



## Research Paper

# Designing and Validating an Intra-Organizational Social Capital Model for Education Employees in Ardabil Province: A Comparative Study of Line and Staff Units Using a Mixed-Methods Approach



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Social Capital, Structural Capital, Relational Capital, Cognitive Capital, Mixed-Methods Analysis, Model Validation

### Abstract

Rapid transformations in educational systems and the necessity of enhancing organizational efficiency have underscored the importance of examining intra-organizational social capital in education. This study aimed to design and validate a social capital model for line and staff employees of the Education Organization in Ardabil Province using an exploratory mixed-methods approach (qualitative–quantitative). In the qualitative phase, data were collected through 18 semi-structured interviews and analyzed using thematic network analysis (MAXQDA), resulting in the identification of three main dimensions (structural, relational, and cognitive) and their core components among line and staff employees. In the quantitative phase, the statistical population consisted of employees of the Education Organization offices in Ardabil Province, and the data were analyzed using confirmatory factor analysis (CFA) through the AMOS software. The results of model validation indicated desirable validity and reliability of the research structure; specifically, composite reliability indices ( $CR > 0.70$ ), convergent validity ( $AVE > 0.50$ ), and statistical significance levels ( $p < 0.001$ ) were confirmed. The results of the second-order factor analysis revealed that all structural paths in the model possessed the required validity, except for the component of innovation in educational management among staff employees ( $t\text{-value} = 1.639$ ), which was not statistically significant at the 0.05 level. Comparative and managerial findings: The analysis of social capital levels (based on the optimal threshold of 4) indicated that the overall organizational social capital was at an acceptable level; however, substantial differences were observed among its components. Components such as “evaluation processes” (4.05), “intra-school collaboration” (4.05), “communication with educational experts” (4.99), and “effective communication skills” (4.99) were found to be at a desirable level. Conversely, the components of “interaction with the local community” (3.00), “planning and budgeting processes” (3.01), “interdepartmental collaboration” (3.07), and “trust-building and transparency” (3.01) were identified as areas requiring immediate improvement. Accordingly, it is recommended that, to enhance social capital, the Education Organization should focus on developing an inclusive organizational culture, strengthening network-based interactions, revising evaluation systems, and creating supportive conditions for employees’ innovative ideas. This model can serve as an operational framework for human resource policies and improving educational performance within the managerial system of Ardabil Province.

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## Introduction

In modern organizational environments characterized by complexity, turbulence, and rapid changes, the need for flexible, entrepreneurial, responsible, innovative, and participative human resources is increasingly evident. Under such conditions, organizational structures and management styles should be designed in a way that enables human resources to actively participate in decision-making processes, implementation, and the achievement of organizational goals. The formation of self-managed teams and the delegation of authority to employees make organizations more dynamic and developmental while providing a foundation for the formation of trust and effective participation (*Jafari Majd & Zarei Matin, 2022*). In this context, social capital plays a critical role in achieving organizational objectives. Despite the growing application of this concept, there is still no single and universally accepted definition of social capital, as it takes different forms across diverse cultural and social contexts, making its operationalization a complex issue (*Rahdar & Mobser-Azad, 2019*). The significance of organizational social capital lies in its emphasis on cohesion and interaction among members, which contributes to the development of a shared vision, strengthening of organizational identity, and collective orientation toward organizational goals. Such capital provides the foundation for organizational cohesion, the mobilization of resources, and the effective utilization of organizational knowledge resources (*Pillai et al., 2017*).

According to *Nahapiet and Ghoshal (1998)*, organizational social capital refers to the set of actual and potential resources embedded within and derived from the network of relationships among individuals and social units. This concept reflects patterns of communication, levels of mutual trust, perceived obligations, and shared cultural beliefs among organizational members. In fact, social capital represents the quality and quantity of human relationships within an organization and plays a decisive role in strengthening empathy, collaboration, and organizational performance (*Abedini & Barat Dastjerdi, 2016*). In today's business world, the greatest value of organizations is increasingly based on intangible assets, and the ability to identify and utilize these resources is considered a key factor for survival and success in competitive markets. A review of scholars' perspectives reveals that the key to organizational excellence lies in creating, maintaining, and sustaining social capital. This concept, which was initially introduced in the political and social domains during the mid-nineteenth century, has gained a prominent position in recent decades within the humanities, particularly in management and organizational studies (*Stan et al., 2024*). Sociologists argue that social development is not solely based on material, human, or cultural capital; rather, social capital is a fundamental factor in achieving sustainable and comprehensive development (*Moazen Jamshidi & haghparast kenarsari, 2018*).

Social capital is considered a form of mutual understanding among individuals and groups that emerges within the context of

social relationships (*Chen & Li, 2024*). From Chu's perspective, social capital refers to a set of actual or potential resources derived from durable networks of relationships and mutual recognition (*Chu et al., 2020*). Baskaran also defines social capital as consisting of elements such as trust, norms, and social networks, which enhance social efficiency by facilitating coordinated cooperation (*Baskaran, 2018*). More broadly, social capital refers to the quality of relationships, the level of trust, mutual commitment, and the sense of belonging among individuals, and it is regarded as one of the fundamental cultural pillars of modern societies. In the organizational context, *Nahapiet and Ghoshal (1998)* define social capital as a set of actual and potential resources embedded in networks of relationships among individuals, which can contribute to knowledge creation and sharing and generate a sustainable competitive advantage for organizations. As *Dato-on et al. (2018)* has also noted, attention to this concept in organizations is a relatively recent phenomenon; however, research indicates that organizational social capital supports individuals' tacit knowledge and facilitates effective information exchange (*Jafari Majd & Zarei Matin, 2022*). Accordingly, trust-based communication plays a fundamental role in expanding and utilizing organizational knowledge, as effective interactions among employees contribute to improving knowledge management and enhancing organizational efficiency (*Mohtaram et al., 2022*).

On the other hand, within organizational structures, the distinction between line and

staff personnel has always been one of the important issues in the management of large organizations. Although the boundary between these two groups cannot be clearly defined, line activities are directly involved in achieving organizational goals, whereas staff units are responsible for providing support and guidance. If communication between these two units is disrupted, organizational efficiency decreases and the achievement of objectives becomes challenging (*Seyedjavadin et al., 2021*).

In the Iranian education system, which has been recognized in the 1404 Vision as one of the key pillars for achieving the country's cultural and scientific development, the gap between line and staff units has become one of the fundamental barriers to organizational efficiency. Teachers, school principals, and other line personnel bear the primary responsibility for accomplishing educational goals; however, they sometimes do not receive sufficient support from staff units. Such a gap not only weakens morale and reduces productivity but also hinders the formation of communication networks based on trust and mutual cooperation. This is despite the fact that education serves as a platform for developing scientific, cultural, and professional social networks and can provide the foundation for establishing influential social institutions (*Dinga, 2014*).

Analyzing the status of social capital in organizations, including the education system, is an undeniable necessity, as this type of capital plays a more fundamental role than physical and human capital in achieving development goals, and in its absence, other

forms of capital lose their effectiveness. Therefore, reducing the gap between line and staff personnel is possible only when organizational social capital is strengthened and trust, communication, and effective cooperation are established among the various components of the system (*Jafari Majd & Zarei Matin, 2022*).

Accordingly, the main question that this study seeks to answer is: What is the level of intra-organizational social capital among line and staff employees in the Education Organization of Ardabil Province, and what variables are associated with it?

The education system is considered one of the fundamental subsystems of modern societies and, as the most prominent manifestation of investment in human resources, plays a crucial role in the development of human capital and the advancement of societies. Accordingly, many scholars have regarded specialized human resources as the greatest asset and the true capital of any nation, and education should be viewed as a national investment and a valuable reservoir embedded within human potential (*Malekinia et al., 2018*).

Through fostering talents and providing the conditions necessary for the application of emerging technologies, this institution contributes to cultural and political independence while preventing dependency and stagnation. Therefore, the functions of education are of greater significance compared with other social institutions, and its role in transmitting cultural heritage, promoting social cohesion, and cultivating

specialized human resources is undeniable (*Alaghband et al., 2019*).

Governments have attempted to improve the quality of their educational systems in recent decades; however, recent studies indicate that any educational reform and advancement depends on the effectiveness of line and staff personnel and the quality of interaction and communication between them (*Zaria & Tuyon, 2024*). Therefore, the dynamism of the educational system and the achievement of its developmental goals are contingent upon coordination, trust, and constructive cooperation between these two groups.

From a theoretical perspective, the concept of capital has undergone extensive developments in recent decades, leading to the emergence of concepts such as cultural capital and social capital in the fields of social sciences and education. Sustainable development requires the coordinated utilization of various forms of capital; however, among them, social capital has been recognized as the missing link in cultural and equity-oriented development, as it connects economic and human components and enhances the effectiveness of other forms of capital (*Birasnav et al., 2023*). Organizational social capital, particularly in educational environments, strengthens cohesion and mutual trust and, through effective interactions and communication, contributes to teamwork, knowledge sharing, and organizational stability. This type of capital reduces turnover rates, increases organizational commitment, and facilitates

the development of a culture of trust and mutual support within organizations.

Enhancing social capital within the education system can contribute to the dynamism of society as a whole and strengthen scientific, cultural, and economic development in the long term. However, based on existing studies, approximately 39% of Iranian citizens have a low level of social capital, 30% have a moderate level, and only 29% possess a high level of social capital. Moreover, Iran ranked 120th among 162 countries in terms of the social capital index during the period from 2009 to 2013 (*Abedini & Barat Dastjerdi, 2016*). These statistics indicate that educational organizations, as the primary centers for human resource development and the socialization of future generations, require coherent and systematic planning to enhance social capital (*Jafari Majd & Zarei Matin, 2022*).

A review of previous studies indicates that despite the significant importance of social capital in preventing the loss of organizational knowledge, reducing costs, maintaining competitive advantage, and achieving organizational goals, few studies have examined intra-organizational social capital among line and staff personnel in the education system. The gap between these two groups, in which line personnel are at the forefront of implementing educational missions while staff units play a supportive role, can lead to weakened organizational trust and the breakdown of effective communication networks in the absence of constructive interaction. Therefore, identifying and analyzing the level of intra-

organizational social capital in the education system is considered an essential necessity for knowledge management, performance improvement, and strengthening organizational synergy.

Consequently, the present study was conducted with the aim of examining the level of intra-organizational social capital among line and staff employees in the Education Organization of Ardabil Province and identifying the variables associated with it. The findings of this research are expected to provide a foundation for improving organizational relationships and enhancing the efficiency of this strategic institution.

### **- Theoretical and Empirical Background of the Study**

Social capital is a concept that refers to social relationships, networks, and interactions that can provide individuals and communities with economic, cultural, and social resources and benefits. In the field of education, social capital plays a crucial role, as it not only enhances the quality of learning but also improves students' abilities in cooperation, problem-solving, and social interactions.

Research has shown that students who grow up in environments with high levels of social capital are more likely to achieve academic success and engage in positive social interactions (*Siiisäinen, 2003*). Social capital can emerge through various forms, including parent-school networks, student groups, teacher collaboration, and local community participation. The presence of trust, solidarity norms, and cooperation

within these networks contributes to improving academic performance and developing students' social skills.

Theoretical perspectives on social capital vary. *Siisiäinen (2003)* considers social capital as consisting of social networks and norms of trust and solidarity that enhance civic participation and institutional efficiency. From Putnam's perspective, social capital not only provides tangible resources but also creates a trustworthy and interactive environment for individual and collective development.

*Bourdieu (1986)* defines social capital as the resources available to individuals through social networks, which can be transformed into social power and advantages. This perspective emphasizes that social relationships and networks can indirectly contribute to improving individuals' social positions and increasing access to better educational opportunities. In the school environment, this concept can be manifested through collaboration among teachers, interactions between students and educators, and student networks.

*Nahapiet and Ghoshal (1998)* define social capital as a set of resources associated with an individual's social networks that provide access to information, social support, and learning opportunities. From this perspective, social capital is regarded as a strategic tool for enhancing individual opportunities within educational environments.

In schools, social capital can develop in various ways. Establishing study groups, group projects, scientific clubs, and

collaborative activities strengthens opportunities for interaction and trust among students. Furthermore, parental and local community involvement in school activities can contribute to the development of social capital at the school level and create an interactive and supportive learning environment.

Research has demonstrated that social capital not only has a positive effect on academic performance but also contributes to the development of social skills, conflict resolution abilities, trust-building, and students' active participation. Schools can strengthen students' social capital through various strategies, including fostering a culture of cooperation and trust, encouraging participation in group activities, and developing supportive networks.

Social capital is also effective in reducing educational inequalities. Students who benefit from strong social networks have greater access to educational resources, information, and learning opportunities. Therefore, strengthening social capital can contribute to promoting educational equity and providing equal opportunities for all students.

Moreover, social capital can facilitate teachers' professional development. Collaborative networks among teachers, peer-support groups, and joint meetings can promote the exchange of experiences and enhance professional skills. Thus, social capital is important not only for students but also for the entire educational community and plays an influential role in improving the quality of education (Table 1).

Table 1. An Integration of Scholars’ Perspectives and Types of Capital

| Scholar                            | Definition of Social Capital                                                               | Related Type of Capital           | Application in Education                                                                                                                        |
|------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Siisiäinen (2003)</i>           | Networks, trust, and norms of solidarity                                                   | Social, Cultural                  | Enhancing civic participation, student collaboration, and improving learning quality                                                            |
| <i>Bourdieu (1986)</i>             | Resources accessible through social networks                                               | Social, Human                     | Access to educational opportunities and resources, and improvement of individual status                                                         |
| <i>Nahapiet and Ghoshal (1998)</i> | Resources associated with individuals’ social networks                                     | Social, Human                     | Social support, strengthening teacher–student interactions, and access to information                                                           |
| Integrated Perspective             | Network-based interactions and relationships accompanied by norms of trust and cooperation | Social, Human, Cultural, Physical | Improving academic performance, developing communication skills, creating equal opportunities, and promoting teachers’ professional development |

Various studies have demonstrated that social capital can influence employee participation, job satisfaction, organizational performance, and innovation, and it is considered an important mechanism for enhancing the quality of education and university work environments (Table 2).

- Research Background

Social capital has been recognized as one of the key factors contributing to the improvement of organizational performance and the development of human resources in educational and academic environments.

Table 2. Research Background on Social Capital in Organizations and Education

| Researcher(s) and Year                    | Research Title                                                                             | Research Type        | Components / Indicators                                                                                                                                                          | Key Findings                                                                                                                                                     |
|-------------------------------------------|--------------------------------------------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Jafari Majd and Zarei Matin (2022)</i> | Designing an Organizational Social Capital Model in Education                              | Qualitative, Applied | Cultural, recreational, and scientific activities; networking; knowledge cycle; contextual conditions including employees’ problems, organizational climate, and employee groups | Development of structural, managerial, individual, and organizational dimensions; interaction, knowledge management, facilities, and resources play active roles |
| <i>Mohtaram et al. (2022)</i>             | Structural Modeling of University Social Capital and Employees’ Willingness to Participate | Quantitative         | Social capital, cognitive readiness, willingness to participate                                                                                                                  | Social capital and readiness for change predict willingness to participate; readiness for change plays a mediating role                                          |
| <i>Banaei et al. (2019)</i>               | Meta-analysis of Antecedents and Consequences of Social Capital in Organizations           | Meta-analysis        | Knowledge management, talent management, organizational performance                                                                                                              | Social capital has positive effects on organizational health, participation, success, job satisfaction, and team effectiveness                                   |
| <i>Obiora and Uche (2024)</i>             | Inter-organizational Social Capital and Product Innovation                                 | Quantitative         | Trust, strong ties, knowledge absorption capacity                                                                                                                                | Developing trust-based relationships contributes to product innovation                                                                                           |

|                               |                                                                       |              |                                                                  |                                                                                                                                 |
|-------------------------------|-----------------------------------------------------------------------|--------------|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <i>Sözbilir (2018)</i>        | Interaction Between Social Capital, Creativity, and Efficiency        | Quantitative | Networks, group membership, utilization of benefits              | Social capital resources are based on networks and group membership; individual utilization of benefits has significant effects |
| <i>Tasdemir et al. (2017)</i> | A Study of the Concept of Social Capital                              | Analytical   | Collective activities, voluntary cooperation                     | Social capital strengthens collective activities and voluntary cooperation                                                      |
| <i>Jofré et al. (2015)</i>    | Creating Organizational Social Capital                                | Analytical   | Training, development, socialization, individual characteristics | Individual characteristics and human resource management practices facilitate the development of social capital                 |
| <i>Chuang et al. (2013)</i>   | The Relationship Between Human Resource Management and Social Capital | Quantitative | Human resource management, social capital                        | A positive relationship exists between human resource management practices and organizational social capital                    |

Research Method

One of the characteristics of scientific research aimed at discovering truth is the use of an appropriate research method. Selecting a research method that is consistent with the research objectives, the nature of the subject matter, and available implementation facilities is of great importance. Based on the purpose, research methods are classified into three categories: fundamental, applied, and research and development studies. In terms of data collection methods, they are categorized into two main types: experimental and descriptive (non-experimental) research (*Sarmad et al., 2001*).

Considering the purpose of the present study, which is to examine intra-organizational social capital among line and staff employees of the Education Organization of Ardabil Province and its related variables, this research is categorized as an applied study, as its findings can be

utilized to improve the practical assessment and enhancement of social capital.

Furthermore, in terms of data collection procedures, the present study is considered an exploratory mixed-methods research design, conducted in two complementary phases:

- 1- Quantitative phase: Measuring the dimensions and indicators of social capital and testing the conceptual and causal model of the research.
- 2- Qualitative phase: Conducting thematic analysis and thematic network analysis to discover and gain a deeper understanding of unknown variables and concepts.

Exploratory mixed-methods research is based on the assumption that existing measurement instruments or theoretical frameworks may be insufficient or unavailable; therefore, the phenomenon requires discovery and in-depth understanding (*Stentz et al., 2012*).

Statistical Population and Sample

Qualitative population: The qualitative population consisted of teachers, principals, deputy principals, and administrative staff of schools and education offices in Ardabil Province. Interviews were conducted with these three groups to gain a deeper understanding of social capital.

Quantitative population: The quantitative population included all employees of the Education Organization offices in Ardabil Province, who were selected through stratified random sampling using Cochran’s formula.

Qualitative sampling: Qualitative sampling was conducted using purposive and theoretical sampling methods. This type of sampling involves selecting participants who possess sufficient experience and knowledge regarding the phenomenon under study. Furthermore, the maximum variation sampling strategy was employed to incorporate diverse perspectives and ensure

consideration of differences in participants’ viewpoints.

- Data Collection Methods

Qualitative method: Data were collected through semi-structured interviews, which included participants’ direct statements, documents, observations, and visual materials (Stentz et al., 2012).

Quantitative method: Data were collected using the 13-item Organizational Social Capital Questionnaire developed by Nahapiet and Ghoshal (1998). The questionnaire consists of three dimensions: cognitive (3 items), structural (3 items), and relational (7 items), and responses are measured on a five-point Likert scale.

- Data Analysis Methods

Qualitative data analysis: Qualitative data were analyzed using MAXQDA 2020 software and the thematic network analysis method (Clark & Brown, 2006). This method consists of the following stages (Table 3):

Table 3. Step-by-Step Process of Thematic Analysis and Thematic Network Analysis

| Stage                                | Action                                                                                                                                       | Step   |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Familiarization with the text        | Transcribing data, repeated reading of the texts, and writing initial ideas                                                                  | Step 1 |
| Text segmentation                    | Developing a coding framework, dividing the text into smaller units, and coding relevant features                                            | Step 2 |
| Generating initial codes             | Matching codes with potential themes, extracting and refining themes                                                                         | Step 3 |
| Searching for and identifying themes | Examining the consistency of themes with codes, organizing and selecting basic, organizing, and global themes, and developing a thematic map | Step 4 |
| Constructing the thematic network    | Analyzing the thematic network, defining and naming themes, and explaining the network                                                       | Step 5 |
| Describing and interpreting the text | Preparing the report, summarizing the thematic network, presenting examples, and relating findings to research questions                     | Step 6 |
| Integrating the text                 | Synthesizing and combining the findings into a coherent interpretation                                                                       | Step 7 |

### - Quantitative Data Analysis

Quantitative data analysis consisted of two main sections:

1- Descriptive statistics: This section included frequency distribution tables and bar charts for demographic and general data.

2- Inferential statistics: This section involved the use of the one-sample t-test, confirmatory factor analysis (CFA), and hypothesis testing using SPSS version 26 and AMOS version 24 software.

### Findings

In this study, the data obtained from interviews with line employees (teachers, instructors, and school principals) and staff employees (general managers, administrative heads, planners, and educational experts) were examined using thematic analysis. The findings indicate that organizational social capital, across three main dimensions structural capital, relational capital, and cognitive capital plays a significant role in enhancing educational quality and improving employee performance. Structural capital includes organizational systems, processes, resources, and structures that facilitate access to information, effective planning, and professionalization. Among line employees, this type of capital primarily focuses on educational systems, educational technology, evaluation processes, human resources, school organizational culture, and welfare programs. Staff employees, on the other hand, emphasize information and management

systems, planning and budgeting processes, monitoring and evaluation, flexible organizational structures, and decentralization. Relational capital refers to the quality and depth of interactions among employees and with internal and external stakeholders. Line employees enhance their social capital through effective interactions with parents, intra-school collaboration, communication with educational experts and the local community, and participation in professional networks. Among staff employees, relational capital develops through open and honest communication, strong communication channels, participation in cross-functional projects, and fair behavior in resource allocation. Cognitive capital refers to employees' knowledge, skills, and abilities in performing professional tasks. Line employees strengthen their learning and teaching capacities through specialized knowledge, critical thinking and problem-solving skills, educational innovation, and continuous learning. Staff employees, likewise, contribute to guiding and improving the educational system through systemic knowledge, planning and strategy development skills, innovation in educational management, and leadership and change management competencies. These findings demonstrate that the integration of structural, relational, and cognitive capital at both line and staff levels can lead to improved educational quality, increased job satisfaction, and enhanced overall organizational performance (Table 4).

Table 4. Integration of Findings on the Three Dimensions of Organizational Capital among Line and Staff Employees

| Capital Dimension  | Line Employees                                                                                                                                                                                                         | Staff Employees                                                                                                                                                                                                                         |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Structural Capital | Educational systems and curriculum; educational technology; continuous evaluation; access to resources; school organizational structures; school culture; health and welfare programs                                  | Information and management systems (PADA, Hamgam, human resources systems); planning and budgeting; monitoring and evaluation; clear job descriptions; flexible organizational structure; decentralization and reduction of bureaucracy |
| Relational Capital | Interaction with parents (based on respect and trust); intra-school collaboration; communication with educational experts; interaction with the local community; professional and social networks                      | Open and honest communication; strengthening communication skills; two-way communication channels; participation in cross-functional projects; fair behavior in resource allocation; sense of belonging and mutual trust                |
| Cognitive Capital  | Specialized knowledge in academic subjects; awareness of modern teaching methods; critical thinking and problem-solving skills; creativity and educational innovation; professional experience and continuous learning | Systemic knowledge and understanding of the education structure; planning and strategy development skills; innovation in educational management; leadership and change management skills; exchange of experiences with other provinces  |

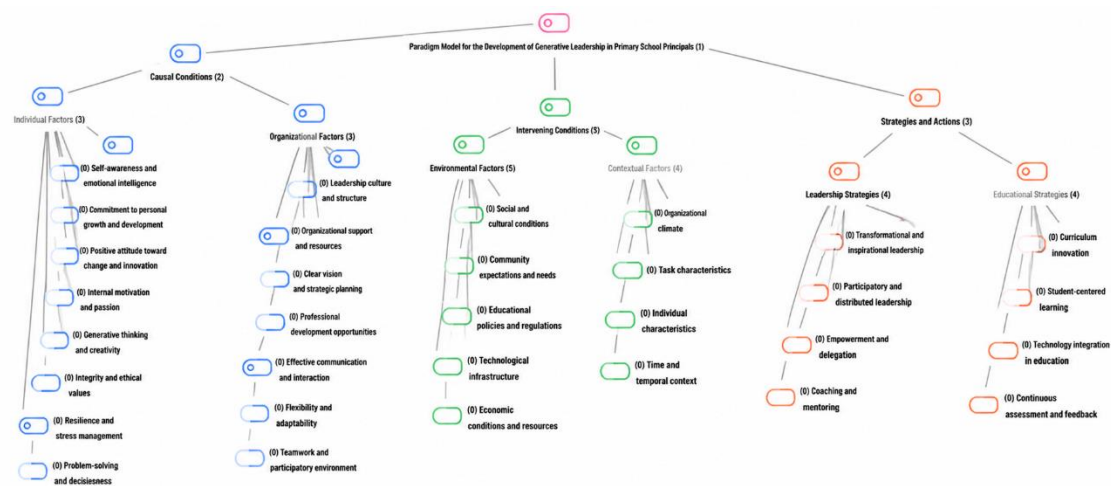


Figure 1. The Social Capital Model of Line and Staff Employees in the Ministry of Education (Output Generated by MAXQDA Software)

- Assessment of Construct Validity and Factor Loadings

In this section, first-order confirmatory factor analysis (CFA) was performed to examine the structure of the questionnaire and identify the underlying factors associated with each construct. In confirmatory factor analysis, factor loadings greater than 0.40 are

generally considered indicative of acceptable construct validity. Items with factor loadings below this threshold were removed if their deletion improved the Average Variance Extracted (AVE), thereby enhancing convergent validity. Based on the results, the following items had factor loadings below 0.40, and their removal resulted in an increase in the AVE values (Table 5):

- Structural capital (line employees): Items 17, 32, and 36
- Structural capital (staff employees): Item 42
- Relational capital (line and staff employees): Items 19, 20, 32, and 39
- Cognitive capital (line and staff employees): Items 5, 17, and 23

Table 5. Assessment of Construct Validity of the Organizational Social Capital Measurement Items

| Variable                             | Item | Factor Loading | t-value | Significance Level (p-value) |
|--------------------------------------|------|----------------|---------|------------------------------|
| Structural Capital (Line Employees)  | Q1   | 0.669          | 5.023   | 0.000                        |
|                                      | Q2   | 0.505          | 2.670   | 0.010                        |
|                                      | Q3   | 0.727          | 6.993   | 0.000                        |
|                                      | Q17  | 0.074          | 0.495   | 0.620                        |
| Structural Capital (Staff Employees) | Q42  | 0.224          | 0.945   | 0.360                        |
| Relational Capital (Line Employees)  | Q19  | 0.279          | 1.848   | 0.215                        |
| Cognitive Capital (Line Employees)   | Q5   | 0.583          | 4.166   | 0.000                        |

- Reliability and Convergent Validity

In this section, Cronbach’s alpha, Composite Reliability (CR), and Average Variance Extracted (AVE) were used to evaluate the reliability and validity of the measurement model.

- Cronbach’s alpha: The Cronbach’s alpha coefficients for all constructs were greater than 0.70, indicating acceptable internal consistency reliability (Table 6).
- Composite reliability (CR): The CR values for all constructs were above 0.70, demonstrating satisfactory composite reliability.
- Convergent validity (AVE): The AVE values for all constructs were greater than 0.50, indicating adequate convergent validity.
- Rao’s coefficient: All constructs obtained values higher than 0.70, reflecting desirable reliability and measurement consistency.

Table 6. Assessment of the Reliability and Validity of the Model

| Variable                              | Cronbach’s Alpha (CA) | Composite Reliability (CR) | Average Variance Extracted (AVE) |
|---------------------------------------|-----------------------|----------------------------|----------------------------------|
| Structural Capital of Line Employees  | 0.748                 | 0.790                      | 0.523                            |
| Structural Capital of Staff Employees | 0.792                 | 0.798                      | 0.665                            |
| Relational Capital of Line Employees  | 0.825                 | 0.842                      | 0.546                            |
| Relational Capital of Staff Employees | 0.726                 | 0.861                      | 0.523                            |
| Cognitive Capital of Line Employees   | 0.814                 | 0.771                      | 0.556                            |
| Cognitive Capital of Staff Employees  | 0.772                 | 0.745                      | 0.514                            |

- Second-Order Confirmatory Factor Analysis

The results of the second-order confirmatory factor analysis (CFA) indicated that all structural paths within the model had the required validity, except for the component of innovation in educational

management, whose t-statistic was not statistically significant at the 0.05 significance level.

This analysis demonstrates that all components of the model, with the exception of educational management innovation, were confirmed and supported (Table 7).

Table 7. Results of Second-Order Confirmatory Factor Analysis

| Main Themes                           | Sub-Themes                            | Path Coefficients | t-value | Significance Level (p-value) |
|---------------------------------------|---------------------------------------|-------------------|---------|------------------------------|
| Structural Capital of Line Employees  | Educational systems and curriculum    | 0.540             | 8.259   | 0.000                        |
|                                       | Access to resources                   | 0.702             | 14.578  | 0.000                        |
| Structural Capital of Staff Employees | Information and management systems    | 0.482             | 7.430   | 0.000                        |
| Relational Capital of Line Employees  | Interaction with parents              | 0.764             | 11.991  | 0.000                        |
| Relational Capital of Staff Employees | Effective communication skills        | 0.726             | 11.567  | 0.000                        |
| Cognitive Capital of Line Employees   | Educational creativity and innovation | 0.909             | 51.522  | 0.000                        |
| Cognitive Capital of Staff Employees  | Innovation in educational management  | 0.331             | 1.639   | 0.105                        |

Determining the Level of Structural, Relational, and Cognitive Social Capital among Line and Staff Employees of the Ministry of Education

To determine the level of social capital among line and staff employees, an independent-samples t-test was used. The desirable level of social capital was considered to be 4. According to the results presented in Table 8, the components of social

capital across the structural, relational, and cognitive dimensions generally had values lower than 4, except for the components of evaluation processes, effective interaction with parents, intra-school collaboration, communication with educational experts, effective communication skills, strong communication channels, and specialized knowledge, which obtained values higher than 4 and were identified as desirable from the perspective of employees.

Table 8. Determining the Level of Structural, Relational, and Cognitive Social Capital among Line and Staff Employees of the Ministry of Education

| Variables                            | Mean   | Standard Deviation | t-value | Significance Level (p-value) |
|--------------------------------------|--------|--------------------|---------|------------------------------|
| Structural Capital of Line Employees |        |                    |         |                              |
| Educational systems and curriculum   | 3.9000 | 0.62765            | 62.137  | 0.000                        |
| Educational technology systems       | 3.9100 | 0.62109            | 62.953  | 0.000                        |
| Evaluation processes                 | 4.0500 | 0.68718            | 58.936  | 0.000                        |

|                                                 |        |         |        |       |
|-------------------------------------------------|--------|---------|--------|-------|
| Access to resources/benefits                    | 3.9700 | 0.64283 | 61.758 | 0.000 |
| School organizational structure                 | 3.9400 | 0.63277 | 62.265 | 0.000 |
| Professionalization processes                   | 3.9100 | 0.62109 | 62.953 | 0.000 |
| School culture                                  | 3.9700 | 0.64283 | 61.758 | 0.000 |
| Digital platforms and reporting systems         | 3.8100 | 0.64659 | 58.924 | 0.000 |
| Employee health and welfare programs            | 3.9100 | 0.69769 | 56.042 | 0.000 |
| Structural Capital of Staff Employees           |        |         |        |       |
| Information and management systems              | 3.9900 | 0.61126 | 65.275 | 0.000 |
| Planning and budgeting processes                | 3.0100 | 0.65897 | 60.852 | 0.000 |
| Monitoring and evaluation systems               | 3.9800 | 0.66636 | 59.727 | 0.000 |
| Precise job descriptions of staff employees     | 3.0400 | 0.66545 | 60.710 | 0.000 |
| Flexible organizational structure               | 3.0500 | 0.64157 | 63.126 | 0.000 |
| Relational Capital of Line Employees            |        |         |        |       |
| Effective interaction with parents              | 4.0000 | 0.66667 | 60.000 | 0.000 |
| Intra-school collaboration                      | 4.0500 | 0.65713 | 61.632 | 0.000 |
| Communication with educational experts          | 4.9900 | 0.65897 | 60.549 | 0.000 |
| Interaction with the local community            | 3.0000 | 0.66667 | 60.000 | 0.000 |
| Network interactions                            | 4.9700 | 0.70288 | 56.482 | 0.000 |
| Relational Capital of Staff Employees           |        |         |        |       |
| Effective communication skills                  | 4.9900 | 0.62757 | 63.579 | 0.000 |
| Strong communication channels                   | 4.9800 | 0.65103 | 61.134 | 0.000 |
| Interdepartmental collaboration                 | 3.0700 | 0.67052 | 60.699 | 0.000 |
| Trust-building and transparency                 | 3.0100 | 0.71767 | 55.875 | 0.000 |
| Cognitive Capital of Line Employees             |        |         |        |       |
| Specialized knowledge                           | 4.0300 | 0.67353 | 59.834 | 0.000 |
| Cognitive Capital of Staff Employees            |        |         |        |       |
| Critical thinking and problem-solving skills    | 3.9900 | 0.67412 | 59.188 | 0.000 |
| Educational creativity and innovation           | 3.0000 | 0.63564 | 62.929 | 0.000 |
| Professional experience and continuous learning | 3.9200 | 0.63054 | 62.169 | 0.000 |
| Systemic knowledge of the education structure   | 3.8900 | 0.63397 | 61.359 | 0.000 |
| Planning and strategy development skills        | 3.9200 | 0.61431 | 63.812 | 0.000 |
| Leadership and change management skills         | 3.9100 | 0.61783 | 62.962 | 0.000 |

Discussion

Structural capital is a vital asset for the Ministry of Education, especially for its line employees. By investing in and optimizing structural capital, the Ministry of Education can increase the effectiveness and efficiency of its workforce and lead to improved educational outcomes. Regarding the line employees of the Ministry of Education in Ardabil Province, structural capital included: 1) educational systems and curriculum; 2) educational technology systems; 3)

evaluation processes; 4) access to resources/benefits; 5) school organizational structure; 6) professionalization processes; 7) school organizational culture; 8) digital platforms and reporting systems; and 9) employee health and welfare programs.

In the studies by *Ali et al. (2024)*, consistent with the findings of the present study, the importance of structural capital for employees of the Ministry of Education has been emphasized. They referred to the tools and resources required for employees to

perform their duties effectively. In their view, well-designed structural capital increases the efficiency and effectiveness of frontline employees by providing the necessary tools and resources for the effective performance of their tasks. Moreover, researchers believe that structural capital facilitates the transfer of knowledge and best practices within the ministry and ensures that valuable insights are shared and utilized across different teams and locations (*Boikanyo, 2025*). *Baydar and Çetin (2021)* emphasized the school organizational structure in their study. According to them, a clear organizational structure, such as a well-defined hierarchy, clarifies roles and responsibilities for all employees, including teachers, administrators, and support staff. This reduces ambiguity and allows employees to focus on their primary tasks without confusion or overlapping responsibilities. A well-structured school environment can support professional development opportunities for employees. Clear roles and responsibilities can help identify areas where employees may require additional training or support, leading to a more skilled and effective workforce.

In addition, *Obiora and Uche (2024)* emphasized the importance of communication and reporting systems in schools. According to their findings, these systems enable teachers to share students' progress, communicate with parents, and simplify administrative tasks, which ultimately leads to better student outcomes and a more active school community. Many studies have also emphasized school organizational culture as a participatory, safe,

and inclusive environment characterized by respect and trust. Researchers believe that teachers who work in a positive and supportive school culture are more likely to be satisfied with their jobs and perform at a higher level. Furthermore, a strong school culture can serve as a catalyst for school improvement, as it creates a sense of shared purpose and commitment to excellence (*Wuletu et al., 2024*).

Structural capital of the staff employees of the Ministry of Education in Ardabil Province includes a set of important components that contribute to the efficiency and effectiveness of the educational system. These components include: information and management systems, planning and budgeting processes, monitoring and evaluation systems, precise job descriptions of staff employees, and a flexible organizational structure.

Various studies have emphasized the importance of these systems. For example, *Obiora and Uche (2024)* referred to the role of information and management systems, which simplify administrative tasks and facilitate data-driven decision-making. These systems help teachers and administrators evaluate students' progress and identify potential problems. *Shah (2014)* also emphasized informed planning using data collected from these systems.

*Alahmadi and Tabrizi (2019)* emphasized the importance of planning and budgeting for achieving financial stability in schools. Preventive budgeting helps prevent financial problems and creates transparency in the use of resources. Furthermore, monitoring and

evaluating the performance of educational administrators is another component of structural capital that has been emphasized in various studies. This process contributes to clarifying administrators' performance and enhancing their accountability.

Finally, *Abdul Hussein and Salman (2022)* highlighted the importance of a flexible organizational structure, which can improve the efficiency of the educational system by reducing bureaucracy and promoting decentralization. These changes can contribute to improving responsiveness to local needs and enhancing school autonomy. Moreover, decentralization can lead to improved educational quality and students' academic achievement (*Slijepčević & Zuković, 2021*).

Overall, structural capital at the staff level not only contributes to improving managerial and educational performance but also increases transparency, accountability, and the efficiency of the educational system.

Relational capital of the line employees of the Ministry of Education in Ardabil Province includes several fundamental components that contribute to improving educational quality and cooperation among individuals. These components include effective interaction with parents, intra-school collaboration, communication with educational experts, interaction with the local community, and networking interactions. This relational capital contributes to strengthening the school environment and improving students' learning outcomes.

Various studies have also confirmed the importance of these components. For example, research has shown that effective collaboration between school staff and parents creates a supportive and successful learning environment and contributes to students' social and emotional development (*Povey et al., 2016*). Moreover, collaboration among school staff leads to the development of an integrated and coherent approach to supporting students, in such a way that consistent messages and expectations are conveyed to them across different environments (*Paju et al., 2022*).

Furthermore, collaboration with educational counselors and other specialists makes it possible to share best practices and strategies, which in turn leads to improved school performance and enhanced students' learning (*Ebohon, 2024; Slijepčević & Zuković, 2021*). In addition, interaction with the local community can provide valuable resources and support for schools and contribute to creating a richer and more effective learning environment. In this regard, active community participation can help reduce challenges and improve school programs (*Provinzano et al., 2018*).

Moreover, networking interactions among school staff have also been recognized as an important part of relational capital. These networks can contribute to increasing collaboration, knowledge sharing, and problem-solving, and enable employees to adapt more easily to changing situations and improve their performance (*Jóhannsdóttir, 2018; Suárez-Guerrero & Muñoz Moreno, 2017*).

Overall, these components, by strengthening communication and collaboration among school staff, lead to the improvement of the school environment and the enhancement of educational quality.

Relational and cognitive capital, as one of the most important components of social capital in educational organizations, plays a significant role in their efficiency and success. In the Ministry of Education in Ardabil Province, these two types of capital were identified among both line and staff employees and have a substantial impact on educational and administrative performance.

Among the line employees of the Ministry of Education in Ardabil Province, relational capital includes various factors such as effective interaction with parents, intra-school collaboration, communication with educational experts, interaction with the local community, and networking interactions. Various studies have shown that effective communication between school staff and parents can contribute to improving the learning environment and strengthening social support for students (*Povey et al., 2016*). Furthermore, collaboration between school staff and educational counselors enables the sharing of best practices and strategies to support students (*Paju et al., 2022*). Interaction with the local community also helps schools obtain greater resources and support to address challenges (*Provinzano et al., 2018*).

Relational capital of staff employees includes effective communication skills, strong communication channels,

interdepartmental collaboration, and trust-building and transparency. Effective communication skills are essential for creating smooth operations within the Ministry of Education and ensuring the successful implementation of educational policies. In addition, interdepartmental collaborations help reduce communication barriers and facilitate the flow of information within the ministry (*Bordeianu & Lubas, 2013*). Moreover, trust and transparency in educational organizations improve employees' morale and strengthen their efficiency in dealing with challenges (*Kalokora & Lekule, 2019*).

Cognitive capital of line employees particularly includes specialized knowledge, critical thinking skills, creativity and educational innovation, and professional experience. These components enable employees to provide innovative solutions to educational problems and continuously improve their teaching methods.

Cognitive capital of staff employees of the Ministry of Education in Ardabil Province includes systemic knowledge, strategic planning skills, and leadership and change management skills. These skills enable employees to make strategic decisions based on accurate analysis of information and develop solutions for systemic problems in education. Strategic planning and effective leadership are among the key factors in developing and implementing educational policies and initiatives.

## Conclusion

In this study, the role of social capital in improving the performance of employees of the Ministry of Education in Ardabil Province, particularly in the two groups of line and staff employees, was examined. The results showed that social capital, as one of the key factors in organizational success and efficiency, especially in educational systems, has a significant impact on work processes, communications, and the improvement of educational outcomes.

In the line employees' section, relational and cognitive capital were of great importance. Effective interaction with parents, intra-school collaboration, communication with educational experts, interaction with the local community, and networking interactions are all determining factors in creating a supportive and positive environment in schools. Collaboration between employees and parents, as well as effective communication with the community, not only contributes to increasing the satisfaction of students and families but also leads to the enhancement of more effective interactions and collaborations within the school. Cognitive capital of line employees, which includes specialized knowledge, critical thinking skills, creativity, and educational innovation, is particularly effective in creating innovative solutions and strengthening educational effectiveness. These factors help employees identify students' educational needs and continuously improve their teaching methods.

In the staff employees' section, relational capital particularly included effective communication skills, strong communication

channels, interdepartmental collaboration, and trust-building and transparency. These factors directly influence reducing communication barriers, improving information flow, and enhancing the efficiency of the Ministry of Education. Interdepartmental collaborations, in addition to facilitating the flow of information, enable employees to gain a better understanding of each other's responsibilities and undertake more coordinated actions to achieve educational and strategic goals. Furthermore, effective communication skills and the establishment of trust and transparency within the organization facilitate strategic decision-making and enhance employees' morale.

Cognitive capital of staff employees also includes systemic knowledge and understanding of the structure of education, strategic planning skills, and leadership and change management skills. These factors enable employees to make effective decisions for improving educational systems and developing long-term policies. In particular, a deep understanding of the structure of the education system and the ability to conduct strategic planning facilitate the management of changes and variable conditions within the organization.

The results of the analysis showed that social capital in the Ministry of Education in Ardabil Province is at an acceptable level, particularly in the areas of effective communication, intra-school collaboration, and employees' specialized knowledge. However, some components, such as evaluation processes, networking interactions, and leadership skills, require

greater attention and improvement. Enhancing these components can strengthen social capital within the Ministry of Education and consequently improve educational and managerial performance in schools and educational organizations. Overall, a better understanding of these factors and attention to them can help educational organizations achieve a more positive, supportive, and efficient educational environment, which will lead to better outcomes for students and employees.

#### **- Research Recommendations**

- Developing an inclusive school culture in which employees feel accepted and valued, which contributes to the establishment of social trust and positive relationships.
- Implementing programs that promote collaboration and teamwork among all employees, from teachers to administrators.
- Developing systems for employees to share knowledge, skills, and experiences, allowing them to learn from each other and refine their teaching methods.
- Creating mentoring opportunities in which experienced employees can guide and support newer or less experienced employees.
- Organizing and developing gatherings and events that provide more frequent and diverse interactions among employees and strengthen professional and personal relationships.

- Providing the necessary conditions to support employees' new and innovative ideas and appreciating their efforts.

#### **- Suggestions for Future Research**

- The model presented in this study should also be implemented in other educational organizations and other cities, and its results should be compared with the findings of the present study.
- In future research, the effectiveness of each identified component on employees' performance should be quantitatively evaluated.
- Future studies should focus on the components of social capital that were identified as weaker among employees and provide strategies for improving them.

#### **References**

- Abdul Hussein, S. H., & Salman, S. M. (2022). The role of strategic flexibility in achieving organization effectiveness: Analytical research in the Directorates of the Ministry of Education. *Journal of Economics and Administrative Sciences*, 28(133), 21-37. doi:<https://jeasiq.uobaghdad.edu.iq/cgi/viewcontent.cgi?article=4013&context=home>
- Abedini, Y., & Barat Dastjerdi, N. (2016). Predicting Student's Academic Performance from Meta - Cognition and Emotional Intelligence Components. *Research in Cognitive and Behavioral Sciences*, 5(2), 101-110. doi:[https://cbs.ui.ac.ir/article\\_20746.html?lang=fa](https://cbs.ui.ac.ir/article_20746.html?lang=fa)
- Alaghaband, S. H., meri, f., & ranjbar sudejani, y. (2019). Effectiveness of Stress Reduction Group Therapy Based on Knowledge on Emotion Regulation and Cognitive Avoidance Strategies in Patients with

- Obsessive-Compulsive Disorder - Practical. *Clinical Psychology Achievements*, 5(1), 12-22. doi:<https://doi.org/10.22055/jacp.2021.31997.1132>
- Alahmadi, H., & Tabrizi, S. (2019). School Budgeting Planning: Selecting the Most Effective Budget Plan for Ontario's Public Schools. *International Journal of Innovative Business Strategies*, 5(1), 279-248. doi:<https://infonomics-society.org/wp-content/uploads/School-Budgeting-Planning.pdf>
- Ali, Q. B., Zin, M. L. M., & bin Ismail, S. A. (2024). The role of human capital, structural capital, and relational capital in higher education institutions performance. *Journal of Management Info*, 11(2), 185-196. doi:[cbm-2023-1.pdf](https://doi.org/10.22059/jscm.2019.258220.1604)
- Banaei, A., Zareie Matin, H., & Mazinani Shariati, S. (2019). A systematic view to concept of social capital: What is? Why and How? *Social Capital Management*, 6(1), 59-84. doi:<https://doi.org/10.22059/jscm.2019.258220.1604>
- Baskaran, S. (2018). Mediation effect of knowledge management enablers on the relationship between organizational characteristics and entrepreneurial orientation. *Gadjah Mada International Journal of Business*, 20(1), 1-32. doi:<https://search.informit.org/doi/10.3316/informit.568112051697980>
- Baydar, F., & Çetin, M. (2021). The Model of Relationships between Intellectual Capital, Learning Organizations, and Innovation-Oriented Organizational Structures in Educational Organizations. *Eurasian Journal of Educational Research (EJER)*(94), 265. doi:<https://doi.org/10.14689/ejer.2021.94.12>
- Birasnav, M., Gantasala, S. B., Gantasala, V. P., & Singh, A. (2023). Total quality leadership and organizational innovativeness: the role of social capital development in American schools. *Benchmarking: An International Journal*, 30(3), 811-833. doi:<https://doi.org/10.1108/BIJ-08-2021-0470>
- Boikanyo, D. H. (2025). Structural capital management and knowledge sharing to enhance employee engagement in the modern era. In *The Amplifying Power of Intellectual Capital in the Contemporary Era*: IntechOpen. <https://www.intechopen.com/chapters/1221878>
- Bordeianu, S., & Lubas, R. (2013). Interaction between departments: strategies for improving interdepartmental collaboration through communication. In *Workplace culture in academic libraries* (pp. 219-230): Elsevier. <https://doi.org/10.1016/B978-1-84334-702-6.50014-9>
- Bourdieu, P. (1986). The forms of social capital. *Handbook of theory and research for the sociology of education*, 241-258. doi:[https://www.ucg.ac.me/skladiste/blog\\_9155/objava\\_66783/fajlovi/Bourdieu%20The%20Forms%20of%20Capital%20\\_1\\_.pdf](https://www.ucg.ac.me/skladiste/blog_9155/objava_66783/fajlovi/Bourdieu%20The%20Forms%20of%20Capital%20_1_.pdf)
- Chen, M., & Li, W. (2024). Social capital development on interest-based networks: examining its antecedents, process, and consequences. *Humanities and Social Sciences Communications*, 11(1), 190. doi:<https://doi.org/10.1057/s41599-024-02609-1>
- Chu, C. D., McCulloch, C. E., Banerjee, T., Pavkov, M. E., Burrows, N. R., Gillespie, B. W., . . . Waller, L. (2020). CKD Awareness Among US Adults by Future Risk of Kidney Failure. *American Journal of Kidney Diseases*, 76(2), 174-183. doi:<https://doi.org/10.1053/j.ajkd.2020.01.007>
- Chuang, C.-H., Chen, S.-j., & Chuang, C.-W. (2013). Human resource management practices and organizational social capital: The role of industrial characteristics. *Journal of Business Research*, 66(5), 678-687. doi:<https://doi.org/10.1016/j.jbusres.2012.04.002>
- Clark, H. H., & Brown, K. (2006). Context and common ground. *Concise encyclopedia of philosophy of language and linguistics*, 85-87. doi:<https://books.google.com/books?hl=>
- Dato-on, M. C., Banerjee, S., & Roy, M. (2018). Innovation support and small-firm performance in India: A social capital perspective. *Thunderbird International Business Review*, 60(5), 797-807. doi:<https://doi.org/10.1002/tie.21909>

- Dinga, E. (2014). Social Capital and Social Justice. *Procedia Economics and Finance*, 8, 246-253. doi:[https://doi.org/10.1016/S2212-5671\(14\)00087-2](https://doi.org/10.1016/S2212-5671(14)00087-2)
- Ebohon, E. (2024). Building Trust through Transparent Communication in Conflict Management. *Unilorin Journal of Lifelong Education*, 8(special), 253-267. doi:<https://ujlle.org.ng/index.php/ujlle/article/view/364>
- Jafari Majd, B., & Zarei Matin, H. (2022). Designing an Organizational Social Capital Model in the Ministry of Education: The Case Study of Lorestan General Office of Education. *Social Capital Management*, 9(1), 77-99. doi:<https://doi.org/10.22059/jscm.2021.308715.2042>
- Jofré, E., Petrucci, R., Saffe, C., Saker, L., Artur De La Villarmois, E., Chavero, C., . . . Mauas, P. J. D. (2015). Stellar parameters and chemical abundances of 223 evolved stars with and without planets. *Astronomy & Astrophysics*, 574, A50. doi:<https://doi.org/10.1051/0004-6361/201424474>
- Jóhannsdóttir, T. (2018). Creating a school that matters: Networking for school-community development. *Journal of Curriculum Studies*, 50(3), 297-314. doi:<https://doi.org/10.1080/00220272.2017.1337812>
- Kalokora, A. M., & Lekule, C. S. (2019). Transparency in higher education human resource management: benefits and challenges. *Journal of Education and Social Policy*, 6(4), 120-129. doi:<https://d1wqtxts1xzle7.cloudfront.net>
- Malekinia, E., Malekinia, Z., & Feizi, S. (2018). Survey on Imperative Strategies for Iranian's Higher Education System in Globalization Age. *Quarterly Journal of The Macro and Strategic Policies*, 6(24), 518-545. doi:<https://dor.isc.ac/dor/20.1001.1.23452544.1397.6.24.1.8>
- Moazen Jamshidi, m. h., & haghparast kenarsari, n. (2018). An Investigation of the Effect of Spiritual Connection on the Destructive Reflections of Job through Employees Belonging Styles. *Journal of Research in Human Resources Management*, 10(1), 105-132. doi:<https://dor.isc.ac/dor/20.1001.1.82548002.1397.10.1.5.8>
- Mohtaram, M., Torkzadeh, J., & Salehi, N. (2022). The Structural Equation Modeling of University Social Capital and the Employee Tendency to Participate Through the Mediating Role of Their Readiness for Change in Shiraz University. *Social Capital Management*, 9(1), 101-125. doi:<https://doi.org/10.22059/jscm.2021.332391.2223>
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of management review*, 23(2), 242-266. doi:<https://doi.org/10.5465/amr.1998.533225>
- Obiora, A., & Uche, A. (2024). Adopting information and communication technologies for effective school leadership in Nigeria. *Social Science Research*, 10(2), 34-49. doi:<https://journals.aphriapub.com/index.php/SSR/article/view/2627>
- Paju, B., Kajamaa, A., Pirttimaa, R., & Kontu, E. (2022). Collaboration for inclusive practices: Teaching staff perspectives from Finland. *Scandinavian Journal of Educational Research*, 66(3), 427-440. doi:<https://doi.org/10.1080/00313831.2020.1869087>
- Pillai, K. G., Hodgkinson, G. P., Kalyanaram, G., & Nair, S. R. (2017). The negative effects of social capital in organizations: A review and extension. *International Journal of Management Reviews*, 19(1), 97-124. doi:<https://doi.org/10.1111/ijmr.12085>
- Povey, J., Campbell, A. K., Willis, L.-D., Haynes, M., Western, M., Bennett, S., . . . Pedde, C. (2016). Engaging parents in schools and building parent-school partnerships: The role of school and parent organisation leadership. *International Journal of Educational Research*, 79, 128-141. doi:<https://doi.org/10.1016/j.ijer.2016.07.005>
- Provinzano, K. T., Riley, R., Levine, B., & Grant, A. (2018). Community schools and the role of university-school-community collaboration. *Metropolitan Universities*, 29(2), 91-103-191-103. doi:<https://doi.org/10.18060/21762>

- Rahdar, K., & Mobser-Azad, A. (2019). The Relationship Between Managers' Leadership Styles and the Empowerment of Physical Education Staff in the Tehran Department of Education. *Educational Leadership and Management*, 45(12), 123–139.  
doi:<https://sanad.iau.ir/fa/Journal/edu/Article/855741>
- Sarmad, Z., Bazargan, A., & Hejazi, E. (2001). *Research Methods in Behavioral Sciences* (5th ed.). Tehran, Iran: Agah.
- Seyedjavadin, S. R., Saadat Nahad, Mohamad Hosein, Amiri, M., & Lesani Fesharaki, M. A. (2021). Identification of the Competencies of the Righteous Managers: A Thematic Analysis of the Holy Quran. *Journal of Research in Human Resources Management*, 13(4), 85-114.  
doi:<https://dor.isc.ac/dor/20.1001.1.82548002.1400.13.4.3.3>
- Shah, M. (2014). Impact of Management Information Systems (MIS) on School Administration: What the Literature Says. *Procedia - Social and Behavioral Sciences*, 116, 2799-2804.  
doi:<https://doi.org/10.1016/j.sbspro.2014.01.659>
- Siisiäinen, M. (2003). Two concepts of social capital: Bourdieu vs. Putnam. *International journal of contemporary sociology*.  
doi:<https://d1wqtxts1xzle7.cloudfront.net/79183036>
- Slijepčević, S. D., & Zuković, S. N. (2021). School counsellor-teacher collaboration in student counselling. *The New Educational Review*, 63, 237-247.  
doi:<https://cejsh.icm.edu.pl/cejsh/element/bwmeta1>
- Sözbilir, F. (2018). The interaction between social capital, creativity and efficiency in organizations. *Thinking Skills and Creativity*, 27, 92-100.  
doi:<https://doi.org/10.1016/j.tsc.2017.12.006>
- Stan, S. E., ȚÎȚU, M., & Paraschiv, C. (2024). The role of intangible resources in driving value creation and sustained competitive advantage for businesses. *Management of Sustainable Development*, 16, 106-115.  
doi:<https://doi.org/10.54989/msd-2024-0010>
- Stentz, J. E., Plano Clark, V. L., & Matkin, G. S. (2012). Applying mixed methods to leadership research: A review of current practices. *The Leadership Quarterly*, 23(6), 1173-1183.  
doi:<https://doi.org/10.1016/j.leaqua.2012.10.001>
- Suárez-Guerrero, C., & Muñoz Moreno, J. L. (2017). Networking and Cooperation as School Improvement Elements. *Journal of Educational Psychology-Propósitos y Representaciones*, 5(1), 377-402.  
doi:<https://eric.ed.gov/?id=EJ1139339>
- Tasdemir, D. C., Bahar, A. D., & Cayiragasi, F. (2017). A study on social capital concept, development and importance. *International Journal of Management Science and Business Administration*, 4(1), 52-56.  
doi:<https://ideas.repec.org/a/mgs/ijmsba/v4y2017i1p52-56.html>
- Wuletu, D. A., Hussein, J. O., & Bareke, M. L. (2024). Exploring school culture and climate: The case of Dilla University community school. *Heliyon*, 10(11).  
doi:[https://www.cell.com/heliyon/fulltext/S2405-8440\(24\)07715-6](https://www.cell.com/heliyon/fulltext/S2405-8440(24)07715-6)
- Zaria, Y. B., & Tuyon, J. (2024). The Causal Impact of Government Education Expenditure and Poverty Reduction in Nigeria: A Poverty Policing Action from 1980-2019. *International Journal of Advanced Research in Economics and Finance*, 6(4), 79-99.  
doi:<https://mysitasi.mohe.gov.my/journal->