Analyzing the Main Category and Subcategories of School Effectiveness in Iraq

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Abstract

Purpose: This study was conducted to analyze the main category and subcategories of school effectiveness in Iraq.

Methods and Materials: A qualitative approach based on grounded theory was employed, with data collected through semi-structured interviews with 10 experts in the field of education. Data analysis was performed using open, axial, and selective coding. Considering the exploratory nature of the topic and the need for a deep understanding of the phenomenon under investigation, a grounded theory-based qualitative approach was utilized. The statistical population consisted of key experts in the field of school education in Iraq. Participants were selected using purposive sampling. Ten experts, including educational administrators, policymakers, university professors, and prominent researchers, were chosen. The final number of participants was determined based on the principle of theoretical saturation. Semi-structured interviews were employed for data collection. The interview protocol included open-ended questions designed based on a literature review and consultations with specialists.

Findings: As a result of data analysis, a framework was developed, comprising causal conditions, the core phenomenon, strategies, intervening conditions, and outcomes.

Conclusion: This paradigm serves as a framework for designing and improving effective schools in Iraq. The research method, by integrating the systematic and flexible approach of grounded theory, enabled a deep understanding of the phenomenon of effective schools in the specific context of Iraq and led to the presentation of a localized and practical model.

Keywords: Main category, subcategories, school effectiveness, Iraq.

1.   Introduction

One of the significant issues in education is the need to shift teachers' and administrators' attitudes and teaching methods. To cultivate individuals with critical thinking, problem-solving, creativity, and innovation skills, educational systems must transition from traditional frameworks toward more modern and flexible approaches. As Adesina (2011) emphasizes, education serves as a driving force for economic, intellectual, social, and cultural empowerment. He argues that educational systems can transform individuals' character and attitudes and harness human potential for societal development (Adesina, 2011). From this perspective, education is a powerful tool for social change and sustainable development. Effective management in educational systems plays a crucial role in this transformative process. School management should align various activities within the system and optimize the use of human, financial, and technical resources to achieve educational goals. Effective management skills not only enhance the efficiency and effectiveness of staff and teachers but also improve the overall organizational performance of schools (Ebrahimi Tabar et al., 2023).

In today's era, characterized by the complexities arising from technological advancements and globalization, effective management in educational environments is more critical than ever. Schools, as one of the most important educational institutions, face these complexities. Numerous studies have shown that shifts in educational approaches, particularly in advanced educational systems, have leaned toward competency-based education and transformed the roles of teachers and learners. In this approach, learners play an active role in the learning process, while teachers serve as facilitators rather than direct knowledge providers. These transformations underscore the need to revise traditional teaching and school management methods (Ebrahimi Tabar et al., 2023; Herawati et al., 2024; Jafari Rad et al., 2020; Omale, 2024; Pekkolay, 2021; Sadat Mousavi & Ebrahimi, 2024).

Based on the researcher's experience in educational environments in Iraq, it is evident that school management in the country cannot entirely rely on models and theories proposed by foreign experts. Iraq's cultural, social, economic, and political structure deeply influences its educational system, distinguishing it from many other countries. Therefore, designing and implementing educational management in Iraq must pay special attention to local and cultural characteristics. Models and approaches to effective school management in Iraq should be localized and tailored to the country's cultural and social conditions.

Given these considerations, the educational system requires new approaches that integrate research-based and active teaching methods. In this context, the discussion on the effectiveness of teaching methods has also emerged. Kirschner et al. (2006) argued that constructivist approaches to learning, such as research-based learning, face limitations, particularly when compared to direct teaching methods. They suggested that such methods place excessive demands on students' working memory. Conversely, Mayer (2004) provided evidence that guided discovery methods, which are part of research-based learning, are superior to pure discovery methods and direct teaching approaches. Subsequent studies have also confirmed the effectiveness of research-based methods in science education (Chin & Chuang, 2015; Ebrahimi Tabar et al., 2023; Shahsavari et al., 2021).

Improving the quality of education in Iraq is essential not only for the country's economic development but also for fostering social and political stability. Education is a vital social organization that prepares students for appropriate roles in future societies. If the educational organizations of any society, like other organizations, prioritize achieving their organizational goals, it will pave the way for studying and examining school effectiveness. From a linguistic perspective, effectiveness is "the measure of impact," and theoretically, it is defined as the extent to which program objectives are achieved. A more comprehensive definition describes organizational effectiveness as a cyclical and ongoing process, starting from planning and encompassing all activities aimed at achieving organizational goals while determining how well and satisfactorily they are executed (Jafari Rad et al., 2020; Pirhayati et al., 2023).

The literature on school effectiveness highlights diverse factors and frameworks critical for educational success. Kiani et al. (2022) identified 55 indicators across 12 components, such as school vision, collaborative management, and a positive learning climate, validating their model through factor analysis (Kiani et al., 2022). Shahsavari et al. (2021) emphasized prioritizing teaching and learning processes in educational organizations for success (Shahsavari et al., 2021), while Ganbari and Majouni (2021) underscored the impact of ethical leadership, psychological empowerment, and teacher creativity on school effectiveness using structural equation modelling (Ghanbari & Majouni, 2021). Abedi Koushki et al. (2021) examined characteristics of successful school

principals, revealing 40 key markers under leadership styles, organizational interventions, and personal behaviors (Abedi Koushki et al., 2021). Kabiri (2021) found that school climate significantly influences academic performance, while teacher empowerment is mediated by school climate (Kabiri, 2021). Empowering structures in schools were also linked to teacher satisfaction and effectiveness by Kouhi et al. (2019). Jafari Rad et al. (2019) provided a competency framework for school principals, focusing on knowledge, attitudes, and skills necessary for effective management (Jafari Rad et al., 2020; Kouhi et al., 2019), while Maleki Avarsim et al. (2019) identified 16 key components of school effectiveness, such as school culture and parental involvement, through an interpretive structural modeling approach (Maleki Avaresin & Soodi, 2019). Soodi et al. (2018) developed a model for effective schools aligned with Iran's national educational standards, emphasizing quality improvement (Soodi et al., 2018). Imani et al. (2013) identified 16 critical factors for high school effectiveness, including school climate and teacher professionalism (Imani et al., 2017), while Urumchi and Vahdat (2016) proposed a model for elementary school effectiveness, incorporating organizational structure, stakeholder satisfaction, and teacher development (Urumchi & Vahdat, 2016). Nasti Zayi and Dahmardeh (2015) connected managerial competencies, like teamwork and continuous improvement (Nasti Zayi & Dahmardeh, 2015), to principal effectiveness using Cameron and Quinn's model. International studies align with these findings: Sarwar et al. (2022) revealed a positive correlation between democratic leadership styles and teacher performance (Sarwar et al., 2022), while Pekkolay (2021) emphasized the role of positive school culture and ethical leadership in school success (Pekkolay, 2021). Ugochukwu et al. (2021) identified key barriers in Nigerian school management, such as weak school-community relationships and policy inefficiencies (Ugochukwu et al., 2021). Rahayu et al. (2018) highlighted professional competence as a mediator between teacher emotional intelligence and school effectiveness (Rahayu et al., 2018). Chin et al. (2015) demonstrated that innovative management directly enhances school effectiveness, with budgeting indirectly supporting this process (Chin & Chuang, 2015). Gray (2016) found that collective trust significantly improves school organizational effectiveness (Gray, 2016), while Alammar (2015) pinpointed leadership and environmental challenges in Saudi schools (Alammar, 2015). Chalmers and Gardner (2015) emphasized long-term evaluation of professional development programs, linking them to sustainable improvements in organizational culture (Chalmers & Gardiner, 2015).

This research aims to assist policymakers in making more informed decisions and improving school management, ultimately contributing to enhancing the quality of education in Iraq. Therefore, this study seeks to identify the main categories and subcategories influencing school effectiveness in the third millennium in Iraq.

2. Methods and Materials

This study aimed to examine and analyze the main categories and subcategories influencing school effectiveness in the third millennium in Iraq. Given the exploratory nature of the topic and the need for a deep understanding of the phenomenon under investigation, a qualitative approach based on grounded theory was utilized. The study population included key experts in the field of school education in Iraq. Participants were selected using purposive sampling. Ten experts, including educational administrators, policymakers, university professors, and prominent researchers, were chosen. The final number of participants was determined based on the principle of theoretical saturation.

Data were collected through semi-structured interviews. The interview protocol included open-ended questions designed based on a literature review and consultations with specialists. The interviews were conducted either in person or online (depending on circumstances and participants' preferences), with each interview lasting between 60 and 90 minutes. All interviews were recorded with participants' consent and then transcribed verbatim.

Data analysis in this study was conducted in three stages using open, axial, and selective coding. As a result of the data analysis, a framework was developed, comprising causal conditions, the core phenomenon, strategies, intervening conditions, and outcomes. This paradigm serves as a framework for designing and improving effective schools in Iraq.

This research methodology, by integrating the systematic and flexible approach of grounded theory, provided a deep understanding of the phenomenon of effective schools within Iraq's specific context, leading to the development of a localized and practical model.

3. Findings and Results

This study aimed to examine and analyze the main categories and subcategories influencing school

effectiveness in the third millennium in Iraq. Below are the findings derived from the qualitative data analysis, including the demographic statistics and characteristics of the qualitative sample. The dimensions and indicators of the paradigm model for school effectiveness in Iraq in the third millennium were identified during the qualitative phase by reviewing theoretical foundations, conducting expert interviews, and consulting supervisors and advisors. These were categorized into six main components: core phenomenon, causal conditions, contextual conditions, intervening conditions, strategies, and outcomes, encompassing 100 concepts. Subsequently, a questionnaire on the categories of school effectiveness in Iraq in the third millennium was designed and developed.

During the quantitative phase, after calculating the item impact score, five items with scores below 1.5 were excluded, reducing the number of items in the model from 100 to 95. The results of the Content Validity Ratio (CVR) calculation, based on Lawshe's table for 12 experts, led to the removal of five items with CVR values below 0.56, further reducing the number of items from 95 to 90. Additionally, after calculating the Content Validity Index (CVI), five items with CVI values below 0.79 were removed, reducing the number of items from 90 to 85.

Thus, the final questionnaire for the effective schools model in Iraq in the third millennium consisted of 85 items. Confirmatory factor analysis was used to assess construct validity through factor loadings. In the quantitative phase, the factor loadings of causal conditions in the effective schools model for Iraq in the third millennium were analyzed. Various factors influencing school effectiveness were examined, with items presented alongside their factor loadings and T statistics. Factor loadings represent the correlation between each item and the main construct; higher values indicate greater influence on the model.

According to Table 1, the factor loadings and T statistics for all items were above 0.4 and 1.96, respectively, confirming all causal condition items. The most significant causal conditions affecting school effectiveness in Iraq, ranked by factor loadings, include:

- **Teachers' and staff's salaries and welfare benefits**: With a factor loading of 0.989, this indicates that the living and welfare conditions of teachers and staff are key intervening factors. Improving welfare conditions directly impacts employee motivation and productivity, thereby enhancing school effectiveness.

- **Lack of attention to and management of social issues in schools**: With a factor loading of 0.965 and a T statistic of 20.179, inadequate attention to and poor management of social issues within schools significantly negatively impact school effectiveness.

- **Parental involvement in educational processes**: A factor loading of 0.909 highlights that active parental participation in school affairs can enhance school effectiveness.

- **Political interference in school administration**: With a factor loading of 0.889 and a T statistic of 17.466, political interference negatively impacts school effectiveness, underscoring the importance of separating politics from educational management.

- **Dynamic and flexible curriculum**: A factor loading of 0.814 indicates that curricula aligned with societal needs and skills-based approaches significantly contribute to school effectiveness.

- **Use of modern technologies**: Equipping schools with advanced technologies and smart systems, with factor loadings above 0.8, supports the teaching-learning processes, thereby enhancing school effectiveness.

- **Training of managers with specialized skills and knowledge**: Human, cognitive, and managerial skills, with factor loadings ranging from 0.736 to 0.807, highlight the need for equipping managers with specific competencies for effective school management.

- **Training teachers with various skills**:
  - **Information literacy skills**: With a factor loading of 0.769, these skills are crucial for school effectiveness.
  - **Motivational, classroom management, communication, and technological skills**: Factor loadings for these skills range from 0.697 to 0.790, emphasizing their importance in enhancing teacher capabilities and, consequently, school effectiveness.

These findings clearly illustrate that factors such as teachers' welfare conditions, social issue management, parental involvement, empowering teachers and managers with diverse skills, appropriate curriculum, and modern technology use are among the primary contributors to effective schools in Iraq in the third millennium.

Table 1

Factor Loadings for Causal Conditions in the Effective Schools Model for Iraq in the Third Millennium

Item	Factor Loading	T Statistic
Teachers with information literacy skills	0.769	18.497
Teachers with motivational skills	0.790	16.317
Teachers with classroom management skills	0.784	21.067
Teachers with communication skills	0.750	16.056
Teachers with technological skills	0.697	13.696
Managers with human skills	0.746	14.819
Managers with cognitive skills	0.807	19.147
Managers with managerial skills	0.778	20.694
Managers with specialized knowledge	0.783	22.992
Managers familiar with psychological and moral indicators	0.736	19.529
Dynamic and flexible curriculum	0.832	20.367
Curriculum aligned with societal needs	0.814	17.140
Skills-based and creative curriculum	0.823	22.320
Modern equipment and technologies	0.801	15.545
Smart school systems	0.780	13.113
Updated labs and workshops	0.875	19.028

According to Table 2, the factor loadings and T statistics for all contextual condition items were above 0.4 and 1.98, respectively, confirming all items. The most significant contextual conditions influencing school effectiveness in Iraq, ranked by factor loadings, include:

- **Appropriate allocation of annual educational budgets**: With the highest factor loading of 0.982, this emphasizes the importance of sufficient resource allocation for better educational opportunities and improved physical and managerial conditions.
- **Provision of safe conditions in schools**: A factor loading of 0.855 highlights the significance of a secure environment for students and teachers in enhancing school effectiveness.
- **Promotion of public health in schools**: With a factor loading of 0.853, improved public health for students and teachers is key to fostering a better educational atmosphere and well-being.
- **Up-to-date and needs-based empowerment of teachers and managers**: A factor loading of 0.849 underscores the importance of continuous professional development for enhancing educational and managerial performance.
- **National-level school communication without centralization**: A factor loading of 0.844 highlights the importance of broad national interactions and greater autonomy for schools in achieving better management.
- **Collaborative support in schools**: A factor loading of 0.850 indicates the role of peer support in improving collaboration and collective performance in schools.
- **Flexible rules and regulations**: A factor loading of 0.833 demonstrates the importance of adaptable policies to enable schools to respond quickly to changing conditions and enhance effectiveness.
- **Annual updating of teachers' and managers' skills**: A factor loading of 0.829 stresses the necessity of continuous training to improve staff capabilities.
- **Beautification and fostering joy in schools**: A factor loading of 0.825 shows the impact of a vibrant and aesthetically pleasing environment on the morale of students and staff.
- **Dynamic policies and regulations**: A factor loading of 0.821 highlights the importance of policies adapted to new needs and changes for improving school performance.

These findings indicate that adequate resource allocation, safe and joyful environments, continuous professional development, and dynamic, flexible policies are among the most significant contextual conditions for enhancing school effectiveness in Iraq.

Table 2

Factor Loadings for Contextual Conditions in the Effective Schools Model for Iraq in the Third Millennium

Item	Factor Loading	T Statistic
Transparent rules and regulations	0.806	17.418
Dynamic rules and regulations	0.821	13.134
Flexible rules and regulations	0.833	12.482
Needs-based and up-to-date teacher and manager empowerment	0.849	18.538
Annual updating of teacher and manager competencies	0.829	18.917
Empowerment based on annual performance evaluation	0.804	19.739
Creative curricula	0.775	16.686
Dynamic school curricula	0.737	15.394
Skills-based curricula	0.800	21.571
Curricula aligned with societal needs	0.787	19.473
Flexible curricula	0.766	14.118
Regional and interschool communication	0.819	13.072
National school communication (decentralized)	0.844	18.350
International school communication	0.793	11.801
Collaborative leadership in schools	0.782	20.407
Teacher collaboration in schools	0.815	17.558
Unified goals in schools	0.791	18.935
Peer support in schools	0.850	21.989
Participation in learning within schools	0.782	17.437
Improved public health in schools	0.853	21.417
Safe conditions in schools	0.855	23.302
Beautification and joyful environments in schools	0.825	20.802
Adequate annual educational budgets	0.982	21.020

Intervening conditions are factors that directly or indirectly influence the efficiency and performance of schools, serving either as obstacles or opportunities. According to Table 3, all items had factor loadings above 0.4 and T statistics exceeding 1.98, confirming their validity. The most significant intervening conditions affecting school effectiveness in Iraq, ranked by factor loadings, include:

- **Teachers' and staff's salaries and welfare benefits**: With the highest factor loading (0.989), this item highlights that teachers' and staff's living conditions are key intervening factors. Improving welfare conditions directly impacts staff motivation and productivity, thereby enhancing school effectiveness.
- **Lack of attention to social issues and their management in schools**: A factor loading of 0.965 and a T statistic of 20.179 indicate that neglecting social issues and mismanaging them in schools

severely harm school effectiveness. Ensuring a safe and healthy environment for students is critical.

- **Parental involvement in the educational process**: A factor loading of 0.909 underscores the importance of active parental participation in enhancing school effectiveness.
- **Unrelated political interference in school administration**: A factor loading of 0.889 and a T statistic of 17.466 highlight that unrelated political influences negatively impact school effectiveness. The separation of politics from educational management is essential.

These findings reveal that conditions such as political interference, welfare conditions, parental involvement, and social issue management significantly impact school effectiveness in Iraq. To improve school performance, addressing these negative influences and strengthening positive factors is critical.

Table 3

Factor Loadings for Intervening Conditions in the Effective Schools Model for Iraq in the Third Millennium

Item	Factor Loading	T Statistic
Unrelated political interference in school administration	0.889	17.466
Teachers' and staff's salaries and welfare benefits	0.989	15.910
Parental involvement in the educational process	0.909	17.597
Neglect of social issues and their mismanagement in schools	0.965	20.179

According to Table 4, all strategy items had factor loadings above 0.4 and T statistics exceeding 1.96, confirming their validity. The most significant strategies for enhancing school effectiveness in Iraq, ranked by factor loadings, include:

- **Facilitating collaboration and experience-sharing among teaching groups**: With a factor loading of 0.862 and a T statistic of 25.646, this highlights the importance of exchanging experiences among educators to improve teaching practices.
- **Engaging students in participatory learning activities**: A factor loading of 0.805 and a T statistic of 17.224 identify this as a crucial element for school effectiveness, encouraging students' active involvement in the learning process.
- **Conducting needs-based workshops and training programs**: A factor loading of 0.795 and

a T statistic of 27.128 emphasize the importance of continuous professional development tailored to teachers' and staff's needs.

- **Constructive teacher-student interactions in teaching**: A factor loading of 0.764 and a T statistic of 15.568 underline the significance of effective teacher-student interactions for improving school effectiveness.
- **Utilizing diverse teaching methods and modern technologies**: A factor loading of 0.764 and a T statistic of 15.371 illustrate the role of innovative teaching approaches and technology in enhancing educational quality.

These findings demonstrate that collaboration, active learning, continuous professional development, effective teacher-student interactions, and diverse teaching methods significantly contribute to the strategies for effective schools in Iraq.

Table 4

Factor Loadings for Strategies in the Effective Schools Model for Iraq in the Third Millennium

Item	Factor Loading	T Statistic
Engaging students in participatory learning activities	0.805	17.224
Constructive teacher-student interactions	0.764	15.568
Diverse teaching methods with modern technologies	0.764	15.371
Collaboration and experience sharing among teaching groups	0.862	25.646
Providing opportunities for learning and transferring knowledge and skills of successful students	0.832	24.457
Needs-based workshops and training programs	0.795	27.128
Dynamic and flexible rules and guidelines tailored to school, community, and regional needs	0.886	22.549
Decentralized rule-making authority shared with school councils	0.847	15.614
Performance-based incentives and benefits for effective school staff	0.844	13.621
Objective school accreditation free from political influences	0.865	19.207
Voluntary participation of principals and staff in research studies	0.779	20.550
Utilizing research findings to solve school issues	0.809	26.286
Synergy among students, teachers, and principals	0.789	19.253
Promoting teamwork culture to enhance collective morale among students	0.837	27.563
Encouraging students to propose entrepreneurial ideas	0.812	22.798
Supporting and embracing creative ideas and projects	0.806	23.228
Cultural utilization of students' entrepreneurial ideas	0.816	25.399
Organizing school sports competitions	0.727	13.375
Providing counseling services through skilled and specialized advisors	0.879	24.659
Organizing cultural and recreational field trips	0.870	26.831
Ensuring access to diverse library resources tailored to students' age and numbers	0.844	19.585

Establishing continuous connections between schools and successful industrial units for entrepreneurship tours	0.889	18.441
Conducting family training and guidance classes based on assessed needs	0.905	24.353
Leveraging external capacities and parental resources for improving education, health, finance, and upbringing	0.860	21.615
Utilizing external organizational capacities and voluntary partnerships	0.794	12.273
Equipping labs and workshops aligned with curricula	0.893	25.813
Aligning lab and workshop activities with textbooks	0.869	26.188
Using educational and training materials in classrooms	0.866	23.579
Monitoring students' risk-taking behaviors	0.867	28.176
Teaching self-care skills to address social and high-risk behaviors	0.847	20.078
Producing educational and cultural content through exhibitions and festivals to enhance students' abilities	0.824	18.469
Providing necessary hygiene supplies (e.g., liquid soap, trash bins)	0.853	27.349
Emphasizing personal and social hygiene among students and staff	0.855	21.929
Focusing on safety and standards for school buildings, equipment, and learning spaces	0.825	27.730
Daily physical activity in schools	0.853	13.576
Creating green and vibrant spaces proportional to school size and student numbers	0.855	22.343
Using cheerful colors in school environments	0.825	23.852

Based on Table 5, all outcome items had factor loadings above 0.4 and T statistics exceeding 1.96, confirming their significance. The most significant outcomes of school effectiveness in Iraq, ranked by factor loadings, include:

- **Professional development of teachers and managers**: With a factor loading of 0.989 and a T statistic of 30.091, this highlights the critical role of continuous professional growth in enhancing school effectiveness.
- **Empowered, creative, and happy students**: A factor loading of 0.989 and a T statistic of 31.039 demonstrate the importance of fostering creativity and well-being among students as a core outcome of effective schools.

- **Developed and efficient society**: With a factor loading of 0.982 and a T statistic of 50.004, this underscores the societal impact of effective schools in driving development and efficiency.
- **Dynamic and flexible schools**: A factor loading of 0.919 and a T statistic of 53.958 indicate the importance of adaptability and dynamism in achieving educational and developmental goals.
- **Improved learning quality**: With a factor loading of 0.889 and a T statistic of 13.893, this highlights the importance of enhancing learning outcomes as a key measure of school effectiveness.

Table 5

Factor Loadings for Outcomes in the Effective Schools Model for Iraq in the Third Millennium

Item	Factor Loading	T Statistic
Professional development of teachers and managers	0.989	30.091
Empowered, creative, and happy students	0.989	31.039
Developed and efficient society	0.982	50.004
Dynamic and flexible schools	0.919	53.958
Improved learning quality	0.889	13.893

Table 6 presents the results of the confirmatory factor analysis for the effective schools model in Iraq. It includes factor loadings and T statistics for seven variables associated with school effectiveness. Factor loadings indicate the correlation between each variable and the main construct (school effectiveness in this case). Values above 0.4 are typically considered acceptable.

In this model, all variables have factor loadings above 0.4, indicating good convergent validity. The T statistics reflect the statistical significance of each factor loading.

Values greater than 1.96 (95% confidence level) or 2.58 (99% confidence level) indicate statistical significance. In this table, all T values exceed 2.58, demonstrating statistical significance at the 99% confidence level.

Based on the findings in Table 6:

1. **"Training managers with managerial and specialized skills"** has the strongest correlation with school effectiveness, with a factor loading of 0.844 and a T statistic of 28.469.

2. **"Digitalization and use of technology in management"** is the second most important factor, with a factor loading of 0.820 and a T statistic of 28.656.

3. **"Empowerment of human resources"** ranks third, with a factor loading of 0.799 and a T statistic of 24.430.

4. Other variables also show significant correlations with school effectiveness, though their impact is less pronounced compared to the top three.

These results highlight the importance of managerial skills, technology integration, and human resource empowerment in enhancing school effectiveness in Iraq. Furthermore, these findings provide valuable guidance for policymakers and educational administrators to improve the quality and effectiveness of the educational system.

Table 6

Factor Loadings for School Effectiveness in the Effective Schools Model for Iraq in the Third Millennium

T Statistic	Factor Loading	Variable
28.469	0.844	Training managers with managerial and specialized skills
28.656	0.820	Digitalization and use of technology in management
3.074	0.431	Collaborative leadership and school organizational culture
24.430	0.799	Empowerment of human resources
3.984	0.468	Planning and revising regulations
3.631	0.402	Strengthening research and skill-based culture
3.341	0.410	Prevention of social issues and enhancement of health and safety

4. Discussion and Conclusion

The effectiveness of schools in Iraq was designed through qualitative and quantitative phases. In the qualitative phase, dimensions and indicators of school effectiveness were identified, including six main components (core phenomenon, causal conditions, contextual conditions, intervening conditions, strategies, and outcomes) and 100 concepts, derived through a review of theoretical foundations and expert interviews. Based on the results of this phase, a questionnaire was developed. In the quantitative phase, after calculating various indices, certain items with low scores were removed, reducing the questionnaire items from 100 to 85. The results of confirmatory factor analysis showed that all items with factor loadings above 0.4 and significant T statistics were validated.

Factor analysis findings revealed that key causal conditions for school effectiveness included teachers' salaries and welfare benefits, neglect of social issues, parental involvement, and political interference. These factors, with high factor loadings, were deemed critical for school effectiveness.

Contextual factors included adequate budget allocation, creating safe environments, and improving public health, all of which had significant impacts on school effectiveness. Among intervening conditions, improving teachers' living standards and managing social issues were identified as the most influential factors. Effective strategies included collaboration among teachers, the use of diverse teaching methods, and conducting continuous professional development workshops. Ultimately, these strategies led to professional development for teachers and managers, as well as enhanced creativity and capability among students, which are key outcomes of school effectiveness.

The findings of this study, through both qualitative and quantitative analysis of the school effectiveness model in Iraq, demonstrated that multiple factors contribute to improving school effectiveness. These results align with similar studies in other countries, confirming the influence of factors such as teachers' living conditions, social interventions, and parental and governmental support on educational quality and student outcomes.

Based on the findings, causal conditions that play a critical role in school effectiveness include teachers' salaries and welfare benefits, attention to social issues, parental involvement, and political interference. These factors, supported by high factor loadings and positive effects on school effectiveness, have also been validated in international research. The paradigm model for effective schools in Iraq in the third millennium highlights the interplay of causal, contextual, and intervening conditions, strategies, and outcomes in achieving school effectiveness. While this model aligns with previous research findings, it also introduces notable differences. For instance, Ebrahimi Tabar et al. (2023), in their study on effective school

management in Ardabil Province, emphasized managerial and educational skills as key variables (Ebrahimi Tabar et al., 2023). Similarly, this study highlights the importance of teachers' and managers' skills but places additional emphasis on the role of technology and smart equipment, a factor less explored in previous studies.

Kiani et al. (2022) focused on designing a model for successful school culture, emphasizing the importance of a school's vision and a positive learning environment. Similarly, this study found that school organizational culture and national and international communications significantly influence school effectiveness. However, it also identifies connections with society and industry as key strategies, which were less emphasized in prior studies (Kiani et al., 2022). Shahsavari et al. (2021) validated a model for learning and teaching schools, demonstrating the necessity of prioritizing teaching and learning for educational success. These findings align with this study's emphasis on enhancing teaching and learning quality through diverse teaching methods and school digitalization (Shahsavari et al., 2021). Ghanbari and Majouni (2021) explored the role of ethical leadership and its impact on school effectiveness, highlighting the significance of psychological empowerment and teacher creativity (Ghanbari & Majouni, 2021). Similarly, this study underscores the importance of empowering human resources and teachers, while also emphasizing professional development and fostering a research-oriented culture within schools.

Compared to international research, such as Ugochukwu et al. (2021) on challenges in effective school management in Nigeria, this study particularly emphasizes the direct influence of political factors and teachers' welfare (Ugochukwu et al., 2021), reflecting the unique educational context of Iraq. The proposed paradigm model demonstrates that success in schools in the third millennium requires integrating causal conditions such as teacher and manager skills, contextual factors like regulations, and intervening conditions such as parental participation. Additionally, strategies such as school digitalization and innovative teaching methods are essential to achieving educational objectives.

The outcomes of school effectiveness include professional development for teachers and managers, improved learning quality, and empowered, creative students, all of which align with findings from previous domestic and international studies. These findings suggest that policymakers and educational planners in Iraq should develop initiatives aligned with this model to enhance school

quality, with particular emphasis on strengthening technological and communication skills among teachers and managers. Pekkolay (2021) also emphasized the role of effective managers in improving school environments and their impact on student progress (Pekkolay, 2021). While this study shares this focus, it also stresses the importance of integrating modern technologies and innovative teaching methods, an aspect often overlooked in international studies. Chin et al. (2015) explored the relationship between school budgeting and effectiveness in Taiwan, showing that innovative management can directly impact school performance (Chin & Chuang, 2015). This study complements such findings by emphasizing not only budgeting but also the optimal use of human and social resources, providing richer insights for educational planners to design better strategies for school improvement. Additionally, Gray (2016) highlighted the role of collective trust and effectiveness in enhancing school performance (Gray, 2016), findings that align with this study's emphasis on fostering collaboration and trust between teachers and managers as a way to improve overall school performance. Alammar (2015) identified challenges in Saudi Arabian schools, including a lack of effective leadership and suitable environments (Alammar, 2015). Similarly, this study highlights similar challenges in Iraqi schools, recommending ethical leadership and teacher empowerment as critical factors in improving school conditions.

This study demonstrates that school effectiveness in the third millennium depends on multifaceted factors, including improving teachers' financial and social conditions, creating safe and healthy environments, and adopting innovative educational strategies. These results are particularly relevant for developing countries like Iraq, which face cultural, social, and economic challenges, suggesting that comprehensive interventions and macro-level policymaking are crucial for improving educational quality and achieving effective schools.

This study encountered several limitations. One major constraint was the lack of similar research conducted in Iraq, making it challenging to compare findings or validate results against existing studies. The unique social and cultural context of Iraq might limit the generalizability of the findings to other regions or countries with different cultural and social backgrounds. Additionally, the absence of longitudinal data restricted the ability to assess the long-term impacts of proposed strategies. These limitations highlight the need for more comprehensive research to address these gaps.

Future studies should focus on conducting comparative research across diverse cultural and social contexts to explore the applicability of these findings in other regions. Additionally, longitudinal studies are recommended to evaluate the long-term effects of interventions aimed at improving school effectiveness. Researchers could also delve deeper into specific areas, such as the role of modern technology in teaching and learning, or the impact of teacher and manager professional development on educational outcomes. Expanding the scope to include perspectives from various stakeholders, including students, parents, and policymakers, would provide a more holistic understanding of school effectiveness.

Policymakers and educational administrators in Iraq can use these findings to inform actionable strategies for enhancing school effectiveness. Implementing initiatives such as increasing teacher salaries and benefits, improving physical and managerial conditions, and fostering parent-teacher collaboration can directly impact educational quality. Additionally, integrating modern educational technologies and offering regular professional development workshops for teachers and school managers will help align the educational system with contemporary demands. Tailoring programs to account for Iraq's unique cultural and social needs is crucial for creating sustainable improvements in the country's educational framework.

Authors' Contributions

All authors significantly contributed to this study.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. Each participant received an informed consent form to understand the study's objectives.

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