

Investigation and validation of dimensions and components affecting the professional supervision of principals of elementary schools in Bojnord city

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(Communicated by Javad Vahidi)

Abstract

The purpose of this study is to investigate the dimensions and components affecting the professional supervision of elementary school principals. The current research is applied research in terms of its purpose. This research is quantitative in terms of the logic of conducting comparative research, in terms of the method of conducting descriptive-survey research, and in terms of the type of data. The statistical population of this research is school principals with a service history of 20 years or more in Bojnord city in the academic year 2022-2023, of which there are 120 male teachers and 260 female teachers. The sample size was determined by using Morgan's table for 191 people. Descriptive statistics and inferential statistics were used for data analysis with PLS Smart Structural Equation Modelling methods, and especially confirmatory factor analysis. The results showed that contextual factors with 0.525, obstacles and problems with 0.496, and actions and strategies with 0.443 have the power to predict the professional supervision of Bojnord school administrators.

Keywords: professional supervision, school principals, PLS structural equations, Bojnord city
2020 MSC: Primary 62P25; Secondary 62H25, 62D05

1 Introduction

Monitoring is one of the organizational activities that evaluates the organization's activity [16]. By using the monitoring mechanism, it is possible to measure how the system works, predict possible deviations and prevent them. Supervision is not only an activity aimed at achieving the goals of the organization, but organizational development and the promotion of its activities depend on the optimal performance of supervision [23]. Supervision and guidance have a general concept; This means that it is used in all organizations and institutions, whether simple or complex, for-profit or social, large or small, public or private, traditional with old or modern and advanced administrative patterns and equipped with electronic systems. The stability and survival of any organization requires supervision and guidance in some way. Education is one of the most complex human organizations and it always needs supervision and guidance to maintain and continue educational activities and achieve its goals.

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Educational supervision and guidance in education is one of the official organizational programs which has a direct and reciprocal relationship with other behavioral systems related to teaching and learning, educational management, counseling and guidance, this process is considered one of the main components of educational management and leadership, and regardless of that, other components of management and leadership, such as planning, organizing, directing, coordinating the mobilization of resources and facilities, etc., are also incomplete, and there is no coordination and compatibility between strategic decisions and mid-term and short-term policies, and the decisions taken to achieve the goals of the program are not realized and there is no guarantee for it [14]. The monitoring process has always been ongoing in educational systems, regardless of the effective or ineffective methods of quantity or quality [18]. According to Kaufman et al. [6], supervision is very vital in the education process, not only to expand and strengthen skills and transfer methods in this profession, but also to support growth, accuracy, and self-reflection in a wider range of life. That is, professional supervision improves and maintains the professional qualifications and competencies of employees and school performance [6]. Scott and Marzano [17] considered professional supervision as one of the main features of the twelve-year American educational vision, and they emphasize professional supervision as a process that can develop teachers' skills and improve students' academic progress. Liu and Hallinger [9] also considered professional supervision as an important part of Chinese education in an article, and they believe that this increases the effectiveness of school administrators.

According to Henderson et al. [4], Professional supervision is becoming a very efficient and effective tool that can help teachers achieve desirable educational results. Its importance, validity, and necessity are expanding day by day. Therefore, supervision in the matter of education and teaching is not something that is done at one stage of time and then is not paid attention to, but it is a process that is constantly needed, and the need for it is felt more at any time, inspired by past experiences. In the current situation, many teaching models are recommended for education, and the complexity in education and teaching is more than ever. Professional supervision plays an effective role in simplifying and helping teachers and improving education [20]. The design of new theories and ideas and new methods and models of teaching in education by experts, experts and teachers has made it more obvious to the managers and administrators of education intending to improve the quality of performance of teachers and administrators and students, reduce educational attrition, preventing wasting time and losing opportunities, promoting and maintaining desirable educational results, reducing costs, and attracting financial contributions and communication with parents and educational professionals, and meeting the need for professional supervision [14].

In Iran's educational system, hiring teachers who do not master the subject matter, teachers who are not skilled in presenting the subject matter, teachers who do not have control over the classroom, teachers who believe in establishing strict discipline in the classroom, teachers who only care about the lesson and not the students, teachers who follow and are fascinated by the old teaching methods, and finally teachers who are busy playing the role of a teacher without the slightest training or passing a course, it has increased the need to pay attention to professional supervision [24]. In our country, on the one hand, there have been extensive and remarkable changes and developments in the level of curricula, the content of courses, teaching methods and evaluation of the educational system, because the role and importance of elementary school in the growth and development of students is more than other academic courses (first and second high school courses), there have been more changes in this period, which has increased the importance and necessity of effective professional supervision in this period.

On the other hand, because in the elementary course, the educational content is not specialized compared to other academic courses, and the number of teachers in each school is small, so the principals of primary schools can perform their role of professional supervision effectively and provide opportunities for the professional development of teachers and the improvement of the quality of the process of teaching, learning and the growth and development of students. Therefore, according to the stated content, it can be said that the supervisory role of primary school principals is greater than ever before. This shows the importance of the present research. Research questions are considered as the main pillar of qualitative research, where the determination of research objectives, research strategy, method of data collection and analysis have been formulated to answer them, and at the same time, it is one of the major challenges of qualitative research, because it should be formulated in a way that makes the participants participate actively and clarify their deep point of view. The results of the research of Sullivan and Glanz [19] indicate that there is little evidence about professional development programs for teachers and cooperation between teachers and educational supervisors. Monitoring, as an inspection or lack of proper monitoring, is the main characteristic of monitoring methods in many schools. Educational supervision and guidance require a serious focus on school improvement [2]. Also, Ünal [22] in similar research titled development and validity of the descriptive scale of supervisory behavior in Türkiye shows that supervisors are understood as agents who are constantly looking for teachers' mistakes. They did not see good and beautiful behavior, they did not listen to the words of the teachers, when they found a mistake, they tried to punish them, they were grumpy and fault-finding, and they thought that they knew everything themselves,

and they saw their duty in following the rules.

The research findings of Hamzah et al. [3] under the title "Supervision Practices and Teachers' Satisfaction in Public Secondary Schools: Malaysia and China" indicated that the level of supervision and guidance methods in Kuala Lumpur, Malaysia is higher from the point of view of managers than teachers; However, there is no significant difference between teachers' and administrators' views on supervision and guidance methods in OFI China. Also, there was a positive and moderate relationship between the methods of supervision and educational guidance of principals and job satisfaction of teachers in Kuala Lumpur, Malaysia; While there was a strong and positive relationship between principals' instructional supervision and guidance practices and teachers' job satisfaction in OFI, China. Also, in research more related to the topic of the current research, Oyewole and Alonge [15] by examining the performance of the role of supervision and educational guidance of managers and job motivation of teachers in Ekiti state of Nigeria, concluded that there is a significant relationship between the supervision and guidance performance of principals and their teachers' career motivation. In this research, a positive and significant relationship was found between the educational experience of managers in the role of supervision and guidance and the career motivation of teachers, and based on that, it was suggested that school administrators pay more attention to the salaries and benefits of their employees, and the Ekiti State Ministry of Education should also periodically organize seminars, conferences and workshops for principals. In order for them to be able to be more effective in their role of educational supervision and guidance, the well-being of teachers should also be sufficiently improved.

Mapolisa and Tshabalala [10] also investigated the educational supervision and guidance methods of Zimbabwean school principals and showed that the majority of teachers do not understand the concept of educational supervision and guidance. In addition, this study showed that teachers have a negative attitude towards educational supervision and guidance. It is suggested that the principal of the school use effective models of supervision and educational guidance and commit to the long-term process of the development of his employees, including the prioritization of his duties. Thobega and Miller [21] state that he spends most of his time on activities related to educational supervision and guidance in order to improve the progress of his teachers, that educational supervision and guidance activities foster teachers' confidence and job motivation and help to improve education. Therefore, the purpose of this article is to investigate and validate the dimensions and components affecting the professional supervision of the principals of elementary schools in Bojnord city.

2 Research methodology

The current research is applied research in terms of its purpose. This research is quantitative in terms of the logic of carrying out comparative research, in terms of the method of conducting descriptive-survey research, and in terms of the type of data. The statistical population of this research is school principals with a service history of 20 years or more in Bojnord city in the academic year 2022-2023, of which there are 120 male teachers and 260 female teachers. The sample size has been determined by using Morgan's table to the number of 191 people, considering that the number of female teachers is almost double compared to male teachers, 61 male teachers and 130 female teachers were randomly selected as samples. Random sampling method was used in this research. Descriptive statistics and inferential statistics with structural equation modeling methods with the help of PLS Smart software have been used for data analysis.

3 Research findings

The output results from PLS software can be seen in the figure 1.

In PLS path analysis, obvious variables are frequently used to conceptualize a hierarchical model. In this way, a hidden variable of higher order can be made by means of all obvious variables (objects) of lower order. For example, according to the contents of Figure 1, the hidden variables of the second order each consist of several hidden variables of the first order, and each of the hidden variables of the first order is also composed of a number of obvious variables (objects). In this hierarchical model, each hidden variable of the second order is determined by using all the manifest variables of the hidden variables of the first order. Therefore, manifest variables are used twice: 1) for the latent variable of the first order (primary loads) and 2) for the latent variable of the second order (secondary loads). This approach can clearly be developed into a higher order hierarchical model and the scores of hidden variables can be obtained from lower order hidden variables. One of the benefits of PLS is the evaluation of the hierarchical model, which in this study was used to evaluate the structure of the higher order latent variable.

The fit of the structural model using t coefficients is such that these coefficients must be greater than 1.96 in order to confirm their significance at the confidence level of 0.95. As can be seen in the figure above, the significant coefficients

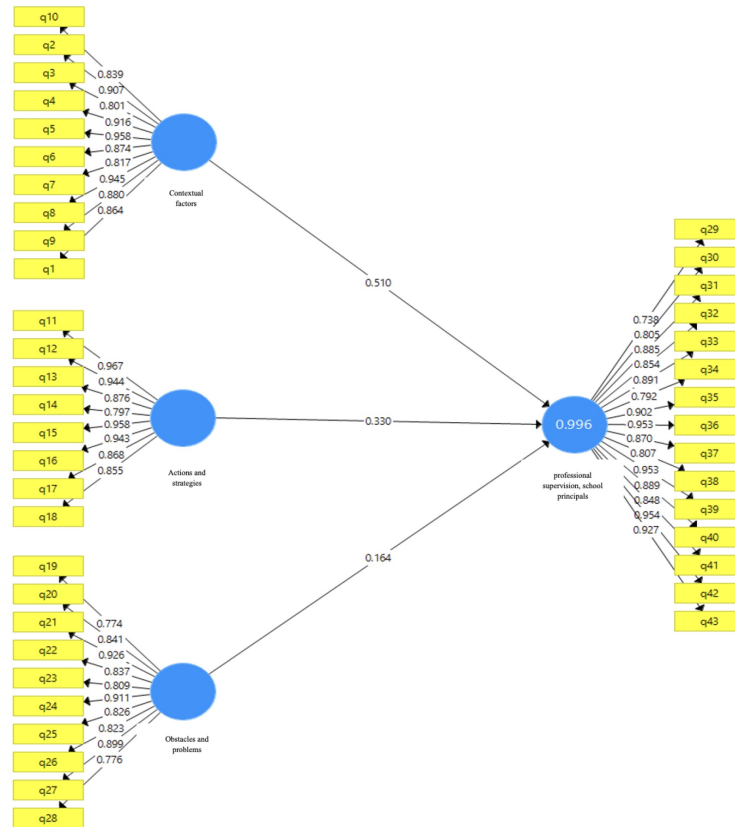


Figure 1: Structural model of research



Figure 2: Components of professional supervision of school principals

for each question have exceeded 1.96. If the significant coefficients related to each question are less than 1.96, that question should be removed because that question is weak in explaining the related variable and its presence in the model increases the measurement error. As shown in the figure, some of the questions were deleted along the lines mentioned. The quality of the structural model was also calculated by the prediction power index Q^2 , the purpose of this index is to investigate the ability of the structural model in forecasting by blind method. Based on this criterion, the model should predict the indicators of the reflective endogenous variables. Positive and above zero values show that the observed values are well reconstructed and it can be said that the structural model has a good quality. This criterion determines the predictive power of the model. According to them, models that have an acceptable structural fit. They should have the ability to predict the indicators related to the endogenous structures of the model. This means that if the relationship between the structures in a model is correctly defined, the structures will be able to have a sufficient effect on each other's indicators and in this way the hypotheses will be correctly confirmed.

The value of (Q^2) bytes should be calculated for all the endogenous structures of the model and the result stated in the model change section. If the value of an endogenous structure becomes zero and is less than zero, it indicates that the relationships between other parts of the model and that internal structure have not been explained well, and as a result, the model needs to be modified. It is necessary to mention that this criterion value is calculated only for

the endogenous structures of the model whose indicators are reflective. The intensity of the predictive power of the model in the case of cavity-forming structures is set at three values of 0.2, 0.15 and 0.35 from low, medium and good, respectively.

Table 1: The standard of prediction power of Q^2 model

Dimensions	Components	Predictive power Q^2
Professional supervision	Background factors	0.525
	Actions and strategies	0.443
	Obstacles and problems	0.496

According to the above table, the predicted value of Fedrat shows that the component of background factors is above 0.35, which is an indication of the desired value. Of course, the actions and strategies component items with a value of 0.24 can be considered an average value with a high value.

4 Conclusion

The purpose of the current research was to investigate the dimensions and components that influence the professional supervision of elementary school principals. The method of this research was quantitative and a questionnaire was used to collect data. The data were analyzed in the descriptive part by SPSS 23 software and by structural equation method by Smart PLS software. The results showed that contextual factors with 0.525, obstacles and problems with 0.496, and actions and strategies with 0.443 have the power to predict the professional supervision of Bojnord school administrators.

Research results of Mohammadzadeh [12], to the characteristics and skills of the educational supervisor based on passing specialized courses and having a university degree in the field of educational sciences, scientific and practical mastery of different teaching and evaluation methods, familiarity with the use of educational aids, successful teaching experience, respect for the standards of administrative and educational laws, and the ability to communicate in a sincere and friendly manner based on mutual respect.

The result of the research of Moafi Madani et al. [11] has also shown that managerial experience and the application of the correct supervisory method are related to each other, and the more managerial experience is, the more favorable the supervisory method is. In-service management training has a positive effect on the supervision of educational guidance, and thirdly, primary school principals who studied in the field of educational sciences and primary education compared to other principals whose fields of study were other than the above-mentioned fields. They have used more tasks and educational guidance.

The results of the research of Shabani Varaki and Pourafshari [18], managers' supervisory beliefs were effective in adopting certain styles for conflict management by managers, so that managers with indirect supervisory beliefs used cooperation style, then compromise and signaling styles more, and the managers with cooperative supervisory beliefs used the compromise and sacrifice styles and then cooperation, respectively, while the managers with direct supervisory beliefs applied more avoidance and competition styles. The result of Abdullahi and Azizi Shamami's research [1] has also shown that the supervisory beliefs of school principals are more collaborative and based on cooperation. The results of Monadi Sefidan and Yazdani's research [13] are based on the positive effect of professional supervision on improving the quality of education, teaching methods, education evaluation methods and the use of educational aids in urban elementary schools. The findings of Kiani Peykani's research [8] show that school principals help teachers more than the average level in their supervisory role.

The results of Khadivi and Javadi's research [7] indicate that there is a significant relationship among the amount of continuous supervision and guidance and the teachers' use of active teaching methods, the acceptance percentage of teachers, the use of correct evaluation methods, the use of teaching aids by teachers, and the teachers' interest in increasing job information. The results of the study by Hismanoglu and Hismanoglu [5] showed that the educational guide identifies and highlights the strengths of teachers' performance and encourages them to reflect on their weaknesses and find solutions to fix them.

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