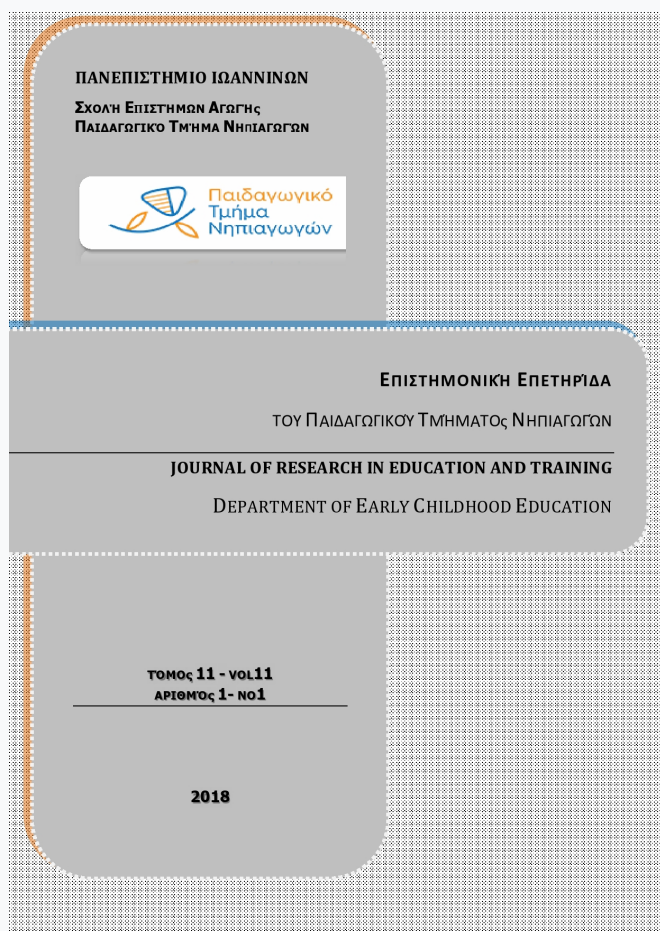


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## Learning difficulties among foreign pupils in primary school

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### Abstract

This paper investigates learning difficulties among primary school pupils (ages 6-12 years old) in connection with their abilities in oral and written language. The study involved typically developing foreign pupils in Greece (Region of Epirus) and Greek pupils in Germany (North Rhine-Westfalia). Among the main findings of this study is that a high percentage (80%-86% of the foreign pupils in Greece and 60%-70% of Greek pupils in Germany) presents serious difficulties in oral and written speech and, in general, a particularly poor performance during education process. Based on the study findings, the best way to locate such problems since pre-school age or even at the first school years is through appropriate assessment and intercultural educational programs realized within a modern and well-organized school.

**Key- words:** Bilingualism, multicultural environment, primary school, school performance, speech disorders

## INTRODUCTION

Migration, economy globalization, international communication networks creation, new technologies, easy access to knowledge, cultural values redefinition and the new universal cultural models creation have led to new data and issues in relation to the education in Europe and globally, as well as in Greece which from a sending country is being transformed in migrants receiving country.

Modern intercultural pedagogical current expressing cultural plurality and difference is addressed not only to cultural and linguistic minorities of the school community but to all the students (Markou, 1991).

Increasing migrants' mobility with the resulting educational problems has led to international organizations (Council of Europe, OECD, UNESCO) reaction. EU institutions have adopted a set of measures (Direction of the Council 25 July 1977, Common European Act, Resolution of 24 May 1988, European Union Treaty-Maastricht Treaty) which regulate educational issues within Europe.

In Greece the law for the intercultural education, even though it has some deficiencies and weaknesses and it isn't so far fully applied, indicates the state's will to change its attitude towards minority education and intercultural education promotion. Educational agents as the Center of the Greek Language, Greek Ministry of Education, Institute of Educational Policy, Nation Youth Institute, General Secretariat of Public Education realize research-educational programs, organize scientific conferences and meetings, publish studies and conference proceedings so as to sensitize and inform European partners about subjects of special intercultural and bilingual education as well as teaching Greek language to foreign students. A remarkable number of publications on this matter are a result of the activation of educational organizations in relation to modern pedagogical requirements.

***The necessity of the present research and its contribution to the science***

Researches in the field of Psychology and Pedagogics have come to the conclusion that education activities, promoting special pedagogic and intercultural education, contribute to the foreign students' psychosocial as well as intellectual and linguistic development and enhance school performance within the hosting country educational and social system (Cummins-Swain, 1986, Bialystok, 1991, Mc Laughlin, 1995, Auerheimer, 1995, Borelli, 1986, Nieke, 1995).

Teachers, being confronted with this new phenomenon, have applied assimilation or in best cases superficial-counterbalancing strategies so as to achieve the fastest possible assimilation of the foreign students (Damanakis). For example, the state's measures are characterized by cultural homogeneity and unicultural character of the Greek education while internationally there is a necessity for intercultural education (Markou-Vasileiadou, 1996). The Law concerning intercultural education presents many contradictions and ambiguities (Nikolaou, 2000) due to the theoretical and research work deficiency in Greece, mainly in relation to the application possibility of modern special educational programs within the new cultural reality.

In particular Greek literature comprises some pedagogical researches concerning the education of Greek students that live abroad and especially in Germany. However, there are not so many studies referring to the education of those students presenting speech disorders and learning difficulties, studies concerning the special problems of these students, teachers intervention strategies in order to deal with this cultural difference and application of modern programs of special education.

The studies of Markou and Gkotovos (Gotovos-Markos, 1984) are remarkable. They refer to the school problems of the repatriated and foreign students as well as to the pedagogical intervention in the learning process. Equally remarkable is the study of

M. Damanakis (2001) which refers to the school reality in relation to the foreign and repatriated students' education as it is evaluated by the primary education teachers.

There are also studies concerning the infrastructure which is considered suitable for the foreign students' reception in Greece's school system as well as the structures of that school system (Papakonstantinou-Dellasoudas, 1997). Various other studies deal with bilingualism and Greek language learning by foreign students. These studies contain also teaching material (Nikolaou, 1999).

### ***Speech and language disorders***

Speech disorders can be due to inherent or acquired functional or organic causes. These causes are distinguished into 3 categories (Κυπριωτάκης, 1989)

#### **a) Organic causes**

Deformities and damages of the speech organs (chin, tongue, nose). Hearing or vision deficiencies can constitute speech disorders causes. They could result in total deficiency in the language development. Children with mental deficiency need more time to learn how to pronounce phonemes or to use language correctly.

#### **b) Temperamental causes**

Some forms of speech disorders are associated with hereditary factors.

Temperamental causes are to blame for delay in sensory-motor maturation and a certain predisposition to speech disorders.

#### **c) Psychological and social causes**

Low social-educational level of the family, large numbers of children, unfavorable financial conditions, motivation, interests and opportunities absence prevent the linguistic organ development. Equally, speech disorders can be due to sentimental or psychogenic causes, inappropriate linguistic models, overprotection, parents'

austerity, excessive requirements, institutionalization, regression, anxiety (Case, 1984).

Most language disorders are recorded during preschool age and especially when the child starts to go to school. 3-5% of the pupils has speech disorders and need special therapeutic treatment. These disorders are more often among low classes and particularly among boys.

### *Semantics*

According to literature, semantics is the system of rules which governs the meaning and content of the words as well as their combinations. The term semantic development refers to the development of knowledge concerning vocabulary (Kati, 1996). The development of semantic level during childhood depends on the development of the general perceptive mechanism and refers to the learning and comprehension of the language conceptual content language (Pita, 1998: 341-359). It is mostly completed at the age of eight years old and it comprises vocabulary enrichment, words meaning acquisition, words interrelations acquisition, sentences semantic structure perception (Porpodas, 1993).

Almost 90% of the pupils entering primary school speak clearly and have acquired a basic vocabulary consisted of 2500 words. Gradually their vocabulary is further enriched. Words which at the beginning were used literally they start to be used in their figurative sense. Pupils receive many linguistic stimuli from a number of different courses and enrich their vocabulary with new concepts and meanings. A research conducted in the USA (Smith, 1998) showed that at the age of 10 the total vocabulary counts some 5400 words and at the age of 12 the total vocabulary counts 7000 words. Initially children learn how to name things, defining them based on their

use and classifying the objects based on physical characteristics. As they grow up they use less obvious features in defining objects until they reach the full comprehension of abstract concepts.

Semantic Development during School Age: it is a period of continual linguistic development. It is estimated that at the time of his/her graduation the pupil knows more than 80000 word definitions, although the words he/she uses are less. Of course this number becomes even larger if we add suffixes and prefixes which change words meanings.

Semantic development is differentiated according to the parents' education level, socio-economic level, gender, age and cultural background (Ebert, Lockl, Weinert, Anders, Kluczniok, Roßbach, 2013, Olson, Keenan, Byrne, Samuelsson, Coventry, Corley, Huslander, 2011). The vocabulary development rate is stabilized at the age of ten, where the pupil in order to be more specific starts to use unusual parts of the speech such as adverbs.

Receptive and Expressive Vocabulary: receptive vocabulary refers to all the words that the pupil is able to understand, while expressive vocabulary refers to all the words the pupil can write or pronounce. According to Nation et al. (2001), receptive knowledge of the 2000 most frequent words allows the speaker to understand 90% of the words within a conversation. Researches concerning the size of the receptive as well as of expressive vocabulary ended in the conclusion that receptive vocabulary is much larger than expressive. In 1930 scientists measured the size of the second language receptive and expressive vocabulary among university students who were

learning German and found that the size of the receptive vocabulary is greater than the size of the expressive vocabulary in five appearance levels.

### *Syntax*

One of the most important factors in oral speech is syntax. The form and the structure of a sentence is defined by syntactic rules. Syntactic rules determine words, phrases and sentences order, sentences organization and the relationships between words and other elements of the sentence. Thus syntax defines which words combinations are possible and which are not. The basic elements of a sentence are noun and verb clauses consisted of many word categories such as nouns, verbs, adjectives, adverbs e.t.c.

Child's syntactic development follows the below stages (Porpodas, 1993):

- a) One word expressions. Here one word may express complex and various meanings and correspond to one or more phrases of the adults.
- b) First word combinations which appear after the child can manage a vocabulary of 300 words. This is the time when two different words refer to the same phenomenon as opposed to the previous phase where each word refers to a separate phenomenon.
- c) During telegraphic speech stage children omit articles, prepositions but never verbs and nouns because these define the meaning of the sentence.
- d) Complex sentences are structured at the age of 2-3 when the child begins to produce sentences in which the words position has functional importance. At the age of four children can produce three-word sentences, the syntax of which is defined by the word position, the different word forms as well as the meaning the child wants to express.



- e) Universal development elements at the age of 5 or 6 where the syntactic development is characterized by a rapid progress in the language receptive and productive process. Although the child's syntactic development seems to have been completed since the sixth year and the differences between child and adult speech are not so big, the development of the syntactic system is not completed. There are no syntactic structural rules.

### ***Morphology***

Morphology refers to the internal word organization (Φιλίππάκη-Warburton 1992). Words consist of one or more small units called morphemes which constitute the smallest grammatical units that have a meaning and they are divided into four categories:

- a) bound morphemes, which are not independent but always combined with others e.g. privative prefixes.
- b) Free morphemes which appear independently of others e.g. now, me
- c) Lexical morphemes which define objects, situations, persons and constitute a source of information during communication, e.g. woman
- d) Grammatical morphemes refer to relations within language, that is they have grammatical function

Morphemes are the smallest units. The next unit larger unit is word. Words are formed either by synthesis, lexical morphemes combinations, production, lexical and grammatical combination.

The child presents a gradual progress in sentence forming by words and the better he/she learns the words conceptual meaning the more syntactic correct oral and

written sentences he/she produces. In the course of time sentences become longer and more complex.

### ***Bilingualism and development of metalinguistic and phonological conscience***

Most studies which describe the simultaneous linguistic development among specific children, indicate that at the age of two the average child begins to realize that mum and dad speak different languages, that his/her parents' language is quite different from that of the kindergarten or T.V. (Hoffmann, 1991). At this phase the words of each language begin to make their appearance. The child himself/herself asks questions seeking to know the meaning of the words in both linguistic systems: "how calls it dad" or "how calls that mum". This practice contributes to the realization the language use as a means of expression and communication.

In the field Psycholinguistics there are several terms for linguistic competences such as "Metasprachliches Bewusstsein", "Language awareness", "Linguistic consciousness", "metalanguage", "Language intuition" e.t.c. However, among these terms there is no absolute conceptual identity, while in Greek language the terms "metalinguistic conscience" and "metalinguistic competences" are synonymous. According to Dannenbauer (1992) metalinguistic competences are those which *"...give the student the possibility to deal with and use the language as an independent instrument, and be conscious about its structure and function", such as sentences, words, syllables, phonemes.*

However there isn't enough empirical evidence that can form a full and detailed picture of these competences development processes (Bialystock, 1991). But the development of metalinguistic competences presupposes an inherent predisposition and it is influenced by the individual's first experiences during his/her contact with

the linguistic stimuli of the environment. Some important factors are the individual's linguistic development, school education and the individual's interest to learn the language. Of course all the above factors are interconnected and interrelated.

Many scientists, based on observations and long-term researches and studies, believe that bilinguals develop their metalinguistic competences much sooner than monolinguals. According to others when a child is capable of expressing his/her thoughts in different languages, then he/she can develop the below abilities: a) to think of his/her language as one system among many others and b) to classify linguistic phenomena in general categories and thus be conscious and realize the linguistic functions of this system.

Early linguistic development is considered to be one of the most important advantages of bilingual children as it contributes to the development of the cognitive academic linguistic competence (Cummins, 1986). Within the literature of the 70s and 80s, the results of a series of empirical studies confirm the above views.

During the research program "*growing up between two languages, learn to read and write in two different alphabets*" (Triarchi-Hermann, 1999) conducted by Special Education Institute in University of Munich, scientists came to the conclusion that metalinguistic competences in German language among bilingual Greek pupils that live in Germany and go to the 3<sup>rd</sup> grade of primary school in Munich are less developed than those of the monolingual German pupils. Among the same sample, the linguistic competence in Greek language is more developed compared to that of the monolingual comparison group. Scientists examined cases such as words position in the sentence, the use of plural number e.t.c.

### ***Evolutionary Speech and Language Difficulties***

These difficulties concern problems oral speech articulation, production and comprehension problems (Παντελιάδου et al., 2004)

### ***Evolutionary Difficulties in academic performance***

This category comprises specific reading, writing and arithmetic difficulties (Παντελιάδου et al., 2004). The commonest category is dyslexia which refers to specific reading difficulties. Dyslexia is a specific learning difficulty. It is an inherent, specific language difficulty which occurs during words decoding and represents inadequate abilities of phonemic processing (Παντελιάδου et al., 2004).

These difficulties in word decoding are usually not expected taking into account the age and other cognitive and academic abilities of the child. Moreover, they are not a result of a general developmental difficulty or sense limitation (Παντελιάδου et al., 2004). Dyslexia occurs with differentiated difficulty to various speech types and refers to reading, writing and spelling problems.

Pupils with specific reading difficulties have also problems in decoding as well as written speech comprehension (Παντελιάδου et al., 2004). In written speech these difficulties are related to spelling and speech production problems.

Difficulties in mathematics are related to recognition of numbers and symbols, memorizing of multiplication table, comprehension of abstract concepts and mathematical problems solving (Παντελιάδου et al., 2004).

***Other difficulties***

Learning difficulties may comprise other difficulties such as visual-kinesthetic disorders which affect learning but they do not fall into one of the above categories (Παντελιάδου et al., 2004).

***Learning Difficulties are a heterogeneous group of disorders***

Learning difficulties are differentiated and as a result there are no common characteristics among all pupils with learning disorders. Some characteristics which have been recorded are perception difficulties, kinesthetic disorders, attention disorders, memory disorders and socio-emotional problems (Παντελιάδου et al., 2004). However, all the above characteristics participate in many other categories of special needs and thus they don't have great contribution in differential diagnosis of pupils with learning difficulties.

In 1970 this view was in question (Vellutino, Pruzek, Steger & Meshoulam 1973). Thus, among readers with visual-spatial and audio-phonetic problems, 40% of dyslectic pupils have both problems, more than 50% present audio-phonetic difficulties, while merely 10% have visual-spatial difficulties (analysis-synthesis-reversion). Thus, probably perception disorders among pupils with learning disorders may constitute a separate disorder which co-exists with learning difficulties without being causally related to them.

Visual perception/processing disorders are not causally related to learning difficulties. This is the conclusion of many research studies as well as assessment studies based on visual perception exercise (Aman & Singh, 1983, Kavale & Mattson, 1983). According to such studies other factors like problem solving abilities, motivation, linguistic abilities are responsible for learning disorders and not perception disorders.

Reading difficulties result from a serious inadequacy in linguistic and specifically in phonological processing (Wagner, Torgesen & Rashotte, 1994). The term phonological processing refers to the pupil's ability to realize that words are consisted of phonemes and to use them as linguistic units for the formation of other words. In many cases scientists believe that phonological processing abilities contribute to the creation of reading difficulties and thus they suggest that phonological processing disorders should be the only element of differential diagnosis of specific reading difficulties.

### **The relationship between written and spoken language within Primary school**

Deficiencies in written speech result from deficiencies in oral speech. Dyslexia, for example, probably constitutes a meeting point of deficiencies between written and oral speech deep and surface structure. Deficiencies in phonological awareness and processing affect the reading and writing acquisition. In essence, the vital role of phonological dexterities in reading acquisition constitutes an important part of the theoretical context which shows that dyslexic readers present phonological deficiencies (Brady et al., 1991, Share, 1995). These deficiencies are manifested in phonological awareness and processing (Snowling, 1995). As a result, dyslexic pupils have difficulties in linguistic short-term memory as well as in false words repeating. The relationship between phonological awareness and reading and writing dexterities development is a fact. The development of phonological awareness dexterities during pre-school age facilitates reading acquisition. Pre-school pupils performance in phonological awareness tests is a criterion related to reading dexterities acquisition. However, Greek language differs from the English in many aspects such as the segmentation between onset and rime. This is because the “data of Greek researches

converge to those of languages with swallow-transparent spelling system. For example, word spelling in Greek, Spanish, Finish is simple as it is based on phonological translation of spelling structure according to the rules of written-spelling correspondence. This is not true for English language spelling with regard the syllabic structure and the spelling deepness”.

The activities for the development of phonological awareness should be incorporated to the kindergarten program because the pupil’s ability to think of the word he/she listens (development of metaphonological dexterities) is closely related to reading and writing acquisition. But it should be noted that (Γιαννετοπούλου, 2001, 2003, Ζακοπούλου, 2001):

- Phonological awareness development moves from the realization of large to that of small units e.g. from syllable to phoneme
- Phonological awareness evolutionary course depends on the assessment criteria as well as the way the activity occurs.
- Pupils’ performance in phonological awareness activities depends on cognitive prerequisites set by these activities (acoustic memory problem)
- Phonological awareness concerns many different levels e.g. rime, syllable, phoneme
- Phonological awareness concerns different places in word level e.g. first/last syllable or phoneme at the beginning of the syllable at the beginning of the word/phoneme at the beginning of the syllable within the word/phoneme at the beginning of the syllable at the end of the word/phoneme at the end of the syllable at the end of the word.

- Phonological awareness activities concern finding /using /segmenting /combining /isolating dexterities at rime /syllable /phoneme level in connection with the position of the syllable/phoneme within the word.
- Within literature the terminology of comprehension and expression disorders has great variety thus enlarging the already existing confusion. These disorders affect oral speech acquisition since the child's birth as well as his/her emotional and social development. They also correspond to a great number of linguistic deficiencies which do not appear with the same severity or frequency and symptomatology in every child.

Disorder data may change as the child grows up but the deficiencies remain. Phonological organization of the child's speech (speech clearness) may be improved in such a degree that the child may be comprehended even if sometimes he/she has difficulties in words with many syllables or rare words. However, this is not true for the other deficiencies in other sectors (deep structure).

Deficiencies appear on

- Phonological organization
- Phonological awareness
- Vocabulary/word retrieval/word finding
- Sentences formulation-simple sentences with simple structure
- Semantic relationships and nuances
- Comparative relationships
- Complex directions processing
- Time-space orientation
- Interpretation of paralinguistic (e.g. prosody) or non linguistic elements (e.g. emotions)



- Narrative coherence and cohesion
- Conception and analysis of a wider framework which in order to be expressed, codified/comprehended and decoded, needs to the help of phonological, morphological, syntactic and semantic dexterities.

Probable indications for the existence of a specific speech disorder during pre-school age- which will emerge as difficulty in written language-are

- Deficient phonological organization
- Poor vocabulary (specific nouns, few adjectives principally the most frequent e.g. good, a few verbs-most frequent and semantically sub-defined e.g. do when the child can retrieve the right word. According to Foucault “the door of the language is where the verb appears”
- Difficulty in repeating false words (Conti-Ramsden et al., 2003)
- Poor narration as well as “rich” narration which structure don’ t constitute a comprehensible totality regulating a sequence of facts
- In that case the time-space framework changes as well as the sequence of the narrated events. Sometimes the child narrates events from two different stories within the same narration framework e.g. from two fairytales. This is best seen when the audience doesn’t know the story the child tells. The audience is not sure what is happening, where, when and in what sequence.

As it has already been noted, word reading in our language is “simple” because our pronunciation is swallow/transparent. In general what we write and read is what we see. Written and phonemic correspondence is simpler than in other languages. A child facing difficulties in words reading/writing will be improved when some sectors as phonological organization or phonological awareness will be therapeutically treated.

Text reading is a quite different activity because there enters the agent of text comprehension (he/she has difficulties in learning theoretical subjects) as well as the decoding of semantic relationships which are being codified through the morphological and syntactic structure of the language. Arduous reading may imply words phonological decoding incompetence or word meaning decoding incompetence, both of which are related to the deep structure of the speech.

Non comprehension of the meaning implies also an absence of prosodic curve, which characterizes arduous reading as well as absence of exclamation marks statement. Clinically, many children with difficulties in oral/written speech have also difficulties in recognising acoustically the prosodic curve which shows full stop, question mark, or exclamation mark without having to recognize the conventional punctuation.

With regard to writing, in word level children tend to “omit letters” or syllables dependent on the word size and phonotactic structure. This may be due to difficulties in phonological awareness, which becomes worse because of the early introduction of language learning in kindergarten when the children begin to learn letters with their name and not based on their sound. Kindergarten contributes to the child’s preparation for school but his role is much more important in other sectors (narrative speech, phonological awareness, pre-writing exercises) than to teach letters. This is a job for the school. In general, we must focus on phoneme distinct features such as the articulation place, articulation mode, silent/loud with regard to the pupils errors while he/she reads/writes e.g. when b becomes p e.t.c. Children’s mistakes are systematic and not random.

Phonemes distinct features allow us to discern the “rule” followed by the pupils in order to make a mistake. This approach facilitates intervention because it offers the possibility to enhance those contradictions which are necessary for the pupil’s system

in order to function properly in phonological organization and writing-phonemic correspondence.

In sentence and text level the above mistakes remain but there is also the difficulty of word separation, syllables/words omission, writing a simple sentence or a small text on the paper. Speech a constant flow of sounds, thus children don't know how many and which words they should write. Speech is something that is located in front of the mouth. On the other hand, writing visualizes what the pupil says; it is oriented from left to right/upwards to downwards and leaves obvious gaps between letters which are not comprehensible when we pronounce words. The space of the oral language is different from that of the written language.

The difficulty of words writing may imply a difficulty in relationship formulation through language morphological and syntactic structure which shows that the pupil sees around him a story that reads or listens. Sometimes the improvement of the narrative structure of oral language results in the improvement of the written language as well.

## **METHOD**

### ***Sample***

The present study aims at investigating learning disorders among typically developing pupils (ages 6-12 years old) in connection with their abilities in oral and written language. For the realization of this study, we used written questionnaires, a method often chosen to investigate individual and group attitudes (due mainly to its advantages such as objectivity, reliability and validity of the findings), with every individual participating anonymously in the research. A total of 736 questionnaires were completed – 100% of the final sample of pupils with speech disorders – and

included in the statistical analysis. All the questionnaires contained the necessary information for the statistical analysis. The 736 questionnaires corresponded to 736 pupils; however, these questionnaires were completed by the pupils' teachers.

The sample represents foreign students in Greece-Germany because there were studied schools with foreign students. On the other hand, sample's size and characteristics (736 pupils-1/3 of the population) represents all the population.

We think that we can generalize our conclusions for all foreign students that live in the region of Epirus (Greece) and Northern Westphalia (Germany). With the reservation that the characteristics of the foreign population do not differ from those of our sample, our conclusion may be generalized for all foreign students.

As research field we chose the region of Epirus (Greece) and North Rhine -Westfalia (Germany) for the below reasons.

1. Epirus and Northern Rhine- Westphalia concentrate large numbers of Greece's pupils as well as a part of foreign students that constitute the main sample of our research. According to arithmetical data many foreigners go to schools of Epirus.
2. They are representative areas of various socio-economic classes, education level, citizens and migrants culture.
3. It should be noted that the schools of Northern Rhine-Westfalia were chosen because the present researcher worked for five years a teacher in those schools and the experience gained triggered the interest for this research.

## RESULTS

### *Oral expression by nationality*

According to Table 1, 80% of the foreign pupils in Greece presents “Too many” difficulties in oral expression. This percentage is greater than that of the other two groups. Moreover, level “Too many difficulties” in oral expression presents a positive correlation with foreign pupils in Greece. 18.9% of the Greek pupils in Germany and 16.7% of foreign pupils in Greece present “many” difficulties, while the corresponding percentage of Greek pupils in Greece is 9.3%.

The  $\chi^2$  test shows that  $\chi^2=31.406$  and the crucial probability is less than 0.05, that is the null hypothesis is rejected and an alternative is used as there is no independence between the two variables. In particular, based on the adjusted residuals we observe that:

- a) Foreign pupils in Greece have statistically remarkable positive correlation with level “5-Too many difficulties” of the oral expression variable (adjusted residual=2.3), while they have a statistically remarkable negative correlation with levels “7-Several difficulties” and “8-Few difficulties” respectively (adjusted residuals =-2.9 and =-2.7 respectively).
- b) Greek pupils in Greece have statistically remarkable negative correlation with level “6-Many difficulties” (adjusted residual=-2.8), while they have a statistically remarkable positive correlation with level “8-Few difficulties” (adjusted residual =3.2) of the oral expression variable.
- c) Finally, Greek pupils that live in Germany presents a statistically remarkable negative correlation with level “5- Too many difficulties” (adjusted residual=-2.2).

### *Reading ability by nationality*

According to Table 2, there are enough differences among the three groups. 84.3% of the foreign pupils in Greece present “Too many difficulties” in reading, while the corresponding percentage is 79.8% for the second group and 65.8% for the third group. The level “Too many difficulties” in reading presents positive correlation with the group of the foreign pupils in Greece. In addition, we observe that 25.5% of the third group pupils has “many difficulties” while the percentages of the other two groups are smaller while the level “many difficulties” in reading presents high correlation with the group of the Greek pupils in Germany.

The  $\chi^2$  test shows that  $\chi^2=49.069$  while the crucial probability is less than 0.05. Thus, the null hypothesis is rejected and an alternative is used, that is the two variables are not independent. In particular, based on the adjusted residuals we observe that:

- a) Foreign pupils in Greece have a statistically remarkable positive correlation with level “5-Too many difficulties” of the “text reading variable” (adjusted residual=3.9), while it has a statistically important negative correlation with levels “7-Several difficulties” and “8-Few difficulties” of the same variable (adjusted residuals =-0.9 and=-2.4 respectively).
- b) Greek pupils in Greece have a statistically remarkable negative correlation with level “6-Many difficulties” (adjusted residual =-2.9), while on the contrary they have a statistically remarkable positive correlation with level “8-Few difficulties” (adjusted residual= 3.5) of the “text reading” variable.
- c) Finally, Greek pupils that live in Germany present a statistically remarkable negative correlation with level “5- Too many difficulties” (adjusted residual =-5.1) and a statistically remarkable positive correlation with level “6-Many difficulties (adjusted residual= 5.4).

## CONCLUSIONS

Learning difficulties in relation to written and oral speech processing constitute a special scientific field and thus they constitute a big challenge for teachers, special pedagogues, school counselors, parents as one of the main questions of the interdisciplinary group in education field is why some children acquire much easier the oral/written speech function, while some others have serious difficulties during speech use. However, apart from the scientific interest of various studies results, the present included, there are also important psycho-emotional ramifications and psycho-educational applications in many learning and educational activities fields. To be sure, the issues of psycho-educational assessment and dealing with pupils that present a speech disorder are not exhausted here. However, we tend to present briefly some of the conclusions and psycho-educational proposals which resulted from our research.

According to the research of individual cases of pupils with speech disorders it seems that a high percentage (80%-86% of the foreign pupils in Greece and 60%-70% of Greek pupils in Germany) presents serious difficulties in oral and written speech and, in general, a particularly poor performance during education process.

Some pupils belong to the “high risk” group (children in a dangerous situation) as the specific problems and disorders may be permanent due to the absence of any intervention method in their environment (school, family). The best way to locate these problems since pre-school age or even at the first school years is through appropriate assessment and educational intervention programs realized within a modern and well-organized school.

In particular we found that in every learning difficulty category foreign pupils in Greece present 4% more difficulties than Greek pupils in Greece. Moreover, Greek pupils in Germany present less difficulties than foreign pupils in Greece· these

differences range from 10% to 25%. Based on the questionnaires, we found that foreign pupils that study in Greek schools and specifically in Greek primary school present speech disorders both in oral and written speech. Thus, there is a need for a cross-cultural education program as well as for a special educational treatment so as to deal with school difficulties dominating in education process.

Some sociological views which try to explain for human behavior offer many alternative interpretations on Pedagogics dilemma in relation to cross-culturalism. They aim at maintaining difference, promoting cultural pluralism, developing relationships of mutual comprehension during education process. Hence, we should evaluate sociological theories based on their offer to the pursuit of this goal. Individuals must contribute to the normal function of the system's structures, taking specific roles and responsibilities. Only in this case there is a gain for society, which recognizes the individuals' contribution.

There are several sociological views in relation to pupils' educational treatment (minority children) in primary school. According to Max Weber's theory of action (Weber, 1980), the individual is placed in the center of communication process, that is the acting process. During action the individual is independent, his/her actions are determined only by his/her internal motives and considerations. Social systems do not affect the individual action. Their role is subsidiary. The individual's social actions are divided in four types: a) end-oriented, rational actions, b) rational actions towards an absolute value, c) affectional actions and d) traditional actions (Weber, 1980).



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## Appendix

**Table 1.**

Correlation of oral expression with nationality- relative frequencies (%) and correlation coefficients						
$\chi^2=31.406$ . $p<0.05$						
	1 Foreign pupils in Greece		2 Greek pupils in Greece		3 Greek pupils in Germany	
	R.F.%	Adj.Res.	R.F.%	Adj. Res.	R.F.%	Adj. Res.
5 Too many	80.0	2.3	75.1	-0.2	70.8	-2.2
6 Many	16.7	0.7	9.3	-2.8	18.9	1.8
7 Several	2.3	-2.9	7.8	1.9	6.6	1.2
8 Few	0.7	-2.7	5.7	3.2	2.5	-0.1
9 None	0.3	-1.6	2.1	1.5	1.2	0.3
TOTAL	100		100		100	

**Table 2.**

Correlation of Reading ability with nationality - relative frequencies (%) and correlation coefficients						
$\chi^2=49.069$ . $p<0.05$						
	1 Foreign pupils in Greece		2 Greek pupils in Greece		3 Greek pupils on Germany	
	R.F.%	Adj. Res.	R.F.%	Adj.Res.	R.F.%	Adj. Res.
5 Too many	84.3	3.9	79.8	1.1	65.8	-5.1
6 Many	11.3	-2.5	8.8	-2.9	25.5	5.4
7 Several	3.0	-0.9	3.1	-0.6	5.3	1.5
8 Few	1.0	-2.4	6.2	3.5	2.1	-0.8
9 None	0.3	-1.6	2.1	1.5	1.2	0.3
TOTAL	100		100		100	