The difference between teaching general and specific cultural features in learning foreign languages: Mathematical approach

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Abstract

It is necessary to use language inappropriate discourses and establish a proper intercultural connection, to be familiar with cultural messages and trans-messages. In every culture, language speakers use melody, tone of voice, speed, pause, and loudness for their verbal discourse. And gestures) are also cases that should be considered. Given that existing research on the impact of general and specific cultures on language learners has not been done, the present study has examined and analyzed this. At present, the issue of human communication is one of the most important and important issues that have been considered by linguists, sociologists, psychologists, and philosophers. Cultural education is not only effective in learning a foreign language and its appropriate application in different contexts, but also in inevitable cases and its interaction is so important that it has attracted a lot of attention. In this research, the library method is used for theoretical sections and the field method and distribution of questionnaires are used. To analyze the data, one of the multi-criteria decision-making techniques called fuzzy ANP is used. The results show that in the process of learning foreign languages, general culture with a weight of 0.313 is in the first place and special culture with a weight of 0.241 is in the second place.

Keywords: education, general culture, specific culture, foreign language learning, fuzzy ANP
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1 Introduction

Culture is in fact an intertwined pattern of the interaction of language and thought. Language is dependent on culture, and it is not possible to understand the concepts of language without considering the social relations of a language community that takes place with language, and also without considering the culture of the community of which language is a part. In other words, language is a part of people's culture and the most important means of communication between people in the community, and is one of the factors that can help learners who live outside the target language community to learn a foreign language better. Introducing them to the culture of that language community. And if we consider culture as a network, language is its basic basis, as other parts of the network are described with its help.
Some believe that language is a phenomenon for the spread of civilization and culture because it is through language that science, technology and customs can be passed from generation to generation. The study of any language is

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based on the language factor, so language learning is the basis for learning science and technology. In this study, the relationship between these two concepts and also the effect of general and specific culture education on foreign language education has been investigated.

As mentioned earlier, language and culture have been of great interest in the field of humanities and various definitions of these topics have been provided. Therefore, before addressing the main issue, some well-known definitions are mentioned, which are essential concepts.

Theoretical foundations of research

Language and culture

Among creatures, only man has a culture. Culture is a social thing and relies on social relations, and symbolic communication with language is essential for the existence of culture. Every society has its own culture and from a sociological point of view, everyone has a culture. Therefore, wherever language has stopped, cultural growth has also stopped. Dependence of cultural development on language development has two internal and external aspects. On the inside, intelligence, thought, memory, the field of association of meanings and mental concepts are completely dependent on language, and on the outside, understanding between speakers, the relationship between past, present and future generations due to cultural heritage and communication of different reflection societies The language depends [13].

The date of the origin of language in human life can not be accurately determined; Because it is a very ancient phenomenon, but linguists estimate it to be between five hundred thousand and one million years ago. The role that language has played in the life of the last ten thousand years, which is the period of rapid social development of human beings, is more than the role that it has played in all the long life of human beings [1].

Language is imposed on society by the individual and is one of the manifestations of social life that existed before the individual and will exist after him [7]. From the moment it is found in a clean child, it begins to adapt to those around it, and the first thing it tries to adapt and learn is language. Military language is a society built and practiced by past and present generations. By adapting the language and speaking, the child in fact adopts a system that has been regulated by the same society (Ibid: 180).

According to a group of language psychologists, a person's language structure plays an important role in the nature of his thinking. Sapirworf hypothesis is a " form of belief" hypothesis based on which "language is the shaper of thought" esoteric, 1373: 98) Sapir-Worf hypothesis is considered to consist of two underlying principles:

1. " Algebraism in language", that is, language determines thought,
2. " Relativity in language" means different languages create different worldviews.

Understanding a simple poem requires not only knowing the meaning of its words, but also the phenomena of the social life of the people from whom the meanings of the words originated. In other words, without knowing the social life patterns of a language community, one cannot understand the true values and meanings of words. In fact, language is an essential element of culture.

Unfortunately, there are many shortcomings in the teaching of this essential part of the language in our classrooms. Read and discuss and choose linguistic points, but we have failed to teach one of the basic aspects of language, namely culture, and now it is time to address this shortcoming, because establishing the right communication and understanding is of particular importance. . Some have considered culture as the ultimate goal of language teaching. The purpose of language training is to develop the ability to speak according to the phonetic order and pattern of its structure, so that this skill can create a good understanding of the customs, behavior and culture of the people in that language in general. Learning a foreign language without knowing the way of life of the people who speak it does not lead the learner to create an understanding that can be considered a huge shortcoming today. Awareness of the culture of a language community strengthens the motivation to learn the language of that community. Language teachers have no choice but to learn subtle cultural points while learning the language, but they must pay attention to the fact that these points are taught accurately and correctly so that the learner has a correct picture of the social thoughts and behavior of the people of that language community. Keep in mind that the relationship between him and the people of that society will not be damaged and will lead to a good understanding and correct understanding of foreign culture and literature.

Brown also believes that language is part of culture and culture is part of language. The two are so intertwined that they cannot be separated; In other words, culture and language are inseparable [?]. He says language is a means

of communication and a carrier of culture. Language without culture is inconceivable and so is the culture of man without language.

Rivers believes that "most students have cultural limitations; In other words, their valuation system has been determined by the culture house" (1968: 285, Rivers). In this way, "explaining the cultural aspects of each language can help students adapt the abstract sounds, forms, and forms of each language to places and individuals." [4]. At the same time, "studying culture increases students' interest in the people of that culture" [5].

Tang [15] says that in order to learn a foreign language, one must speak and write in that language. If one wants to speak in a language, one must think like the people of that language, because only then can one like it. To speak (there is practically no problem in understanding).

Some foreign language teaching experts believe that language learning is not just language learning, and that studying how to pronounce sentences is not the only element necessary for effective and complete language communication; In other words, learning the culture of people who speak that language is essential for them to learn.

Hinkel [8] in his book Culture in Teaching and Learning a Second Language also presents many influential aspects of culture in second language teachers and learners. In this book, the effect of culture on learning to interact, speak, convey meaning and write in a second language and at the same time not to deviate from the socio-cultural patterns of a particular language and the speakers of that language is mentioned. Hinckley also introduces research into the interrelationship between language and culture in other disciplines, all of which ultimately demonstrate the importance and impact of culture in language teaching.

Teaching cultural points is more important than previously thought, especially if the purpose of language teaching is to learn how to communicate with its speakers. In the classroom, the learner encounters many of the cultural and social patterns of a foreign language for the first time, and his or her reactions and perceptions of these patterns are important for establishing appropriate communication. It is not impossible to communicate with foreign language speakers without knowing their culture, so along with language teaching, culture inevitably takes place, if we separate culture from language or if we mix language with another language culture, language We have confronted the learner with misunderstandings and caused misunderstandings.

If the ultimate goal of foreign language teaching is to communicate with foreigners by studying their literary works, speaking and corresponding with them, and so on, to achieve this goal, language learners' content must contain only cultural patterns of the same foreign language. Therefore, educational materials will be meaningful for language learners and will create the necessary motivation for them to learn, which, firstly, has a cultural burden, and secondly, the cultural points of the foreign language will be taught by comparing and contrasting the cultural points of the mother tongue.

"The problem is that even those who are fluent in a common language can not always understand each other well, which is often due to differences in cultures," says Warshagin in his book, Language and Culture. 1990: 130) In the first place, language helps culture to be both a means of communication and a means of separating them (Antipov, 1989: 46). So here is another issue and that is the relationship between language and culture, while understanding the social nature of language, we agree with the idea that the main function of language is its instrumental role in communication between people Is. In addition, language is a tool for understanding the world, meaning that "language is not only a tool for information, but also has the ability to reflect, record and preserve information about the environment" (Warshagin, 1990: 159).

According to Terminasova, words, grammar, idioms, proverbs and interpretations, folklore, literature and science, in written and oral speech, preserve cultural values (Terminasova, 2000: 69).
Knowing the terms not only enriches the learners' speech, but also helps them to understand the culture and thinking of the people of the country where they learn the language. Interpretation of terms in the context of culture, ie their study as linguistic symbols with cultural concepts in Persian language classes, is not only possible but necessary and necessary. In addition, terms play the role of culture in a framework of its form and content. In this regard, not only the previous knowledge of Persian language teachers and their personal experience helps, but also countless cultures of terms and interpretations play an important role.

As a result, it can be said that "every foreign language lesson, like the clash of cultures, is a practical experience of intercultural communication because the foreign word reflects the foreign world and foreign culture." Changes in foreign language theory and learning indicate that culture is an important element in language teaching classes. According to Tomalin and Stampelsky, who actually made changes to Selhye (1988), the following seven goals can be considered for teaching culture:

1. Help students understand the fact that all people have culturally conditioned behaviors.

2. Help students understand that social variables, such as age, gender, social class, place of residence, affect the way people speak and behave.
3. Help students to become aware of customary behaviors in specific situations in the target culture.
4. Help students increase their awareness of the cultural implications of words and phrases in the target language.
5. Help students develop the ability to evaluate and correct generalizations about the target culture based on the evidence in favor.
6. Help students develop the skills needed to organize information about the target culture.
7. Stimulate students' intelligent curiosity about the target culture and strengthen the sense of empathy with the people of that culture.

Culture and language teaching

As mentioned earlier, language is not only part of what we call culture, but also reflects culture. In fact, understanding cultural content is the key to successful language teaching and learning. Language learners cannot master a language completely unless they also master the cultural contexts in which it is used at the time [17].

The American Council on Teachers of Foreign Languages (ACTFL) published the 21st Century Foreign Language Learning Standards in 1999, which outlines the activities of teachers, programmers, and educators with five points. Communication is at the heart of these standards, and the ability to communicate must be strengthened in four ways: speaking, listening, reading, and writing. Culture is also very important. In fact, communication is not possible without culture. Connection emphasizes the need for a foreign language to relate to other disciplines and disciplines. Learning a language will be effective when it explores literature, politics, research, art, and so on. Comparing the target language with the mother tongue also helps to learn, and in fact learning another language helps to better understand the native language and culture of the individual. Community is another factor, as relationships with people from different target language communities can help with learning, such as inviting someone from that community to class or going to a restaurant or connecting with communities via the Internet below. Refers to a series of related studies.

The Center for Advanced Research in Language Learning has conducted a series of studies on culture and language learning. Conducting research in the field of culture education in language classes, strategies for learning and using language and culture, research on the effect of educational materials on students' learning have been among the objectives of these studies. Although the integration of language and culture has always been a concern of language educators for the past 50 years, this has not been the case in the language classes of the 1990s. One of the issues these people are dealing with is the skepticism about how to incorporate cultural education into the language education curriculum. Thus, other objectives of this study included understanding teachers 'beliefs about culture and learning culture, the relationship between teachers' beliefs and their teaching, and examining intercultural sensitivity in foreign language classes. To achieve these goals and measure intercultural sensitivity, a test developed by Hammer & Bennett [6] called the Intercultural Development Inventory (IDI) was used. This questionnaire is based on the Beta Cultural Bent Sensitivity Pattern (1989). According to Bennett's hypothesis, intercultural sensitivity is gradually acquired, in which, in one case, a person seems to be defensive, then downplaying racist or ethnic cultural differences) to accept, adapt, and then It comes to integration and integration with culture (Nomi relativism). This test was performed on 353 high school and university students during the academic years 1997-1998 and 1998-1999. The purpose of the study was to examine the test in foreign language classes, to collect raw data for further research, to provide diagnostic information for teachers about the intercultural development of students. After reviewing the quantitative data, the researchers concluded that this tool is very suitable and reliable for assessing interoperable development. They also found how students expressed their understanding of intercultural differences.

Schunain (1978) believes that the degree of acculturation determines the language ability of learners and without acculturation language ability is incomplete. Indeed, as Krasner [9] points out, "linguists and anthropologists have long understood that the forms and uses of a particular language reflect the cultural values of the society in which it is spoken." It speaks. "Language proficiency alone is not enough for learners to become fully fluent in that language." Tomalin (2008) argues that cultural education should include cultural knowledge, cultural values, cultural behaviors, and cultural skills. Bayram also believes that intercultural competence together with linguistic, sociological, linguistic and verbal competence forms intercultural communicative competence. Learners with intercultural communication skills can combine knowledge of other cultures with their language skills through their ability to use language appropriately (Byran, 1997: 73).

Rivers also believes that most students have cultural limitations; In other words, their valuation system is determined by the culture of the house [11]. Thus, "explaining cultural aspects at any time can help students adapt the

abstract sounds, forms, and forms of any language to places and individuals" [4]. At the same time, cultural study increases students' interest in the people of that culture [5]

Research methods

In this research, the library method is used for theoretical sections and the field method and distribution of questionnaires are used. To analyze the data, one of the multi-criteria decision making techniques called fuzzy anp is used. The structure of the ANP method is described below:

At first, the researchers developed a matrix in which the lines and columns included Cultural factors. Then, it was presented to domain experts who were requested to identify interrelationships among influential factors.

Establishment of pairwise comparison matrices

Upon constructing the model, a pairwise comparison matrix was developed using the appropriate Saaty scale given in Table 2 $C = \langle C_j | j = 1, 2, \cdots, n \rangle$. This pairwise comparison of "n" criteria $a_{ij}(i, j = 1, 2, \cdots, n)$ yields an $(n \times n)$ evaluation matrix A, in which each element is the quotient of criteria weights, as illustrated:

<div align="center">Table 1: Pairwise comparison scale</div>

Scale of importance	Crisp score	Reciprocal of crisp score
Equal importance	1	1
Moderate	3	0.33
Strong importance	5	0.20
Very strong importance	7	0.14
Extremely preferred	9	0.11

$$A = \begin{pmatrix} a_{11} & a_{12} & \cdots & a_{1n} \\ a_{21} & a_{22} & \cdots & a_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{n1} & a_{n2} & \cdots & a_{nn} \end{pmatrix}$$

$$a_{ij} = 1, a_{ij} = \frac{1}{a_{ij}}, a_{ij} \neq 0$$

At the end, a mathematical process began to normalize and detect relative weights of each matrix, which are given by the right Eigen vector (w) associated with the largest Eigen value (λ):

$$A_w = \lambda_{\max} w.$$

The quality of ANP output largely depends on the consistency of the pairwise comparison of judgments. The consistency has to do with the relation between the entries of $A : a_{ij} \times a_{jk} = a_{ik}$. The Consistency Index (CI) is obtained through the following formula:

$$CI = \frac{\lambda_{\max} - n}{(n-1)}.$$

The pairwise comparison was normalized and priority vector was computed to weigh the matrix elements. The values of these vectors were summed to 1. Consistency ratio (CR) can be calculated to estimate the consistency of the subjective input in the pairwise comparison matrix. Generally, if CR < 0.1, it is an acceptable index [12]. The CR for each square matrix was obtained through dividing the CI values by Random Consistency Index (RCI) values.

$$CR = CI/RI.$$

The RCI is obtained from a larger number of simulations and varies in the light of the matrix order [12]. Below Table illustrates the RCI values for matrices of the order varying from 1 to 10. They were obtained by approximating random indices using a sample size of 500. Acceptable CR ranges depend on the matrix size. If CR is bigger than an acceptable value, there will be inconsistent judgments within that matrix, meaning that the evaluation process should be reviewed, reconsidered, and improved.

Table 2: Average RCI based on matrix size

S. no	1	2	3	4	5	6	7	8	9	10
RCI	0	0	.52	.89	1.11	1.25	1.35	1.40	1.45	1.49

A pairwise comparison was constructed among all attributes-enablers, and corresponding values were calculated to compare all the interdependencies in a network.

Formation and analyzing of super matrix

The super matrix is utilized to represent the various interdependent effects existing between different process elements. It shows the association and interdependencies between criteria and sub-criteria.

In the super matrix, which is a partitioned matrix, the sub-matrix consists of relationships between graphical models. Since its eigne vectors may not be equal to 1, the super matrix will be regarded as an unweighted matrix. The super matrix should be converted into reasonable priorities. To do so, the unweighted matrix was multiplied by the priority weights generated from the clusters, yielding the weighted matrix. The weighted super matrix was subsequently raised to a considerably large power to have converged or stable values. This was achieved by raising the super matrix to the power $2K + 1$, where k is an arbitrary large number or it can be discovered using the ANP solver. The obtained matrix is known as the limit matrix.

Computation of desirability index

The following equation was used to calculate the desirability index:

$$D_i = \sum_{j=1}^{j} \sum_{k=1}^{kj} P_j A_{kj}^D A_{kj}^1 S_{ikj}$$

where P_j is the relative importance weight of criteria j : ADk_j is the relative weight for sub-criteria k of j for the dependency; A_{1kj} is the stabilized relative importance weight for sub criteria k of criteria j for the independency; S_{1kj} is the relative impact of strategy alternative 1 on sub-criteria k of criteria j of maintenance strategy selection network; S_{2kj} is the relative impact of strategy alternative 2 on sub-criteria k of criteria j of maintenance strategy selection network; S_{3kj} is the relative impact of strategy alternative 3 on sub-criteria k of criteria j of maintenance strategy selection network; and S_{4kj} is the relative impact of strategy alternative 4 on sub-criteria k of criteria j of maintenance strategy selection network.

The proposed fuzzy ANP methodology

Fuzzy ANP method is applied for the improvement of AHP and ANP by combining the fuzzy set theory. Analytical Network Process (ANP) is a method that is capable of connecting their dependence on one group (inner dependence) and among different groups (outer dependence). ANP method capable of overcoming the weaknesses of AHP be the ability to accommodate their inter dependencies and alternative criteria. In the ANP Fuzzy, Fuzzy ratio scale used to indicate the relative strength of the factors on which the relevant criteria. Fuzzy decision so that a matrix can be formed from several alternatives described in the form of fuzzy numbers. AHP and ANP are essentially measured to use pairwise comparisons that represent important matrix.

The analytic network process is generally improvement of the analytic hierarchy process to resolve decisions problems because they need the interaction dependency of higher level elements in a hierarchy on lower elements to build matrix element. Exactly, the AHP represents a framework with a unidirectional hierarchical and ANP authorize for complex interrelation between decision levels and attributes.

According to change each objects of each-each criteria and sub criteria to be considered and extend the analysis to obtain a goal expected. This means it is possible to obtain the analysis which can extend the value indicated by the following notations. $M_{g1}^1, M_{g2}^2, M_{g3}^3, M_{g4}^4, M_{g5}^5, \cdots, M_{gj}^m$ set goal $(1, 2, 3, 4, 5, \cdots, m)$ with $M_{gj}^j (j = 1, 2, 3, 4, 5, \cdots, m)$ is triangular fuzzy after identifying the initial assumptions, extend analysis can be translated to the stage-the stage following:

1. Develop a pariwise comparison matrix between all the elements/criteria, sub-criteria of the fund each, each criterion in the dimensions of a hierarchical system based on an assessment with linguistic variables, n performance

number of criteria to be evaluated, C_I (criteria), A_{ij} as importance of i criteria based j^{ab}.

$$A = \begin{pmatrix} & C_1 & C_2 & C_3 & C_4 & C_5 & C_6 & . & C_a \\ C_1 & 1 & a_{12} & a_{13} & a_{14} & a_{15} & a_{16} & . & a_{1a} \\ C_2 & a_{21} & 1 & a_{23} & a_{24} & a_{25} & a_{26} & . & a_{2a} \\ C_3 & a_{31} & a_{32} & 1 & a_{34} & a_{35} & a_{36} & . & a_{3a} \\ C_4 & a_{41} & a_{42} & a_{43} & 1 & a_{45} & a_{46} & . & a_{4a} \\ C_5 & a_{51} & a_{52} & a_{53} & a_{54} & 1 & a_{56} & . & a_{5a} \\ C_6 & a_{61} & a_{62} & a_{63} & a_{64} & a_{65} & 1 & . & a_{6a} \\ \vdots & \vdots & \vdots & \vdots & \vdots & \vdots & \vdots & 1 & \vdots \\ C_a & a_{a1} & a_{a2} & a_{a3} & a_{a4} & a_{a5} & a_{a6} & . & 1 \end{pmatrix}$$

2. Change the linguistic variables in the form of fuzzy numbers, questionnaire data in the form of linguistic variables fuzzy numbers are converted to form. TFN change fuzzy numbers to be seen (the scale of the fundamental interests of relative ANP) with a different level of importance.

Table 3: TFN scale and linguistic variables scale conversion

Scale Linguistic	Triangular fuzzy scale	Scale TFN	TFN inverse scale
Equally Important	1	(1,1,1)	(1,1,1)
Moderate Important	3	(1,3,5)	(1.5,1.3,1)
Strong Important	5	(3,5,7)	(1.7,1.5,1.3)
Very strong Important	7	(5,7,9)	(1.9,1.7,1.5)
Absolute Important	9	(7,9,11)	(1.11, 1.9, 1.7)

3. Calcutate the weighting and the search eriteria in steps-steps as follows:
Determining thee value of synthetic extend (the) associated with the object to i then represented as follows:

$$si = \sum_{j}^{m} = I \sum_{gi}^{j} \otimes [\sum_{j=1}^{n}\sum_{j=1}^{n} M_{gi}^{j}]^{-1} \tag{1.1}$$

To obtain $\sum_{j=1}^{m} M_{gi}^{j}$ perform additional fuzzy operation of m with particular matrix

$$\sum_{j=1}^{m} M_{gi}^{j} = [\sum_{j=1}^{m} L_j, \sum_{j=1}^{m} m_j, \sum_{j=1}^{m} u_j] \tag{1.2}$$

Then to get $[\sum_{j=1}^{n}\sum_{j=1}^{m} A_{gi}^{j}]^{-1}$ surgery fuzzy value $M_{gi}^{j}(j = 1,2,3,\cdots,m)$

$$\sum_{j=1}^{n}\sum_{j=1}^{m} M_{gi}^{j} = (\sum_{j=1}^{m} I_j, \sum_{j=1}^{n} m_j, \sum_{j=1}^{n} u_j) \tag{1.3}$$

At the end of the first step of the determinant of the inverse vector

$$[\sum_{i=1}^{n}\sum_{j=1}^{m} M_{gi}^{j}]^{-1} = \left(\frac{1}{\sum_{i=1}^{n} u_i}, \frac{1}{\sum_{i=1}^{n} m_i}, \frac{1}{\sum_{i=1}^{n} I_i} \right) \tag{1.4}$$

Determining the degree of likelihood (degree of possibility) and fuzzy set $m_2 = (l_2, m_2, u_2) \geq M_i = (L_1, M_1, U_1)$ defined as

$$V(m_2 \geq M_1) = \sup_{j=x}[\min(\mu m_1(x), \mu m_2(y))] \tag{1.5}$$

x and y is the value on the axis of each membership function. Applied to the thoery and applications of fuzzy TFN with 3-type of low, medium and upper (l, m, u) and the membership function has been formed with the following equation:

$$V(m_2 \geq m_1) = hgt(m_1 \cap m_2) = \lambda m_2(d) \tag{1.6}$$

$$V(m_2 \geq m_1) = \begin{cases} 1, & \text{if } m_2 \geq m_1 \\ 0, & \text{if } l_1 \geq u_2 \\ \frac{l_1 - u_2}{(m_2 - u_2) - (m_1 - l_1)} & \text{otherwise} \end{cases} \tag{1.7}$$

- **findings :**
- **Identification of research criteria and sub-criteria**

The main criteria of the study are: general culture - specific culture. Indicators have been considered for each of these criteria, so that a total of 6 sub-criteria have been selected. The criteria and sub-criteria of the research are listed in Table 4 . Also, the criteria and sub-criteria of the research with numerical index are named as Table 4 so that it can be easily traced and studied during the research.

Table 4: Main indicators and sub-criteria of general and specific culture characteristics in foreign language learning

symbol	sub-criteria	The main criteria	
S_{11}	1. National identity		
S_{12}	2. Unity of the nation	General Culture	C_1
S_{13}	3. Accept change		
S_{21}	4. Scientific culture		
S_{22}	5. Literary culture	Special culture	C_2
S_{23}	6. Popular culture		

Determining the priority of model elements using ANP technique

In this research, network analysis (ANP) technique has been used to determine the weight of criteria and model indices. First, the main criteria are prioritized based on the purpose. Then the internal relationships between the main criteria are identified. In the third step, each of the sub-criteria is compared and prioritized in its respective cluster. In the fourth step, the internal relations of the sub-criteria are specified. Finally, by calculating the initial super matrix, the rhythmic super matrix and the limit super matrix, the final priority of the indicators is determined.
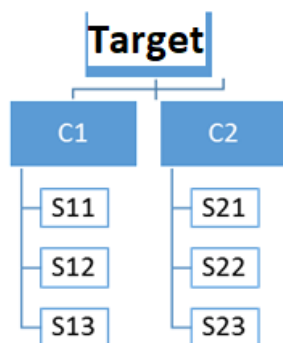

Figure 1: Hierarchical pattern of criteria and sub-criteria of the studied variables

The steps of the analysis are as follows:

1- Prioritize the main criteria based on the goal through pairwise comparison
2- Identifying the internal relations between the main criteria with Demetel technique
3- Prioritize each of the sub-criteria in its respective cluster through pairwise comparison
4- Identifying the internal relations between the sub-criteria with Demetel technique
5- Calculation of initial supermatrix, rhythmic supermatrix and limit supermatrix

In this way, the final priority of the indicators is determined.

Prioritize the main criteria based on the goal (W_{21})

To perform the first network analysis, the main criteria were compared in pairs based on the purpose. Pair comparison is very simple and all elements of each cluster should be compared in pairs. Therefore, if there are n elements in a cluster $\frac{n(n-1)}{2}$, a comparison will be made. The number of comparisons made is equal to:

$$\frac{n(n-1)}{2} = \frac{3(3-1)}{2} = 3.$$

Therefore, 3 pairwise comparisons were performed from the perspective of a group of experts. Experts' views have been quantified using the fuzzy scale. Expert opinion collection is collected with a range of nine degrees. Using the geometric mean, the views of experts have been aggregated. To calculate the average of n respondents' comments, the fuzzy aggregation will be calculated as follows:

$$F_{AGR} = \left(\Pi(l), \Pi(m), \Pi(u) \right)_{\text{Relationship 1}}. \tag{1.8}$$

Using the fuzzy mean of the experts' point of view, the pairwise comparison matrix is shown in Table 5.

Table 5: Matrix of pairwise comparison the main criteria for the characteristics of general and specific culture in foreign language learning

C_2	C_1	
(1.53,1.91)	(1 ,1)	C_1
(1,1)	(0.65 , 0.78)	C_2

After forming the matrix of paired comparisons, the special vector is calculated. First, the fuzzy expansion of each row is calculated. Each pair of matrix $\tilde{X}$ comparisons is displayed as $\tilde{x}_{ij}$. The fuzzy expansion of each row is also represented by a symbol $\tilde{S}_i$. Therefore, the fuzzy expansion of each row will be calculated as follows:

$$\tilde{S}_i = \sum_{j=1}^{n} x_{ij} \tag{1.9}$$

Therefore, the fuzzy expansion of the elements of each row will be as follows:
Fuzzy expansion of line $1(1,1,1) \bigoplus (1.91,1.53,1.29) \bigoplus (0.64,0.52,0.42) = (3.55,3.05,2.71)$
Line 2 fuzzy expansion $(0.78,0.65,0.52) \bigoplus (1,1,1) \bigoplus (0.85,0.72,0.58) = (2.63,2.38,2.1)$
The fuzzy sum of the sum of the elements of the preferences column is then calculated:

$$\sum \tilde{S}_i = \sum_{i=1}^{n} \sum_{j=1}^{n} x_{ij}. \tag{1.10}$$

The sum of the elements of the preferences column of the main criteria will be as follows:

$$\sum_{i=1}^{4} \sum_{j=1}^{4} M_g^j = (11.28, 9.73, 8.56).$$

To normalize the preferences of each criterion, the sum of the values of that criterion must be divided by the sum of all the preferences (column elements). Because the values are fuzzy, the fuzzy sum of each row is multiplied by the inverse of the sum. The inverse sum must be calculated.

$$\text{if } \tilde{F} = (l, m, u) then \ \widetilde{F}^{-1} = \left(\frac{1}{u}, \frac{1}{m}, \frac{1}{l} \right). \tag{1.11}$$

So based on the relationship we will have:

$$\left(\sum_{i=1}^{n} \sum_{j=1}^{n} M_g^j \right)^1 = (0.12, \ 0.1, \ 0.09)$$

$$P_k = \sum_{i=1}^{n} M * \left(\sum_{i=1}^{n} \sum_{j=1}^{n} M_g^j \right)^{-1}.$$

Therefore, the results of normalization of the obtained values will be as follows:

$$\widetilde{W}_{C_1} = (0.24, 0.31, 0.41)$$
$$\widetilde{W}_{C_2} = (0.19, 0.24, 0.31)$$
$$\widetilde{W}_{C_3} = (0.33, 0.44, 0.6)$$

Each of the obtained values of fuzzy and normalized weight corresponds to the main criteria. There are various methods for de-fuzzing the obtained values. In this study, Bojadziev's proposed method for decapsulation is used.

Table 6: De-fuzzyness and calculation of final and normal weight Criteria of general and specific culture characteristics in foreign language learning

Normal	Deffuzy	X3max	X2max	X1max	
0.313	0.320	0.315	0.318	0.320	C_1
0.241	0.247	0.243	0.245	0.247	C_2

Accordingly, the special vector of priority of the main criteria will be W_1.

$$W_1 = \begin{pmatrix} 0.313 \\ 0.241 \end{pmatrix}$$

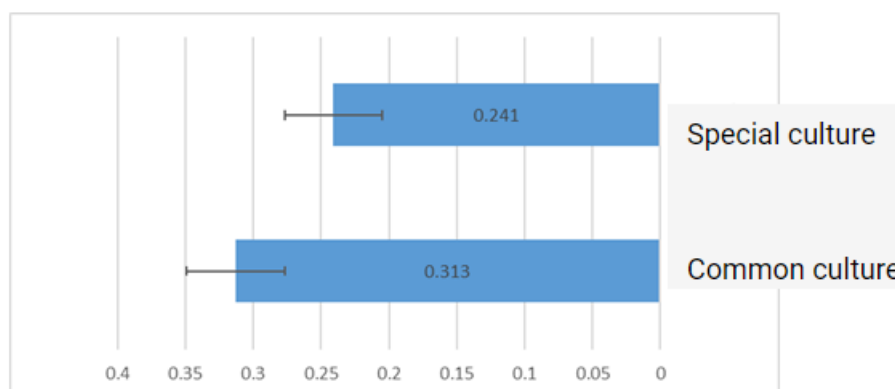## Based on the special vector obtained

Figure 2: Graphically shows the importance of criteria for the characteristics of general and specific culture in foreign language learning

- General culture with a weight of 0.313 is in the first place.
  Special culture with a weight of 0.241 is in second place.

The incompatibility rate of the comparisons is 0.061, which is less than 0.1 and therefore the comparisons can be trusted.

Summary and conclusion

The basic principles of cult urology tell us that:

Between particular cultures and general culture, and even between the general culture of a nation and the general world culture, there are reciprocal, reciprocal, interactive, and moving relations; My face is special!

It has not been seen in any country or nation (except in very rare cases) that a cultural part formally and openly claims hegemony and monopoly over other cultures. For example, the current great scientific culture (along with its technological and industrial processes) believes that literary, artistic, moral, etc. cultures must follow it! The history of culture has shown that whenever and whenever such an event occurs or has occurred, other cultures are severely damaged and lose the original content and nature of their original cultural part and forget their historical mission. In relation to the relationship between cognition and culture, we realized that these two concepts are in a mutually productive relationship, and in this two-way relationship, it is possible for both concepts to change and evolve. Subsequently, by studying the texts used in French language teaching methods, we came to the conclusion that cognitive concepts have changed from a structuralist to a phenomenological perspective, and in parallel, the concept of culture has changed from a specific culture to a general culture, and then It has paved the way for the attainment of intergenerational and eco-cultural perspectives. In addition, as a result of these studies and findings, we have come to realize that the path of teaching languages and cultures is a dynamic and evolving path. Today, with the introduction of the new concept of "transcultural" in this area, we feel this point more and more. This new cultural approach, which follows the phenomenon of globalization in the field of teaching languages and cultures, is contrary to the previous cultural approaches, which were based on cognition-action and cognition-biological and in a word, practical aspects of

language. Goes beyond and speaks of cognition. In other words, it relies on shared human and universal values to get closer to non-controversial learning environments. Thus, we will soon have to wait for the methods that have emerged from a kind of transcultural approach, that is, cultural diversity. Methods in which different cultures are presented side by side, and thus primarily cultivate the spirit of respect for the values and beliefs of different societies in language learners, and at the same time the ability to criticize, debate, and reason with them. Strengthen. Definitions of Cuban language and culture are closely related to these two concepts and in fact the overlap of language and culture. This fact is also reflected in language teaching. Students acquire extensive linguistic knowledge after graduation but have great difficulty using it in speech. This is because the role of translingualism, which is more evident in culture than anything else, is not taken into account. Encourage its use in communication tissues.

Culture not only reflects the real world around man and his living conditions but also the social consciousness of the nation, that is, the thought, way of life, traditions, value system, and worldview of man. All of this is somewhat objective in language, in other words, language is a material cover for culture.

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