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## Co-operative learning in the classroom

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### INTRODUCTION

Interest in the cooperative learning is connected with actual social-economic conditions, which emphasize human cooperation as a one of the most fundamental elements of effective behavior of big as well as small communities including behavior of world-wide community. Educational systems, which choose the cooperative approaches, react to conditions and needs of society and so they create a power that can contribute to solution of serious problems of the world and individual in this world, questions of values and questions connected to social pathological phenomena.

### METHODOLOGY

#### EXPERIMENTAL PROBLEM:

What is a relation between a cooperative learning and socio-preferred relations of students of class-room on the Ethic education lesson?

#### RESEARCHED OBJECTIVES:

1. To prepare and realize the projects of experimental intervention with a dominant position of activities developing cooperation.
2. To find out, how do we by integration of cooperative learning influence a social climate in the classrooms on the lessons of Ethical education.

#### HYPOTHESES:

1. If we use the cooperative learning in a class-room on the lessons of Ethical education, a difference between an input and output observations in most of variables of a social climate of class in the experimental groups will be statistically significant.
2. In the inspection groups, where a teacher doesn't include the cooperative learning into a structure of educational activity on the lessons of Ethical education, a difference between an input and output observations in the most of variables of a social climate of class won't be statistically significant.

## OPERATIONALIZATION OF VARIABLES IN HYPOTHESES:

1. cooperative learning (independent variable)
2. social climate of class (dependent variable)

*Independent variable – cooperative learning* comes from theory and methodology of cooperative learning. We have drafted a structure of activities, focused on a development of cooperation, according to modified model of phases of educational impact on a lesson of the Ethical education according to L. Lencz (more closely: Jablonsky, 2003).

*Dependent variable – social climate of class* – testing of social climate was realized by a questionnaire Our class- My Class Inventory- MCI, which was wrought by authors B.J. Fraser and D.L Fisher (1986).

Statistical processing of results – use of a statistical software SPSS (non-parametric Wilcoxon signed – ranks test, an-cova analysis of covariance)

We have carried out an experiment in the course of one school year 2003-2004 on the primary schools. Experimental impact was carried out through the qualified teachers of the Ethic education with a consecutive pedagogical praxis in this branch.

In the inspecting groups, the teachers worked in common pattern according to own plan of educational-teaching activity, without a special regard to the objectives, tasks and methods of cooperative learning. From the stated company of respondents, a number of students in the experimental groups (EG) was forty-five students and number of students in the inspecting groups (IG) was sixty-one students.

At first we realized analysis of covariance. Age was presented as a covariant, with regard to age differences existing between groups. We can allege that there weren't significant differences in the pretest between age differences and type of group.

## RESULTS

**Tab.1 .Comparison of input and output observation by pair non-parametric test Wilcoxon's signed ranks test in the questionnaire "Our class" in EG at individual primary schools**

variable	ps 1			ps 2			ps 3		
	input	output	p	input	output	p	input	output	p
satisfaction	10,266	11,466	,035*	11,444	12,555	,010**	11,000	11,750	,034*
disagreements	13,133	12,800	,493	11,388	10,500	,028*	11,500	10,416	,184
competitiveness	12,733	12,000	,050*	12,555	11,500	,006**	12,750	11,666	,030*
seriousness	8,866	10,400	,019*	8,777	9,166	,394	7,166	8,333	,053
unity	10,200	11,333	,084*	10,000	10,944	,029*	8,000	9,166	,064

### Legenda:

ps – primary school

EG – experimental groups

IG – inspection groups

p – significance /\*\*\*p ≤ 0,001 \*\*p ≤ 0,01 \*p ≤ 0,05/

**Tab.2. Comparison of input and output observation by pair non-parametric test Wicoxon's signed ranks test in questionnaire "Our class" in IG at individual primary schools**

variable	ps 1					
	IG1			IG2		
	input	output	p	input	output	p
satisfaction	8,800	9,8	,114	8,833	9,833	,298
disagreements	12,500	12,200	,713	13,166	11,916	,044*
competitiveness	12,600	11,500	,226	12,416	12,083	,491
seriousness	8,300	10,400	,006**	8,250	9,333	,186
unity	7,400	7,600	,705	6,833	7,416	,582

**Tab.3. Comparison of input and output observation by pair non-parametric test Wicoxon's signed ranks test in questionnaire "Our class" in IG at individual primary schools**

variable	ps2					
	IG1			IG2		
	input	output	p	input	output	p
satisfaction	12,461	12,923	,596	11,636	12,272	,149
disagreements	9,0	8,230	,541	9,363	9,090	,662
competitiveness	10,307	9,846	,427	13,0	12,272	,157
seriousness	6,846	8,846	,005**	7,0	9,0	,021*
unity	10,076	10,0	,705	8,636	10,090	,046*

**Tab.4. Comparison of input and output observation by pair non-parametric test Wicoxon's signed ranks test in questionnaire "Our class" in IG at individual primary schools**

variable	ps3		
	IG1		p
	input	output	
satisfaction	12,333	10,133	,013*
disagreements	12,066	12,466	,426
competitiveness	13,0	14,066	,033*
seriousness	8,800	8,600	,748
unity	9,066	7,533	,154

## DISCUSSION

Quantity of different conceptions and theories of education, which differ in contentual and formal nucleus of understanding of educational process – from the ones oriented on the social studies, through social ones, which emphasize a change of society, are becoming actual in the intentions of fromm's sentence "we're educated, but evil", personal and socio-cognitive theories. In their context, the ideals of social school, which don't avoid a solid knowledge, but also remember a human, who is a being that not just thinks, but also feels, are emerging.

In our resarch was to find out, how we influence a social climate in the classrooms on the lessons of Ethical instructions by an integration of the cooperative learning.

If we use the cooperative learning in a class-room on the lessons of Ethical education, a difference between input and output observation in the most of the variables of class' social climate will be statistically significant.

On the basis of comparison of input (AT) and output (PT) observation's values we will try to interpret the changes in the individual components of climate, which will serve during the formulation of conclusions about the experimental intervention's efficiency.

Satisfaction – This variable, express a certain extent of personal adjustment, personal happiness and often an extent of personal effect on falling in the society. The satisfaction is received as a dynamic phenomenon, which relates closely to the one's motivation and activation elements. An extent of satisfaction in the class-room influences and

sets a level of satisfaction connected with an essence of educational process, with a willingness and motivation to fulfill the school education's requirements. Satisfaction is a summary value, which reflects many factors related to the educational process or its other variables. During the comparison of AT and PT results we recognize that the extent of students' satisfaction with their class improved markedly.

Disagreements – Here we have observed a statistically significant difference during the comparison of input and output observations in the experimental groups at the ps2. The values of arithmetic averages however point out the drop of extent of disagreements in all the experimental groups. It is necessary to consider that an executor of activities was not a class teacher, who knows the problems and relations in class in detail, has an opportunity to flexibly respond to them, to solve them, when they are current. Subject system of education on the second level of the primary school is restraining these possibilities of teacher. Securing the drop of disagreements and conflicts is in our opinion determined by everyday contact of pedagogue. A certain extent of disagreements and conflicts is in this case genuine and according to Hiebsch (1975) there is certain necessity of experience with the problem solving and endurance of certain valid level of tension. The real group will never contain trouble freedom.

Competitiveness – Since the cooperation is received mainly in an antagonistic relation to the competition, we will focus on a deeper analysis of particularly this variable.

Statistically important difference has occurred in all the experimental groups. During the comparison of AT and PT variable's values – competitiveness, we have noticed in all of experimental groups a positive change in values of arithmetic averages. The variable characterized by competitive relations between students and extent of struggles to excel during a year has dropped. The values of variable competitiveness have lowered in all of the experimental groups. We assume that it is a result of activity of teacher, who doesn't prefer the competitive forms of work during educational process and motivates students by the cooperative activities. Qualitative analysis of understanding of teacher's teaching has really confirmed our assumption.

In Finland, Olkinuora and Lappalainen (In: Prucha, 1997) have researched a climate in class-rooms of primary schools (6.-9. grade). At the same time they have applied the CLEQ questionnaire (Classroom Learning Environment Questionnaire), which was formed by an expansion of MCI questionnaire by another two characteristics: (6) participation of students in the learning, (7) feedback to a teacher. It has been found out in this research that the characteristic of competitiveness as well as the characteristic of unity are approaching pretty high values in the Finnish class-rooms. Also in Australia (according to Fraser, 1986), there was found out during an application of MCI on the big enough samples of class-rooms that the values of competitiveness are approaching high values and the values of unity are low. So, a stated fact exists in the class-rooms in wider regional and geographical context.

Since a teacher can influence the processual characteristics of teaching as well as its results, we refer to a researched findings related to the effectiveness of the cooperative type of education (Slavin, Johnson – Johnson, Cooper, etc.). Preferences of the cooperative type of teaching within the teaching time are really significant.

The effect of the cooperative learning was researched by R. E. Slavin (1988). The results of his research are pointing out the fact that the cooperative type of teaching has as positive effect towards competitive and individual ones in higher motivation to achieve a high learning performance. Slavin has analyzed 27 studies concerning the cooperative learning. In 19 of them there was a significant, more complex positive effect in the cooperative learning compared to controlled and traditional learning. Differences weren't discovered in 7 studies and only one of the favored the controlled group.

Johnson and Johnson (1989) have carried out a meta-analysis of 122 researched reports about effectiveness of the cooperative learning compared to the competitive and individual learning. The results are indicated that the cooperative learning leads to the better and more qualitative results than both of the controlled ones. The results are not connected to the age of students, teaching subject, types of tasks, whether they were verbal or non-verbal. It was found out that:

- Members of the cooperative groups have evaluated that they liked this type of education more,
- They showed a bigger number of positive approaches to the learning and

- the better motivation to study than in other groups was found out,
- In the cooperative groups the students evaluated teachers, their support and acceptance of students better,
  - Members of the cooperative groups have gained a higher score in students' self-evaluation tests.

Seriousness – A living of school demands at primary school 1 by students have changed statistically significantly by the means of experimental intervention. In the values of arithmetic averages, an extent of variable social climate – seriousness in the output observations has increased. It is probably because of the reason that our target was not to particularly fulfill the educational targets. Into our program we have included the activities, whose centre of activity rested mainly in personal and social education. Hypothetically, we could consider that the activity carried out by activities focused on the development of cooperation doesn't have a significant influence on the seriousness of education. The changes of values in the sense of making the variable seriousness worse are interpretable by the reason of the end of a school year, when the output observations were carried out, since in this time period there are the high cognitive demands – amount of educational demands during final written exams and tests, which could transform itself into an atmosphere on the lessons of Ethical education. If a similar cooperative climate had occurred also in other teaching subjects, what would strengthen a time donation of cooperative type of teaching, Flander's (1986) assertion that within a positive working climate

a school work is also less demanding, would have probably confirmed. Stated evidence is proving that the students of experimental groups have were more concerned about the demands in school and learning has looked more demanding during the output observation.

Time limitation of the intervention oriented on the cooperative approaches wasn't able to neutralize seriousness in the class-room on the lessons of Ethical education sufficiently.

We have noticed an increase in values of variable – seriousness also in the inspecting groups. Unity – High cohesion and integrity in a social group are optimally and pedagogically desirable. The more positive is this characteristic of group, the more suitable space is provided by class also for contemporary life of students and his social learning. Statistically significant change has occurred in EG at ps 2. There hasn't occurred any statistical change in values of unity in EG at ps 1 and ps 3. There are many examples, when on the lessons of Ethical education the students from several classes, who have already built up their own social space, relations, integrate and thereby the situations can occur, when among the students of two class-rooms there comes to a certain tension, e.g. like in the example of EG at ps 1. An experimental group at this primary school was specific especially by a fact that the lessons of Ethical education were attended by students from two classes of 5<sup>th</sup> grade. Therefore we haven't noticed a statistically important difference, although the values of the arithmetic averages have shown a positive change in all of the EG during output observations. We consider

a fact that under an influence of an experimental intervention an extent of class' unity have improved and friendly relations among the children have been formed, to be a positive one. By the research of Olkinuor and Lappalainen (In: Prucha, 1997) in Finland on the basis of VLEQ questionnaire (a questionnaire concerning learning environment in classroom, which was formed by extending a MCI questionnaire) it was recognized that the variables competitiveness and unity are reaching relatively high values. According to Fraser (1986) it was recognized also in Australian class-rooms that the competitiveness is reaching high values, unity relatively low ones, so it's a similar state like in Czech Republic.

The authors of the used method of a social climate diagnosing (Fraser, 1986) regard a climate that is characterized by high extent of satisfaction, non-significant, low disagreements and seriousness, low competitiveness and high extent of unity, to be an ideal climate.

The results of the researches, as they are presented by Kolominskij (1980), show that for instance in compact sport collective the unity of the sportsmen is expressed in the higher number of mutual choices. It 12-times exceeds the number of choices in the non-compact group.

Intervention, which was carried out on the lessons of the Ethical education, and its positive results are showing a justness of the cooperative learning, which can compensate a lack of space for personal and social education in educational process and thus implement humanistic outlines of education into our schools.

Hypothesis no.1 was confirmed, because a statistically significant change has occurred in the most of the variables of class-room's social climate. Also the changes of arithmetic averages in the groups are proof of qualitative changes of climate, which bear evidence in favor of intervention. The positive change of arithmetic averages' values have occurred almost in all of the variables of class' social climate with exception of variable – seriousness, what is probably connected, as we have already stated, with end-of-year judgment of grades and with the amount of tests, written exams, etc.

In the inspecting groups, where on the lessons of the Ethic education the meaningful and systematic intervention by the means of application of cooperative learning wasn't carried out, a difference between input and output observations in the most of the variables of class-room's social climate was not statistically significant. Therefore we can state, that the hypothesis no.2 was confirmed.

## CONCLUSION

The results of research have brought the arguments in favor of aimed programs of social development of student by the means of cooperative type of learning.

Intervention, carried out on the lessons of Ethical education, and its positive results show a justness of cooperative learning, which can compensate a lack of space for personable and social education in educational process and thus implement the social elements of education into our schools.

## SUMMARY

Co-operative learning in the classroom. The aim of the article is to point out the co-operative learning as one of the forms of effective teaching and so get rid of the myth that only personal breaking through leads to the success of the individual.

## ABSTRACT:

Interest in the cooperative learning is connected with actual social-economic conditions, which emphasize human cooperation as a one of the most fundamental elements of effective behavior of big as well as small communities including behavior of worldwide community. Educational systems, which choose the cooperative approaches, react to conditions and needs of society and so they create a power that can contribute to solution of serious problems of the world and individual in this world, questions of values and questions connected to social pathological phenomena.

The aim of the article is to point out the co-operative teaching as one of the forms of effective teaching and so get rid of the myth that only personal breaking through leads to the success of the individual. The aim of the submitted report was to present basic theoretical starting points of model co-operative learning, as one of relevant innovative paradigms of school education.

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