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

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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.

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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
Causal conditions	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
	Environmental conditions and respect	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
		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.

Table3. 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
		Giving advice to students in different departments
	Teaching skills and educational competence	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
		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
	Decision making and problem solving skills	Having a spirit of change
		Effort and passion to create innovative methods
		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
	Teacher spirit and perseverance	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
		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
	class management	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
	Involve 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
	Applying teaching methods Categories Constructive interaction and ethics	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
		Design appropriate questions for student exams
		Adapt your education to the level of students' individual ability
		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
Underlying conditions	Management style and facilities	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
		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

		Teacher empowerment programs
		School principal leadership
		Providing hardware and software facilities in the training system
		Support for self-efficacy programs by school principals
	Motivation and skills of students	Student motivation level
		Issues related to student discipline
		Make-up and how students sit next to each other
		Students' skill level
	Competitive environment and successful patterns	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
		Encourage teachers and allow self-efficacy to grow
		Existence of efficient model figures in the region and observing the success of the models
	Characteristics of teachers	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.

Table5. Open codes and categories related to mediator conditions (intervener)

	Categories	Open source
Mediating conditions	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
	Economic and cultural problems	Unfavorable economic and social conditions
		Teachers' reluctance to increase self-efficacy
		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
		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
	Processes and standards	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
Strategies	Creating dynamic self-efficacy 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
	Encourage and increase teachers' skills	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
		Strengthen the sense of conscientiousness and responsibility in teachers
	Establishment of professional systems in education	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
consequences	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
		Eliminate the problems of the educational system and its efficiency
	Reduce burnout and improve mental health	Job interest
		Reduce teacher burnout
		Reduce stress and anxiety
		Life satisfaction for the teacher
		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.
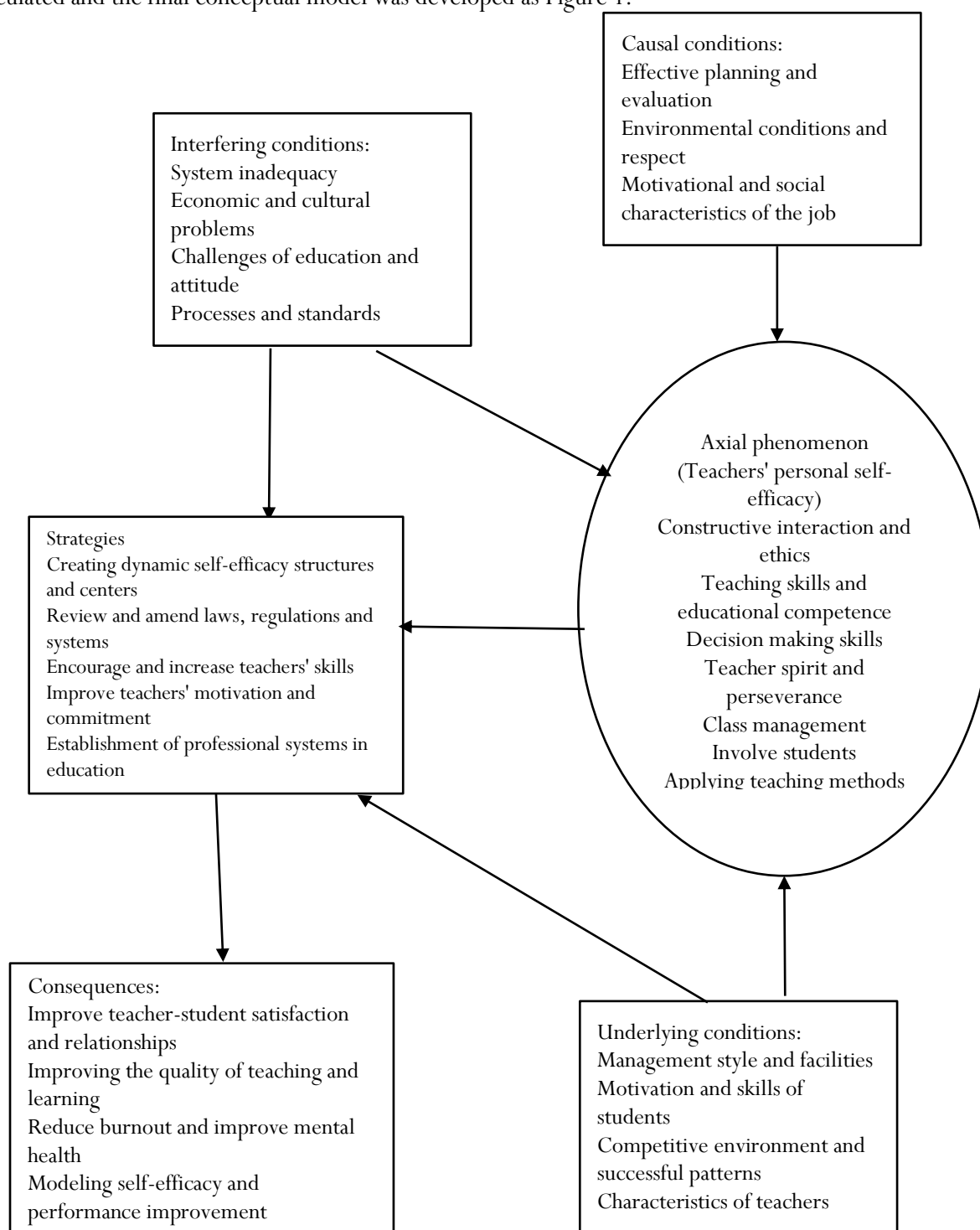
Causal conditions:
Effective planning and evaluation
Environmental conditions and respect
Motivational and social characteristics of the job

Interfering conditions:
System inadequacy
Economic and cultural problems
Challenges of education and attitude
Processes and standards

Axial phenomenon
(Teachers' personal self-efficacy)
Constructive interaction and ethics
Teaching skills and educational competence
Decision making skills
Teacher spirit and perseverance
Class management
Involve students
Applying teaching methods

Strategies
Creating dynamic self-efficacy structures and centers
Review and amend laws, regulations and systems
Encourage and increase teachers' skills
Improve teachers' motivation and commitment
Establishment of professional systems in education

Consequences:
Improve teacher-student satisfaction and relationships
Improving the quality of teaching and learning
Reduce burnout and improve mental health
Modeling self-efficacy and performance improvement

Underlying conditions:
Management style and facilities
Motivation and skills of students
Competitive environment and successful patterns
Characteristics of teachers

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' selfefficacy, teaching practices, and teaching approaches: Adaptation of scales and examining relations. Teacher's personality and professionality, 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.