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DESIGNING CONCEPTUAL MODEL OF COMMUNICATION SKILLS IN EDUCATIONAL-BASED ORGANIZATIONS

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ABSTRACT

The characteristics of today's organizations are dynamism, complexity, ambiguity and tragedy. Hence, having a powerful and efficient human resource based on national wealth and vital assets of the organization has many benefits for organizations. The potential of staff is the ability to never end, so today's organizations need special tools and abilities to use their human potential, one of which is communication skills. Understanding communication skills and their application will make employees more interested in expressing ideas, opinions and information about organizational problems. Managers can more successfully understand their personal characteristics and attributes, in order to steer and manage them correctly, and convey this feeling and message to them, with their ideas and thoughts in the organization being considered. In this research, a combination approach, qualitative and quantitative methods, has been used to design a conceptual model of communication skills. To develop the scale of communication skills in the qualitative section, a depth interview was carried out using content analysis method from 15 national sample managers of the national sample. After coding and analysis in Max Kido's software, the researcher managed to develop communication skills in 7 categories of categories Slowly In the quantitative section of the statistical society, four educational-oriented government units, including education, renovation of schools, science and technology park, and technical and vocational schools of Guilan province were selected. According to the volume of 1911 people in the statistical community, 400 questionnaires were distributed among the staff of these organizations, which finally received 347 questionnaires. To calculate the formal validity, content validity (CVR and CVI) and construct validity were used. After analyzing the distribution of data as normal, a parametric test was used. Finally, the hypothesis test was performed using Pearson correlation method and all the hypotheses were confirmed and the final model of communication skills was developed.

Keywords: *Communication Skills, Formal Validity, Content Validity, Construct Validity.*

INTRODUCTION

Governmental organizations and organizations are made up of several components, but generally they are given human imagery. Human resources in each organization are the most important assets and capital of each organization, and the efficiency and development of each organization depends to a large extent on the proper application of human resources. Researchers have always emphasized on the importance of correct use of human resources through its effects and positive outcomes in various conceptions and identified various indicators in this regard. In fact, one of the factors that researchers consider to be effective in making optimal use of human resources is communication skills that is in the field of

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organizational communication. Communication skills are those skills through which individuals can engage in interpersonal interactions and communication processes, that is, the process through which individuals during their information, their thoughts and feelings through the exchange of verbal and non-verbal messages They are sharing each other (Golmohammadinejad, 2019, 38). Barton GI (1990) describes the three dimensions of communication skills with three components that are: a) verbal skills; b) listening skills; c) feedback skills (Barton, 2012, 2000-2001). According to the World Health Organization's (2016) classification, interpersonal and communication skills are those that are verbal and non-verbal communication, active listening, negotiation skills, the skill of starting and ending an effective communication, self-expression or dare skills, the ability to solve conflicts Interpersonal and the like (Barzgar et al, 2016, 175-174). Hossain (2013) believes that changing communication roles to manage successful change is essential. He reminds the importance of effective communication during the process of change in organizations, and believes identifying goals and communication strategies at each stage of organizational change is crucial (Hossain, 2013, 50-43). Iksan et al. (2012) conducted research on communication skills among college students. The results of the research showed that university students had good communication skills, and these skills provided oral and written ideas, feedback, negotiation, agreement, communication with people from different cultures, communication In different languages, they are in a good position (Iksan et al., 2012, 76-71). In their research, Armagedie and Martinez (2016) found that body management, face communication, and eye communication are among the most important communication skills (Ramadanty & Martinez, 2016, 86-77). Singh and Sharma (2014) point to the role of interpersonal communication in organizational effectiveness and the position of interpersonal communication in the organization, and in their study concluded that interpersonal communication is inevitable, irreversible, and a complex process (Singh and Sharma, 2014, 33-27). Gusiani (2013) described communications as one of the most important requirements of management, and it was considered a process that is necessary to connect with various people, including employees, colleagues and customers. Based on his research, his communication skills included effective listening, empathy skills, social skills, self-esteem, social support, artistic and inspirational influences, self-regulation, stimulation of education, positivism, which also greatly relates to customer satisfaction. It affects (Guschi, 2013, 72-22). Hinds and Kissler (1995) state that many large organizations have set up a complex network of technologies that potentially increase inter-organizational communication. Information technology facilitates organizational communication and makes employees' comments and ideas easier to reach for managers (Agbala, 2013). Gio and Sanchez (2009) found in their research that communication skills were one of the most important skills as a tool for managers, which had a profound effect on their success and effectiveness, and any deficiencies in communication skills would reduce the manager's probability of success and, ultimately, Becomes the organization.

Theoretical Fundamentals and Research Background

Today, a fresh start has begun in management research that focuses on factors that limit the effectiveness of factors that increase positive work behaviors. One of these trends emphasizes the development of communication skills in work (Madden et al., 2015, 263-242). Many organizational researchers acknowledge that effective communication with the physical and

mental health of the staff is ultimately linked to organizational success. Therefore, the development of communication skills in today's complex world is of great importance because organizations can not develop without such competencies (Corn, 2013). Providing a communication system is one of the core tasks of the manager because they spend more than 70 percent of their time on communication. It is natural for managers to have effective communication with individuals and understand their motives for achieving organizational goals. Therefore, the establishment of a communication network is the first task of the manager. As Herbert Simon stated, the organization can not exist without communication (Hovey and Mascole, 2003, 668). However, the study of communication and communication skills in the management literature and organizational behavior is limited and our knowledge of these competencies and their learning style is limited. Hence, communication and communication skills in the organization are the areas in need of study and attention (DoKay, 2012, 452-449). Social scientists use communication skills in the sense of social interaction that they communicate with others in social relationships (Sharifi, 2018, 152). Communication skills are a process by which individuals can share their thoughts and feelings through the exchange of verbal and nonverbal messages (Babaloee and Ansari Shahidi, 2018, 48). Liu et al. (2015) considers the concept of communication skills to include the ability of the manager to effectively and efficiently transfer information to others (Liu et al., 2015, p. 14-3). Communication skills are those skills through which individuals can engage in interpersonal interactions and communication (Jaberi et al., 2016, 144). Communication skills as a basic concept have a combination of different fields of professional skill skills, customer relationship skills, psychology, management, and communication, and refers to behaviors that can be communicated in a way to others To establish positive responses and avoid negative responses (Ahangre et al, 2018, 24).

Equipping managers with communication skills can bring them many achievements, including a higher level of trust, partnership and commitment, more suggestions, and a higher level of creativity, better working relationships in the workplace, greater acceptance of change, reduced absenteeism, Reducing staff turnover, industrial unrest, lower strikes and lower costs (Hargie, 2016, 32-15). The importance of communication in the management of the organization is to a degree that without any communication, there is no possibility of any kind of supervision. Through the communication process, people try to change or influence the behavior of others in order to meet their own needs (Hagheghe et al, 2001). Stanikzai (2017) conducted research on the effectiveness of communication on the performance of the relief committee in Afghanistan. The sample was 35 employees of the organization. The findings of this study showed that communication has an impact on organizational performance and organization management should consider the communication process as an integral part of the management strategy in achieving the goals of the organization (Stanekzai, 2017, 7-1). Olcer and Ozner (2017) investigated the impact of communications on organizational commitment in Turkey. A sample of 206 Hataa employees was in the city of Alexandria, Turkey. The findings show that communication networks are essential for the greater impact of communication networks. Communication should be transparent and use communication tools (Olcer and Ozner, 2017, 53-30). Kelvin (2016) tried to investigate the impact of communication on the effectiveness and strategic management of organizations in a research entitled The Role of Communication Effectiveness in Organizational Strategy. The statistical

society of the Nigerian trade organization was that the results showed that communication is effective in determining the managers' strategy (Kelvin, 2016, 99-93). Nebo et al. (2015) explored the impact of communication on organizational performance. The statistical population of the University of Aqaba was Dubai University and 166 university students. The results showed that communication such as blood flow in the body is effective on the performance of the organization. Employees must learn communication practices. Managers using communication channels, storage of information and use of communication tools can be effective in improving the organization's performance (Nebo et al., 2015, p. 148-131).

RESEARCH METHODOLOGY

The present study has been carried out in a mixed method in which two quantitative and qualitative approaches are placed together. The data collection tool was in the qualitative section of the deep and semi-structured interview, which was done by asking questions between 30 and 40 minutes. The statistical population of this research includes senior, middle and operational managers of government agencies that have at least five years of management experience and have one of the following characteristics: selected as national or manager at the Shahid Rajaee Festival, or one of They have received government badges or, from the point of view of the managers of the oversight bodies, in particular the vice presidents or the performance evaluation units of the ministry, as effective managers or superior executives. The main indicators of these units for effective managers are the following factors: proper implementation of programs and communication policies, good reputation, Hassan Khalq, constructive interaction with other units, administrative discipline, and so on. In this study, referring to the database of managers who were selected as sample managers at the Shahid Rajaee Festival, as well as referring to the experts who, in terms of organizational status and extensive communication with executive agencies, were familiar with effective managers, and also by referring to the offices The performance appraisal and the offices of the modernization and administrative transformation of executive agencies, which are responsible for assessing the performance of managers and implementing management development plans, were achieved with the desired examples. In addition, in each interview, participants presented one or two of the people who could have helped to foster this research. In this method of obtaining samples in the methodology literature, the so-called snowball method is called. It should be noted that the request for introduction of the next person was made at the end of the interview, and the participant could introduce the next person more carefully with respect to the study objectives and the type of questions. The sample size in this approach was determined during the work, and the sampling continued so that the data saturation was achieved, which means that the researcher concluded that the new data is a repeat of the previous data, and that other new conceptual information requiring a new code Or extending existing codes and classes. In this research, from the eleventh interview, the researcher reached the saturated level of data, but interviews continued for up to 15 people to ensure adequate data collection.

In the quantitative part of the study, a descriptive survey was used and a questionnaire was used to collect data. The statistical population of the research is the administrative staff of educational organizations, including the organization of education, organization of equipment and renovation of schools, technical and vocational department and science and technology park in 1911 people. According to the Morgan table, by random classification, 322 The

questionnaire will be distributed among the sample population. However, since the number of sample individuals that are extracted from the table or formula is at least a sample, and, on the other hand, the experience of conducting research in our country states that most of the questionnaires are not completed and not returned, and this The work leads to a decrease in the subjects and as a result of the reduction of internal validity, in order to prevent this error, 400 questionnaires were distributed among the statistical population which according to the number of returns of the questionnaire and non-analytical questionnaires, 347 questionnaires were used for collecting analysis Became

RESEARCH FINDINGS

As previously explained, Qualitative research was conducted through in-depth interviews in person that the results of identified primary codes for communication skills in the form of output of MAXQDA10 software are shown in figure (1).

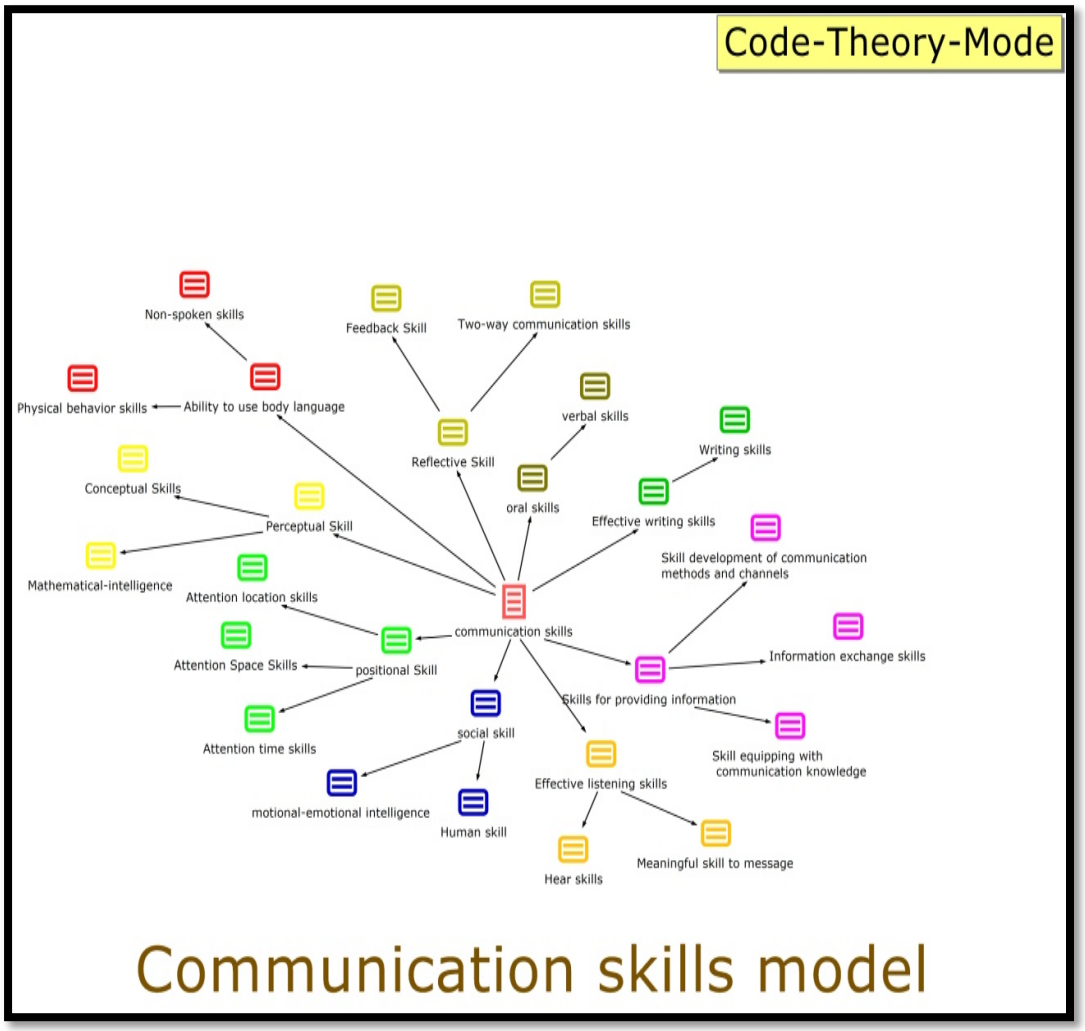

Figure 1: The model of communication skills using MAXQDA10 software

In this research, after the necessary interviews and analysis of information, with the help of MAXQDA10 software, a new dimension for communication skills was obtained. Based on these dimensions, the measurement tool was based on the opinion of five experts of the

administrative system, which are generally in the administrative-financial areas And administrative transformation with high business experience. Since questionnaire questions were raised by a specific group, in creating and developing the draft questionnaire, the guidance of the academic and academic elites was also used to overcome the defects of the questionnaire as far as possible, as far as possible. After designing the first questionnaire, in order to achieve a final scale, it was necessary to evaluate the related tools in terms of validity and reliability. In the quantitative part of the research, for evaluating the validity of the research, several methods have been used such as face validity, content validity and construct validity, and a combination of reliability method has been used to calculate the reliability. Each of these statistical techniques will be described below.

Formal Credentials

Face validity refers to the power and apparent pull of the tool or method of data collection (Mirzaei, 2016). For face-to-face verbal, five of the university lecturers in the field of interview management were conducted and their opinions in relation to each item in terms of difficulty (the meaning of identifying items, phrases or words that it is difficult for them to understand) The degree of proportionality (appropriateness and descriptive correlation of the expressions with the dimensions of the questionnaire) and ambiguity (the probability of misconceptions from the expressions or the lack of meaning in the words) was obtained which, after analyzing and summarizing some of the points, was improved in writing and the text In terms of fonts and appearance they became even sharper.

Content Valid

The content validity indicates whether the items in question are reasonably measurable and adequately captures the scope of the structure. (Polit and Tatano, 2009). To evaluate content validity, two methods of content validity ratio (CVR) and content validity index (CVI) were used. To obtain (CVR), the Lavasheh index was used. For this purpose, 15 of the people who were studying or graduating in management were selected and, by explaining the objectives of the test, they were asked to answer each question based on the three-part Likert scale "a necessary condition." "," The item is useful, but not necessary, "and" Classification is not necessary ". The collected data were analyzed for calculating the content validity ratio based on the following formula (Ling and Arthur, 2000, 64-57).

$$CVR = \frac{The\ number\ of\ specialists\ who\ have\ chosen\ the\ \ necessary\ option \frac{Total\ number\ of\ specialists}{2}}{\frac{Total\ number\ of\ specialists}{2}}$$

Given the fact that the amount (CVR) depends on the number of panel members, therefore, since the number of experts who evaluated the questionnaire was 15, therefore, according to the table of the Lowsheh index, the minimum acceptable score for each score is 49 The percentages were set to stay intact, and the items that the experts scored below 49% were eliminated.

In this research, the content validity index (CVI) was calculated using the Waltz and Bassel method, and the relevance criterion was determined in a four-point Likert scale, and by 14 students or graduates of the Ph.D. in Public Administration and Business with at least 10 years

of administrative or Five years of academic teaching experience was studied and analyzed using the following formula. Exit executed items (CVR) and (CVI) are shown in Table 1.

$$CVI = \frac{The\ number\ of\ specialists\ who\ scored\ grade\ 3\ and\ 4}{Total\ number\ of\ specialists}$$

not acceptable CVI < 0.7
Need to review and correct 0.7< CVI < 0.79
Acceptable (Pazargadi and others, 2012, 881). CVI > 0.7

Table 1: Table of contents for content validity checkpoints

Row	Phrase	Content Valid	
		CVI	CVR
1	I use symbols of the opposite side to establish effective communication	0.63	-
2	I use facial movements for effective communication.	-	0.47
3	I use eye contact with others.	-	0.47
4	When listening, I use my mind more than I speak.	-	0.2
5	When I talk to others, I lean toward the speaker.	-	0.47
6	When I encounter other, firmly but still quietly	-	0.33
7	When trying to talk with others, I try not to be at a constant point.	0.67	-
8	In negotiating, I set my body to the person I talk to.	0.67	-
9	I make important appointments in neutral places.	-	0.47
10	I care about the distance with the other party in relation to others.	-	0.2
11	I try to listen carefully to the opposite.	-	0.33
12	I get help with the transmission of messages from tables, charts and numbers.	-	0.47
13	Without ambition with fear and threat, I will openly and sympathetically connect with others.	-	0.33
14	Depending on the type of audience, I choose the communication channel.	-	0.33
15	I take note of the important issues	0.73	-

Structural validity

After calculating formal and content validity for achieving a final scale, it was necessary to examine the structural validity (exploratory factor analysis and confirmatory factor analysis), which is shown below in the corresponding steps and results.

Exploratory Factor Analysis for Developing Communication Skills Scale

Step 1) Data preparation to perform factor analysis

Before the factor analysis, the refinements must be made, which is used for the purpose of the general correlation of the modified option (CITC). If the value of the options is less than 0.30, then the analysis should be deleted because it will disrupt the results of the factor analysis. The results of Table 2 indicate that 16 Phrase were (CITC) below 0.30 and therefore not suitable for analysis and were eliminated.

Table 2: Quantities (CITC) for refinement in the communication skills scale

Phrase	CITC	Phrase	CITC	Phrase	CITC	Phrase	CITC	Phrase	CITC	Phrase	CITC
BL1	0.463	EL2	0.245	FE4	0.584	AN5	0.239	SO7	0.785	PR4	0.353
BL2	0.269	EL3	0.649	FE5	0.525	AN6	0.782	SO8	0.615	PR5	0.157
BL3	0.118	EL4	0.798	FE6	0.717	AN7	0.585	SO9	0.772	PR6	0.551

PO1	0.610	EL5	0.181	FE7	0.242	AN8	0.106	SO10	0.574	PR7	0.420
PO2	0.109	EL6	0.468	FE8	0.531	AN9	0.207	SO11	0.773	PR8	0.518
PO3	0.226	EL7	0.479	FE9	0.119	SO1	0.568	SO12	0.785	PR9	0.630
PO4	0.393	EL8	0.443	FE10	0.496	SO2	0.106	SO13	0.119	PR10	0.195
PO5	0.227	EL9	0.309	AN1	0.655	SO3	0.265	SO14	0.481	PR11	0.677
PO6	0.534	FE1	0.591	AN2	0.524	SO4	0.342	PR1	0.556	PR12	0.469
PO7	0.532	FE2	0.603	AN3	0.621	SO5	0.495	PR2	0.138	PR13	0.568
EL1	0.703	FE3	0.549	AN4	0.388	SO6	0.139	PR3	0.486		

Step 2) Identify the possibility of performing factor analysis on the data

To find out whether scale-related data can be reduced to several factors, they use the Two-Degree Coarse-Meier-Alcohol Sample Index (KMO) and the Bartlett Spread Test. If the minimum score acceptable for the Coeriz-Mayer-Ultra-Sufficiency Index is 0.7 and higher and the Bartlett test value is at a error level of less than 0.05, then factor analysis can be used and data can be reduced There are a number of underlying factors (Habibpour and Safari, 2016: 234).

According to the results of the test, the KMO (Kaiser-Meier-Olicon) value is higher than 0.7 and the Bartlett test is smaller than 0.05, so factor analysis can be used and data can be reduced to a number Infrastructure factors.

Table 3: KMO and Bartlett tests on the communication skills scale

Sampling adequacy index (KMO)		0.798
Bartlett test	Approx. Chi-Square	27341.118
	Df	1128
	Sig.	0.038

Step 3) Understanding the contribution of the agents to explain the variance of each item

The rate of subscription is the variance of a variable that is shared with other variables. (Habibpour and Safari, 2016). If the total value for the variable is less than 0.30, it indicates that the variable is not related to the agents and should be eliminated from the analysis (Mansourfar, 2006). The results indicate that the extracted value for 10 items is less than 0.30. Therefore, the calculation of the removal of other items higher than the desired threshold will enter the next step for exploratory factor analysis.

Table 4: Total extracted values for each item in the scale of communication skills

Phrase	Quantity extracted	Phrase	Quantity extracted	Phrase	Quantity extracted	Phrase	Quantity extracted
BL1	0.463	FE1	0.591	AN6	0.782	PR1	0.556
PO1	0.110	FE2	0.603	AN7	0.285	PR3	0.486
PO4	0.293	FE3	0.549	SO1	0.168	PR4	0.353
PO5	0.427	FE4	0.584	SO2	0.506	PR6	0.551
PO6	0.534	FE5	0.525	SO4	0.242	PR7	0.420
PO7	0.532	FE6	0.717	SO5	0.495	PR8	0.518
EL1	0.703	FE7	0.442	SO7	0.482	PR9	0.630
EL3	0649	FE8	0.531	SO8	0.354	PR11	0.677
EL4	0.798	FE10	0.169	SO9	0.330	PR12	0.469
EL6	0.468	AN1	0.155	SO10	0.180	PR13	0.568
EL7	0.476	AN2	0.714	SO11	0.714		
EL8	0.743	AN3	0.621	SO12	0.497		

EL9	0.509	AN4	0.288	SO14	0.181		

Step 4) Recognizing the contribution of each agent to the sum total of the variance of all the items:

In this step, it is determined that each agent has been able to determine the percentage of variance of the variables set. To this end, variance criteria explained by variables can be used by agents (Habibpour and Safari, 2016). As can be seen from Table 5, out of a total of 49 remaining CITCs, based on the results obtained, 12 factors have a value greater than one, so a maximum of 12 factors can be constructed from a total of 49 options.

Table (5): The total value of factor variance for the communication skills scale

Factor	Total	Percentage Variance	Aggregate Percentage	Factor	Total	Percentage Variance	Aggregate Percentage
1	13.921	29.002	29.003	.....	.....	.....	.....
2	5.893	12.277	41.280	.....	.....	.....	.....
3	3.408	7.100	48.379	.....	.....	.....	.....
4	3.089	6.436	54.518	.....	.....	.....	.....
5	2.613	5.443	60.258	.....	.....	.....	.....
6	2.116	4.407	64.666	.....	.....	.....	.....
7	1.992	4.150	68.816	.....	.....	.....	.....
8	1.848	3.850	72.666	40	0.015	0.032	99.884
9	1.634	3.403	76.069	41	0.014	0.029	99.914
10	1.502	3.129	79.199	42	0.011	0.024	99.938
11	1.206	2.513	81.712	43	0.009	0.019	99.957
12	1.043	2.174	83.886	44	0.007	0.015	99.972
13	0.982	2.046	85.932	45	0.006	0.013	99.985
14	0.795	1.655	87.587	46	0.004	0.006	99.991
15	0.677	1.411	88.998	47	0.003	0.005	99.996
16	0.663	1.381	90.379	48	0.001	0.002	99.998
17	0.573	1.193	91.527	49	0.001	0.002	100.000

Step 5) Recognizing the matrix of correlation between items and factors and classifying each item in each factor

At this stage, the results of the rotating component matrix are used. In this table, for classifying items between agents, they must be decided on the basis of their factor load, ie the researcher categorizes them according to the largest factor load (Habibpour and Safari, 2016). As indicated in Table (6), each item is assigned to one of the agents.

Table 6: Recognition of correlation matrix between items and factors and categorizing each item in each factor

Phrase	Factor											
	1	2	3	4	5	6	7	8	9	10	11	12
BL1	0.006	-0.026	0.258	-0.078	0.038	0.035	-0.078	-0.078	0.618	0.006	-0.078	-0.078
PO5	0.194	0.171	-0.078	0.061	0.083	0.083	-0.078	0.619	0.388	-0.078	0.080	0.388
PO6	-0.078	0.080	0.571	-0.078	-0.078	-0.078	0.006	0.006	0.001	-0.078	0.006	0.001
PO7	0.006	0.194	0.590	0.006	0.080	0.388	0.388	0.061	0.083	0.006	0.006	0.388
EL1	0.708	0.083	0.006	0.061	0.006	0.001	0.001	0.194	0.388	0.388	0.194	0.001
EL3	0.665	0.078	0.388	0.135	0.194	0.083	0. 171	0.083	0.001	0.001	0.083	0.083

EL4	0.847	0.080	0.001	-0.026	0.083	0.388	0.421	0.083	0.079	0. 171	-0.078	-0.078
EL6	0.006	0.006	0.083	0.083	-0.078	-0.078	0.629	0.232	0.006	0.135	0.080	0.080
EL7	0.123	0.194	-0.078	-0.078	0.080	0.564	0.123	-0164	0.080	-0.026	0.061	0.079
EL8	0.564	0.083	0.080	0.080	0.061	-0.014	0.250	0.194	0.006	0.171	0.171	0.080
EL9	0.726	-0.078	0.079	0. 171	0.171	0.001	0.051	0.083	0.194	0.135	0.061	0.006
FE1	0.123	0.637	0.080	0.080	0.061	0.194	0.171	-0.078	0.061	0.033	0.171	0.194
FE2	0.133	0.672	0.006	0.006	0.171	0.083	0.086	0.080	0.194	0.080	0.080	0.006
FE3	0.011	0.218	0.194	0.194	0.080	0.232	0.250	0.006	0.083	0.006	0.006	0.061
FE4	0.080	0.743	0.006	0.396	0.006	0.194	0.006	0.194	0.083	0.194	-0.078	0.396
FE5	0.006	0.575	0.061	0.396	0.194	0.083	0.061	0.083	0.232	0.083	0.388	0.396
FE6	0.194	0.788	0.135	0.396	0.083	0.083	0.135	0.083	-0164	0.083	0.001	0.194
FE7	0.083	0.444	-0.026	0.194	0.083	0.232	-0.026	0.232	0.175	0.232	-0.078	0.083
FE8	0.083	0.515	0.171	0.083	0.232	-0164	0.171	-0164	0.083	-0164	0.194	0.083
AN2	0.232	0.083	-0.026	0.083	-0164	0.194	-0.026	0.011	0.083	0.614	0.083	0.396
AN3	-0164	0.083	0.388	0.232	0.011	0.642	0.388	0.194	0.232	0.194	0.083	0.396
AN6	0.011	0.232	0. 171	-0164	0.080	0.770	0. 171	0.083	-0164	0.083	0.232	0.194
SO2	0.006	-0164	0.335	0.194	0.194	0.194	0.006	0.083	0.011	0.083	0.194	0.083
SO5	0.006	0.011	0.539	0.006	0.083	0.083	0.061	0.232	0.080	0.232	0.083	0.083
SO7	0.080	0.061	0.558	0.011	0.232	-0.078	0.006	-0.078	0.011	0.232	0.011	0.232
SO8	0.006	0.171	0.411	0.006	-0164	0.388	-0.078	0.080	0.006	-0164	0.006	-0164
SO9	0.194	0.080	0.416	0.006	0.011	0.001	-0.078	0.006	0.006	0.011	0.006	0.011
SO11	0.396	0.006	0.327	0.080	0.061	0.388	0.006	0.006	0.080	0.061	0.011	0.232
SO12	0.396	0.194	0.903	0.006	0.171	0.001	0.388	0.194	0.006	0.171	0.006	-0164
PR1	0.396	0.083	0.723	0.194	0.080	0.083	0.001	0.083	0.194	0.080	0.006	0.011
PR3	0.194	0.083	0.533	0.396	0.006	-0.078	0. 171	0. 171	0.171	0.079	0.080	0.061
PR4	0.083	0.232	0.080	0.438	0.232	0.011	0.232	0.080	0.061	0.080	0.006	0.171
PR6	0.083	-0164	0.006	0.516	-0164	0.006	-0164	0.006	0.171	0.006	0.194	0.080
PR7	0.232	0.011	0.194	0.588	0.011	0.006	0.011	0.194	0.080	0.194	0.396	0.006
PR8	0.396	0.006	0.006	0.210	0.527	0.006	0.135	0.396	0.006	0.006	0.396	0.194
PR9	0.396	0.194	0.061	0.626	-426	0.194	0.033	0.396	0.194	0.061	0.396	0.083
PR11	0.396	0.083	0.135	0.232	0.442	0.006	0.080	0.396	0.083	0.135	0.396	0.083
PR12	0.194	0.083	-0.026	-0164	0.539	0.061	0.006	0.194	0.083	-0.026	0.194	0.083
PR13	0.083	0.232	0.171	0.011	0.366	0.396	0.194	0.083	0.232	0.171	0.083	0.232

Step 6) Naming and commenting factors:

Based on exploratory factor analysis, the naming of the factors extracted in the communication skills scale is shown in Table (7). Three dimensions of effective listening skill, analytical-perceptual skills, and feedback skills are equivalent to dimensions before exploratory analysis. Three dimensions of social skills, information exchange skills, and the skill of using information and communication technology emerged after exploratory analysis. Also, after specifying the questions of each dimension, a number of items were allocated in one dimension, due to the conceptual affinity, the BL1-PO5 in the fourth dimension, the AN2 in the fifth dimension and the SO11-EL6 in the sixth dimension given.

Table 7: Naming the agents extracted in the communication skills scale

Factor	New naming	Matching items	Number of items
1	Effective listening skills	EL1- EL3- EL4- EL8 -EL9	5
2	Feedback Skill	FE1- FE2- FE3- FE4- FE5- FE6- FE7- FE8	8
3	social skill	SO2- SO5- SO7- SO8- SO9- SO12- PO6- PO7	8

4	Information exchange skills	PR1- PR3- PR4- PR6- PR7 -PR9- PO5- BL1	8
5	Technology Skills	PR8- PR11- PR12- PR13-AN2	5
6	Analytical-Perceptual Skills	AN3- AN6- EL6- EL7- SO11	5

Confirmatory Factor Analysis for Construct Validity

In this section, we calculate the corroborative factor analysis for measuring the structural validity of the previous sections for communication skills. Factor loads are the correlation of the variables with the factors that, if the absolute values of these factor loads are 30/0 and higher, are considered as high factor loads, and if the factor load of an option is less than this value, it can be ignored and deleted. The results show that the factor of all the items is higher than the limit.

Table 8: Confirmatory Factor Analysis Results for Communication Skills Scale

Items	Factor load	Items	Factor load	Items	Factor load	Items	Factor load
BL1	0.70	FE3	0.81	SO5	0.64	PR3	0.82
EL1	0.67	FE4	0.86	SO7	0.72	PR4	0.52
EL3	0.74	FE5	0.91	SO8	0.77	PR6	0.86
EL4	0.69	FE6	0.80	SO9	0.65	PR7	0.76
EL6	0.57	FE7	0.73	SO11	0.68	PR8	0.78
EL7	0.59	FE8	0.83	SO12	0.73	PR9	0.84
EL8	0.79	AN2	0.74	PO5	0.71	PR11	0.80
EL9	0.77	AN3	0.81	PO6	0.82	PR12	0.86
FE1	0.80	AN6	0.72	PO7	0.79	PR13	0.77
FE2	0.79	SO2	0.66	PR1	0.71		

Reliability of Data Collection Tool

In order to determine the reliability of the data gathering tool, internal consistency reliability was used in this research. Internal consistency of measurements is a kind of reliability among items and items of a tool that all measure the same characteristics or attributes (Mirzaei, 2016). In order to measure the internal consistency reliability using the Smart Pls software, the combined reliability method, also called the Dillon-Goldstein coefficient, was assisted with an acceptable value of above 0.7. The results show that the internal stability of the structures is appropriate, as shown in Table (9).

Table 9: The results of the reliability of communication skills

Items	Reliability Statistics				
	N of Items	Average Variance Extracted (AVE)	Composite Reliability	rho_A	Cronbach's Alpha
Effective listening skills	5	0.605	0.875	0.865.5	0.777
Feedback Skill	7	0.619	0.845	0.844	0.742
Analytical-Perceptual Skills	5	0.778	0.821	0.819	0.810
social skill	9	0.701	0.821	0.818	0.791
Information exchange skills	8	0.626	0.795	0.792	0.775
Technology Skills	5	0.631	0.836	0.831	0.703
Communication skills	39	0.707	0.842	0.834	0.737

Testing Hypotheses

In this section, the following assumptions are made using the scale:

1. Effective listening skills are effective in the effectiveness of communication skills in educational-oriented government organizations.
2. The feedback skill is effective in the effectiveness of communication skills in educational-oriented government organizations.
3. Analytical-Perceptual Skill Effective on the Effectiveness of Communication Skills in Educational-Driven Government Organizations.
4. Social skills are effective in the effectiveness of communication skills in educational-oriented government organizations.
5. The exchange of information skills is effective in the effectiveness of communication skills in educational-oriented government organizations.
6. The skill of using technology is effective in the effectiveness of communication skills in educational-oriented government organizations.

Preliminary Test of the Natural Distribution of Data

The first step in analyzing the hypotheses is to examine the normal distribution of data. Normality is the most basic assumption of multivariate analysis. If this assumption is not possible, some statistical tests are invalid and can not be used (Hair et al., 2010). There are several methods to diagnose the distribution of data in which Kolmogorov-Smirnov test was used.

Table 10: Results of the Kolmogorov-Smyrom test

Normality test of the community	Kolmogorov-Smirnov		
	Number	The statistics	The significance level
Effective listening skills	347	0.093	0.147
Feedback Skill	347	0.107	0.121
social skill	347	0.076	0.056
Information exchange skills	347	0.090	0.130
Technology Skills	347	0.097	0.178
Analytical-Perceptual Skills	347	0.128	0.200

The results of the Kolmogorov-Smirnov test show that the significance level of the above tests is greater than 0.05, so it can be concluded that the distribution of data is normal, therefore, for testing all the hypotheses of the research, parametric tests Is used.

Pearson Correlation Test Variables

According to the Kolmogorov-Smirnov test results and the normal distribution of data, Pearson test will be used to measure the correlation of communication skills.

Table 11: Pearson Test of Communication Skills

Pearson		Effective listening skills	Feedback Skill	Information exchange skills	social skill	Technology Skills	Analytical-Perceptual Skills
Effective listening skills	Pearson correlation	1	0.821**	0.642**	0.746**	0.556**	0.743**
	Significance		0.011	0.023	0.014	0.042	0.037

	level						
	Number	347	347	347	347	347	347
Feedback Skill	Pearson correlation	0.821**	1	0.540**	0.768**	0.426**	0.785**
	Significance level	0.009		0.025	0.017	0.023	0.041
	Number	347	347	347	347	347	347
Information exchange skills	Pearson correlation	0.642**	0.540**	1	0.585**	0.840**	0.572**
	Significance level	0.018	0.013		0.013	0.009	0.010
	Number	347	347	347	347	347	347
social skill	Pearson correlation	0.746**	0.768**	0.585**	1	0.449**	0.796**
	Significance level	0.025	0.000	0.001		0.016	0.006
	Number	347	347	347	347	347	347
Technology Skills	Pearson correlation	0.556**	0.426**	0.840**	0.449**	1	0.429**
	Significance level	0.034	0.001	0.005	0.032		.0000
	Number	347	347	347	347	347	347
Analytical-Perceptual Skills	Pearson correlation	0.743**	0.785**	0.572**	0.796**	0.429**	1
	Significance level	0.040	0.026	0.011	0.035	0.027	
	Number	347	347	347	347	347	347

Table coefficients show that the significance level between variables is less than 0.05 and there is a positive correlation, therefore, it is concluded that these factors are the factors influencing the effectiveness of communication skills and the hypotheses are confirmed. According to the steps and statistical methods described in the course of the research, the final model of the research is presented in the form of figure (2).

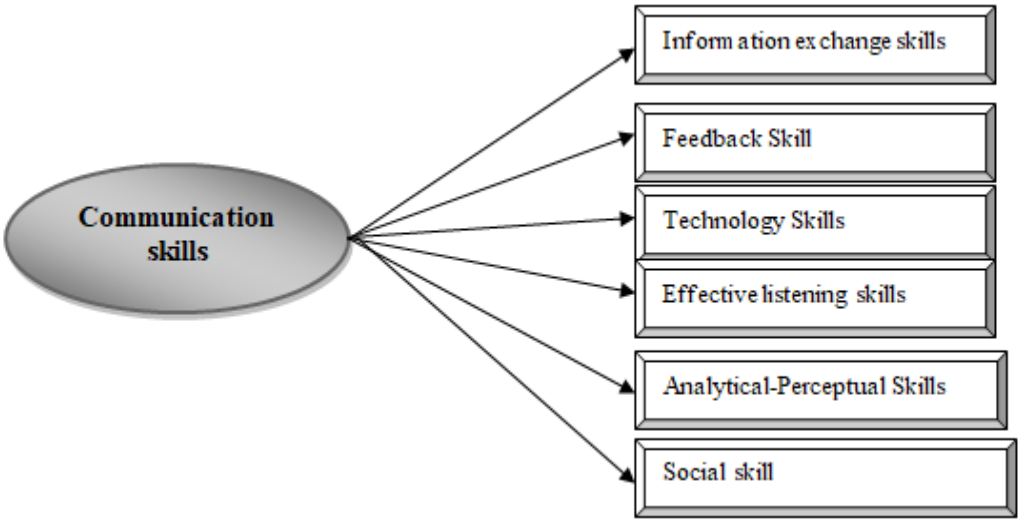

Figure 2: The final model of communication skills

DISCUSSION AND COMPARISON

Today, a fresh start has begun in management research that focuses on factors that limit the effectiveness of factors that increase positive work behaviors. One of these currents emphasizes the development of communication skills in the work. Many organizational researchers acknowledge that effective communication with the physical and mental health of the staff is ultimately linked to organizational success. Therefore, the development of communication skills in today's complex world is of great importance because without such competencies, the organization can not develop. Providing a communication system is one of the core tasks of the manager because they spend more than 70 percent of their time on communication. It is natural for managers to have effective communication with individuals and understand their motives for achieving organizational goals. Therefore, the establishment of a communication network is the first task of the manager. As Herbert Simon summarized, the organization can not exist without communication. However, the study of communication and communication skills in the management literature and organizational behavior is limited and our knowledge of these competencies and their learning style is limited. Hence, communications and communication skills in the organization are the areas that need more study and attention. In this research, using a deep interview with a number of national sample managers and coding using MAXQDA software, the initial scale of communication skills was acquired and using the formal validity, content and structure (exploratory and confirmatory factor analysis), the final scale was obtained. . Then, by distributing the questionnaire between the executive agencies and testing the hypotheses, the results indicate that all the hypotheses are confirmed. Given a theory based on data in this research, a theory It is therefore prime to the extent that this theory is supported and supported by related theories (Adib Hajbagheri, 2003: 18). Looking at the literature of research and analysis of research findings and the extensive examination of theories related to this domain, it seems that the theory developed in this study is most closely related to the following studies.

Table 12: Comparison of the findings of the research findings with related communication skills

he name of the researchers (Source)	Studies related to research findings	Research findings
Ramadanty and Martinez (2016) (Ramadanty & Martinez, 2016, 89-77)	Body relationship management, face communication and eye communication	social skill
The World Health Organization (2016) (Barzgar and others, 2016, 175-174)	Verbal and non verbal communication, active listening, negotiation skills, ability to solve interpersonal conflicts	Analytical-Perceptual Skills and Effective Hearing Skills, Social Skills
Rafie et al., 2018 (Rafiei et al., 2018, 108)	Cognitive error reduction skills, empathic understanding, Positive, self-esteem and mutual reinforcement skills	social skill
Eldredge et al. (2015) Eldredge et al, 2015, 1-14	Positive optimism, self-confidence, self-awareness, illustration	Social skills and analytical-cognitive skills
Pope (2015) (Pope, 2015, 8)	Verbal and non verbal skills, listening skills, Dispute Resolution & Negotiation Skills	Effective listening skills and social skills

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