

Dr. sc. Ladislav Bogнар, pedagogue,
Osijek, Croatia

A NEW MODEL FOR PRIMARY SCHOOLS¹

Results of independent variables

Abstract

Before the war in Osijek, Croatia, we had four experimental schools. We made a new model for primary schools and for two school years we carried it out in these schools. Here are some of the results that show how this new model gradually became a reality. It was a slow, but steady process. Schools changed more slowly than we expected. The changes in schools were connected with the changes in people and, because of that, it was sometimes a joyful but at other times a painful process.

1. The Problem

Just before the war, in four primary schools around Osijek, we had a project which we tried to make the new model for primary schools. One of them was in Vukovar. The war destroyed these activities, some teachers were killed, and lot of them became refugees. Last month I met one girl who is one of my students at the Pedagogical faculty in Osijek. She told me about her experiences in “one interesting school” in which she was a pupil. It was a story about our experimental school in Vukovar. This school no longer exists as before. However, we have the results of our research and maybe one day we will start our project again.

This project lasted five years. The first year was a preliminary one (choice of schools, finance), the second was intended for giving advanced training to the teachers and carrying out theoretical research, the third and the fourth were for realizing the model in practice and the fifth for the final processing of the results. In completing this project, the schools, advisers from the Bureau of Education in Osijek and researchers from the Institute for Pedagogical Researches in Zagreb all took part. The model itself was made under an agreement with the teachers and the changes were introduced gradually.

2. Methodology

Measurements were made in the same schools (experimental) at the initial and final stages and whenever possible in between. The same pupils were always taken as the sample. All the same teachers were also included in the various phases of research. In the course of the project there were teachers who left or started at the school, so the samples became smaller. Systematic observation, questionnaires, evaluations and testing were used as the basis of evaluation. In this report we are only giving a short review of the results of the independent variables.

This group of independent variables represents a primary school model that we named “experimental model.” This model was set up as an ideal but a lot of energy had to be invested in order to realize it. Alongside this the old model called “traditional schools” was still maintained very strongly. The progress from traditional schools (the experimental schools worked like this in the initial state) towards the “experimental model” (the model we were looking for) also required changes in the dependent variables. In this case we made certain measurements to show the dynamics of the changes in the independent variables. At this point we separated the aspects of organization, the approach to education and the approach to learning.

3. Results

3.1. Organization of the Educational Process

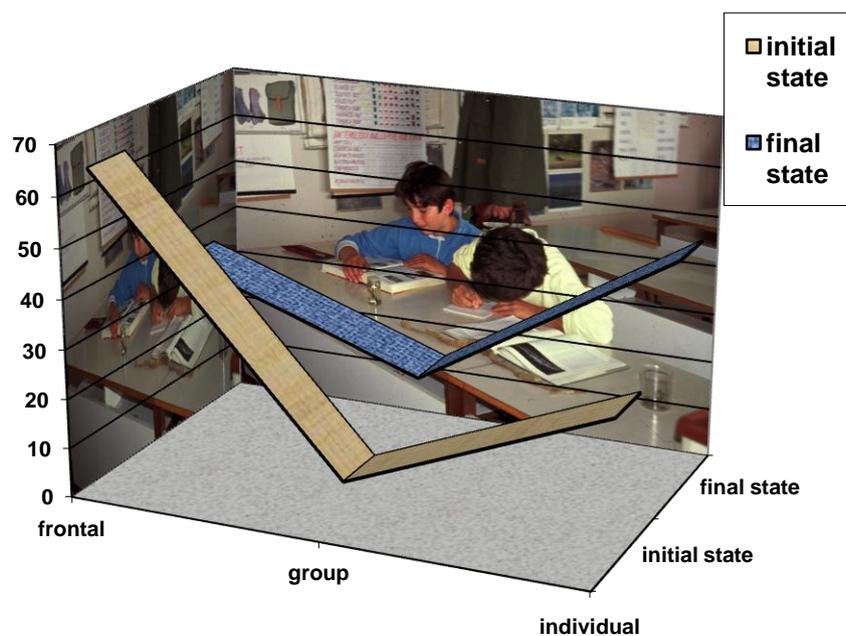
In the first year of experimental work, the pupils experienced the following changes: A five day week was introduced, the number of school hours was reduced, the main break was extended, there were no

¹ Published: Bogнар, L. (1998.) A New Model for Primary Schools, The School Field 1-2, Ljubljana, str. 93-102.

bells in schools, the teachers didn't give lectures as the pupils worked independently, the number of free activities was increased, the number of pupils in class was reduced (the pupils didn't like the breakup of their original classes), the relationship of teachers and pupils changed, bad marks were reduced and there was no homework in the lower classes. In the pupils' opinion, these changes were very extensive and they said that they needed time to get used to such new methods.

At the end of the second year of the experiment, the pupils were subject to further changes: they could choose an optional program for the whole week, the library stock was enhanced, instead of a school bell there were musical tunes and the school surroundings were altered. The educational contents and free time activities were enriched and individual planning for the following week was introduced. Most of these changes were widely welcomed by the pupils, but some changes, such as individual planning, were accepted with some difficulties.

From the data we have gathered, we can conclude that in all the experimental schools, significant changes were made and that these changes were necessary for the realization of the new concept for schools. We have to say that the rate of achievement in all schools was not at same level. In some schools, we had very gradual changes with many elements of the old schooling retained. In other schools, faster changes occurred but even so, there were doubts and a return to the old school habits. Difficulties also resulted in finding the right middle course, the arrangement of the school environment and the equipping of libraries.



Picture 1: Time inclusion of the frontal group and individual forms in the initial and final stages

If we compare the initial and final state in this variable, it is evident (picture 1) that there are changes in the frontal, in group and individual work. The dimension of χ^2 (287) leads us to reject the null-hypothesis.

Organizational changes are relatively quick to achieve and the model was realized consistently. It does not mean that there were no oscillations, even important differences among the schools and a tendency to preserve the old concept.

3.2. The Approach to Education

The intention of the model was to abandon repressive methods and to create the most optimal

conditions for self-achievement for all the individual pupils, teachers and parents. It required changes in the approach of individuals to the problems of social relationships and collaboration with parents, as well as creating a more favourable atmosphere in the educational process.

The purpose of the model was to abandon such repressive educational methods as: criticism, calling parents, warnings and punishment and to encourage such methods as: active listening, stressing good results and success. In the poll (for the teachers) they were asked how often they used repressive methods. From their answers, it was evident they still used these methods.

methods	school year	always	sometime	never	χ^2	p
Criticism	the first	36 (36%)	54 (54%)	9 (9%)	6.12	<0.05
	the second	20 (21%)	70 (73%)	6 (6%)		
Calling parents	the first	20 (20%)	74 (74%)	6 (6%)	0.78	>0.05
	the second	24 (26%)	66 (69%)	5 (5%)		
Warning and punishment	the first	19 (19%)	65 (65%)	15 (15%)	3.75	>0.05
	the second	13 (14%)	57 (61%)	23 (25%)		
Pointing out errors	the first	74 (74%)	26 (26%)	-	2.66	>0.05
	the second	65 (68%)	28 (29%)	2 (2%)		

Table 1: Frequency of the use of repressive methods in the first and the second year of the project

We examined the educational scene using the Flanders' protocol of speech interaction in the initial state (before the implementation of the experimental model) and again after the first and second years of the experimental work. Ten classes from each school were included in every examination (40 classes in total in one examination). The results that we got from all three examinations can be seen in table 2. In order to achieve the purpose of the model, we had to attain an increase in teacher's speech (1, 2, 3 categories), reducing directive speech (5, 6, 7 categories), expanding the pupils' speech in the whole speech interaction (8 and 9 categories) and encouraging greater initiatives from the pupils (category 9).

Category	Description	Initial state	Final 1	Final 2
1	Acceptation emotions	3%	2%	5%
2	Encourage, praise	4%	4%	7%
3	Application pupil's idea	3%	3%	6%
4	Question	21%	21%	18%
5	Lecture	11%	8%	8%
6	Direction	14%	21%	17%
7	Criticism, authority	2%	2%	2%
8	Pupil's answer	29%	28%	24%
9	Pupil's initiative	6%	6%	11%
10	Quiet, chaos, murmur	7%	4%	1%

Table 2: Speech interaction in experimental schools in the initial stages, in the first year of the project (final 1), and the second year of the project (final 2)

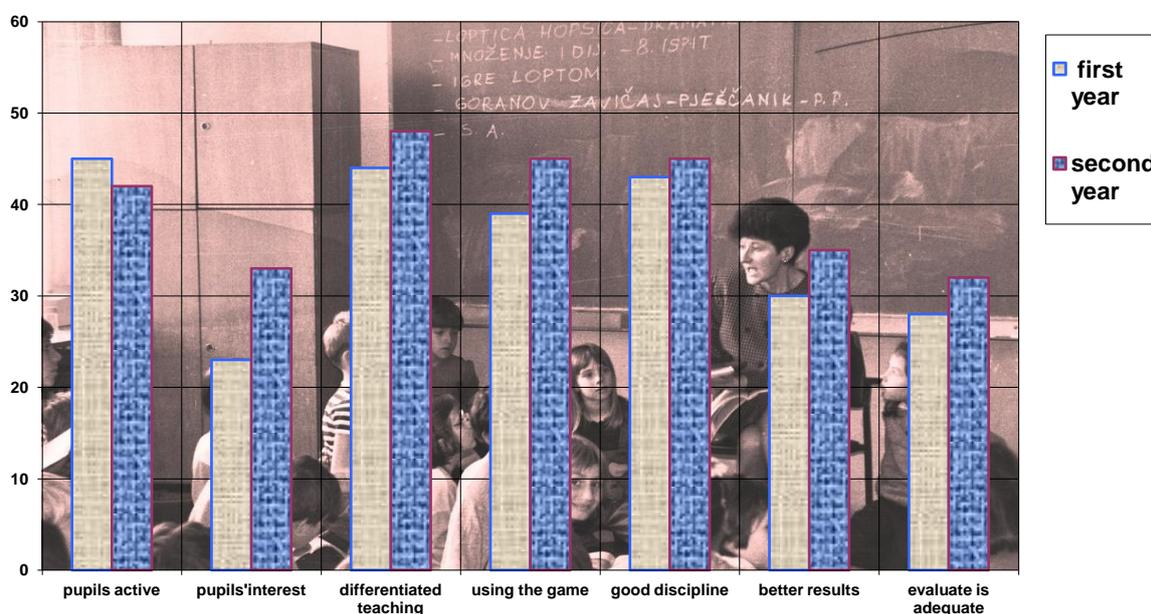
Evidently, these changes didn't occur until after the first year. There was some deterioration: induced teacher's speech is slightly reduced, directive speech is expended, but the pupils' initiative is not. Only in the second half of the second year can the expected progress be noticed: induced teacher's speech was increased by 8%, and the pupils' initiative increased from 6% to 11%. If we look at the results in all schools in the first year, changes were noticed in Čeminac and Bijelo Brdo, there were significant changes in Vukovar in the second year, but no positive progress was found in

Velika Kopanica throughout the whole project.

The changes in the educational scene as intended under the model did not therefore occur until the second year of the experiment. The difference between the initial and the final stage is significant ($\chi^2 = 303$) at the level 0.01 and, according to this, we can reject a null-hypothesis. However, in the course of the project, changes in this variable did not occur, so we can say that it is normal that the expected changes which have influence on the educational scene could not occur among dependent variables.

3.3. The Approach to learning

The intentions of the model in the approach to learning were: the orientation of pupils' activity in differentiated work which enabled the progress of children in accordance with their own capabilities, an affirmation of new methods, an appreciation of the pupils' interests and not strictly observing the program, orientation on working discipline and to learning, all show results that are similar to those before with a considerable reduction in the burden imposed on the pupils. Learning is carried out through teaching, optional teaching and free activities.

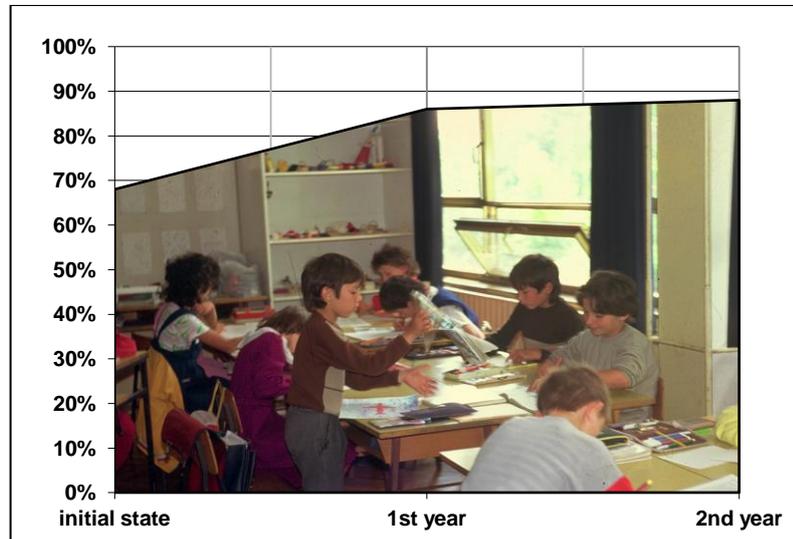


Picture 2: Teachers' evaluation characteristic of teaching in the first and second year of the model

According to the teachers' evaluation, the pupils' activity was dominant in the teaching process, demands are adapted to the pupils' capabilities and the pupils progress at their own speed; new learning methods were used; working discipline was maintained; success was approximately similar to the level of earlier years when considerably more time was used for the same work; the way of estimating was also changed and bad marks were non-existent. However, the teachers' opinions on these problems were different. Research was carried out in the first and second year of the experiment and it is evident from the review of the results that there was a slight shift during these two years. However, here we can also observe that the changes are happening relatively slowly.

We measured the activities of pupils at the start of the year that preceded the implementation of the experimental model, then again in the first and second years of the experiment. For a pre-determined time, the activity of one pupil, chosen at random, was measured. All observed measurements were considered according to the type of activity (relevant and irrelevant). We

consider that relevant activities are those activities that are part of the learning process and that irrelevant activities are those which don't contribute to this process. In each part of the research, 10 pupils from each experimental school were included in this systematic examination. That means 40 pupils in each group.



Picture 3: Percentage of relevant activities in the initial stages and in the first and second year of the model

We can see that the differences between the initial stages and the first year were significant ($t=15$, $p<0.01$). Between the first and the second year the differences are not so big ($t=1.1$) because it is not possible to measure 100% of relevant activities. We can conclude that pupils' relevant activities were significantly increased.

4. Discussion

From the results presented, evidence of the transformation of existing schools and that the subjects of educational change were very clearly observed, as is shown by some objective indexes which are presented. These changes occurred in the organizational plan - the reduction in the number of pupils in classes, reducing the daily burden of the pupils, longer breaks, restructuring the shape of educational work (teaching, optional teaching, free activities), and there were also changes in the ways of working - stress on individual work, abandoning certain methods of teaching, introducing different variations on individualization and differentiation, respecting the specific characteristics of the scientific, artistic and physical working spheres in the methodical approach, new way of evaluations etc. These were very great changes in a short period and they demanded a very high level of participation from everybody in this project. They were accomplished successfully. However, the changes didn't occur at same time and at same level. The results we present very clearly show this.

Under the project a new approach to education was made which can be understood as providing conditions for the optimal development of the personality. This was not obtained by using new "educational technology". We saw very complex and subtle changes in the personality of the teachers and in their turn their self development and creativity. It was a very complex fight with cultural surroundings, tradition, family relationships and with their social surroundings. We must bear in mind that in our schools physical punishments still exists, not to mention some minor repressive methods that are thought of as normal.

This project was achieved by people who made enormous efforts to change themselves. They often emphasized with pleasure that they were the ones most changed by this project. In spite of

this, these changes occurred rather more slowly at first. It cannot be said that there were no changes in the educational plan. The results show that an intensive process was going on which was noticed by pupils and parents alike, but these changes were not so great that we can claim that the traditional approach to education was left behind. It was moderated a little but it still exists.

It is possible that the conduct of the project was not adequate and that some changes were made in the course of the project. However, it is clear that we need a longer time for the realization of such big and complex changes.

5. Conclusion

The pace of change in schools is slow and is a hard process because of the people involved. Changes in the school mean changes in people. The project was conducted in four schools where some of the teachers were open to change but others were not. Most of our teachers believed in this experiment but some of them did not. These teachers had conflict in what they believed and what was happening around them. We saw an increase in the neurosis of the teachers who believed less in these changes. Some of teachers were enthusiastic and they really enjoyed these activities. Another issue was that teachers needed to feel safe. In our project it was important that researchers from the Pedagogical Institute were included. Teachers said that maybe they could not help them too much, but they were giving them a sense of safety that was important for their jobs and that they felt good about it. However, researchers cannot be in the schools all the time and when the teachers were left alone for long periods the pace of change slackened. These changes were good for the pupils and the most of them were accepted very easily. The biggest problem was when we had to arrange all classes to have fewer pupils. Parents were mostly for these changes, but in every school we had some parents who had problems with the changes.

Maybe some of these problems could be solved easier in schools which are not state schools, with teachers who really wish to be included in the project and with pupils and parents who just choose the schools because they believe that they are best for the children. In our circumstances, we had no possibilities like this. The war put a stop to our intentions and we could not continue. However, many of our teachers are teaching in a new way, and who knows...perhaps one beautiful day...

Bibliography

- Beck ,J. (1976) Schule der Angst, Jahrbuch für Lehrer 1977, Reinbek bei Hamburg, Rowohlt.
- Galton,M. (1989) Teaching in the Primary School, London, David Fulton Publishers.
- Gordon.T. (1977) Lehrer-Schüler-Konferenz, Wie man Konflikte in der Schule Löst, Hamburg.
- Maslow,A. (1968) Towards Psychology of Being, New York, D.Van Nostrand Company.
- Peterssen,H.W. (1983) Lehrbuch Allgemeine Didaktik, München, Ehrenwirt.
- Riedel, H. (1977) Allgemeine Didaktik und unterrichtliche Praxis, München, Kösel-Verlag.
- Singer,K. (1981) Masstabe für eine Humane Schule, Frankfurt am Main, Fisher Taschenbuch Verlag.
- Schiro,M (1978) Curriculum for better Schools, New Yersey, Technology Publications.
- Schrank,J. (1972) Teaching Human Beings, Boston, Beacon Press.
- Silberman,C.E. (1973) The open Classroom Reader, New York, Random House.
- Tyler,W.R. (1973) Curriculum und Unterricht, Düsseldorf, Pädagogischer Verlag Schwann.