

## **Validating the Model of the Elementary Curriculum of Farhangian University based on the Fundamental Reform Document of Education**

**Fateme Bazargan<sup>1</sup>**

**Dr. Hossein Daiizadeh<sup>2\*</sup>**

**Dr. Mohammad Ali Amirtaqavi<sup>3</sup>**

**1. PhD student of Marand Islamic Azad University curriculum**

**Fatemeh.bazargan90@gmail.com**

**2. Assistant Professor, Babol Sar University, Department of Educational Sciences, Iran**

**Daeizadeh.phd@gmail.com**

**3. Assistant Professor, University of system Sciences, Department of Educational Sciences, Iran**

**Amirtaghavi.m@gmail.com**

### **Abstract**

The present research aims to design and validate the model of the elementary curriculum of Farhangian University based on the fundamental reform document of education. The current research is applied in terms of purpose with a mixed exploratory approach. In the qualitative approach, the grounded theory method was used and a descriptive survey-type method was used in the quantitative approach. In the qualitative group, the statistical population included subject experts, and university professors in the fields of curriculum planning and elementary education, among which 34 people were selected as a sample using the purposeful sampling method. In the quantitative part, the statistical population included 120 teachers who were chosen from the best teaching models festival, with masters and doctorate degrees in the field of curriculum and elementary education. They were selected from the five provinces of Farhangian University of Tabriz, University of Tehran, Mazandaran, Razavi Khorasan, and Qom using the cluster sampling method. Qualitative data were collected with semi-structured interviews and quantitative data were collected with a researcher-made questionnaire. The data were analyzed by content analysis and exploratory and confirmatory factor analysis. The findings of the exploratory factor analysis showed that ten themes including the goal (6 components), content (7 components), teaching methods (8 components), evaluation methods (5 components), research-oriented encouragement (4 components), connecting students with scientific resources (4 components), characteristics of learners (4 components), facilitating factors (3 components), obstacles (3 components) and consequences (4 components) are the components of the elementary curriculum of Farhangian University based on FRDE. In addition, based on the findings of the confirmatory factor analysis, all ten components are sufficient to remain in the research, and their factor loading values are suitable and consequently have a good fit. The results of Cronbach's alpha coefficient showed that the research model has good reliability. In addition, according to the values obtained for the combined reliability coefficient, the research model has good internal consistency. Finally, the reliability and validity of the convergence model of the research are confirmed based on the average value of the extracted variance. Therefore, the model designed for the components of the elementary curriculum of Farhangian University based on FRDE has appropriate validity and reliability.

**Key words;** Farhangian University, elementary school curriculum, fundamental reform document of education

### **Introduction**

The curriculum is the most important element and essence of higher education and the guarantee of its effectiveness. The curriculum is the most important tool for realizing the missions of higher education

and the reflection of its roles and goals (Molainejad, 2019). Specialists have considered a wide range of elements (one to nine elements) for the curriculum (Molainejad, 2019). One of the factors affecting the quality of the implementation of a new or changed program is the methods of dealing with agents and their executors. The teachers are in charge of implementing the curriculum in the elementary school in Iran, and Farhangian University is responsible for training teachers, which is also called "Teacher Training". Changing the role of the teacher has reformed the teacher training program. These changes formed the idea that educational micro-remedial programs and reforming and improving the training of trained teachers and trainers should be widely and comprehensively carried out (Ahmadi 2018). The evolution in the concept of expected competencies for teachers has created constructive movements in education. The system of the Islamic Republic of Iran has also followed these developments and the fundamental reform document of education has been one of the most reliable documents in the system of the Islamic Republic (Mahdavi-Hazaveh, 2019).

The education institution in the fundamental reform document of education emphasizes the basic competencies of students to reach a level of good life. This document specifies a framework for determining these competencies based on the theoretical foundations of Islamic education philosophy, and competencies can be defined based on the theoretical foundations of Islamic education philosophy. Thus, according to the framework specified in the teaching profession in FRDE, the grand design of the teacher education curriculum stated that following the operational goals mentioned in the reform and action document is required based on the 11th strategy, one of which is the revision of the teacher training curriculum. (Theoretical Foundations of Fundamental Reform Document, 2013, 145). Teacher training can be considered one of the most sensitive and important components of the education system because teachers' professional abilities and capabilities are responsible for the success and failure of creating reform in education systems, they are the main executives of the programs in the real environment (Nateghi, 2019).

To realize this issue, teacher training and each of its components should include recruitment, preparation, retention, promotion, and evaluation based on the theoretical and value system of Islam and coordinated and compatible with the country's cultural, social, and indigenous characteristics. It should be also designed in accordance with related upstream documents. On the other hand, elementary education is one of the important fields in the Farhangian University of Iran's education system. Elementary education is very important not only in Iran but in all education systems of the world. The most important educational period is elementary because it forms the personality and all-round development of a person. Therefore, it has always been important to study different aspects of this academic course. One of the basic aspects of the elementary education system is curriculum and its planning.

According to research evidence, Iran's education system pays less attention to the elementary education period. This lack of research is mainly related to the new emergence of curriculum knowledge in Iran (the source for this claim?). Taghipour (2019) identified the dominant curriculum approach from the point of view of elementary school teachers according to three elements (goal, teaching method, and evaluation). As a result, the degree of application of curriculum approaches in the teaching-learning process has been determined according to the behavioral perspective, the process-cognitive perspective, and the humanistic perspective. In addition, there was a significant difference between people's opinions on the dominant approach in terms of variables such as gender and educational degree, but there was no significant difference between variables such as gender and educational degree and there was a significant difference between variables such as educational levels, field of study and work experience. Yazdani and Hasani (2017) believe that there is no balanced attention to the three areas of learning in the elementary curriculum education in Iran and the compiled goals are in the field of knowledge and skills.

The curriculum in Iran is generally facing global challenges and internal challenges in the education

system. Due to the importance of cultural universities and the role of teachers in the formation of knowledge, attitudes, and skills necessary to enter the higher stages and the importance of the elementary course, the elementary curriculum of Farhangian University should always be revised and reformed based on the FRDE of the education system. In addition, a suitable solution should be provided for the challenges raised, and a suitable curriculum model should be prepared and validated. Therefore, due to the research and theoretical gap, the importance of Farhangian University, and the necessity of revising the elementary curriculum based on the FRDE, the present research is designed to validate the model of the elementary curriculum of Farhangian University based on the FRDE of the education system. This study also has designed and validated the optimal model of the elementary curriculum of Farhangian University based on the FRDE of the education system.

### Research Methodology

The current research is applied in terms of purpose, which was carried out with a mixed approach (qualitative and quantitative) with an exploratory design, which was conducted in two qualitative (interview) and quantitative (questionnaire) sections.

**Interview:** Semi-structured interviews were used based on the grounded theory method to collect qualitative data. The statistical population includes expert professors and experts in the field of the elementary curriculum of Farhangian University, among which 34 people (18 subject experts, university professors in the fields of curriculum planning, and 16 people in elementary education) were selected as statistical sample based on purposive sampling method and the saturation law. The interviews continued over five months with a minimum time of 35 minutes and a maximum time of 65 minutes. The perspective of the participants or readers of the research report was used to ensure the validity of the interviews and the following measures were taken:

- Reviewing by the members: The participants in the interviews observed and reviewed the obtained categories and expressed their opinion regarding them.
- Peer review: In addition to receiving valuable opinions from supervisors and advisors, the extracted categories were reviewed with several professors, graduates, and managers.
- Experience and records of tutors and advisors: several years of experience in the field of higher education and education in the field of the curriculum made it possible to correctly categorize.
- Participatory research: The participants were used simultaneously to analyze and interpret the data. The reliability of the interviews and data was used between the coders (reliability of raters) and the method of Miles and Haberman (1994) was used to calculate the percentage of reliability between the two coders (reproducibility index) which is used as the reliability index of the analysis. The data obtained from the coding results of the researcher and the colleague showed that the total number of codes recorded by the researcher and the research colleague is equal to 3672 and the total number of agreements between these codes is 1289. The reliability between the coders was 0.71 in the research and therefore its reliability is confirmed.

**Questionnaire:** In the quantitative part, the statistical population includes 240 specialists in the field of educational sciences, among which 120 people were selected as statistical samples using cluster sampling method in the fields of curriculum planning and elementary education from five provinces of Farhangian University of Tabriz, Tehran University, Mazandaran, Khorasan. Razavi and Qom. The following three criteria were considered to select the participants: scientific expertise (people with sufficient knowledge of the curriculum in the field of elementary education at Farhangian University), scientific experience (people who are familiar with the curriculum in the field of elementary education of Farhangian University) and having at least more than 10 years of teaching experience in universities.

The questionnaires were given to the experts and professors and their opinions were asked to confirm

the face validity. The following measures were taken to confirm the content validity of the tool. A preliminary questionnaire was prepared and given to the experts after identifying and determining the dimensions and components of the variable through the research literature and interviews with experts. Based on their corrective comments, initial corrections and adjustments were made to the tool. Then, secondary corrections were made for the instruments and the necessary changes were made based on their opinions with the cooperation of the supervisors and advisors and the opinion of experts. In the final stage, the final corrections were made for each instrument and the content validity of the tool was approved by the supervisors and advisors. Cronbach's alpha coefficient was also used for the reliability of the questionnaire. The alpha coefficient for all dimensions is greater than 0.7, therefore, it has good reliability.

### Research findings

The current research was conducted to design a suitable model in the elementary curriculum of Farhangian University based on the FRDE. Based on the results of the qualitative findings and interviews, ten themes including the goal (6 components), content (7 components), teaching methods (8 components), evaluation methods (5 components), research-oriented encouragement (4 components), connecting students with scientific resources (4 components), characteristics of learners (4 components), facilitating factors (3 components), obstacles (3 components) and consequences (4 components) were extracted as the components of the elementary curriculum of Farhangian University based on FRDE, the description of which is presented in Table 1.

**Table 1 Themes extracted from qualitative analysis**

	<b>Theme 1. Goals</b>
Concepts	Adaptation of educational system policies with the Farhangian University curriculum
	Training students' questioning skills and spirit
	Human resources management is based on curriculum planning of Farhangian University and strengthening the ability of human resources to create a suitable environment for designing and implementing research curricula.
	Existence of incentive mechanisms (material and spiritual or research encouragement) regarding the participation of teachers in the active curriculum process
	Setting up the organizational structure and design of the educational environment based on a research approach
	<b>Theme 2. content</b>
Concepts	Being related to students' real and life experiences
	Appropriateness of the topic and the content of the courses with the past experiences of the students
	Increasing the participation of teachers in the development of research curriculum content
	Providing evidence and empirical reasons in educational activities
	Creating a space to explain the problem and present a hypothesis to achieve scientific results
	Pay attention to the scope and depth of scientific concepts and principles
	Pay attention to the needs and interests of students in a methodical format
	<b>Theme 3. Teaching methods</b>
	Using problem-oriented methods and encouraging students to participate in discussions

Concepts	Education based on the project process and research is an integral part of it
	Beginning the learning process with questions, especially challenging questions for imbalance in the mind
	Using active teaching and learning models to strengthen critical thinking, creativity, innovation, exploration, and research.
	Emphasizing learning through problem-solving and research
	Paying attention to the role of the teacher as a facilitator and guide
	Paying attention to creating understanding and making connections between scientific materials and paying attention to the role of the senses
	Process skill development
	<b>Theme 4. Evaluation methods</b>
	Emphasizing using the activity folder
	Emphasizing the use of students' self-evaluation
	Attention to continuous and formative evaluation
	Providing the possibility of appropriate and timely feedback and emphasis on qualitative evaluation
	Paying attention to being participative and paying attention to different forms of evaluation
Concepts	<b>Theme 5. Research-oriented encouraging</b>
	Appreciating the efforts of students not in comparison with each other but each person in relation to himself
	Encouraging students according to the process of doing research instead of focusing on results and output
	Encouraging students to communicate more with reputable scientific centers to get answers to questions
	Encouragement for the way of searching and exploring different sources and the extent of referring to multiple sources
	<b>Theme 6. Communicating with students with scientific resources</b>
	Membership in scientific associations and student research centers
	Access to various scientific resources to obtain answers to questions and conduct research
	Internet access
	Communicating with the students of your university and neighboring universities to share the results of your research
Concepts	<b>Theme 7. Characteristics of learners</b>
	Motivating recipients to learn research
	The attitude of adopters toward research and scientific activities
	Considering research as a value and preserving it
	Developing students' research skills
	<b>Theme 8- Facilitating factors</b>
Concepts	The support of university administrators for his research
	University structure design based on research activities
	Trained instructors
Concept	<b>Theme 9 . Obstacles</b>
	Structural obstacles

Concept	Attitudinal obstacles
	Management obstacles
	<b>Theme 10. Consequences</b>
	Increasing students' life skills
	Strengthening students' critical and creative thinking
	Educational development

Based on the qualitative analysis, the components of the elementary curriculum of Farhangian University were categorized into ten components based on FRDE. Then, using a researcher-made questionnaire and compiling 48 items, the curriculum components were identified using exploratory factor analysis. For this purpose, the adequacy of the sample size should be checked first, and the results of the KMO test (0.761) showed that the sample size is sufficient. In addition, according to the results of the significance level of Bartlett's test of sphericity ( $P=0.000$ ,  $P<0.01$ ), it is surely stated that the assumption of the identity of the correlation matrix is rejected and factor analysis is suitable for identifying the structure (factor model). Examining the amount of initial sharing and after extracting the factors shows that the initial sharing of all of them is equal to 1.000. The amount of commonality after extracting the factors for all variables is more than 50% (from at least 0.525 to 0.823) and indicates their ability to explain the variance of the variables studied in this research. The extracted factors are examined in the next step after determining the ability of all variables to explain the variance of the studied variables.

**Table 2 extracted factors along with eigenvalues, variance percentage, and cumulative variance percentage**

Factors	initial eigenvalues			eigenvalues of extracted factors without rotation			eigenvalues of rotated extracted factors		
	Total	Variance Percentage	Cumulative Percentage	Total	Variance Percentage	Cumulative Percentage	Total	Variance Percentage	Cumulative Percentage
1	14.113	29.402	29.402	14.113	29.402	29.402	9.479	19.748	19.748
2	5.467	11.390	40.792	5.467	11.390	40.792	6.414	13.363	33.111
3	4.279	8.916	49.707	4.279	8.916	49.707	4.835	10.073	43.184
4	2.164	4.509	54.216	2.164	4.509	54.216	3.371	7.023	50.207
5	2.026	4.222	58.438	2.026	4.222	58.438	2.399	4.997	55.205
6	1.668	3.474	61.912	1.668	3.474	61.912	2.099	4.372	59.577
7	1.437	2.993	64.905	1.437	2.993	64.905	1.785	3.719	63.296
8	1.397	2.911	67.817	1.397	2.911	67.817	1.587	3.306	66.602
9	1.185	2.469	70.286	1.185	2.469	70.286	1.43	2.998	69.590



Factors	initial eigenvalues			eigenvalues of extracted factors without rotation			eigenvalues of rotated extracted factors		
	Total	Variance Percentage	Cumulative Percentage	Total	Variance Percentage	Cumulative Percentage	Total	Variance Percentage	Cumulative Percentage
							4		
10	1.058	2.204	72.490	1.058	2.204	72.490	1.392	2.900	72.490

In the Table above, 10 factors had eigenvalues higher than one, which explains 72.490% of the total variances of the main research variables. Finally, the results of the rotated matrix of the components for the analysis of the components of the elementary curriculum of Farhangian University based on the FRDE show that the remaining 10 factors after rotation and with varimax type principal component analysis are categorized as follows.

**Table 3: Classification of the components of the elementary curriculum of Farhangian University based on FRDE**

The components	
1	Goal
	Educational system policies
	Training the spirit of research
	Human resources management
2	Content
	Educational environment design
	Connection with life experiences
	Contribution of teachers
	Paying attention to educational activities
	Paying attention to the problem-oriented
3	Teaching methods
	Paying attention to scientific principles
	Paying attention to needs and interests
	Using problem-oriented methods
	Project-based training
	Using active teaching patterns
4	Evaluation methods
	Paying attention to the role of the teacher
	Paying attention to communication between scientific materials
	Development of process skills
	Using the activity folder
	Using self-assessment
5	Research-oriented encouraging
	Collaborative evaluation
	Emphasizing qualitative evaluation
	Paying attention to continuous and formative evaluation
	Appreciation of students' efforts
	Encouraging students to do research
	Encouraging students to communicate with scientific centers

The components	
6	Encouragement to explore different sources
	Membership in scientific associations
	Accessing to various scientific resource
7	Characteristics of learners
	Motivate adopters
	Attitude of adopters
	The values of the receivers
8	Facilitating factors
	The support of university administrators for his research
	University structure design based on research activities
9	Obstacles
	Structural obstacles
	Attitudinal obstacles
10	Consequences
	Increasing students' life skills
	Strengthening students' critical and creative thinking
	Education and promotion of professional skills
	Educational development

According to the results of the exploratory factor analysis, the components of the elementary curriculum of Farhangian University are approved. In the next step, the loadings of each of the 10 components were checked using confirmatory factor analysis, and the adequacy of each of the components to remain in the research has been measured and the processed model is presented below. In the present study, confirmatory factor analysis was performed using PLS-3 software



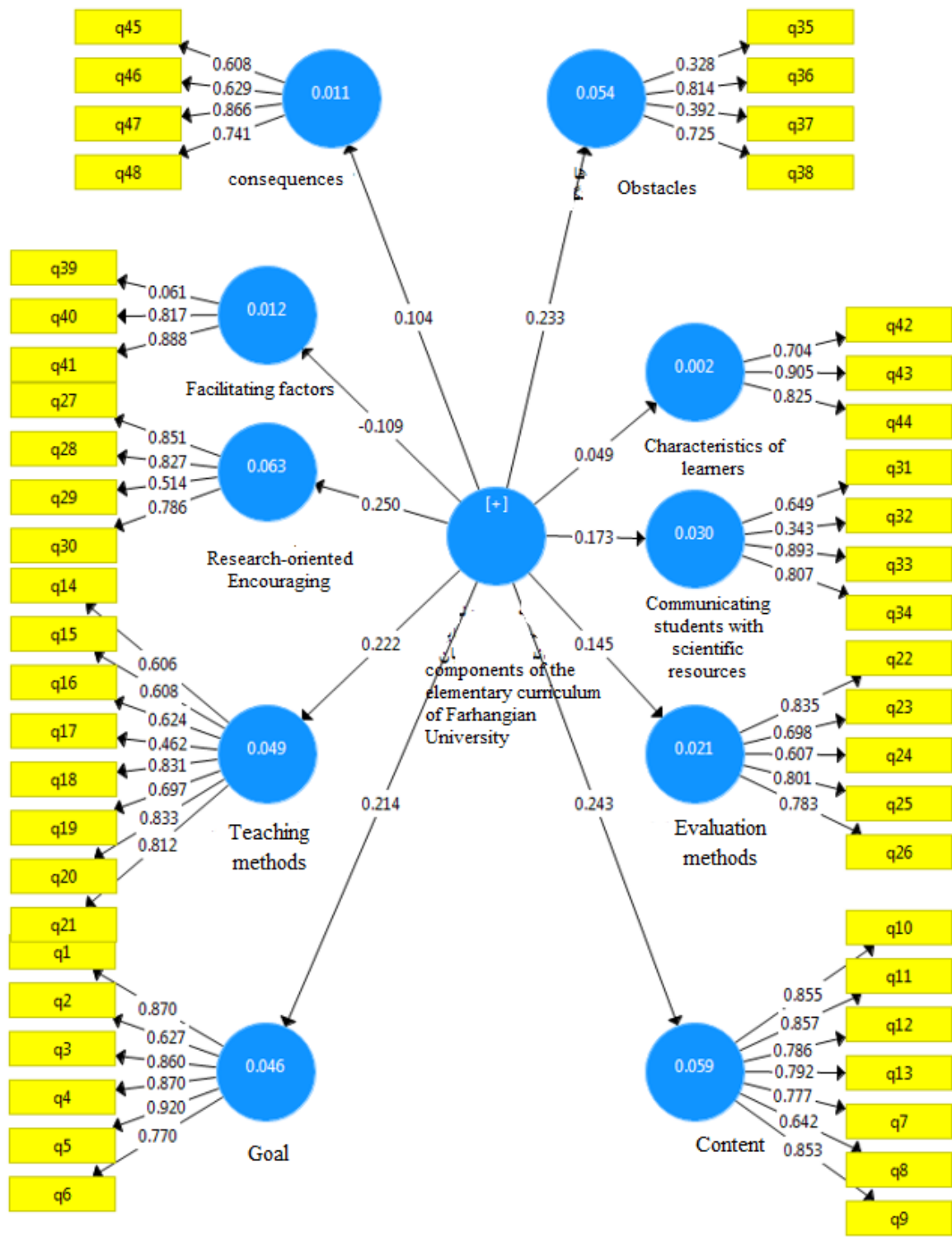


Figure 1. The model for identifying the components of the elementary curriculum of Farhangian University based on FRDE

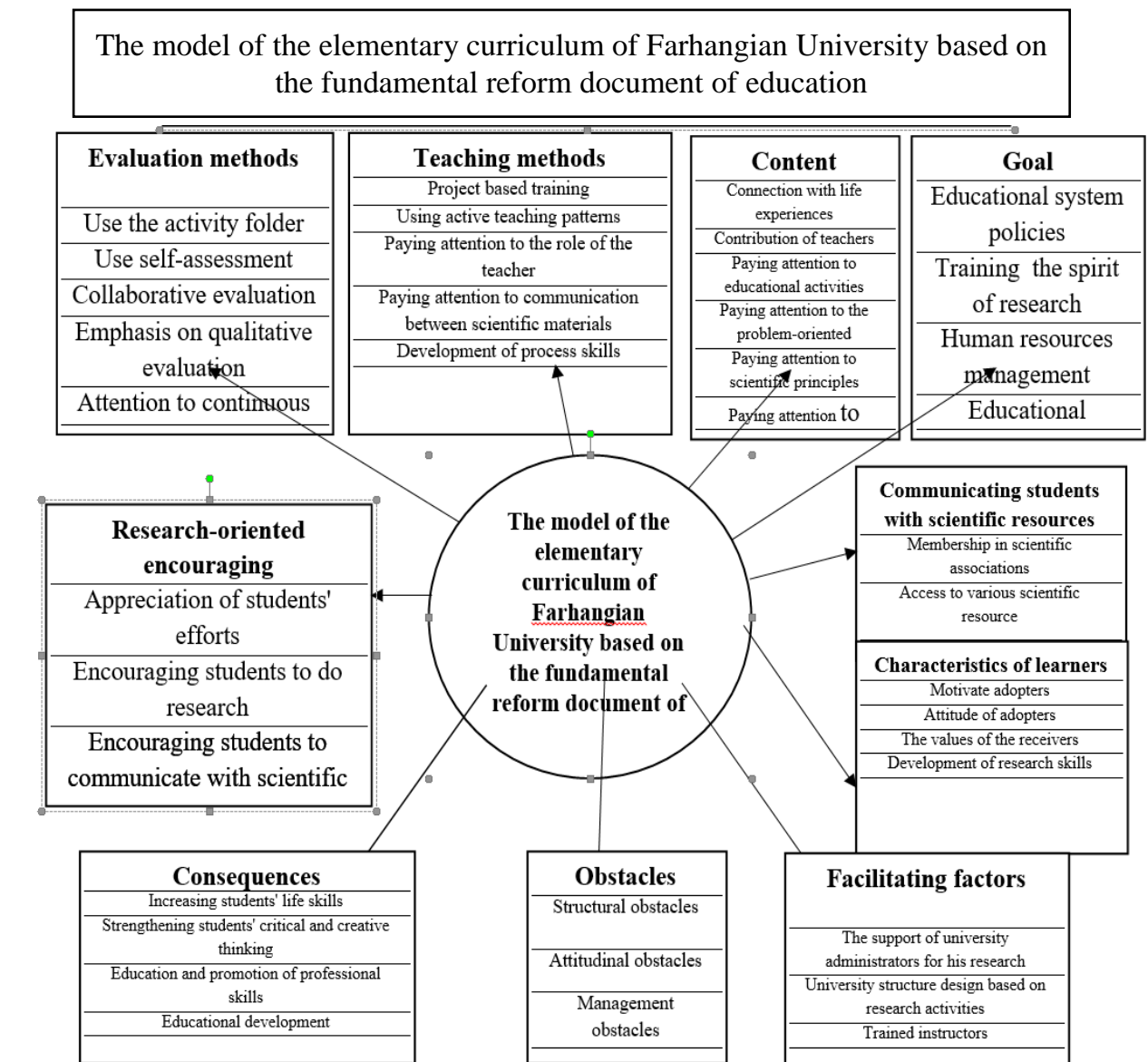
Based on the quantitative model of the research, the factor loadings obtained for the components of the elementary curriculum of Farhangian University based on FRDE are presented in the Table below.

**Table 4 Factor loadings of the determined components of the combined learning model**

Components	Questions	factor loading	Cronbach's alpha	Composite Reliability Coefficient (CR)	Average Variance Extracted (AVE)
Goal	1	0.870	0.907	0.927	0.681
	2	0.627			
	3	0.860			
	4	0.870			
	5	0.920			
	6	0.770			
content	7	0.777	0.903	0.924	0.636
	8	0.642			
	9	0.853			
	10	0.855			
	11	0.857			
	12	0.786			
	13	0.792			
Teaching methods	14	0.606	0.846	0.879	0.584
	15	0.608			
	16	0.624			
	17	0.462			
	18	0.831			
	19	0.697			
	20	0.833			
	21	0.812			
Evaluation methods	22	0.835	0.810	0.857	0.561
	23	0.698			
	24	0.607			
	25	0.801			
	26	0.783			
Research-oriented Encouraging	27	0.851	0.753	0.838	0.572
	28	0.827			
	29	0.514			
	30	0.786			
Communicating with students with scientific resources	31	0.649	0.765	0.783	0.597
	32	0.343			
	33	0.893			
	34	0.807			
Characteristics of learners	35	0.328	0.731	0.767	0.563
	36	0.814			
	37	0.392			
	38	0.725			
Facilitating factors	39	0.461	0.714	0.770	0.587
	40	0.817			
	41	0.888			

Components	Questions	factor loading	Cronbach's alpha	Composite Reliability Coefficient (CR)	Average Variance Extracted (AVE)
Obstacles	42	0.704	0.746	0.855	0.665
	43	0.905			
	44	0.825			
consequences	45	0.608	0.750	0.807	0.516
	46	0.629			
	47	0.866			
	48	0.741			

The factor loadings of the research components are presented in the Table above. The factor loadings of all 10 research components are more than 0.5. Therefore, it is surely stated that all 10 components are sufficient to remain in research and the values of their factor loadings are suitable and therefore it has a good fit. In addition, as observed in the Table, Cronbach's alpha coefficient for all ten variables is more than 0.7 and therefore has good reliability. In addition, according to the values obtained for the combined reliability coefficient (CR), all ten components of the research have been obtained more than 0.7. Therefore, they have good internal consistency. Finally, the value of average variance extracted (AVE) for all ten components of the research was more than 0.4. Therefore, it can be said with confidence that the reliability and validity of the convergence model of the research are confirmed. In addition, the model designed for components of the elementary curriculum of Farhangian University based on the FRDE has ten components including the goal, content, methods of teaching, evaluation methods, research-oriented encouragement, communication of students with scientific resources, characteristics of learners, facilitating factors, obstacles, and consequences. The final model of the elementary curriculum of Farhangian University based on the FRDE is drawn as follows.



**Figure 2. The final model of the elementary curriculum of Farhangian University based on the FRDE**

### Discussion and conclusion

The findings of the research showed that the elementary curriculum of Farhangian University based on FRDE has ten components including the goal, content, methods of teaching, evaluation methods, research-oriented encouragement, communication of students with scientific resources, characteristics of learners, facilitating factors, obstacles, and consequences.

The findings of the current research are consistent with the results of Kolbasi et al (2019), Anis (2019), Artin (2020), Azarpoone (2019), and Nateghi (2018). In explaining the findings of the research, it can be said that Farhangian University is responsible for teacher training among the universities in Iran based on the FRDE. The FRDE proposes solutions for improving and promoting the effectiveness of teachers and the elementary curriculum of Farhangian University. The curriculum framework should help children in learning the necessary developmental tasks in real life that society expects. Every society, whether small or large, has a wide level of needs, issues, and problems. One of the most important tasks of school education is to prepare people for life in society. Each of the

students should take responsibility and special tasks towards the society and the curriculum should be selected according to the needs and issues and problems of the society, which is emphasized by FRDE. In terms of student-teacher participation in this issue, it can be said that teachers are one of the most influential elements related to curriculum planning. Their presence at the national level of curriculum planning helps to make decisions more realistic and the relationship between theory and practice becomes meaningful. In addition, at the classroom level, they provide the basis for revising the curriculum and adapting it to the results of the classroom (problem-oriented approach) by conducting practical research. In addition, the starting point of the education process in the problem-oriented approach is to challenge the student in the form of a real and tangible problem in life. The result of this challenge is feeling the need to learn knowledge and acquire skills that will help him solve this problem. In the problem-oriented learning method, learners (elementary students of Farhangian University) participate actively and usually in groups in educational activities using the mentioned method. Proposing issues and opinions as well as mentioning real-life experiences are used as a stimulus to facilitate and improve the learning process, which the learners themselves take responsibility for with active participation, which is also mentioned in FRDE. Using a model based on individual needs and interests is suitable for teaching students in elementary age. The FRDE emphasizes that the curriculum must have the capacity to accept individual differences, discover and guide various innate talents, and respond to the needs, interests, and desires of students in line with the interests and framework of the Islamic standard system. The content of the elementary curriculum of Farhangian University (continuous undergraduate students) can make students suitable teachers by considering the interests and needs of students in developing the elementary curriculum.

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