings of the present study demonstrated that the standardization of school principals' duties is a multidimensional and context-dependent process that requires simultaneous attention to causal conditions, contextual factors, intervening conditions, strategic actions, and educational outcomes. The grounded theory analysis revealed that upstream educational documents and regulations, societal and labor market needs, stakeholder expectations, and cultural-religious demands constitute the primary causal conditions influencing the development of a standardized model of school duties. These findings indicate that educational standardization is not merely an administrative or procedural activity but rather a comprehensive governance

mechanism shaped by educational policies, social expectations, and cultural structures. This finding is consistent with the perspective proposed by Hosseinzadeh et al. regarding the foundational role of educational standards in ensuring coherence and effectiveness within educational systems (1). Similarly, Khoobchehreh et al. emphasized that educational standardization should encompass structural, managerial, and instructional dimensions simultaneously in order to improve educational quality and organizational performance (3, 4).

The identification of upstream educational regulations and national policy documents as major causal conditions reflects the central role of macro-level educational governance in shaping school management practices. Educational systems generally rely on national transformation documents, educational regulations, and policy frameworks to define managerial expectations and institutional objectives. The findings suggest that school principals' duties cannot be effectively standardized without alignment with broader educational goals and national development strategies. This result corresponds with studies emphasizing the role of educational governance and centralized policy-making in improving institutional consistency and educational accountability (2, 18). The present study further demonstrates that standardization processes are strongly influenced by the need to align school management with labor market expectations and societal skill requirements. In modern educational systems, schools are increasingly expected to develop students' practical, technological, and social competencies. Therefore, principals are required to adopt management approaches that facilitate skill-based learning and competency-oriented educational planning. This finding aligns with the work of Khanifar, who highlighted the importance of skill-based educational standards in connecting educational systems with labor market demands (9).

Another important finding of the study concerns the role of stakeholder expectations, including those of parents, teachers, and students, in shaping standardized school management duties. Educational institutions operate within complex social environments where multiple stakeholders influence educational priorities and institutional effectiveness. The findings indicate that effective standardization requires participatory and responsive management approaches that consider the perspectives of educational stakeholders. This result is compatible with research emphasizing stakeholder participation and institutional collaboration in educational quality improvement (2). Furthermore, the findings suggest that cultural and religious demands significantly influence the design and implementation of educational standards. In many educational systems, particularly within culturally diverse societies, educational management must balance universal educational standards with local cultural and religious values. This finding is supported by the arguments presented by Arasteh and Shah Hosseini, who emphasized the necessity of contextualizing educational structures and environments according to socio-cultural characteristics and educational objectives (13).

The central phenomenon identified in this study was the "standardized model of school duties," which included performance evaluation indicators and key components of quality education. The findings revealed that educational quality, educational justice, process standardization, dynamic learning environments, and flexibility in implementation are among the principal characteristics of an effective standardized model. This finding demonstrates that standardization should not be interpreted as rigid bureaucratic control but rather as a structured yet adaptive framework for improving educational quality. This interpretation corresponds with the perspective of Zhao et al., who argued that while standardization improves consistency and accountability, effective educational systems must preserve opportunities for flexibility and innovation (8). Likewise, Zhang et al. emphasized that personalized learning and adaptive educational approaches should coexist with institutional standardization in order to respond effectively to students' diverse educational needs (7).

The findings regarding performance evaluation indicators also highlight the increasing importance of transparency, digital evaluation systems, and measurable educational outcomes within school management. Modern educational systems require school principals to implement systematic evaluation processes capable of monitoring educational performance and

institutional effectiveness. The emphasis on digital indicators and combined evaluation mechanisms reflects the broader transformation of educational management toward data-driven governance and technological integration. This finding is consistent with studies addressing electronic educational standards and technological transformations in educational systems (5). The integration of digital infrastructures into school management has become particularly important in contemporary educational contexts characterized by technological innovation and online learning environments.

The contextual conditions identified in the study included socio-cultural characteristics of the region, physical school facilities, economic conditions of families, and local regulations and guidelines. These findings indicate that educational standardization cannot be implemented independently of environmental and contextual realities. Schools operate within diverse socio-economic and cultural settings that significantly influence managerial effectiveness and institutional performance. Consequently, standardized school duties must remain sufficiently flexible to accommodate local educational conditions and contextual differences. This finding aligns with the arguments presented by Ideland and Jobber, who noted that global educational standardization often creates tensions with localized and personalized educational needs (6). Similarly, Nurcholis et al. emphasized that centralized standardization processes must be balanced with institutional adaptability in order to avoid excessive bureaucratic rigidity (14).

The findings also identified several intervening conditions that challenge the implementation of standardized school duties, including shortages of financial resources and equipment, resistance to change, weaknesses in specialized human resources, and technological challenges. These results indicate that educational standardization is often constrained by structural and organizational limitations. Financial constraints, inadequate educational infrastructure, and shortages of qualified personnel reduce the capacity of schools to effectively implement standardized managerial frameworks. This finding corresponds with Surur et al.'s study, which demonstrated that educational operational costs and institutional productivity significantly influence educational quality (17). Moreover, technological limitations and weak digital infrastructures were identified as major barriers to educational standardization, particularly in relation to smart schools and digital learning systems. This finding is supported by research on electronic educational standards and the technological transformation of educational systems (5).

Resistance to change emerged as another significant intervening factor affecting the implementation of standardized school duties. Organizational resistance often occurs when educational reforms are introduced without adequate stakeholder participation, professional development, or institutional support. The findings revealed that teacher resistance, lack of transparency in objectives, and insufficient evaluation systems hinder the implementation of standardized managerial models. This result is compatible with the findings of La Velle et al., who reported that educational institutions faced considerable challenges in adapting to rapid organizational and technological changes during the COVID-19 pandemic (11). The current study suggests that successful standardization requires organizational readiness, effective communication, and stakeholder engagement in order to minimize resistance and facilitate institutional adaptation.

The strategic dimension of the model included teacher training and empowerment, development of transparent standards, encouraging family participation, technology updating, and improvement of resource management. These findings suggest that the effectiveness of educational standardization largely depends on the implementation of supportive and participatory strategies. Teacher empowerment was identified as a particularly important strategy because teachers play a central role in translating educational standards into practical instructional activities. This finding is consistent with Hessari et al.'s research demonstrating the relationship between teachers' professional characteristics and educational effectiveness in smart schools (10). Effective standardization therefore requires continuous professional development programs that enhance teachers' pedagogical, technological, and managerial competencies.

The findings further revealed the importance of technology updating and digital transformation in improving school management effectiveness. Educational systems increasingly depend on technological infrastructures to support communication, evaluation, resource management, and instructional delivery. Consequently, school principals are expected to possess technological leadership skills and the ability to coordinate digital educational systems. This finding aligns with the work of Oladele, who emphasized the growing role of artificial intelligence and personalized learning technologies in shaping the future of education (16). Additionally, the emphasis on transparent standards and continuous feedback mechanisms reflects the need for adaptive governance systems capable of responding to changing educational conditions and stakeholder expectations.

The consequences identified in the study included improvement of educational quality, enhancement of stakeholder satisfaction, reduction of educational inequality, development of students' skills, and improvement of school performance. These findings indicate that successful standardization of school principals' duties can generate significant institutional and educational benefits. Improved educational quality and enhanced stakeholder satisfaction suggest that standardized managerial frameworks contribute to greater organizational coherence, accountability, and institutional effectiveness. This result corresponds with studies emphasizing the positive relationship between educational standards and educational quality improvement (2, 4). Furthermore, the reduction of educational inequality identified in the study suggests that standardization can support educational justice by establishing consistent managerial procedures and equitable access to educational resources.

The findings related to students' skill development also reflect the evolving objectives of contemporary educational systems. Schools are increasingly expected to develop creativity, problem-solving abilities, critical thinking, media literacy, and self-awareness among students. Consequently, school principals must adopt management strategies that support innovative and skill-oriented educational environments. This finding aligns with research emphasizing competency-based educational reforms and the integration of professional standards into educational systems (12, 15). The overall findings of the study therefore suggest that the standardization of school principals' duties represents a comprehensive and strategic approach to educational improvement that integrates managerial accountability, contextual adaptability, technological innovation, and stakeholder participation.

One limitation of the present study was the relatively limited sample size and the exclusive reliance on academic experts and educational specialists. Although theoretical saturation was achieved, including school principals, teachers, students, and policymakers from different educational contexts could have provided broader perspectives regarding the standardization of school duties. Another limitation concerns the qualitative nature of the study, which restricts the generalizability of the findings to all educational systems and institutional settings. In addition, cultural and organizational differences among educational institutions may influence the applicability of the proposed model in different contexts.

Future research should examine the applicability and effectiveness of the proposed model through quantitative and mixed-method studies involving larger and more diverse samples. Comparative studies across different educational systems and geographical regions may provide deeper insights into the contextual dimensions of educational standardization. Researchers are also encouraged to investigate the relationship between standardized managerial duties and specific educational outcomes such as academic achievement, organizational commitment, technological innovation, and educational equity. Furthermore, future studies could explore the impact of artificial intelligence, digital governance systems, and smart educational technologies on the transformation of school management standards.

Educational policymakers and administrators should develop comprehensive frameworks for standardizing school principals' duties while maintaining flexibility for contextual adaptation and local educational needs. Educational authorities should prioritize teacher empowerment programs, technological infrastructure development, and participatory management

strategies to facilitate effective implementation of educational standards. Schools should also establish transparent performance evaluation systems and stakeholder engagement mechanisms in order to improve accountability and institutional collaboration. Finally, educational organizations should invest in professional development, digital transformation, and resource optimization to strengthen the effectiveness and sustainability of standardized school management systems.

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Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

All ethical principles were adhered in conducting and writing this article.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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References

1. Hosseinzadeh Z, Ghasemi F, Hosseinzadeh P, Jalilzadeh M, editors. Foundations of standards and standardization in education. First International Conference on Management, Teaching and Educational Research; 2023; Tehran.
2. Mesiono M, Nasution PMG, Napiah MA, Hidayat R. Implementation of national education standards in improving the quality of education. *Edukasi Islami: Jurnal Pendidikan Islam*. 2022;11(1).
3. Khoobchehreh M, Akbari A, Pourshafei H, Cherabin M. Identifying and prioritizing the dimensions and components of standard education. *Educational Leadership and Management*. 2019;48(13):87-110.
4. Khoobchehreh M, Akbari A, Pourshafei H, Cherabin M. Explaining the components of standard education. *Journal of the Faculty of Medicine, Mashhad University of Medical Sciences*. 2020;63(4):2575-85.
5. Taghadomi MS, Mazandarani A. Electronic educational standards: A comparative study across continents. *Iranian Journal of Comparative Education*. 2025;7(4):3227-49.
6. Ideland M, Jober A, editors. Googlified students in the tension of global standardization and personalized learning. *ECER 2019: Education in an Era of Risk – The Role of Educational Research for the Future*; 2019; Hamburg, Germany.
7. Zhang L, Basham JD, Yang S. Understanding the implementation of personalized learning: A research synthesis. *Educational Research Review*. 2020;31:100339.

8. Zhao Y, Li T, Liu W. The benefits and drawbacks of standardized curriculum in education. *Research and Advances in Education*. 2023;2(10):41-7.
9. Khanifar H. *Guide to Developing Skill-Based Education Standards*. Tehran: Ministry of Cooperatives, Labour and Social Welfare; 2011.
10. Hessari F, Eslami M, Pouladi Rishehri A. Relationship between academic achievement motivation and professional characteristics of smart school teachers. *Educational Strategies*. 2024;16(5):452-61.
11. La Velle L, Newman S, Montgomery C, Hyatt D. Initial teacher education in England and the Covid-19 pandemic: Challenges and opportunities. *Journal of Education for Teaching*. 2020;46(4):596-608.
12. Ling Y, Chung SJ, Wang L. Research on the reform of management system of higher vocational education in China based on personality standard. *Current Psychology*. 2023;42(2):1225-37.
13. Arasteh M, Shah Hosseini A. Identifying and explaining the components of designing educational space equipment for implementing the school bag plan in schools: A case study of the first elementary level. *Fine Arts Journal: Visual Arts*. 2024;28(3):89-100.
14. Nurcholis C, Kridasakti SW, Hardianto H. The centralization and standardization of student services in Universitas Terbuka. *Technium Social Sciences Journal*. 2024;56:25-35.
15. Nahorniuk O, Levytska L. Integrating professional and educational standards for developing IT curriculum. *Universum*. 2024(4):160-8.
16. Oladele OK. *The Future of Education: Personalized Learning and Artificial Intelligence* 2024.
17. Surur M, Wibawa RP, Jaya F, Suparto AA, Harefa D, Faidi A, et al. Effect of education operational cost on the education quality with the school productivity as moderating variable. *Psychology and Education*. 2020;57(9):1196-205.
18. Shaturaev J. Indonesia: Superior policies and management for better education (Community development through education). *Archive of Scientific Research*. 2021;1(1).