

# **Investigation on linguistic-cognitive skills of bilingual children with different economical-cultural backgrounds**

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## **Abstract**

**The purpose of this research is investigation into the difference of linguistic-cognitive skills in bi-lingual students, who have difference economical-social backgrounds. Two viewpoints have been in mind while conducting this research: First, Vigotsky's theory about general cognitive development, which is applicable in learning language. Second, Bernstein's theory of social class and the differences of speech quality. In this research suitable theoretical explanations being suggested so that the various effects of cognitive behaviors are clarified in learning the second language. Moreover, learning of the second language is being discussed in its social framework. The subjects of this research include 205 grade one students of public schools in the city of Orumieh. The age of these kids is between six and a half years to eight and a half years. These kids native language is either Turkish or Kurdish and are taught their lessons in Farsi language. They are selected from various social and economical levels.**

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The test for ability in Farsi language (the test for ability in writing words) is used for the bi-lingual kids. The results of this research shows clear signs that social class is in relationship with the linguistic-cognitive development and states that the kids' primary experiences in family and social group channels can impact the structure of their cognitive and linguistic development. At the meantime, the research findings did not provide any clear sign with regards to the relationship between culture and linguistic-cognitive development, meaning that although there is cultural differences between Kurdish-speaking and Turkish-speaking kids in the region, the level of gaining Farsi knowledge of the two groups has had no significant statistical difference. The most important outcome of this research stresses the question that the amount of educational resource at hand can to what extent impact the education development in the second language for bi-lingual kids. Kids who have had the opportunity to pass pre-primary school classes have had far more ability in learning Farsi knowledge compared to the kids who have not had such an opportunity.

**Key-words:** Language development; Language skills; Bilingualism; Bernstein's theory; Cultural differences; Kurdish-speakers; Turkish-speakers; Farsi-speakers; Urumia; Bilingual children; Linguistic-cognitive skills

## **Introduction**

Research in the field of learning the first language and the second language, how one learns it, and the role language plays in human cognition structure, are the subjects of educational researches in many countries where people speak with different languages. Considering the importance of the subject, the main goal of this investigation is to identify the differences in language-cognitive skills of bilingual students having different economical-social backgrounds. This research is formed based on Vygotsky's viewpoint on the role of language in human cognitive development.

As well, Bernstein's viewpoint regarding the impact of the social class on language-learning has been used.

### **Vygotsky's theory about language and cognition**

Vygotsky (1992) provided a theory which is about “The emphasis for social influences on the cognitive development”. In Vygotsky's theory, all of human's superior cognitive work such as logical memory, free attention, speech thought, concept formation, and speech system can be transformed to mental phenomena only in the context of the society and through advanced internalization.

In Vygotsky's view, the primary function of speech, in both adults and children, is communication and social encounters. Therefore the child's most primary speech is essentially social which is general and is multi-functional at the beginning, and then its functions are distinguished from each other. In a specific age, the child's social speech divides into two sections in a clear way. These two sections are thoughtful speech and speech for direct communication (Vygotsky, 1992). As the child starts to internalize the social tools he begins to talk with herself, which is part of superior cognitive activities. These activities prepare the child for entering the second development stage. In the superior psychocognitive stage, complex cognitive activities increase and the child gains more control over signs and symbols.

The key to understanding cognitive development is hidden in the child's social processes. What this means is that the child's cognitive development is dependent on her interaction with the surrounding world. The adults who are interacting with the child are exchanging the cultural values of that society (Elliott, et. al<sup>1</sup>, 1996). Vygotsky's theory offers a general viewpoint about the human development and highlights the role of language in the mental development process. The emphasis of the theory is also on the parents' role and their relationship with the children (Elliot et al., 1996).

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1- Elliot, Krathochhwell, Littlefield, and Travers

Vygotsky takes the concept of language and cognition to the cultural aspect. He writes: “The human cognition process is formed during history and is transferred from one person to the other and from generation to generation by the help of cultural and social tools. Through different social methods, different cultures take advantage of signs. Based on their special cultural needs, individuals of various cultures develop different cognitive functions. Later on Vygotsky identifies these cultural differences in the cognitive development (Yu & Bain, 1980; Diaz & Klingler, 1991).

### **Bernstein's theory about speech coding**

Bernstein's theory is trying to clarify the relationship between the social class and language and education. Bernstein's research about language sociology is revolving on his belief that language can be both objectively and by topic investigated. From the topic viewpoint, language orientates the personal goals and aims and the thinking process. And from the objective viewpoint, language protects the treasury of the human society's knowledge (Danzing, A., 1990)

Bernstein (1972) offered his theory titled “the fundamental subjective differences in speech” which was for children in the middle and low social classes. This difference is in the system of language grammar and words. He states that these deviations are due to the different relationships of the social class structure, especially that of the family, peers groups, school and society. Children of different social classes, gain their social-cultural identity from the society they belong to and find the methods of how to respect themselves by stating this identity (Atherton, 2002).

In Bernstein's view, the speech by the children of lower social classes is a limited one. Limited language is a form of speech which is tied with a cultural environment of a society or a low social level neighborhood. In a limited form, language is more for communicating about suitable practical experiences than for discussing thoughts, processes, or abstract relationships. For this

reason, limited language speech, is especially for children who are grown in families of lower social class and among the peers groups they spend their time with.

In Bernstein's view, the middle social-class children's development of language, unlike the low social-class involves the learning of an expanded language. This would be a speech method in which the meaning of words can gain individualization or be adjusted with special circumstances. The methods that children of the middle class get help from in order to learn the application of language are not as limited to specific areas and the child can extend her abstract thoughts and state them easier.

Bernstein says the difference of language models for children in various social classes influences their educational performance in school (Alaghe-band, 1997). In his opinion, the children who have learned the expanded speech language have more ability to take advantage from the official education compared with the children who have not gone further than a limited form of language. Those who have mastered the extended language, can adapt a lot faster to the school environment (Giddens<sup>1</sup>, 1994). Bernsteins' theory shows that the language used daily by individuals is both the shaper as well as the reflector of that person's social group (Littlejonh, 2002).

## Research goal

The overall purpose of the current research is: to investigate the impact of difference in social class and qualitative differences in the language learning process among the bilingual students of the city of Urumia. For this reason we seek help from two theories: First, Vygotsky's theory regarding general cognitive development which is about language learning. Second, Bernstein's theory regarding social class and qualitative differences in speech.

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1- Giddens, Anthony

## Research tools and sample

What was researched in this study included the grade one students of public primary schools across the city of Oroomieh. The number of cases was 205 (95 girls and 110 boys). These children's age was between 6 years and 6 months and 8 years and 7 months. These children are from different social and economical status whose mother-tongue is either Turkish or Kurdish and the language with which they study in school is Farsi. The children have been divided into four groups: Group A: The low level, Kurdish speaking (26 girls and 30 boys); Group B: The low level, Turkish speaking (31 girls and 27 boys); Group C: The middle class, Kurdish speaking (23 girls, 33 boys); Group D: The middle class, Turkish speaking (15 girls and 20 boys). The categorization of the children was based on the social class which was according to the parents' occupation and preferably that of the father.

In this research, the test for Farsi language ability (the test for writing words) was used for bilingual children, which included the test for ability in writing words. A questionnaire for gaining information regarding the children's demography was also used.

## Findings

This research has brought with it interesting findings. The research findings show how much the language skills as an important cognitive variable has relationship with variables such as social class and quality of social relationships and educational issues.

In the primary hypothesis it was predicted that there is relationship between the Farsi language skills (number of words) for bilingual children and their social class (low – middle). The results based on T test confirmed the above hypothesis and have shown a significant relationship from the statistical point of view. The average number of words the children of middle social – economical level have used is more than the average number of word the children of low social – economical class have used. The

difference observed between the two mean based on T-test is at a level over 95 percent ( $P < 0.004$ ).

Based on the results of testing of the second research hypothesis, it seems that the Farsi language skill in using words by the Turkish and Kurdish speaking children has no relationship with their cultural backgrounds.

According to the third assumption of the research, there is relationship between the bilingual children's Farsi language skills (number of words) and passing the pre-school period. The mean for the number of words used among the first-grade primary-school students who have passed the pre-primary school period (the preparation for primary-school) is more than those who have not passed this period. The resulted T is 1.807 which is significant at a low level ( $P = 0.072$ ).

With regards to the fourth research hypothesis which states that the Farsi language skills (the number of words) of the bilingual children has relationship with the parents' level of literacy, the results of the one-way variation analysis shows that children whose parents have average level of education use more Farsi words (with an average of 25.25) compared to those whose parents are illiterate (with an average of 16.46). The observed difference between the five means based on F test with an amount of 5.86 is significant with at a level of over 99 percent ( $P = 0.000$ ). In other words, children whose parents have higher level of education use more words in writing. The LSD test also showed that there is significant difference between the difference in the parents' level of education (including illiterate, primary school literacy, middle school literacy, high school literacy, and having High school diploma).

The final and last hypothesis of the research predicted that there is relationship between the bilingual children's Farsi language skills (number of words) and gender (girls/boys). The average number of Farsi words that the bilingual female students use is more than the bilingual male students' number of words. The resulted T is equal to 3.97 with a 99 percent level of significance ( $P = 0.000$ ). What this means is that the above theory was confirmed and there is

significant difference between gender and the number of Farsi words used.

Finally, the two-factorial variation analysis test was used for the two-way influence of social class variable and cultural groups variable on each other. Each of the variables (social and cultural class) shows a significant relationship with the number of words used by the students from the statistical point of view. However the mutual influence of these two variables on each other is not significant.

## **Discussion and conclusion**

With regards to the theoretical framework of the research, the results of this research can be investigated from the following aspects:

1. Experiences related to social level and language-cognitive development,
2. Experiences related to culture and lingual-cognitive development,
3. The importance of primary social relationships in family.

With regards to the first topic, this study provided approved reasons for supporting the relationship between the social level and cognitive-linguistic development. The social level differences are considered the primary social tools in lingual-cognitive development. This signifies that the primary experiences in the family and social group network can be influential on the lingual-cognitive development structure. For the children of the middle class, the means for a supportive system of learning is provided for in the enriched atmosphere of the family environment. In contrast, in the families of lower social class, the lack of existence of such between and a value-based relations between the social environment and the family has influenced the lingual-cognitive development. The above results are in coordination with the researches conducted in the field of the impact of social level on learning a second language. Yu & Bain (1980) came to similar findings about the children from Hong Kong in different social classes, who had learned English as a second language. Yu & Bain

understood that the social class and the experiences related to bilingual children's economical-social backgrounds has direct influence on their language learning.

With regards to the second issue, the current research findings did not provide documented reasons regarding the relationship between culture and linguistic-cognitive development. Although there are cultural differences between Kurdish-speakers and the Turkish-speakers in this region, their acquisition of the Farsi language knowledge is not different between them. One of the assumptions that can be made with this regard is related to the fact that these children have gained equal education at school.

With regards to the third subject, the results show that learning the second language (Farsi) for children whose mother tongue is Turkish or Kurdish is dependent on the educational level environment especially the family environment. The higher the parents literacy level is, the more access the children gain to Farsi language knowledge. In other words, the linguistic-cognitive ability has direct relationship with language quality and social experiences.

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