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UDC 376.744:159.922.7

**THE ROLE OF PRE-SCHOOL EDUCATION AND PREPARATORY CLASSES IN A BILINGUAL ENVIRONMENT AND ITS INFLUENCE ON THE CHILD'S COGNITIVE AND SOCIO-EMOTIONAL DEVELOPMENT\***

The psychological measurements made at the end of a two-year period of preparatory education before entering the elementary school took place in June 1984. Sixty-two children were involved in this investigation. It was by considering the nationality and the socio-economic status of the families from which they derived that we chose the children for our experimental research, taking account of the ratio to the whole population of children in this ethnically and linguistically mixed area. The range in age of these children was from 72 to 90 months, the average age being 6 years and 10 months. In our experimental group there were more boys (59%) than girls (41%), which occurred accidentally. 56% of the children came from families with a lower socio-economic status, 37.1% were from the middle strata and only 6.5% were from the families that were socio-economically better situated. 40% of the children were Slovene by nationality, 53% of them were Hungarian and 7% belonged to other nationalities (Croatian, etc.). The same structural composition existed also in respect of the language spoken with in the family and the usual language of the child himself. 56.5% of the children came from the urban area of Lendava, while 43% were from villages in the communes of either Lendava or Murska Sobota, with an ethnically mixed population. Thirty-four children attended only the above-mentioned two-year preparatory education courses, while 28 children had attended kindergartens already before the experiment.

The structural composition of our sample (i.e. experimental) group was controlled in respect of three basic variables (nationality, language use, and mother tongue; these three completely overlapped each other in our example). An analysis of the variables showed that the groups (Slovenes, Hungarians and other nations) did not differ from each other where sexes were concerned, neither did they differ as to the chronological age. However, the groups differed from each other in the socio-economic status of their families (profession and educational level of the fathers and mothers). The parents of Slovene children showed a higher educational level and, related to this, a higher socio-economic status.

It appeared also that more of the Slovene children from our experimental group were living in the town (Lendava), and that more of them had attended kindergartens for a period longer than 2 years.

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\* Original: Slovene, 14 pages

Chosen in this way, the experimental group is in correct proportion to the entire population; it is, however, rather unsuitable for any comparison between the groups as to the mental development of the children concerned, as it would be difficult to decide to which effects possible differences should be attributed.

#### **Establishing the Psycho-Social Development of Children**

All the testing within our experimental groups was done by three psychologists doing their post-graduate studies in psychology. They were assisted by kindergarten teachers. The test-instructions were consequently given in both languages.

We established the degree of the children's cognitive development by following the Piagetian concept of the conservation of the quantity of substance. We found that only a small percentage of the children (about 8%) had reached - at this age - the level of concrete logical operations and had already developed the idea about the conservation of the quantity of substance. The ratio of these children was somewhat lower than we are used to obtaining when these tests are done on children that live in cities, where the usual percentage is 15-20%. An equal ration of the degree of development of these logical capabilities, however, was found in children coming from other provincial environments in the areas where only one language was spoken. As for the language use, we found no differences whatsoever in the level of cognitive development between several groups of children.

With the aid of the Lorge-Thorndike general intelligence test - pre-school level - we determined the intellectual development of the children. This experiment yielded results similar to those which we are used to obtaining in children who grow up in similar family environments and over a broader region. We could even say that there are indications of these results being even somewhat better. Among the several groups of children we did not find any statistically significant differences in the results of the general intelligence-test, which surprised us in a way, as we know that the child's family circumstances very much influence the test results of this very test.

As to the structure of our experimental group, we have emphasized already that in our groups the children from Slovene families were privileged in that their parents had a statistically significant higher level of education. Because of the specific structure of our experimental groups we applied separately the aptitude test for (elementary) school beginners developed by Tolićić, which is a good indicator of the functional maturity as desired for basic school education. Although the results of this test too are very much dependent on the socio-educational conditions within the child's family, we did not find any statistically significant differences here between the groups of children with different language use (considering either the language used in the family or the nationality). As we have emphasized, however, these families differed from one another in their socio-economic status.

The comparison of the results of these tests with the norms set for provincial environments showed that on all sub-tests the



children from our experimental groups had scored significantly better than average. On account of this we can conclude that the two-year preparatory education just before regular schooling has had an important influence on the development of the functional abilities for subsequent work in school.

The socio-emotional development of the children in our experiment was determined with the help of a special questionnaire (L. Horvat, et al.) which includes four scales of assessment: intellectual productivity, level of neurosis, non-adapted behaviour, and level of socialization. The evaluations of the individual items in the questionnaire were produced - on a three-degree scale - by the kindergarten teachers who had guided the preparatory course and who had first-hand knowledge of the children's behavioural reactions. The results of this point too of the appraisal of the child's development have shown that here too no statistically significant difference between the several groups can be observed in their language use or ethnic background. When comparing the results scored by the children of our experimental group with the results on the same evaluation scale scored by other experimental groups of children, we also found no special differences. Thus we have not found anything at all that would indicate that the children of our experimental group showed a higher rate of neurotic behaviour or of behaviour disorders than the ones we usually find with other children in those parts of Slovenia where only one language is spoken. These children showed also a normal productivity during the educational process and were sufficiently socialized.

#### Discussion

In this paper we have given only a rough outline of the most important empirical results of our rather extensive empirical research. The overall results obtained give us grounds to conclude that the cognitive and socio-emotional development of the children who completed a two-year preparatory course before entering elementary school in the ethnically mixed area of Prekmurje, does not differ from the psycho-social development of children in similar (provincial) areas of Slovenia where only one language is spoken. Considering only the narrow aspect of functional maturity for subsequent schooling, the children of this environment were even more successful than those from other, similar environments in Slovenia. That this is so should be above all attributed to the fact that all these children had received a two-year preparatory course and had experienced the stimulative educative effects of the kindergarten. This stimulation, however, had been focussed perhaps somewhat too much on the mere preparation for elementary schooling and probably less on the cognitive development itself. It is also possible that it is rather difficult, within the framework of the kindergarten, to exert influence on the cognitive growth and general intellectual abilities of children. It would be still more difficult to draw any general conclusions about differences between the children coming from either of the ethnic groups. It is a fact that our investigations revealed no statistically significant differences, but that does not mean that such differences do not exist. Any conclusions in this direction would be all the more unrewarding since the groups, in terms of their ethnic background and the use of a certain language, were not equalized with respect to some impor-

tant independent variables that notably condition the general mental growth of the child.

Our investigations and their results indicate that it is even more difficult to try to discuss bilingualism. In this project we worked with children from a linguistically, culturally and ethnically mixed area. In the homes of these children only one language was spoken (Hungarian or Slovene); moreover, they declared themselves for only one language. The other language, however, could be heard every day in their environment, and therefore they started to acquire it simultaneously with their mother tongue during the preparatory period before entering school. The results provided by this experiment allow only one conclusion in children: in children, the simultaneous learning of their mother tongue and of the second language which they hear in their environment every day and, besides, are exposed to during the preparatory course in the kindergarten, neither has a negative effect on the child's intellectual development in general, nor does it affect unfavourably the development of his specific functional aspects of maturity, as required for subsequent schooling. Also, there do not occur disturbances of the child's socio-emotional development because of the pre-school education conceived along these lines.

Nevertheless, a whole series of extremely important questions remain unanswered. The answer to some of them can be found with the help of the data that have been collected up till now but not yet processed to yield any conclusions; also, we will have to wait for the results of further, more intensive empirical research which we intend to carry out in the course of the coming years.

#### References

1. Bain, B., A. Yu, "Cognitive Consequences of Raising Children Bilingually: One Parent, One Language," *Can. J. Psychol.*, Vol. 34, 1980, pp. 304-313
2. Barclay, L.K., "Using Spanish as the Language of Instruction with Mexican-American Head Start Children: A Re-evaluation Using Meta-analysis," *Perceptual and Motor Skills*, Vol. 56, 1983, pp. 359-366
3. Gő, L., "Psychological Questions of Hungarian-Serbo-Croatian Bilingualism in the Vojvodina - Results of a Decennium of Experiments," in *Bilingualism - Individual and Social Dimensions*, Ljubljana, 1984, pp. 133-140
4. Horvat, L., "The Influence of Systematical Pre-School Education on the Intellectual Development of Children, Seen from the Psychometrical and Qualitative-Analytical Point of View," Ph.D. thesis (in press)
5. Mikes, M., "Individual and Social Aspects of Early Bilingualism," in *Bilingualism - Individual and Social Dimensions*, Ljubljana, 1984, pp. 127-132
6. Titone, R., "Bilinguisme precoce et developpement de la personnalité chez l'enfant bilingue," *Bulletin de Psychologie*, Vol. 34, pp. 697-703.