
Providing a model of Personal Self-Efficacy for High School Teachers: Grounded Theory Approach

Mahnaz Silaneh¹, Kiumars Niaz Azari^{2*}, Negin Jabbari²

1. PhD Student in Educational Management, Gorgan Branch, Islamic Azad University, Gorgan, Iran.
 2. Department of Educational Management, Gorgan Branch, Islamic Azad University, Gorgan, Iran.
-

Article history:

Received: 2020/07/06

Accepted: 2020/10/31

Published: 2021/03/21

Keywords:

Personal Self-efficacy, Teachers,
High Schools

Abstract

Purpose: The aim of this study was to present a model of personal self-efficacy of secondary school teachers

Methodology: The method of this research was qualitative and the data theory theory paradigm model was used. The statistical population included experts, specialists, officials and experts on education and faculty members in the fields of educational management and psychology, Using purposive sampling method with maximum diversity to achieve theoretical saturation, 21 people were interviewed as semi-structured interviews. For validity and validity of the data, two methods of reviewing participants and reviewing non-participating experts in the research were used. The collected data were analyzed using MAXQDA software during three stages of open coding, axial coding and selective coding.

Findings: The findings showed that 27 general categories within the framework of the paradigm model, in three categories of effective planning and evaluation, environmental conditions and respect and motivational and social characteristics of the job (causal conditions), in seven categories of constructive interaction and ethics Teaching skills and teaching competence, decision-making and problem-solving skills, teacher morale and perseverance, classroom management, student involvement and application of teaching methods (central phenomenon of personal self-efficacy of secondary school teachers), in four categories of management style and facilities, Students' motivation and skills, competitive environment and successful models and characteristics of teachers (background conditions), in four categories: system inadequacy, economic and cultural problems, educational and attitude challenges, and processes and standards (intervening conditions), in five Creating dynamic self-efficacy structures and centers, encouraging and increasing teachers' skills, improving teachers' motivation and commitment, and establishing professional systems in education (strategies), in four categories: improving teacher satisfaction and relationships between teachers and students, improving the quality of education and Teaching, reducing burnout and improving mental health, modeling self-efficacy and improving performance (PIA) Mods) has been extracted.

Conclusion: Teachers' personal self-efficacy includes three components: self-efficacy for student engagement, self-efficacy for classroom management, and self-efficacy for teaching strategies.

Please cite this article as: Silaneh M, Niaz Azari K, Jabbari N. (2021). Providing a model of Personal Self-Efficacy for High School Teachers: Grounded Theory Approach. *Iranian Journal of Educational Sociology*. 4(1): 125- 141.

* Corresponding Author: k.niazazari@gmail.com

1. Introduction

Education is a general phenomenon in the world and is an organization that is a model for all formal institutions and organizations. In the process of education, the teacher is the main pillar and the fundamental factor and achieving the goals of the education system is not possible without capable and qualified teachers (Mirahmadi, Khorasani, Abolghasemi, 2019). Also, one of the most vital issues in improving the education system is to pay attention to schools, and any reform, change in the structure or transformation of schools depends on the beliefs, attitudes and behaviors of teachers. On the other hand, many beliefs and behaviors of teachers using one of the most important mechanisms of self-influence, namely personal self-efficacy, is evoked and controlled (Bandura, 2001). The Education Organization is one of the organizations whose human resources, especially teachers, are often hard-working and committed people, and they always have the serious task of educating children and activating their potential forces in the right direction, so any problem in their self-efficacy. It can affect their job performance and cause irreparable damage to the future of the country (Ghanbari, Hemmati, 2015).

Self-efficacy is derived from the cognitive-social theory of the famous psychologist Albert Bandura. Belief in self-efficacy is a motivational and psychological trait of job-related (Arai, Esfidani, 2014). Cognitive-social theory assumes that individuals are capable of human agency or deliberate pursuit of practical processes, and that such agency operates according to a process called dual causation. Dual causality is a multidimensional model that suggests that our agency shapes future behavior as a result of the interaction of three forces related to the environment, behavior, and internal personal factors (cognitive, emotional, and biological processes). According to Bandura, self-efficacy is the degree to which an individual believes in his or her ability to organize and manage the resources needed to produce certain achievements (Bandura, 2001). Bandura believes that personal self-efficacy is more related to a person's perception of their abilities and less to their actual level of ability, so the higher a person's personal self-efficacy, the more likely he or she is to engage and be consistent in his or her job behavior. Perez, Medina, Munduate (2011) state that self-efficacy is one of the most important mechanisms to control self-regulatory behavior. Self-efficacy has a motivational component that considers the efforts and pressures needed to create the desired outcomes in job-related activities. Self-efficacy is a personal belief in one's ability in which one tries to achieve the set goals by using an effective and appropriate method (Ormrod, Anderman, Anderman, 2006). Self-efficacy refers to how people try to perform activities, how long they last, and how they cope with homework problems and obstacles, as well as the degree of flexibility in different situations of learning tasks (Phan, 2007). Teacher self-efficacy includes the teacher's expectations, thoughts, and feelings, the choice of classroom activities, the amount of effort he or she puts into the classroom, and the resistance to teaching barriers. Teachers involved in teaching activities interpret the results of their performance and use this interpretation to increase beliefs about their ability to perform learning activities in similar situations, if as a result of teaching activities, continuous academic success is achieved. Will increase self-efficacy and if activities lead to failure will reduce self-efficacy (Gavora, 2010).

The four sources of self-efficacy are: 1. Personal experience and practice means that high self-efficacy occurs as a result of repeated success and strong perseverance in specific challenges, and repeated failure leads to low self-efficacy. The teacher's interpretation of his students who are actively involved in learning assignments is that his teaching has been effective in their learning (Guo et al., 2012). 2. Success experiences (imitation and observational learning) are related to observing the repeated success of individuals whose ability is similar to that of the observer; therefore, the observer expects to be able to gain experience and success like others. 3. Verbal and social encouragement and feedback occurs when they are told that they have the capacity and ability to succeed. The effect of social encouragement is less than the effect of direct or indirect experiences. Incentives and social reinforcements have a greater impact on teachers who have little opportunity to demonstrate their teaching skills in the early years of teaching (Morris, Usher, Chen, 2017). The weight of feedback that teachers receive from their students is greater

than the weight of feedback they receive from their supervisors and principals; because teachers are constantly observed and evaluated by students (Phan, Locke, 2015). 4. Psychological and emotional states of the individual that are related to the teacher's judgment about self-efficacy. People with low self-efficacy experience negative emotions such as anxiety, stress, and doubt due to their low ability, and therefore have negative judgments about their abilities and skills; but people with high self-efficacy experience positive and normal emotions and therefore have positive judgments about their abilities and skills. High self-efficacy beliefs increase physical well-being, increase positive emotions, and decrease negative emotions, and people believe that their actions can produce the desired outcome (Cantrell, Young, Moore, 2003).

Various researchers have studied teachers' personal self-efficacy, the factors affecting it and its consequences, including: Kozlowski, Klein (2000) in a study showed that based on a systemic approach, job social characteristics of employees based on employees' beliefs about group ability in performing the assigned task is effective. Wolters, Daugherty (2007) in their study showed that teacher self-efficacy is directly related to students' academic achievement. Guo, et al (2010) on the relationship between teacher self-efficacy, class quality and students' academic achievement concluded that teacher self-efficacy plays a very important role in improving the quality of education and increasing the supportive environment in the classroom. Students also have a positive view of education and academic achievement in teachers who have higher self-efficacy. Experienced teachers with lower self-efficacy have a greater impact on student teaching (Taimalu et al., 2010). Klassen, Durksen (2014) showed that teacher self-efficacy is highly correlated with how effective assessments are made by the individual, supervisors, and administrators. Miraglia, Alessandri, Borgogni (2015) in a study concluded that employees with high self-efficacy have a high level of performance. Johari, Yahya (2016) have stated that task and feedback have a positive and significant relationship with self-efficacy. In other words, receiving positive feedback from colleagues can strengthen a person's belief in their abilities. Arslan (2019) in a study has investigated the mediating role of teachers' self-efficacy beliefs between self-efficacy sources and attitudes toward professional teaching. The results showed that teachers' self-efficacy has a significant and positive mediating role between motivation and verbal and social feedback, psychological states and substitution experiences with a professional teaching attitude for teachers.

Seif, Mazrouqi (2008) has conducted a study entitled the relationship between the dimensions of epistemological beliefs and self-efficacy with the academic performance of middle school students in the course of experimental sciences. The results indicate that there are complex relationships between the dimensions of epistemological beliefs and self-efficacy in the course of experimental sciences. In the research of Asghari, Khodapnahi, Saleh Sadeghpour (2008), entitled The relationship between empowerment and self-efficacy with job satisfaction, which was done on teachers, stating that professional growth and self-efficacy are the characteristics of empowerment, a direct relationship between career growth and reports self-efficacy. Karimzadeh Shirazi, Razaviyeh, Kaveh (2008), in a study entitled The relationship between quality of life and self-efficacy of teachers working in Shahrekord, in the field of self-efficacy between different levels of schools in Shahrekord, the results showed that the average self-efficacy, quality of life, total physical dimensions and Also, psychology in women is significantly less than men. Beyrami, Florist, Mirnsab (2015) Explain Bullying Management Strategies Based on Teacher Self-Efficacy: The Mediating Role of Teachers' Beliefs and Attitudes about Student Bullying. The results showed that teachers' perceived self-efficacy, taking into account the mediating role of their beliefs and attitudes, explained a total of 16% of changes in bullying management strategies. Barari, Jamshidi (2015) in a study examined the mediating role of teachers' self-efficacy in the relationship between emotional intelligence and burnout in primary school teachers. The results of Pearson correlation showed that all components of emotional intelligence, burnout and self-efficacy were correlated in pairs. By applying the structural equation model to test the relationship between emotional intelligence and burnout through the self-efficacy mediating variable, it was found that the proposed model fits well and burnout is explained through

emotional intelligence and self-efficacy. Mirahmadi, et al (2019) in a study examined professional learning communities (PLC): a vital strategy to improve teacher self-efficacy. The results showed that vocational learning communities have an effect on teachers' sense of self-efficacy in all its categories. Also, the components of vocational learning communities, supportive conditions - relationships and supportive conditions - structures have the greatest impact on teachers' self-efficacy.

According to the above studies, it can be concluded that teacher self-efficacy is a vital and unavoidable necessity in improving the teaching-learning processes of students, improving student performance and school development. Research shows that there are few research findings related to personal self-efficacy of high school teachers and the conceptual model that explores and explains the personal self-efficacy of high school teachers with an exploratory and inductive approach has not been considered and existing studies. At home and abroad, only the dimensions and components of teachers' self-efficacy have been identified, including the factors affecting it, the consequences of self-efficacy, and in some studies, the current status of teachers' personal self-efficacy has only been examined. Therefore, due to the lack of internal studies in the field of developing personal self-efficacy of teachers and the undeniable role of teachers in advancing the goals of education and emphasizing the document of fundamental change in education to increase the effectiveness and efficiency of teachers and student success, design a comprehensive model to Personal self-efficacy of secondary school teachers is essential. Secondary education, as a very important course in formal education, in addition to preparing students to enter universities and higher education centers, has other important functions, including preparing students to enter Independent living is a good job and the formation of individual and social identity of high school students, so the personal self-efficacy of high school teachers is very important to achieve this. Therefore, the purpose of this study is to design a conceptual model for personal self-efficacy of secondary school teachers in accordance with the existing conditions of the country and the education system. This research answers the following questions: 1. what are the factors and indicators of personal self-efficacy of high school teachers? 2- What is the appropriate conceptual model for personal self-efficacy of high school teachers?

2. Methodology

This research is a qualitative research in which the personal self-efficacy of middle school teachers was examined and a conceptual model was presented using the data theory of the foundation (systematic plan). The foundation data theory approach is a type of qualitative research method that inductively uses a series of systematic procedures to create a theory about the phenomenon under study (Strauss, Corbin, 2011). This research is applied in terms of purpose. The research process is such that first the components of personal self-efficacy of school teachers are developed then based on that, the conceptual model of personal self-efficacy of high school teachers is designed. The main stages of this research process included: 1- Identifying the components of personal self-efficacy of high school teachers and 2- Presenting a conceptual model of personal self-efficacy of high school teachers. According to the identified components, the sample size and sampling method were as follows: In this study, according to the theoretical foundations and background of the research as well as the use of purposive sampling method, a semi-structured interview with 21 people, including 9 officials and senior education directors in positions such as general manager, high school deputy The General Administration and the heads of education departments of North Khorasan Province have been active, 5 exemplary and successful teachers and 7 faculty members in the fields of educational management, educational sciences and psychology who had experience. The criteria for selecting specialists was having several years of experience as a deputy and having several articles related to teachers. The duration of each interview was between 30 and 45 minutes. In order to comply with ethical considerations in conducting the research, along with the interview questions, a letter was sent signed by the researcher stating the ethical commitment to maintain the contents of the interview and the characteristics of the participants and not to publish it. Also, with the

knowledge of the participants, the interviews were recorded and reviewed to extract key points. After announcing the agreement, what are the characteristics and capabilities of the interview with the focus on questions such as: self-employed high school teachers? What factors help high school teachers achieve personal self-efficacy (characteristics and competencies)? What is the difference between self-employed and non-self-employed high school teachers? What are the solutions or strategies to achieve high school self-efficacy? What are the barriers or challenges for high school teachers to achieve personal self-efficacy? What factors influence high school teachers' self-efficacy strategies? What are the consequences of high school teachers achieving personal self-efficacy? The data obtained from the interviews were carefully examined and the data obtained from the interviews were qualitatively analyzed using MAXQDA software and the main and sub-indicators related to them were identified.

Table1. Details of the interviewees

| ID | Field of Study | Organizational position | work experience | education |
|-----|----------------------|--|-----------------|-------------|
| P1 | Higher Education | Faculty member | 25 | P.H.D |
| P2 | Education Management | Faculty member | 12 | P.H.D |
| P3 | Psychology | Faculty member | 12 | P.H.D |
| P4 | Psychology | Faculty member | 14 | P.H.D |
| P5 | Education Management | Faculty member | 9 | P.H.D |
| P6 | Education Management | Faculty member | 7 | P.H.D |
| P7 | Education Management | Faculty member | 8 | P.H.D |
| P8 | Sociology | Director of Education | 23 | P.H.D |
| P9 | Management | Director of Education | 24 | Masters |
| P10 | Education Management | headmaster | 16 | Masters |
| P11 | Education Management | School Deputy | 20 | Masters |
| P12 | Psychology | Deputy of Education | 21 | PhD student |
| P13 | Education Management | Management of the Department of Education | 23 | Masters |
| P14 | Psychology | headmaster | 19 | Masters |
| P15 | Management | headmaster | 17 | PhD student |
| P16 | Sociology | Education Management | 16 | P.H.D |
| P17 | Education Management | Secretary of Education and University Lecturer | 15 | P.H.D |
| P18 | Education Management | Secretary of Education and University Lecturer | 24 | P.H.D |
| P19 | Education Management | Secretary of Education | 12 | P.H.D |
| P20 | Psychology | Secretary of Education | 14 | Masters |
| P21 | Psychology | High school counseling | 10 | Masters |

Qualitative data analysis method (qualitative content analysis and foundation data coding process) was used to analyze the data obtained from the interviews. The analysis process is done in four stages: interview, analysis of interviews, open coding, axial coding and selective coding. In this study, based on the continuous comparison method of Strauss and Corbin qualitative data analysis with data paradigm approach of open coding, axial coding and selective coding, data analysis was performed. In the open coding stage, the text of all interviews was extracted individually and line by line, their concepts and then categories. In the pivotal coding stage, the categories extracted from each interview were compared with the categories of other interviews and the categories were integrated. In the selected coding stage, the categories and their dimensions were compared and integrated, and the final classes were obtained. Then, in order to complete and confirm the validity and reliability of the data, two methods of review by participants and review by non-participants in the research were used.

3. Findings

The general purpose of this study is to provide a model for personal self-efficacy of secondary school teachers and according to the data theory paradigm model of the Foundation pursues 6 minor objectives: 1- Identifying the central phenomenon of personal self-efficacy of secondary school teachers 2- Determining causal factors of personal self-efficacy of school teachers High school 3- Determining the

background conditions of personal self-efficacy of high school teachers 4- Determining the intervention factors of personal self-efficacy of high school teachers 5- Determining personal self-efficacy strategies of high school teachers 6- Determining the consequences of personal self-efficacy of high school teachers. This research has 6 main questions and the interview questions are in order to explore the research questions. Participants' responses were coded and related to one of the six components of the paradigm model including axial phenomenon, causal factors, contextual conditions, intervention factors, strategies and consequences after three-stage open, axial and selective coding analysis. In the present study, the recorded interviews after implementation were analyzed, conceptualized, categorized using content-by-line content analysis method, and then based on similarity; conceptual relationship and common features between open source, concepts and categories were identified. . From the data obtained from the interview, 229 first level categories were coded and finally the defined categories were summarized in 27 central categories, which are listed in Tables 2 to 7 of these categories. Finally, the pattern of personal self-efficacy of high school teachers is shown in Figure 2.

Table2. Open codes and categories related to causal conditions

| Categories | Open source | |
|--------------------------------------|---|---|
| Effective planning and evaluation | Pay for self-efficacy programs in plans and prospects | |
| | Eliminate relationships and replace criteria in hiring and selecting teachers | |
| | Selection of teachers in education in accordance with their capabilities | |
| | Upgrading self-employed teachers based on their performance | |
| | Take advantage of appropriate learning opportunities for teachers | |
| | Correct and accurate performance of teachers' performance | |
| | Avoid direct control of teachers' performance | |
| | Get help from the experience of efficient teachers to remind and learn | |
| | Applause from teachers | |
| | Respect the position and dignity of teachers | |
| | Quality of working life | |
| | Appropriate environmental conditions and friendly relations and influence between principal and teacher | |
| | Being noticed in teachers' efforts and their success | |
| | Teachers' self-esteem | |
| | Maintain authority for male teachers and strengthen affection for female teachers | |
| Environmental conditions and respect | Satisfaction with career advancement | |
| | Effective management of school stress by fashion | |
| | Existence of more organizational justice in education | |
| | Merit in the education system | |
| | The person's psychological and emotional states and judgments about yourself are positive | |
| | Motivational and social characteristics of the job | Frequent successful personal experiences and practices |
| | | Successive experiences (observational learning) deny other people's success |
| | | Interest and effort to increase job knowledge and skills |
| | | Dealing with creative thinking and fostering a spirit of creativity |
| | | Verbal encouragement and feedback and social teachers |
| | | Teachers' positive perception of the interpersonal environment in the workplace |
| | | Get positive feedback from colleagues |

Causal conditions are conditions that are the main cause of the phenomenon under study (Strauss, Corbin, 2011). 27 open codes have been extracted for causal factors and summarized in three categories of effective planning and evaluation, environmental conditions and respect, and motivational and social characteristics of the job.

Table 3. Open source code and categories related to the central phenomenon

| Axial phenomenon | Categories | Open source |
|---|---|--|
| Teachers' personal self-efficacy | Constructive interaction and ethics | Interact with students and other teachers and school principals |
| | | Influence students and have a heartfelt relationship with them |
| | | Excellent speech ability |
| | | Flexibility in dealing with students and the system |
| | | Be honest in behavior and speech |
| | | Being friends with students |
| | | Has a spirit of interaction with others |
| | | Coping with troublesome students |
| | | Continuous communication with knowledgeable and experienced people |
| | | Having good morals and social relations |
| | Teaching skills and educational competence | Giving advice to students in different departments |
| | | Familiarity with the teaching and learning process |
| | | Familiarity with various educational methods |
| | | Familiarity with different teaching methods |
| | | Apply more useful learning strategies |
| | | Having digital and computer literacy |
| | | Ability to self-regulate and regulate behavior |
| | | Ability in curriculum planning |
| | | Believing in success in the teaching and learning process |
| | | High efficiency in teaching |
| | Decision making and problem solving skills | Responsible and committed to the curriculum |
| | | Up-to-date in the field of specialized courses and new findings |
| | | Up-to-date on the use of new educational tools |
| | | Having teacher knowledge and skills |
| | | Use effective techniques to manage the class |
| | | Mastery of cognitive and educational content |
| | | Flexibility in learning and teaching methods |
| Prior preparation of educational content | | |
| Having a spirit of change | | |
| Effort and passion to create innovative methods | | |
| Teacher spirit and perseverance | Doing things right without supervision and control | |
| | Apply problem solving techniques and skills | |
| | Be aware of the available time and conditions | |
| | Provide new solutions for troublesome students | |
| | Have the right decision-making skills | |
| | Having a spirit of sacrifice and self-sacrifice | |
| | Understand the expectations of principals, students and their parents | |
| | Being active in academic fields | |
| | Have confidence | |
| | High spirit of independence | |
| class management | Has a vision and goals in life and career path | |
| | Ability to manage stress | |
| | Feel more competent | |
| | Familiarity with students' developmental characteristics | |
| | Efforts to improve technical, perceptual and human skills | |
| | Love to teach | |
| | Do not be discouraged by obstacles and failures | |
| | Dealing with students is extremely problematic | |
| | | Ability to control destructive behaviors in the classroom |
| | | Creating clear expectations about student behavior |

| | | |
|--|-------------------------------------|---|
| | | Force students to follow classroom rules |
| | | Adapt your education to the level of students' individual ability |
| | | Establish a classroom management system to control different groups of students |
| | | Prevent class disruption by a number of undisciplined students |
| | | Ability to deal appropriately with carefree students |
| | | Ability to help students have critical thinking |
| | | Creating interest for students who are less interested in studying |
| | | Build good faith for students to do academic work |
| | | Help students value learning |
| | | Fostering students' creativity |
| | | Improve the understanding of a student who has failed to learn a subject |
| | | Ability to help families help students with their studies |
| | | Ability to answer students' difficult questions |
| | | Creating the right environment for easy and comfortable classroom activities |
| | | Ability to measure students' understanding of what they have been taught |
| | Applying teaching methods | Design appropriate questions for student exams |
| | Categories | Adapt your education to the level of students' individual ability |
| | Constructive interaction and ethics | Use different assessment methods in the classroom |
| | | Ability to provide an explanation or other example when students are confused |
| | | Implement different teaching methods |
| | | Create the right challenges for gifted and capable students |

The central phenomenon is the incident or main event to which a series of actions / interactions exist and are related to control or manage (Strauss, Corbin, 2011). The central phenomenon studied in this study is the personal self-efficacy of high school teachers. 71 open codes have been extracted for the central phenomenon of personal self-efficacy of secondary school teachers and in seven categories: constructive interaction and ethics, teaching skills and teaching competence, decision-making and problem-solving skills, teacher morale and perseverance, classroom management, student involvement And the application of teaching methods is summarized.

Table4. Open source and contextual categories

| Categories | Open source |
|-----------------------|--|
| | Time allotted for training |
| | Replacing pivotal quality with pivotal quantity |
| | Training equipment and facilities |
| | Changing management perspectives in schools and the education system |
| | Existence of desirable educational equipment and facilities in schools |
| Underlying conditions | Management style and facilities |
| | Creating a dynamic and happy environment in the school and education environment |
| | Changing traditional ideas and resisting new ideas and modernity |
| | Improving effective management style in the education system |
| | Reducing the gap between science production centers and young people with training centers |
| | Selection of school principals based on meritocracy |
| | Existence of effective programs in mass media |

| | |
|---|--|
| Motivation and skills of students | Teacher empowerment programs |
| | School principal leadership |
| | Providing hardware and software facilities in the training system |
| | Support for self-efficacy programs by school principals |
| | Student motivation level |
| Competitive environment and successful patterns | Issues related to student discipline |
| | Make-up and how students sit next to each other |
| | Students' skill level |
| | Existence of a constructive competitive environment among teachers |
| | Creating a safe environment and a sense of self-confidence in schools |
| | Respect for different opinions and cultures |
| | Commitment to improving teachers' self-efficacy |
| | Applying the right methods of teacher self-efficacy |
| | Introducing and using self-sufficient and successful teachers to train teachers |
| | Proper and continuous planning for teachers' self-efficacy |
| Characteristics of teachers | Encourage teachers and allow self-efficacy to grow |
| | Existence of efficient model figures in the region and observing the success of the models |
| | Self-esteem and self-confidence of teachers |
| | Teachers' interest in identifying self-efficacy strategies |
| | Effective teacher experience and work experience |
| | Personal characteristics of teachers |
| | The spirit of perseverance and effort in teachers |
| Frequent success of teachers | |

Underlying conditions represent a series of special characteristics that indicate a phenomenon, that is, the location of events or events related to a phenomenon along a dimension in which interaction takes place to control, manage and respond to the phenomenon. (Strauss, Corbin, 2011). 34 open codes have been extracted for the context and summarized in four categories: management style and facilities, student motivation and skills, competitive environment and successful role models and teacher characteristics.

Table 5. Open codes and categories related to mediator conditions (intervener)

| Categories | Open source |
|--------------------------------|---|
| System inadequacy | Defective evaluation system and taste treatment |
| | Inadequate teacher performance appraisal system |
| | Existence of Mafia and communication and political channels |
| | Inefficient payroll system |
| | Lack of commitment of educators to achieve new teaching methods |
| | Improper management style |
| | Inefficient motivational system |
| | Injustice of the incentive and reward system |
| | Unfavorable economic and social conditions |
| | Teachers' reluctance to increase self-efficacy |
| Economic and cultural problems | Budget and financial capacity of the education system |
| | Unfavorable selection of teachers in education |
| | Wrong choice of teachers psychologically |
| | The culture of the society and the way of thinking of the students' parents |
| | Student Injuries and Identity Crisis |
| | Ignoring the efforts of teachers and showing great failure |
| | Unfavorable organizational culture |
| | Individualism instead of acting collaboratively |
| | School problems |
| | |

| | |
|--------------------------------------|---|
| Challenges of education and attitude | Teachers' lack of awareness of personal self-efficacy |
| | Having a professional view of teachers in the education system |
| | Spreading the culture of teachers and improving its position in society |
| | Lack of effective in-service training courses for teachers |
| | Teachers' stress and worries about failure |
| | Lack of knowledge of the teacher's own abilities |
| | Teacher job satisfaction |
| Processes and standards | Backwardness of the education system in terms of learning, modern mass communication methods and methods and available software |
| | Lack of proper educational technology in schools |
| | Existence of unrealistic standards and criteria for the performance and process of teaching and learning from teachers |
| | Unrealistic performance expectations in curricula from teachers |
| | Lack of computer knowledge and digital literacy |
| | Lack of creative programs in the education system |

There are general and broad mediating conditions that affect how interaction / interaction (Strauss, Corbin, 2011). 32 open codes have been extracted for the interventionist conditions and are summarized in four categories: system inadequacy, economic and cultural problems, training and attitude challenges, and processes and standards.

Table6. Open source and strategy related categories

| Categories | Open source |
|--|---|
| Creating dynamic structures and centers | Creating an optimal organizational structure for teacher self-efficacy programs |
| | Establishment of a teacher self-efficacy center in education |
| | Creating a scientific and free atmosphere for teachers |
| | Development of favorable organizational culture in education |
| | Involve teachers in curriculum and content development |
| Review and amend laws, regulations and systems | Amend the rules and regulations related to the selection of teachers |
| | Amend laws and regulations related to teacher promotion |
| | Review of teachers' pension laws |
| | Improving the teacher evaluation system and implementing a dynamic monitoring and guidance system |
| | Evaluate and monitor teachers' performance effectively and continuously |
| | Establish a proper teacher welfare system |
| | Payment of part of the salary based on the results of teachers' work |
| Strategies | Encourage teachers to participate in training courses and teaching methods |
| | Plan for effective in-service training |
| | Continuous training of teachers on ways to increase self-efficacy |
| | Conducting training courses on teaching styles and methods |
| | Careful and continuous planning for empowerment and self-efficacy |
| | Provide continuous learning conditions and flow |
| | Continuous training of teachers about their capabilities |
| | Increasing teachers' knowledge about learning psychology |
| | Improving teachers' skills in curriculum planning |
| | Improve teachers' skills in managing stress |
| | Increase group and group learning skills |
| Improve teachers' motivation and commitment | Create attractiveness and motivation for teachers in the workplace |
| | Increase the level of confidence of teachers using various techniques |
| | Strengthen the spirit of creativity in teachers |
| | Increase organizational commitment in teachers |
| | Strengthen emotional intelligence in teachers |
| Establishment of professional systems in education | Strengthen the sense of conscientiousness and responsibility in teachers |
| | Establishment of a learning organization system in education |
| | Establishment of a system of professional learning communities in |

education

Establishment of knowledge management system in education

Establishment of a reflective (thoughtful) leadership approach in education

Strategies in data foundation theory refer to the provision of solutions to deal with the phenomenon under study, the purpose of which is to manage the phenomenon under study, deal with it and show sensitivity to it (Strauss, Corbin, 2011). 33 open codes for strategies have been extracted and summarized in five categories: creating a structure and centers of dynamic self-efficacy, encouraging and increasing teachers' skills, improving teachers' motivation and commitment, and establishing professional systems in education.

Table7. Open source and consequence categories

| Categories | Open source | |
|---|---|--|
| Improve satisfaction and relationships between teacher and students | Increase discipline in school and the classroom | |
| | Increase job satisfaction of teachers and students | |
| | Development of education and training of students | |
| | Build self-confidence among teachers and students | |
| | Increase teachers' self-esteem | |
| | Improving positive communication practices between teachers and students | |
| | Establishing effective and favorable communication between teacher and students | |
| | Improving the quality of teaching and learning | Increase motivation and enthusiasm to improve teaching methods |
| | | Increase teacher skills |
| | | Teacher activity |
| Reduce the gap between teachers and students | | |
| Increase the quality of education | | |
| Flexibility of teaching and learning process | | |
| Teacher career growth | | |
| consequences | | Eliminate the problems of the educational system and its efficiency |
| | | Job interest |
| | | Reduce teacher burnout |
| | Reduce stress and anxiety | |
| | Life satisfaction for the teacher | |
| | Reduce burnout and improve mental health | Strengthen the emotional, spiritual and psychological dimension of teachers and students |
| | | Increase the spirit of participation |
| | | Creating a cheerful spirit in the classroom and school |
| | | Improving the mental health of teachers and students |
| | | Increase positive attitude |
| Reduce absurd feelings and beliefs | | |
| Modeling self-efficacy and performance improvement | | Increase teachers' commitment and responsibility |
| | | Develop effective and efficient models in the community and students |
| | | Improve student performance and progress |
| | | Make homework easier |
| | Improve teachers' leadership and teaching skills | |
| | Increase belief in doing things successfully | |
| | Increase compatibility with different environments | |

Consequences are the result of action (reaction) and reaction (reactions) to the conditions that exist in relation to the phenomenon (Strauss, Corbin, 2011). 32 open codes have been extracted for the outcomes and are summarized in four categories: improving satisfaction and relationships between teachers and students, improving the quality of education and teaching, reducing burnout and improving mental health,

modeling self-efficacy and improving performance. After studying the existing theoretical foundations and interviewing experts in the field of personal self-efficacy of high school teachers, the main and sub-categories related to the central phenomenon of personal self-efficacy of high school teachers were calculated and the final conceptual model was developed as Figure 1.

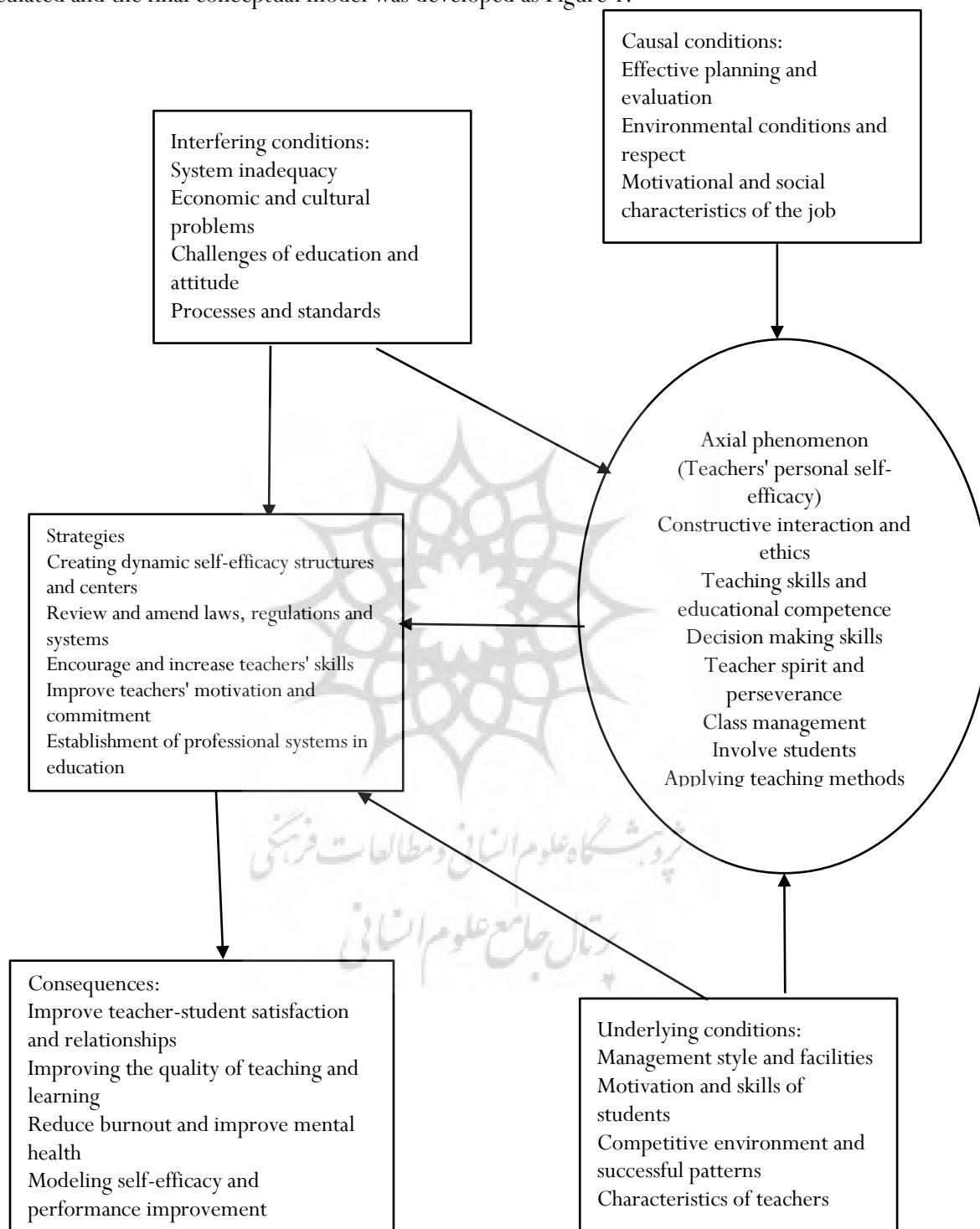


Figure1. Pattern of personal self-efficacy of secondary teachers

4. Discussion

Considering the important importance of self-efficacy belief structure in different dimensions and the role that this structure can play in the individual and organizational success of teachers in the education system, identifying the factors affecting it and providing a comprehensive model seems necessary. In this regard, this study was conducted with the aim of providing a model for personal self-efficacy of high school teachers. The results showed 27 general categories that in the form of a paradigm model of the foundation data theory in the form of six comprehensive categories of causal conditions, central phenomena, personal self-efficacy strategies of secondary school teachers, contextual conditions, intervening conditions and consequences, personal self-efficacy of secondary school teachers Reflects.

Based on the results of the content analysis of the interviewees' responses, the categories of effective planning and evaluation, environmental conditions and respect, and job motivational and social characteristics are effective factors in creating the phenomenon of personal self-efficacy of high school teachers and each of these factors has an important impact. Provide areas of personal self-efficacy for teachers. If there is effective planning and evaluation in areas such as the existence of self-efficacy programs in programs and perspectives, promotion of self-efficacy teachers based on their performance, providing learning opportunities for teachers and other things, it can lead to teachers' personal self-efficacy. Be in schools. Environmental conditions and respect are other influential factors in the formation of personal self-efficacy of teachers through encouragement and praise from teachers, quality of work life, appropriate environmental conditions and friendly and effective relations between principal and teacher, the existence of organizational justice and meritocracy in education and there are other cases. Obviously, motivational and social characteristics of the job are received from other causal sources in order to create the ground for teachers' personal self-efficacy through repeated successful personal experiences and performance, successive experiences (observational learning), repeated success of others, encouragement and verbal and social feedback from teachers, Positive feedback from colleagues and so on. Arslan (2019) has stated that teacher self-efficacy plays a significant and positive mediating role between verbal and social motivation and feedback, psychological states and substitution experiences with a professional teaching attitude for teachers. Ghanbari, Hemmati (2015) showed that the components of safe and healthy environment as well as providing opportunities for growth and continuous security have the power to predict teachers' self-efficacy. Sezin and Erdogan (2015) have concluded that hope, academic optimism and interest in work are positive and significant predictors of teachers' perceived situation and self-efficacy. Klassen, Durksen (2014) showed that teacher self-efficacy is highly correlated with how effective assessments are made by the individual, supervisors, and administrators.

In the obtained paradigm model, the central phenomenon is the personal self-efficacy of high school teachers, which is at the center of the model and other concepts are related to it. The personal self-efficacy of high school teachers in this study consists of seven categories: constructive interaction and ethics, teaching skills and teaching competence, decision-making and problem-solving skills, teacher morale and perseverance, class management, student involvement and teaching methods. Obviously, features such as interaction with students and other teachers and school principals, flexibility in communication with students and the system, familiarity with the teaching and learning process, use of effective techniques for classroom management, effort and interest in creating Innovative methods, having a spirit of sacrifice and self-sacrifice, creating a classroom management system to control different groups of students, helping students to value learning, creating a platform for easy and comfortable classroom activities and other features Obtained for the central phenomenon, it can represent the belief of personal self-efficacy of high school teachers. Ghasemi et al. (2018) showed that teachers' personal self-efficacy includes three components: self-efficacy for student engagement, self-efficacy for classroom management, and self-efficacy for teaching strategies. Hossein Chari et al. (2010) showed that after factor analysis, three factors of self-efficacy in student involvement in academic affairs, self-efficacy in teaching methods and self-efficacy in

classroom management were extracted for teachers' self-efficacy. Johari, Yahya (2016) have stated that receiving positive feedback from colleagues can strengthen a person's belief in their abilities.

Data analysis showed that four categories of management style and facilities, students' motivation and skills, competitive environment and successful models and characteristics of teachers as background conditions and four categories of system inadequacy, economic and cultural problems, educational challenges and attitudes And processes and standards as intervening conditions. The strategies presented from the results of content analysis and data coding include five categories: creating a dynamic structure and centers of self-efficacy, encouraging and increasing teachers' skills, improving teachers' motivation and commitment, and establishing professional systems in education in which strategies such as creating Optimal organizational structure for teacher self-efficacy programs, establishment of teacher self-efficacy center in education, reform of laws and regulations related to teacher promotion, reform of teacher evaluation system and implementation of dynamic monitoring and guidance system, increase teachers' knowledge about learning psychology, create attractiveness And motivation for teachers in the workplace, the establishment of a learning organization system in education, the establishment of a system of professional learning communities in education and the establishment of a knowledge management system in education are effective strategies to improve the personal self-efficacy of high school teachers. Mirahmadi et al (2019) stated that professional learning communities affect teachers' sense of self-efficacy in all its categories. Ba ezat et al (2016) showed that there is a positive relationship between all aspects of knowledge management and teacher self-efficacy and creativity. There is meaning. Chen, Kao (2011) also found that job knowledge characteristics have a positive and significant effect on self-efficacy.

Finally, the consequences of personal self-efficacy of high school teachers according to data analysis and coding include four categories: improving satisfaction and relationships between teacher and students, improving the quality of teaching and learning, reducing burnout and improving mental health, modeling self-efficacy and improving performance. Is. The most important consequences of improving the satisfaction and relationships between teacher and students include increasing discipline in school and classroom, increasing job satisfaction of teachers and students, improving positive communication methods between teachers and students, establishing effective and desirable communication between teacher and students is. The consequences of improving the quality of teaching and learning are: increasing motivation and enthusiasm to improve teaching methods, increasing teacher skills, increasing the quality of education, flexibility of the teaching and learning process, teacher career growth. Consequences of reducing burnout and improving mental health include reducing burnout of teachers, life satisfaction for teachers, strengthening the emotional and psychological dimension of teachers and students, creating a cheerful spirit in the classroom and school, improving the mental health of teachers and students and Reducing feelings and beliefs is absurd. The most important consequences of modeling self-efficacy and performance improvement are: increasing teachers' commitment and responsibility, developing effective and efficient models in society and students, improving students' performance and progress, improving teachers' leadership and teaching skills, and increasing adaptation to different environments. Perera, John (2020) have stated that teachers' belief in self-efficacy has a positive and significant relationship with job satisfaction and student success and academic quality. Mottaqi Nia, et al (2018) showed that implementing self-efficacy-based career development programs for employed teachers, through in-service courses, will enable them and prevent burnout. Nabavi et al. (2017) showed that there is a significant negative relationship between self-efficacy and social support with anxiety, insomnia and depression. Barari, Jamshidi (2015) showed that all components of emotional intelligence, burnout and self-efficacy are correlated in pairs. Abbasian Fard, et al (2010) found that there is a significant relationship between self-efficacy and achievement motivation in students. Van Gasse, et al (2020) showed that teachers' self-efficacy behavior and beliefs affect teachers' interactive behavior. Guo, et al (2010) showed that teacher self-efficacy plays a very important role in improving the quality of education and increasing the supportive environment in the classroom. Students

also have a positive view of teachers with higher self-efficacy towards education and academic achievement. Cheung (2006) has shown that teachers believe in self-efficacy with important educational outcomes such as: perseverance, interest and passion, commitment and satisfaction. Career and ultimately the career advancement of teachers and school achievement have a positive and significant relationship. Wolters, Daugherty (2007) in their study showed that teacher self-efficacy is directly related to students' academic achievement.

Since the effective learning-teaching process requires self-taught teachers, the necessary contexts and strategies should be developed to improve the self-efficacy belief of school teachers. The need for change in the existing education system of our country and its most important part, the school, despite the many measures to improve its conditions, requires self-influence mechanisms, one of the most important of which is the personal self-efficacy of teachers. Therefore, improving the self-efficacy belief of high school teachers, as one of the best methods of change in the country's education system, requires the development of a comprehensive model of personal self-efficacy for high school teachers. Today, education has undergone fundamental changes and the main challenge in today's world is not to be excluded from global competition, to be involved in the continuous process of change to be able to withstand the problems and opportunities of complex and changing environment to solve Takes advantage of shortcomings and shortcomings. On the other hand, the vision of the document of fundamental transformation of education in the field of leadership and management system as such, leadership and education management system in the 21-year horizon of the country, efficient, effective and perfect system, based on the superior share of human resources with capability Distinguished in the level of the Islamic Republic of Iran at the regional level, learner, justice-oriented and participatory atmosphere, believer, adorned with the virtues of Islamic ethics, agent of righteous action, transcendent and transformative, revolutionary, forward-looking, wise, committed, honest, insightful And rightly so, achieving this requires developing a belief in personal self-efficacy for teachers. Therefore, considering the vital role of secondary school teachers in advancing the goals and aspirations of the country's education system, paying attention to the personal self-efficacy needs of secondary school teachers should be one of the most essential priorities of the education system. Practical suggestions: 1- The proposed paradigm model of personal self-efficacy of secondary school teachers should be used as a basis for formulating goals, programs and activities in the education system of North Khorasan province and other provinces of the country. Comprehensive strategic plan for personal self-efficacy of high school teachers with the participation of teachers, school principals and the provincial education system, 3- Creating a dynamic and systematic center for personal self-efficacy of high school teachers in the education system and creating a fundamental transformation to empower and improve self-efficacy belief Teachers, 4- Paying attention to meritocracy indicators to promote school teachers and improve teachers' personal self-efficacy belief, 5- Reviewing and amending laws and regulations, teacher welfare and reward system, and teacher promotion system based on performance, 6- Formulating and implementing effective strategies To improve the self-efficacy of teachers, including: design and implementation of professional systems of the learning organization, the system of professional learning communities and knowledge management in education.

References

- Abbasian Fard M, Bahrami H, Ahqr Q. (2010). Relationship between self-efficacy and achievement motivation in pre-university female students. *Journal of Applied Psychology*, 13: 95-109.
- Arai V, Esfidani M R. (2014). Measuring the efficiency of employees using psychological-managerial theories, *Quarterly Journal of Human Resource Management Research*, Imam Hossein University, 6 (3): 49-67.
- Arslan A. (2019). The Mediating Role of Prospective Teachers' Teaching Self-Efficacy between Self-Efficacy Sources and Attitude towards Teaching Profession. *International Journal of Educational Methodology*, 5(1): 87-96.
- Asghari A, Khodapnahi M K, Saleh Sadeghpour B. (2008). The relationship between empowerment and self-efficacy with job satisfaction. *Journal of Psychology*, 12 (2).
- Ba ezat S, Aflaki Fard H, Shahidi N. (2016). The Relationship between Knowledge Management and Self-Efficacy and Creativity of Preschool Teachers, *Quarterly Journal of New Approach in Educational Management*, 7 (4): 169-184.
- Bandura A. (2001). Social cognitive theory: An agentic perspective. *Asian journal of social psychology*, 2(1): 21-41.
- Barari R, Jamshidi L. (2015). The mediating role of teachers' self-efficacy in the relationship between emotional intelligence and burnout of elementary teachers. *Quarterly Journal of New Approach in Educational Management*. 6 (24): 177-200.
- Beyrami M, Florist F, Mirnsab M M. (2015). Explaining bullying management strategies based on teachers' self-efficacy: The mediating role of teachers' beliefs and attitudes about student bullying. *Journal of Cognitive and Behavioral Sciences Research*, 5 (1): 107-120.
- Cantrell P, Young S, Moore A. (2003). Factors affecting science teaching efficacy of preservice elementary teachers. *Journal of Science Teacher Education*, 14(3): 177-192.
- Chen C H V, Kao R H. (2011). A multilevel study on the relationships between work characteristics, self-efficacy, collective efficacy, and organizational citizenship behavior: The case of Taiwanese police duty-executing organizations. *The Journal of psychology*, 145(4): 361-390.
- Cheung H Y. (2006). The measurement of teacher efficacy: Hong Kong primary in-service teachers. *Journal of Education for Teaching*, 32(4): 435-451.
- Gavora P. (2010). Slovak pre-service teacher self-efficacy: Theoretical and research considerations. *The New Educational Review*, 21(2): 17-30.
- Ghanbari S, Hemmati M. (2015). Investigating the relationship between quality of work life and self-efficacy of primary school teachers in Hamadan. *Quarterly Journal of Educational Leadership and Management*. 9 (1): 117-134.
- Ghasemi A, Kadivar P, Keramati H, Arabzadeh M. (2018). Evaluation of validity and reliability of teacher self-efficacy questionnaire. *Quarterly Journal of Research in School and Virtual Learning*. 6 (2): 81-94.
- Guo Y, Connor C M, Yang Y, et all. (2012). The effects of teacher qualification, teacher self-efficacy, and classroom practices on fifth graders' literacy outcomes. *The Elementary School Journal*, 113(1): 3-24.
- Guo Y, Piasta S B, Justice L M, Kaderavek J N. (2010). Relations among preschool teachers' self-efficacy, classroom quality, and children's language and literacy gains. *Teaching and Teacher education*, 26(4): 1094-1103.
- Hossein Chari M, Samawi S A W, Mohammadi M. (2010). Evaluation of psychometric indices of teacher self-efficacy questionnaire. *Journal of Teaching and Learning Studies*. 2 (2): 85-106.
- Johari J, Yahya K K. (2016). Job characteristics, work involvement, and job performance of public servants. *European Journal of Training and Development*.
- Karimzadeh Shirazi M, Razaviyeh A, Kaveh M H. (2008). Relationship between quality of life and self-efficacy of working teachers in Shahrekord, *Journal of University of Medical Sciences*. 10.
- Klassen R M, Durksen T L. (2014). Weekly self-efficacy and work stress during the teaching practicum: A mixed methods study. *Learning and Instruction*, 33: 158-169.
- Kozlowski S W, Klein K J. (2000). A multilevel approach to theory and research in organizations: Contextual, temporal, and emergent processes.
- Miraglia M, Alessandri G, Borgogni L. (2015). Trajectory classes of job performance. *Career development international*.
- Mirahmadi Kh, Khorasani A, Abolghasemi M, Mehri D. (2019). Vocational Learning Communities (PLCs): A Critical Strategy for Improving Teacher Self-Efficacy. *Teaching and Learning Research*, 16 (1): 1-14.

- Morris D B, Usher E L, Chen J A. (2017). Reconceptualizing the sources of teaching self-efficacy: A critical review of emerging literature. *Educational Psychology Review*, 29(4): 795-833.
- Mottaqi Nia M R, Weiss Karami H A, Deldar A A. (2018). Self-efficacy: what it is and its application in teacher professional preparation and development. *Two scientific-promotional quarterly magazines on new teacher training strategies*. 4 (5): 29-52.
- Nabavi S, Sohrabi F, Afrooz Gh A, et all. (2017). Predicting teachers' mental health based on self-efficacy and social support variables. *Journal of Health Education and Health Promotion*. 5 (2): 129-138.
- Ormrod J E, Anderman E M, Anderman L. H. (2006). *Educational psychology: Developing learners*.
- Perera H N, John J E. (2020). Teachers' Self-efficacy Beliefs for Teaching Math: Relations with Teacher and Student Outcomes. *Contemporary Educational Psychology*, 101842.
- Perez J M, Medina F J, Munduate L. (2011). Effects of self-efficacy on objective and subjective outcomes in transactions and disputes. *International journal of conflict management*, 22(2); 170-189.
- Phan H P. (2007). An examination of reflective thinking, learning approaches, and self-efficacy beliefs at the University of the South Pacific: A path analysis approach. *Educational Psychology*, 27(6): 789-806.
- Phan N T T, Locke T. (2015). Sources of self-efficacy of Vietnamese EFL teachers: A qualitative study. *Teaching and Teacher Education*, 52: 73-82.
- Seif D, Mazrouqi R. (2008). The Relationship between Dimensions of Shakhati Knowledge Beliefs and Self-Efficacy with Academic Performance of Middle School Students in Experimental Science. *Behavior Scholar*, 15 (33): 1-11.
- Sezgin F, Erdogan O. (2015). Academic Optimism, Hope and Zest for Work as Predictors of Teacher Self-Efficacy and Perceived Success. *Educational Sciences: Theory and Practice*, 15(1): 7-19.
- Strauss A, Corbin J. (2011). *Principles of Qualitative Research Methodology: Basic Theory of Procedures and Methods*, translated by Buick Mohammadi, Tehran: Institute of Humanities and Cultural Studies.
- Taimalu M, Kikas E, Hinn M, Niilo A. (2010). Teachers' self-efficacy, teaching practices, and teaching approaches: Adaptation of scales and examining relations. *Teacher's personality and professionalism*, 123-140.
- Van Gasse R, Vanlommel K, Vanhoof J, Van Petegem P. (2020). Teacher interactions in taking action upon pupil learning outcome data: A matter of attitude and self-efficacy?. *Teaching and Teacher Education*, 89: 102989.
- Wolters C A, Daugherty S G. (2007). Goal structures and teachers' sense of efficacy: Their relation and association to teaching experience and academic level. *Journal of educational psychology*, 99(1): 181.