THE INFLUENCE OF TEACHER'S CLASSROOM MANAGEMENT STYLE ON PUPILS' SELF-REGULATIVE BEHAVIOR

Katja KOŠIR

Department of Psychology, Faculty of Arts, University in Ljubljana
Aškerčeva 2, 1000 Ljubljana, Slovenia
E-mail: katja.kosir@ff.uni-lj.si

Abstract: The purpose of the present longitudinal study was to test the influence of the teacher's classroom management style on students' self-regulative behavior in a naturalistic setting and in nonselected population. The focus was on those patterns of the teacher's behavior that refer to the transfer of control from the teacher to students, which includes the facilitation of autonomy, offering choice, considering the process and not just product variables of educational process, etc. Regarding the degree of expression of that dimension the teachers were divided into two groups: behaviorally and cognitive-behaviorally oriented teachers. 54 fourth-grade elementary school classrooms participated in the present study. In the further analysis, 24 of the 54 school classrooms were included. Teacher's approach to classroom management proved to be a significant factor of pupils' intrinsic motivation on some dimensions of intrinsic motivation. The pupils of cognitive-behaviorally oriented teachers reached a higher degree of independent mastery during the school year compared to the pupils of behaviorally oriented teachers. The boys of cognitive-behaviorally oriented teachers reached a higher progress in the degree of internal criteria in the evaluation of their own success and in intrinsic motivation as a sum of all dimensions, compared to the boys of behaviorally-oriented teachers, whereas the same is not true for girls.

Key words: classroom management, intrinsic motivation, self-control, teachers, pupils

INTRODUCTION

Different Conceptions of Classroom Management

The definitions of classroom management, behavior management and classroom discipline differ according to different dimensions. From the content point of view it seems that the classification regarding the function of the classroom management - whether the function of the classroom management is instructional or managerial - is basic. This distinction is emphasized by Porter (2000), who distinguishes the definitions and approaches to classroom management basically in two groups:

1) some approaches comprehend classroom management as instrumental for establishing and maintaining the learning environment which enables an effective learning process; the goal of classroom management is to establish order and pupils' compliance (managerial function);

2) some other approaches complement this by adding the instructional function of classroom management; with different classroom management procedures teacher not only establishes the appropriate learning environment but also socializes pupils; in this case, the goal of classroom management is also the achievement of certain learning goals as for example self-discipline, emotional regulation, cooperation skills and integrity.

The second dimension that distinguishes different classroom management definitions refers to the kind of activities that are included in the concept of classroom management. From this point of view, the definitions of classroom management can be divided into (2) definitions, which comprehend classroom management as a reactive activity, and (2) definitions, which also stress the proactive aspect of classroom management. Some authors (e.g., Porter, 2000; Savage, 1999) also use the terms intervention and prevention strategies for these activities. Most contemporary classroom management definitions include reactive and proactive activities. Kaplan (1995) distinguishes these two activities by using the term behavior management for any practice or a group of practices used in intervention into behavior problems, while the term classroom management is reserved for proactive, preventive practices.

The concept of classroom management as comprehended in the present article includes both proactive and reactive practices and has not only managerial but also instructional function. Figure 1 represents the dimensions included in the concept of classroom management as used in the present article.

In the present study two approaches to classroom management are presented and compared: a behavioral and a cognitive-behavioral approach. These two approaches represent the theoretical basis for most studies that investigated different aspects of classroom management. This is especially true for the behavioral approach and in the last decades also for the cognitive-behavioral approach.

FUNCTION

- managerial: establishing the learning environment where effective learning is possible

- instructional: acquisition of educational goals

CLASSROOM MANAGEMENT

Relationship to similar concepts…

CLASSROOM MANAGEMENT

BEHAVIOR MANAGEMENT

CLASSROOM DISCIPLINE

… depends on the breadth of the definitions of these concepts: classroom management as hypernym or synonym

PROACTIVE PROCEDURES: designing efficient learning environment by appropriate teaching, detecting pupils' behavior patterns that could lead to misbehavior and reacting to it before misbehavior occurs

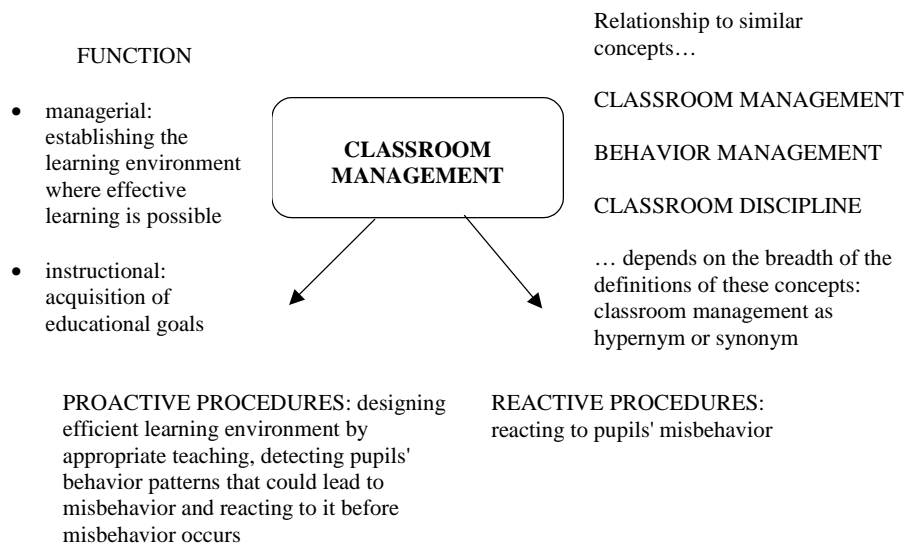REACTIVE PROCEDURES: reacting to pupils' misbehavior

Figure 1. Definition of classroom management regarding its function, the relationship to similar concepts and activities that are included in this concept

Behavioral and Cognitive-Behavioral Approach to Classroom Management

Behavioral and behavioristic approach to classroom management respectively (also called behavior modification and applied behavior analysis) was prevalent in the sixties of the previous century; later on, it was supplemented with some elements of other approaches but its role in the field of learning and teaching is still important. Historically, behaviorism and behavioral approach to classroom management proved to be a systematic and efficient way of behavior analysis. The results of numerous studies (e.g., Becker, Madsen, Arnold, Thomas, 1967; Costenbader, Reading-Brown, 1995; Drabman, Lahey, 1974; Madsen, Becker, Thomas, 1968) indicate the effectiveness of the behavioral approach in different fields of classroom management. However, this gives rise to the problem of generalization over time and in other settings (Kaplan, 1995; Porter, 2000). Strategies within this approach proved to be efficient in short-term, but their generalization value is questionable (Hughes, 1988; Kendall, Zupan, 1981; Porter, 2000). Different studies also indicate that behavior changes as a result of behavior training are usually limited to certain behaviors and do not spontaneously generalize in situations where behavior is not reinforced (Hughes, 1988). Limited effectiveness of behavioral strategies in maintaining durable and generalizable behavior changes stimulated researchers and practitioners to transfer from the strategies that are based on external control to such as modify pupils' cognition.

Cognitive-behavioral approach expands the behavioral paradigm by emphasizing the internal sources of behavior and reciprocal determinism between cognition, emotion and behavior (Ayers, Clarke, Murray, 2000). Like behavioral approach, cognitive-behavioral approach is behavior-oriented, however, it comprehends behavior as a function of cognitive processes. This approach is not a unified theory, but rather a set of models and strategies tied together by the concern for pupils' thinking processes. Approaches within cognitive behaviorism can be represented on a continuum: some are in higher extent based upon behavioristic principles and stress the importance of external control while others include more elements of cognitive psychology (Porter, 2000). The focus of cognitive interventions is on changing or modifying pupils' cognition that in turn leads to behavioral changes (Ayers et al., 2000; Bandura, 1977). These interventions are usually combined with some behavioral interventions.

The educational implication of this shift in emphasis from behavior to cognition is that teachers should be more concerned with influencing the conceptions and thinking processes that pupils use to guide their behavior than with influencing their behavior directly. Cognitive-behavioral approach emphasizes instructional methods that help pupils to become their own teachers - to solve their own problems and control their own social and academic behavior in a responsible fashion (Martin, Sugarman, McNamara, 2000). Pupils should actively participate in the process of setting behavior goals and should take the responsibility for their own behavior (Ashman, Conway, 1993). Therefore, it is important that pupils be allowed to choose certain behaviors. However, the choice of behavior means also taking the responsibility for the consequences of the chosen behavior (Rogers, 1994). For this reason, promoting pupils' autonomous and mature decision-making

is necessary. The teacher's information about his own procedures and motives for these procedures is very valuable in the process of efficient learning and classroom management.

Cognitive-behavioral perspective developed in response to the limitations of the purely behavioral approach, especially to its ineffectiveness in maintaining lasting and generalizable effects of behavioral strategies. Nevertheless, the problem of generalization remains also in the frame of cognitive-behavioral approach; the research shows that cognitive-behavioral strategies are somewhat more efficient in generalizing behavior changes over time and different settings, but empirical data are not unambiguous at all (Hughes, 1988; Kendall, Braswell, 1982; Meyers, Cohen, Schleser, 1989).

In addition to ambiguous conclusions regarding the effectiveness of cognitive-behavioral interventions, the limitation of the studies that examined the effectiveness of these interventions is also their execution mostly on clinical populations with small samples. Cognitive-behavioral interventions were usually used with aggressive, anxious, depressive and hyperactive pupils (Hughes, 1988; Kendall, 1993). The executors of the trainings were in most cases external experts and not teachers, which means that such trainings were not integrated in the regular instruction. Teacher's role was minimized also in different self-management trainings. However, as far back as Kounin at the end of the sixties of the previous century and later on, numerous other researchers (e.g., Brophy, Evertson, 1980; Emmer, Stough, 2001; Evertson, Emmer, 1982; Patrick, Anderman, Ryan, Edelin, Midgley, 2001; Pressley, Roehrig, Raphael, Dolezal, Bohn, Mohan, Wharton-McDonald, Bogner, Hogan, 2003) pointed out that successful

teachers do not differ from those less successful in reactive procedures to students' misbehavior. Proactive procedures, i.e. these teachers' behaviors that prevent the appearance of misbehavior are essential for successful classroom management. Teachers exert a powerful influence on the development of pupils' cognitive skills through modelling, direct instruction, and a follow-up of pupils' behavior. This influence can also be indirect through motivational variables (Meyers et al., 1989). This important teacher-role is often neglected in cognitive-behavioral programs in school settings (Meyers et al., 1989).

The main purpose of the present study was to examine the relationship between the teacher's classroom management style and the pupils' self-regulative behavior in elementary school pupils. The main focus of interest was whether the pupils of those teachers who predominately use behavioral classroom management procedures and the pupils of teachers who predominately use cognitive-behavioral procedures differ in their self-regulative behavior in the classroom. Self-control and intrinsic motivation were used as a measure of self-regulative behavior; higher self-control and intrinsic motivation indicate higher levels of self-regulative behavior in the classroom.

In relation to the findings of our previous research, the present study has some advantages in the following aspects:

* the study examines the effects on pupils' behavior in a naturalistic setting; this minimizes the problem of the questionable generalization of these effects;

* the effects of teacher's behavior are examined in nonselected population;

* because of the reasons mentioned above the findings of the present study can represent a basis for the formation of an appropriate proactive approach, i.e., the

assessment of those classroom management procedures that have the most positive effects on pupils' self-regulative behavior and defining ways to educate teachers for the appropriate functioning in the classroom.

METHOD

Participants

54 fourth-grade elementary school classrooms participated in the present study; these included 54 female teachers and 944 pupils (52.3% girls, 47.7% boys, mean age approximately 10 years). Only those pupils whose parents gave written consent for the procedure participated in this study (80% of all pupils).

In a further analysis, 24 of the original 54 classrooms were included, i.e. 24 teachers and 414 pupils (52.4% girls, 47.6% boys). The percentage of pupils who did not participate because of the lack of their parents' consent remained the same.

Instruments

For the measurement of teachers' variables two instruments were used:

Questionnaire about Teacher's Behavior in the Classroom

The Questionnaire about Teacher's Behavior in the Classroom was designed to measure teacher's behavioral vs. cognitive-behavioral orientation to classroom management. The theoretical basis for the development of the questionnaire is behavioral and cognitive-behavioral paradigm to classroom management. It was designed on the basis of preliminary observations of teachers' behavior in classrooms. Experts' ratings were congruent with the original questionnaire design, which confirms the expert validity of the questionnaire. 24 pairs of items were included in the first version of the questionnaire. In each item, the participant is asked to choose between two behaviors that differentiate between behavioral (e.g., *Some teachers want to know if the pupils solved the task correctly*) and cognitive-behavioral orientation to classroom management (e.g., *Some teachers are interested in the way the pupils solved the tasks*). After that, the teacher has to decide whether the chosen alternative is "sort of true for her" or "really true for her". Thus, altogether each item is rated on a four-point scale. A higher score indicates predominately cognitive-behavioral orientation to classroom management. The items were counterbalanced so that half of them began with a statement reflecting cognitive-behavioral orientation and half with a behavioral orientation. The questionnaire was preliminarily applied on the sample of 56 third- and fourth-grade teachers. The alpha coefficient of internal consistency is .70 (calculated on the sample of 110 teachers).

Teacher's Behavior in the Classroom System

Like the questionnaire described above, the Teacher's Behavior in the Classroom System was designed to measure teacher's behavioral vs. cognitive-behavioral orientation to classroom management. The basis for the construction of the observational system was given by the behavioral and cognitive-behavioral paradigm to classroom management and preliminary observations of teachers' behavior in the classroom. Teacher's Behavior in the Classroom System has two parts: a checklist and rating scales. The checklist consists of 29 descriptions of teacher's

behavior in the classroom which can be classified in the following broader categories of teacher's behavior: 1) presentation of teacher's own activities: in what way the teacher presents to pupils, what her further procedures in the classroom will be (does she clarify the way of performance?, does she explain the reasons for her procedures?); 2) reactions to pupils' answers (does the teacher ask for explanation of the answer?, how she gives feedback); 3) evaluation and assessment of pupils' achievement (does the teacher include the pupils in the process of evaluation?); 4) giving instructions (does the teacher clarify and explain her demands?); 5) reacting to misbehavior (does the teacher explain her disciplinary procedures?); 6) promoting pupils' autonomy (allowing for pupils' initiative; enabling pupils' choice). Eleven categories describe the behavior that predominately indicates behavioral orientation to classroom management and 17 categories the behavior predominately indicating cognitive-behavioral orientation to classroom management. The observer records the behavior when it occurs.

In addition to behavioral categories, Teacher's Behavior in the Classroom System also includes three rating scales. When the observation is finished, the observer rates the teacher's behavior on the following dimensions: 1) the way of presenting the learning contents (transmissional vs. constructivistic); 2) promoting pupils' autonomy and 3) orientation to product vs. orientation to process. Teacher's behavior is rated on a five-point scale ranging from 1 - *not true at all* to 5 - *always/almost always true*. A higher rating indicates a more cognitive-behavioral orientation to classroom management. The observer should explain his/her ratings.

For the measurement of pupils' variables the following instruments were used:

Scale of Intrinsic vs. Extrinsic Orientation in the Classroom (Harter, 1980)

The Scale of Intrinsic vs. Extrinsic Orientation in the Classroom is based on Harter's (1978) model of intrinsic motivation. The scale consists of 30 pairs of items, which are classified in five subscales, each defined by an intrinsic and an extrinsic pole (Harter, 1980): 1) preference for challenge vs. preference for easy work; 2) curiosity/interest vs. pleasing the teacher/getting grades; 3) independent mastery vs. dependence on the teacher; 4) independent judgment vs. reliance on teacher's judgment and 5) internal criteria vs. external criteria of success and failure. Self-report measures in school children are especially influenced by social desirability, which led the author to the development of a special question format that is purported to minimize the tendency for socially desirable responses. Each item consists of two statements that describe children with intrinsic and extrinsic motivational orientation. The child is first asked to decide which kind of kid is most like him or her and then asked whether this is only a sort of true or really true for him or her. Such a question format is a combination of forced choice questions and a four-point scale. A higher score indicates a higher level of intrinsic motivation.

Child Self-Control Rating Scale (Rohrbeck, 1991)

The Child Self-Control Rating Scale consists of 33 pairs of items and measures self-control as an unidimensional construct. The scale was modelled after the teacher and parent Self-Control Rating Scale (Kendal, Willcox, 1979) and adjusted for children to report about their

own self-controlled behavior. The question format is the same as for the Scale of Intrinsic vs. Extrinsic Orientation in the Classroom described above. A higher score indicates a higher level of self-control.

Procedure

The research went on during the whole school year in three waves:

At the beginning of the school year the Scale of Intrinsic vs. Extrinsic Orientation in the Classroom and the Child Self-Control Rating Scale were administered to pupils of 54 fourth-grade classrooms. At the same time, the Questionnaire about Teacher's Behavior in the Classroom was distributed to the teachers of these classrooms. On the basis of their results from the questionnaire two extreme groups of teachers were formed in virtue of two criteria:

* the results of hierarchical cluster analysis (see chapter Preliminary analysis)

* total score: teachers with the total score lower than 35 percentile and teachers with the total score higher than 74 percentile.

The participants were classified in one of both extreme groups on the basis of cluster analysis results, hereby participants with the most extreme total score within the specific cluster were selected (lower than 35 percentile within the first cluster, higher than 74 percentile within the second cluster). Thus, for the classification in one of the extreme groups two conditions had to be satisfied: classification in the specific cluster and the total score value in the specific percentile range. It was hypothesized that the first group represents teachers with predominately behavioral orientation to classroom management, whereas the second group includes teachers who are predominately cognitive-behaviorally oriented in their classroom management practices. Each group consisted of 12 teachers. The classrooms of teachers who were classified in one of the extreme groups were included in the further research process. Thus, 24 classrooms were included in further analysis.

In the middle of the school year teachers' behavior in the selected classrooms was observed. The purpose of the observations was to test and eventually confirm the classification of teachers in one of the extreme groups with regard to their classroom management practices. The time lag between the teachers' questionnaire assessment and the observation was approximately three months. Teachers were observed for one school period each, namely at Slovene language where new learning contents were taught. Two observers were present in the classroom, the author of the article and one postgraduate psychology student, who received the training before observations. The second observer was not informed about the results of the observed teachers on the Questionnaire about Teacher's Behavior in the Classroom. The teachers were not acquainted with the purpose of the observation. They were informed that pupils' behavior and classroom interactions were the object of the observation. During the school period the observers recorded certain teacher's behaviors as they occurred using the Teacher's Behavior in the Classroom System. At the end of the observation they assessed the teacher's behavior on three rating scales.

At the end of the school year pupils from the selected classrooms repeatedly completed the Scale of Intrinsic vs. Extrinsic Orientation in the Classroom and the Child Self-Control Rating Scale. The time period

between the two assessments of internal motivation and self-control was approximately 7 months.

The teachers worked with the classes only in the school year in which the research was going on, which means that in the first wave of the research they just started to teach in the respective class. Their managing style was not influenced by any intervention on the part of the researcher.

PRELIMINARY ANALYSIS

Formation of Extreme Groups

On the basis of teachers' results from the Questionnaire about Teacher's Behavior in the Classroom two extreme groups of teachers were formed: 1) teachers with predominately behavioral classroom management style and 2) teachers with predominately cognitive-behavioral classroom management style. The combination of two criteria was used for the classification in extreme groups: percentile score lower or higher than certain value and results of hierarchical cluster analysis. Cluster analysis was used to classify teachers in a certain number of stable groups with regard to their results on the Questionnaire about Teacher's Behavior in the Classroom. Hierarchical cluster analysis was performed on the sample of 104 teachers (54 participants of the present study and 50 participants of the preliminary study). Ward's cluster method and Euclidean distance for specifying the distance or similarity measure were used. The final solution was a classification of teachers in two clusters. 31.7% of teachers were classified into the first cluster and 68.3% of teachers were classified into the second cluster. There are significant differences between these two groups in their responses to the Questionnaire about Teacher's Behavior on 16 of the 24 items. On the basis of an analysis of the responses by teachers from different clusters, it was concluded that the first cluster corresponds to behavioral classroom management style and the second cluster corresponds to cognitive-behavioral classroom management style. Those teachers from both clusters who had the most extreme percentile score on the questionnaire were assigned to extreme groups. Thus, the group of teachers with predominately behavioral classroom management style consists of 12 teachers from the first cluster with their percentile score on the questionnaire lower than 35 percentile. The group of teachers with predominately cognitive-behavioral classroom management style includes 12 teachers from the second cluster with the percentile score on the questionnaire higher than 74 percentile.

Interobserver Agreement

Interobserver agreement in recording the frequency of specific behaviors was determined using the following formula:

$$\frac{agreement}{agreement+disagreement} \times 100$$

and amounts to 85% for behavioral categories that represent behavioral classroom management practices and 86% for behavioral categories that represent cognitive-behavioral classroom management practices. The correlation between both observers' scores on rating scales is .86.

The disagreement cases were discussed afterwards to come to a final decision.

Congruence between the Results on the Questionnaire about Teacher's Behavior and the Findings Based on Observations of Teachers' Behavior

Two values are indicators of results of the observation:

* The quotient between frequencies for behaviors that represent cognitive-behavioral orientation, and frequencies that represent behavioral orientation ($Q_{kv-v} = f_{kv}/f_v$). A quotient higher than 1 indicates predominately cognitive-behavioral orientation to classroom management, whereas a quotient lower than 1 is an indicator of predominately behavioral orientation to classroom management.

* Mean score on the rating scales.

On the basis of results of the observation teachers were once again classified into two groups: teachers with predominately behavioral and teachers with predominately cognitive-behavioral classroom management style. The criteria for the classification were the value of Q_{kv-v} and the mean score on the rating scales. Consequently, the teachers with Q_{kv-v} higher than 1 or with mean score higher than 4 were assigned to the group with predominately cognitive-behavioral classroom management orientation. The teachers with Q_{kv-v} lower or the same as 1 or with mean score lower than 4 were regarded as being predominately behaviorally oriented in their classroom management practices. The correlation between the result on the Questionnaire about Teacher's Behavior in the Classroom and the number of recorded behaviors that indicate behavioral approach to classroom management is -.20 (N = 24; p < .05 for all three reported correlations). The correlation between the results on the questionnaire and the number of recorded behaviors that indicate cognitive-behavioral approach to classroom management is .15. The correlation between the result on the questionnaire and mean score on the rating scales is .27. Although the correlations are low, their directions confirm the validity of the Questionnaire about Teacher's Behavior in the Classroom.

The classification of teachers on the basis of the results of this observation is not completely congruent with the classification based on the results of the Questionnaire about Teacher's Behavior in the Classroom. Grounded on the combination of the questionnaire and observation results the teachers were assigned to four groups:

* a group of teachers where self-report and the observation indicate behavioral orientation to classroom management (Group 1);

* a group of teachers who report to be behaviorally oriented, whereas the observation indicates cognitive-behavioral orientation to classroom management (Group 2);

* a group of teachers that report to be cognitive-behaviorally oriented, but the observation indicates behavioral orientation to classroom management (Group 3);

* a group of teachers where self-report and observation indicate cognitive-behavioral orientation to classroom management (Group 4).

From the four groups mentioned above the results of self-report and observation are congruent only in Group 1 and Group 4, which means that only these two groups can be unambiguously regarded as groups of teachers with predominately behavioral and cognitive-behavioral orientation to classroom management, respectively. For that reason the classification into four groups was used in the statistical analysis.

Three-way analysis of variance was performed on the so formulated data, and the following variables were regarded as factors:

* teacher's classroom management style (behavioral group, cognitive-behavioral group, two groups where it is impossible to determine predominant orientation);

* pupils' sex;

* repeated measures (the application of the instruments for pupils at the beginning and at the end of the school year).

The dimensions of intrinsic motivation and self-control were defined as dependent variables. Thus, the research is designed as quasi-experiment with 4x2x2 experimental design.

RESULTS

Differences between Groups of Pupils in Intrinsic Motivation

As shown in Table 2 the effect of measurement on intrinsic motivation is significant. Thus, at the end of the school year pupils reported to be more intrinsically motivated than at the beginning of the school year. During the school year the differences between classrooms in regard to teacher's classroom management style were bigger for boys than for girls. While girls of cognitive-behaviorally oriented teachers reported to

Table 1. Descriptive statistics for the measure of intrinsic motivation in pupils in regard to teachers' group and pupils' sex at the beginning and at the end of the school year

	Teacher	Sex	M	SD	N
Intrinsic motivation (beginning of the school year)	B-B	Boys	2.68	0.35	52
		Girls	2.65	0.38	48
		Together	2.67	0.36	100
	B-CB	Boys	2.63	0.32	26
		Girls	2.61	0.37	42
		Together	2.62	0.35	68
	CB-B	Boys	2.62	0.41	39
		Girls	2.68	0.44	56
		Together	2.66	0.43	96
	CB-CB	Boys	2.64	0.32	49
		Girls	2.76	0.38	41
		Together	2.70	0.35	90
	Together	Boys	2.65	0.35	166
		Girls	2.68	0.40	187
		Together	2.66	0.38	353

Table continues

Table 1 (continued)

	Teacher	Sex	M	SD	N
Intrinsic motivation (end of the school year)	B-B	Boys	2.69	0.38	52
		Girls	2.20	0.43	48
		Together	2.75	0.40	100
	B-CB	Boys	2.69	0.26	26
		Girls	2.83	0.39	42
		Together	2.78	0.35	68
	CB-B	Boys	2.83	0.42	49
		Girls	2.86	0.37	56
		Together	2.85	0.39	95
	CB-CB	Boys	2.85	0.41	49
		Girls	2.88	0.42	41
		Together	2.86	0.42	90
	Together	Boys	2.77	0.39	166
		Girls	2.85	0.40	187
		Together	2.81	0.40	353
	Together	Boys	3.16	0.42	166
		Girls	3.23	0.43	187
		Together	3.19	0.42	353

Note: B-B - teachers with behavioral orientation to classroom management; B-CB - teachers who report being behaviorally oriented, but the observation indicates cognitive-behavioral orientation; CB-B - teachers who report being cognitive-behaviorally oriented, but the observation indicates behavioral orientation; CB-CB - teachers with cognitive-behavioral orientation to classroom management

be more intrinsically motivated compared to girls of behaviorally oriented teachers at the beginning and at the end of the school year, in boys differences between both groups in regard to teacher's classroom management style appeared during the school year. At the beginning of the school year boys of behaviorally oriented teachers reported to be somewhat more intrinsically motivated compared to boys of cognitive-behaviorally oriented teachers. At the end of the school year the opposite was true: intrinsic motivation of the boys of cognitive-behaviorally oriented teachers increased, whereas in the boys of behaviorally oriented teachers it remained nearly the same as at the beginning of the school year (see Figures 2 and 3).

In the following section the results of analysis of variance are presented for those dimensions of intrinsic motivation where the effects of teachers' classroom management style proved to be significant.

Table 2. Three-way analysis of variance results for testing the effects of repeated measures, teacher's classroom management style and pupils' sex on intrinsic motivation

Source of variability	SS	df	MS	F	p
Between groups					
sex	0.496	1	0.496	2.044	0.15
teacher	0.826	3	0.275	1.135	0.34
sex X teacher	0.054	3	0.018	0.075	0.97
error	85.883	354	0.243		
Within groups					
measurement	3.674	1	3.674	66.196	0.00*
measurement X sex	0.078	1	0.078	1.406	0.23
measurement X teacher	0.290	3	0.097	1.741	0.16
measurement X sex X teacher	0.488	3	0.163	2.930	0.03*
error	19.649	354	0.055		

*$p < .05$
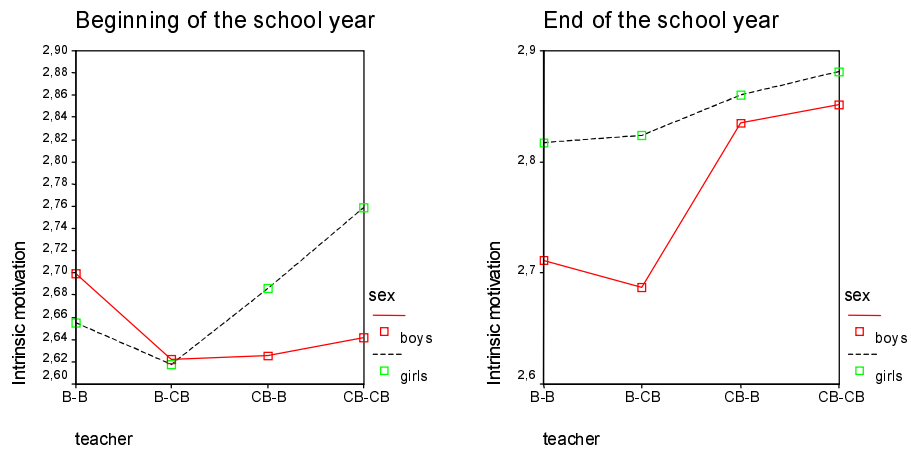
Note: See notes to Table 1

Figures 2 and 3. Results of pupils of teachers from different groups in regard to sex - intrinsic motivation at the beginning (Figure 2) and at the end of the school year (Figure 3)

Differences between Groups of Pupils in Independent Mastery vs. Dependence on the Teacher

The dimension of independent mastery vs. dependence on the teacher refers to whether pupils prefer to do their work and figure out problems on their own or they rely on the teacher for help and guidance.

Pupils reached higher levels of independent mastery at the end of the year compared to the beginning of the school year. The changes in the pupils' level of independent mastery depend also on the teachers' classroom management orientation. Namely, pupils of behaviorally and pupils of cognitive-behaviorally oriented teachers do not differ in their level of independent mastery at the beginning at the school year, but at the end of the school year pupils of cognitive-behaviorally oriented teachers reached a higher level of independent problem solving (see Figure 4).

Differences between Groups of Pupils in Internal vs. External Criteria

Tables 5 and 6 and Figures 5 and 6 show the differences between groups of pupils in internal vs. external criteria for evaluating their own success and failure. This dimension of intrinsic motivation refers to whether the pupils know when they have succeeded or failed on school assignments or they depend upon external sources of evaluation such as teacher's feedback, grades, or marks.

Table 3. Descriptive statistics for dimension independent mastery in pupils in regard to teachers' group and pupils' sex at the beginning and at the end of the school year

	Teacher	Sex	M	SD	N
Independent mastery (beginning of the school year)	B-B	Boys	3.03	0.48	53
		Girls	2.95	0.55	48
		Together	2.99	0.52	101
	B-CB	Boys	2.82	0.56	29
		Girls	3.01	0.49	46
		Together	2.94	0.52	75
	CB-B	Boys	2.83	0.53	41
		Girls	2.90	0.59	56
		Together	2.87	0.56	97
	CB-CB	Boys	3.01	0.48	49
		Girls	2.94	0.48	41
		Together	2.97	0.48	90
	Together	Boys	2.94	0.51	172
		Girls	2.95	0.53	191
		Together	2.94	0.52	363

Table continues

Table 3 (continued)

	Teacher	Sex	M	SD	N
Independent mastery (end of the school year)	B-B	Boys	3.00	0.47	53
		Girls	2.96	0.58	48
		Together	2.98	0.52	101
	B-CB	Boys	2.88	0.44	29
		Girls	3.05	0.50	46
		Together	2.98	0.48	75
	CB-B	Boys	3.04	0.58	41
		Girls	3.12	0.58	56
		Together	3.08	0.58	97
	CB-CB	Boys	3.20	0.55	49
		Girls	3.11	0.54	41
		Together	3.16	0.54	90
	Together	Boys	3.05	0.53	172
		Girls	3.06	0.55	191
		Together	3.05	0.54	363

Note: See notes to Table 1

Table 4. Three-way analysis of variance results for testing the effects of repeated measures, teacher's classroom management style and pupils' sex on independent mastery

Source of variability	SS	df	MS	F	p
Between groups					
sex	0.165	1	0.165	0.445	0.50
teacher	1.376	3	0.459	1.236	0.30
sex X teacher	1.881	3	0.627	1.690	0.17
error	131.171	355	0.371		
Within groups					
measurement	2.130	1	2.130	11.266	0.00*
measurement X sex	0.002	1	0.002	0.001	0.97
measurement X teacher	1.551	3	0.517	2.735	0.04*
measurement X sex X teacher	0.031	3	0.010	0.055	0.98
error	67.109	355	0.189		

*p < .05
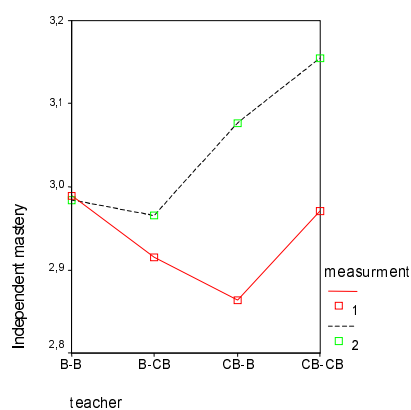
Note: See notes to Table 1

Figure 4. Results of pupils of teachers from different groups at the beginning and at the end of the school year - independent mastery

Table 5. Descriptive statistics for dimension internal vs. external criteria in pupils in regard to teachers' group and pupils' sex at the beginning and at the end of the school year

	Teacher	Sex	M	SD	N
Internal criteria (beginning of the school year)	B-B	Boys	2.66	0.63	53
		Girls	2.52	0.71	48
		Together	2.59	0.67	101
	B-CB	Boys	2.59	0.48	29
		Girls	2.53	0.70	46
		Together	2.55	0.62	75
	CB-B	Boys	2.59	0.58	41
		Girls	2.73	0.73	56
		Together	2.67	0.67	97
	CB-CB	Boys	2.58	0.54	52
		Girls	2.73	0.59	42
		Together	2.64	0.56	94
	Together	Boys	2.61	0.57	175
		Girls	2.63	0.69	192
		Together	2.62	0.63	367

Table continues

Table 5 (continued)

	Teacher	Sex	M	SD	N
Internal criteria (end of the school year)	B-B	Boys	2.65	0.65	53
		Girls	2.79	0.64	48
		Together	2.72	0.64	101
	B-CB	Boys	2.65	0.38	29
		Girls	2.85	0.46	46
		Together	2.78	0.44	75
	CB-B	Boys	2.91	0.62	41
		Girls	2.92	0.60	56
		Together	2.91	0.61	97
	CB-CB	Boys	2.83	0.64	52
		Girls	2.80	0.70	42
		Together	2.82	0.67	94
	Together	Boys	2.76	0.61	175
		Girls	2.84	0.60	192
		Together	2.81	0.61	367

Note: See notes to Table 1

Table 6. Three-way analysis of variance results for testing the effects of repeated measures, teacher's classroom management style and pupils' sex on internal criteria

Source of variability	SS	df	MS	F	p
Between groups					
sex	0.463	1	0.463	0.809	0.37
teacher	2.199	3	0.733	1.282	0.28
sex X teacher	0.170	3	0.057	0.099	0.96
error	205.333	359	0.572		
Within groups					
measurement	6.095	1	6.095	30.923	0.00*
measurement X sex	0.167	1	0.167	0.849	0.36
measurement X teacher	0.389	3	0.130	0.657	0.58
measurement X sex X teacher	2.129	3	0.710	3.601	0.01*
error	70.759	359	0.197		

$*p < .05$
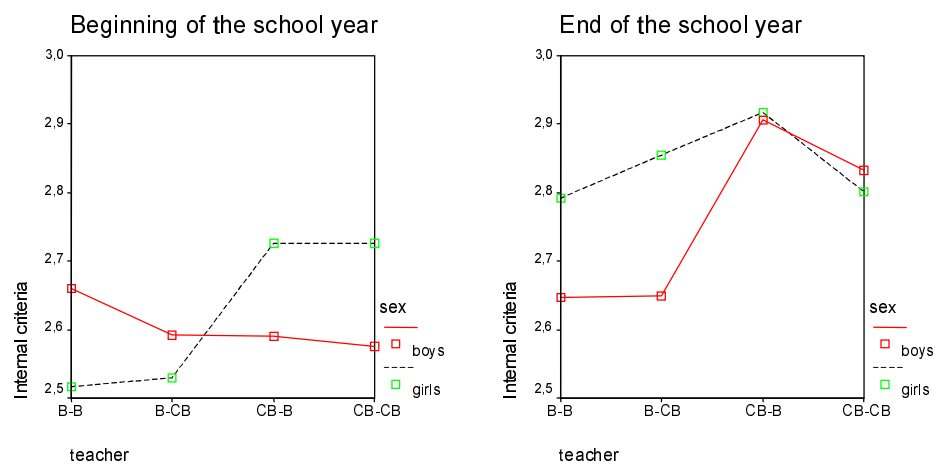
Note: See notes to Table 1

Figures 5 and 6. Results of pupils of teachers from different groups in regard to sex - internal criteria at the beginning (Figure 5) and at the end of the school year (Figure 6)

During the school year a significant shift from external to internal criteria occurred in pupils. The difference between pupils of behaviorally and pupils with cognitive-behaviorally oriented teachers changed during the year and is also dependent on the pupils' sex. At the beginning of the school year the boys of teachers from different groups did not differ in their criteria for evaluating their success or failure, whereas at the end of the school year the boys of cognitive-behaviorally oriented teachers reported to have more internal criteria compared to the boys of behaviorally oriented teachers. The differences between girls in regard to their teachers' classroom management style decreased during the school year. These sex-dependent changes are shown in Figures 5 and 6.

Differences between Groups of Pupils in Self-Control

Pupils do not differ significantly in self-control in regard to their teacher's classroom management style. Likewise, pupils' self-control did not change during the school year. Nevertheless, there are significant differences between boys and girls: girls report to be more self-controlled than boys.

Table 7. Descriptive statistics for the measure of self-control in pupils in regard to teachers' group and pupils' sex at the beginning and at the end of the school year

	Teacher	Sex	M	SD	N
Self-control (beginning of the school year)	B-B	Boys	3.12	0.44	52
		Girls	3.23	0.37	48
		Together	3.17	0.41	100
	B-CB	Boys	3.13	0.29	26
		Girls	3.27	0.31	42
		Together	3.22	0.30	68
	CB-B	Boys	3.13	0.46	39
		Girls	3.30	0.38	56
		Together	3.23	0.42	95
	CB-CB	Boys	3.18	0.33	49
		Girls	3.22	0.38	41
		Together	3.19	0.35	90
	Together	Boys	3.14	0.39	166
		Girls	3.26	0.36	187
		Together	3.20	0.38	353
Self-control (end of the school year)	B-B	Boys	3.13	0.46	52
		Girls	3.22	0.45	48
		Together	3.18	0.46	100
	B-CB	Boys	3.04	0.33	26
		Girls	3.22	0.39	42
		Together	3.15	0.38	68
	CB-B	Boys	3.15	0.42	39
		Girls	3.27	0.37	56
		Together	3.22	0.39	95
	CB-CB	Boys	3.25	0.40	49
		Girls	3.17	0.51	41
		Together	3.21	0.46	90
	Together	Boys	3.16	0.42	166
		Girls	3.23	0.43	187
		Together	3.19	0.42	353

Note: See notes to Table 1

Table 8. Three-way analysis of variance results for testing the effects of repeated measures, teacher's classroom management style and pupils' sex on self-control

Source of variability	SS	df	MS	F	p
Between groups					
sex	2.389	1	2.389	9.404	0.00*
teacher	0.151	3	0.050	0.198	0.89
sex X teacher	0.685	3	0.228	0.899	0.44
error	94.251	371	0.254		
Within groups					
measurement	0.006	1	0.006	0.075	0.78
measurement X sex	0.037	1	0.037	0.469	0.49
measurement X teacher	0.234	3	0.078	0.984	0.40
measurement X sex X teacher	0.133	3	0.044	0.560	0.64
error	29.455	371	0.079		

*$p < .05$

DISCUSSION

This study was an attempt to examine the influence of teacher's classroom management style on pupils' self-regulative behavior in natural setting in non-clinical population. The goal was to identify teacher's classroom management practices that are most efficient for the development of pupils' self-regulative behavior. The focus was on those teacher's behaviors that refer to the transfer of control from teacher to pupils. This includes the promotion of pupils' autonomy, giving them the opportunities to choose certain activities, regarding the process and not only the product variables in educational process, etc. In regard to the level of expression of that dimension the teachers were assigned to groups of predominately behaviorally and cognitive-behaviorally oriented, respectively. Nevertheless, this dimension represents a continuous category and the point of distinction between both extremes is not clear. On the basis of the results of the procedures used an unambiguous classification of teachers into two groups was not possible. For that reason teachers were classified into four groups, but only two groups represent "pure" groups where the results of self-report and observation were congruent. Consequently, in the discussion I focus on differences between these two groups.

The differences in the change in intrinsic motivation during the school year between the pupils of behaviorally and cognitive behaviorally oriented teachers are bigger for boys than for girls. In the group of pupils of cognitive-behaviorally oriented teachers girls reported to be more intrinsically motivated than boys at the beginning of the school year, whereas there were almost no differences in the intrinsic motivation of boys and girls at the end of

the school year. Namely, intrinsic motivation of boys from that group increased exceedingly during the school year. On the contrary, in the pupils of behaviorally oriented teachers girls reached a higher level of intrinsic motivation and boys did not. Nevertheless, in absolute terms intrinsic motivation is highest in pupils of cognitive-behaviorally oriented teachers, which is true for boys and girls.

Teacher's classroom management style proved a significant predictor of pupils' independent mastery vs. their dependence on the teacher. At the beginning of the school year the pupils of teachers with different classroom management orientation did not differ in their level of independent mastery. However, at the end of the school year the pupils of cognitive-behaviorally oriented teachers reached a higher level of independent mastery, whereas it remained the same in the pupils of behaviorally oriented teachers. Teacher's classroom management practices thus influence the way pupils cope with learning tasks; the pupils of teachers who allow them more opportunities for being in control of and take the responsibility for their own behavior, report to prefer independent problem-solving to seeking assistance and guidance from the teacher. This finding is congruent with the assumptions of different theoretical orientations that presume that the transfer of control from teacher to pupils is crucial for promoting pupils' independent coping with learning problems (e.g., Freiberg, 1999; Kaplan, 1995; Savage, 1999). Nevertheless, there is a lack of empirical research that would examine this assumption.

During the school year pupils' criteria for evaluating their own success and failure changed from external to more internal. This indicates lower dependence on external sources of evaluation, such as teacher's feedback and grades. These changes also interacted with pupils' sex and their teachers' classroom management style. At the beginning of the school year, the boys of teachers with different classroom management practices did not differ in their criteria for evaluating their success and failure. At the end of the school year the boys of cognitive-behaviorally oriented teachers reported to use more internal criteria compared to boys of behaviorally oriented teachers. In girls the differences between both groups in regard to teacher's classroom management style decreased. Thus, cognitive-behavioral approach to classroom management proved to be more efficient for boys than for girls. The bigger change from external to internal criteria in boys indicates that boys accept the opportunities for self-regulation offered by the teacher in a higher extent.

There are no differences in groups of pupils in self-control, neither in regard to their teacher's classroom management style nor did it change during the school year. Girls report to be more self-controlled than boys both at the beginning and at the end of the school year and independently of their teacher's classroom management practices (an exception is the group of pupils of cognitive-behaviorally oriented teachers where there are almost no differences in the self-control between boys and girls). A higher level of self-control was reported also by Humphrey (1982) and Kendall and Wilcox (1979). These authors used teacher's report as a measure of self-control, which implies that a higher level of self-control established in this study should not be interpreted by a tendency for socially desirable responses in girls.

The finding that teacher's classroom management practices do not influence pupils' self-control is contrary to what

could be expected from the theory. This can be the result of the actual unrelatedness between the variables - it is possible that pupils' self-control is more influenced by other variables not included in this study - but it can also be the result of the way of assessment of the variables. In fact, a deeper look at the items included in the Child Self-Control Rating Scale shows that the items relate to self-controlled behavior in different settings - not only in the classroom but also in the family setting and in relationships with friends. It is possible that in these settings other socialization influences, e.g. parents' influence, are more important than teacher's classroom management style. In previous studies, parents' influence proved to be a significant factor of pupils' self-regulative behavior also in the classroom setting (Dopkins Stright, Neitzel, Garza Sears, Hoke-Sonex, 2001; Grolnick, Kurowski, Gurland, 1999; Grolnick, Ryan, 1989). This factor that probably accounts for a considerable part of variance in explaining the differences in pupils' self-controlled behavior was not controlled and tested in the present study, respectively.

In accordance with the purpose of the study the following conclusions about teacher's influence on pupils' self-regulative behavior can be made:

1. Teacher's classroom management style proved to be a significant factor of pupils' intrinsic motivation in some dimensions of intrinsic motivation, whereas other dimensions are independent of teacher's classroom management style.

2. The pupils of cognitive-behaviorally and behaviorally oriented teachers, respectively, do not differ in their self-reported level of self-control.

The findings of this study are of limited validity because of some methodological limitations, especially the validity of the self-assessment of pupils' variables and the discriminability of the instruments for the assessment of teachers' behavior and consequently the classification of teachers into groups. The use of self-assessment in children is questionable because of their insufficiently developed meta-cognition and social cognition. Children tend to present themselves in the best possible light and have difficulty distinguishing their effort and intentions from their actual behavior, which can result in a positive response bias (Perry, VandeKamp, 2000). Nevertheless, some authors also stress the advantages of this method of pupils' behavioral assessment (see e.g., Rohrbeck et al., 1991). Besides, the results of different studies (Harter, 1981; Humphrey, 1982; Rohrbeck et al., 1991; for a review see Assor, Connell, 1992) show that when appropriate items and questions are used, self-reports can be a valid and reliable measure of pupils' behavior. These conditions were satisfied in the present study. Therefore, self-reports can be regarded as a valid measure of pupils' self-control and motivational orientation.

The second possible problem for the validity of results is the validity of procedures used to assess teachers' behavior. Simply the design of extreme groups on the basis of the Questionnaire about Teacher's Behavior in the Classroom can be problematic. Although the results of the observation confirm the validity of the questionnaire in some extent, the correlations between both results are low. In both methods of assessment it is possible that the instruments were not sensitive enough to distinguish teachers in regard to their classroom management style. In classroom, autonomy-supportive and controlling teachers engage in many of the same instructional behaviors - gaining pupils' attention, asking questions, giving feed-

back, setting and enforcing limits, encouraging persistence, demonstrating procedures and skills and so on (Reeve, Bolt, Cai, 1999). The difference is that autonomy-supportive teachers seek pupils' initiative in these endeavors by supporting intrinsic motivation and internalization, whereas controlling teachers seek pupils' compliance in these endeavors by introducing consequences and verbal directives. It is possible that the discriminability of the questionnaire was not appropriately high. Because of the small sample of the observed behaviors (a single classroom observation for every teacher) the same can be true for the observation.

CONCLUSIONS

The pupils of cognitive-behaviorally oriented teachers reached a higher increase in some dimensions of intrinsic motivation during the school year than the pupils of behaviorally oriented teachers. This is especially true for boys and less for girls. The offered opportunities to take over the higher level of control and responsibility for their own behavior have more positive effects for intrinsic motivation in boys. Therefore, a research to examine which teachers' behaviors are more efficient for girls is needed. However, such results are not alarming in the sense of girls' deprivation; in absolute terms girls reached a higher increase in intrinsic motivation than boys. Thus, teachers' autonomy-supportive behavior is not crucial for girls' intrinsic motivation, whereas it has positive effects for boys' intrinsic motivation.

Using the quasi-experimental design it is reasonable to assume that the established relationship between teacher's behavior and pupils' intrinsic motivation can be causally interpreted. Nevertheless, the nature of that relationship is most likely reciprocal and is likely to adopt the self-fulfilling prophecy dynamics. The results of some studies (Flowerday, Schraw, 2000; Pelletier, Vallerand, 1989, as cited in Deci et al., 1991; Skinner, Belmont, 1993) show that teachers are most likely to give choices and support autonomy in pupils who are more self-regulated in their behavior initially. Teachers' behavior toward less self-regulated, more extrinsically motivated pupils is usually more controlling which in turn reinforces their extrinsic motivational orientation. Thus, it is possible that teachers' behavior as assessed in this study was in some extent the result of classroom characteristics (i.e., pupils' initial input) and would be different in other circumstances.

The reason why some dimensions of pupils' self-regulated behavior seem to be quite independent of teachers' classroom management style can be that these dimensions are influenced by some other forms of teacher behavior that were not included in the study. It is also possible that other sources in pupils' social environment have larger influence on their self-control and academic motivation. In some studies (e.g., Dopkins Stright et al., 2001; Grolnick et al., 1999; Grolnick, Ryan, 1989), parents' influence was established as a significant factor of children's self-regulative behavior. Gottfried, Fleming, and Gottfried (2001) found that with advancement in age, academic intrinsic motivation becomes increasingly stable. Consequently, it is not easy to influence academic intrinsic motivation in the later years of schooling. Thus it is possible that behavior of teachers in the first three years of schooling was more influential for pupils' intrinsic motivation in the present study.

Although the results of this study indicate the influence of teachers' classroom man-

agement style only in some fields of pupils' self-regulation, it is meaningful to raise teachers' awareness and instill in them the importance of a gradual control and responsibility transfer for pupils' behavior from teacher to pupils, the support of pupils' autonomy and giving choices. The results of this study show that such teacher's behavior has positive effects on some aspects of pupils' self-regulative behavior, but it is possible that it exerts a positive influence also on some other pupils' characteristics, e.g. their well-being at school, their academic emotions (see e.g., Assor, Kaplan, Kanat-Maymon, Roth, 2003) and attitudes towards school and teachers. Teacher's promotion of pupils' taking control and responsibility for their own behavior can represent an efficient proactive approach to classroom management.

Received September 2, 2004

REFERENCES

ANSERELLO, C., SWEET, T., 1992, Integrating consultation into school psychological services. In: E. Cole, J.A. Siegel (Ed.), Effective consultation in school psychology, Toronto, Hogrefe & Huber Publishers, 173-199.

ASHMAN, A., CONWAY, R., 1993, Using cognitive methods in classroom. London, Routledge.

ASSOR, A., CONNEL, J.P., 1992, The validity of students' self-reports as measures of performance affecting self-appraisals. In: D.H. Schunk, J.L. Meece (Ed.), Student perceptions in the classroom, Hillsdale, LEA, 25-47.

ASSOR, A., KAPLAN, H., KANAT-MAYMON, Y., ROTH, G., 2003, Delibitating effects of directly controlling teacher behaviors on students' motivation and engagement. Paper presented at 10th conference of European Association for Research on Learning and Instruction, Padova, Italy.

AYERS, H., CLARKE, D., MURRAY, A., 2000, Perspectives on behaviour. A practical guide to effective interventions for teachers. London, David Fulton Publishers.

BANDURA, A., 1977, Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84, 191-215.

BECKER, W.C., MADSEN, C.H., ARNOLD, C.R., THOMAS, D.R., 1967, The contingent use of teacher attention and praise in reducing classroom behavior problems. The Journal of Special Education, 1, 287-307.

BROPHY, J.E., EVERTSON, C.M., 1980, Lernen durch Unterricht [Learning from teaching]. Bochum, Verlag Ferdinand Kamp.

COSTENBADER, V., READING-BROWN, M., 1995, Isolation timeout used with students with emotional disturbance. Exceptional Children, 61, 353-363.

DECI, E.L., VALLERAND, R.J., PELLETIER, L.G., RYAN, R.M., 1991, Motivation and education: The self-determination perspective. Educational Psychologist, 26, 325-346.

DOPKINS STRIGHT, A., NEITZEL, C., GARZA SEARS, K., HOKE-SONEX, L., 2001, Instruction begins in the home: Relations between parental instruction and children's self-regulation in the classroom. Journal of Educational Psychology, 93, 456-466.

DRABMAN, R.S., LAHEY, B.B., 1974, Feedback in classroom behavior modification: Effects on the target and her classmates. Journal of Applied Behavior Analysis, 7, 591-598.

EMMER, E.T., STOUGH, L.M., 2001, Classroom management: A critical part of educational psychology, with implications for teacher education. Educational Psychologist, 36, 103-112.

EVERTSON, C.M., EMMER, E.T., 1982, Effective management at the beginning of the school year in junior high classes. Journal of Educational Psychology, 74, 485-498.

FLOWERDAY, T., SCHRAW, G., 2000, Teacher beliefs about instructional choice: A phenomenological study. Journal of Educational Psychology, 92, 634-645.

FREIBERG, J.H., 1999, Beyond behaviorism. In: J.H. Freiberg (Ed.), Beyond behaviorism. Changing the classroom management paradigm, Boston, Allyn and Bacon, 3-20.

GOTTFRIED, A.E., FLEMING, J.S., GOTTFRIED, A.W., 2001, Continuity of academic intrinsic motivation from childhood through late adolescence: A longitudinal study. Journal of Educational Psychology, 93, 3-13.

GROLNICK, W.S., KUROWSKI, C.O., GURLAND, S.T., 1999, Family processes and the development of children's self-regulation. Educational Psychologist, 34, 3-14.

GROLNICK, W.S., RYAN, R.M., 1989, Parent styles associated with children's self-regulation and

competence in school. Journal of Educational Psychology, 81, 143-154.

HARTER, S., 1978, Effectance motivation reconsidered. Toward a developmental model. Human Development, 21, 34-64.

HARTER, S., 1980, A scale of intrinsic versus extrinsic orientation in the classroom. Manual. Denver, University of Denver.

HUGHES, J.N., 1988, Cognitive behavior therapy with children in schools. New York. Pergamon Press.

HUMPHREY, L.L., 1982, Children's and teachers' perspectives on children's self-control: The development of two rating scales. Journal of Consulting and Clinical Psychology, 50, 624-633.

HUMPHREY, L.L., 1984, Children's self-control in relation to perceived social environment. Journal of Personality and Social Psychology, 46, 178-188.

KAPLAN, J.S., 1995, Beyond behavior modification. A cognitive-behavioral approach to behavior management in the school. Austin: pro. ed.

KENDALL, P.C., 1993, Cognitive-behavioral therapies with youth: Guiding theory, current status, and emerging developments. Journal of Consulting and Clinical Psychology, 61, 235-247.

KENDALL, P.C., BRASWELL, L., 1982, Cognitive-behavioral self-control therapy for children: A components analysis. Journal of Consulting and Clinical Psychology, 50, 672-689.

KENDALL, P.C., WILCOX, L.E., 1979, Self-control in children: Development of a rating scale. Journal of Consulting and Clinical Psychology, 47, 1020-1029.

KENDALL, P.C., WILCOX, L.E., 1980, Cognitive-behavioral treatment for impulsivity: Concrete versus conceptual training in non-self controlled problem children. Journal of Consulting and Clinical Psychology, 48, 80-91.

KENDALL, P.C., ZUPAN, B.A., 1981, Individual versus group application of cognitive-behavioral self-control procedures with children. Behavior Therapy, 12, 344-359.

MADSEN, C.H., BECKER, W.C., THOMAS, D.R., 1968, Rules, praise, and ignoring: Elements of elementary and classroom control. Journal of Applied Behavior Analysis, 1, 139-150.

MARTIN, J., SUGARMAN, J., MCNAMARA, J., 2000, Models of classroom management. Principles, practices and critical considerations. Calgary, Detseling Enterprises Ltd.

MEYERS, A.W., COHEN, R., SCHLESER, R., 1989, A cognitive-behavioral approach to education: Adopting a broad-based perspective. In: J.N. Hughes, R.J. Hall (Eds.), Cognitive behavioral psychology in the schools, New York, The Guilford Press, 62-84.

PATRICK, H., ANDERMAN, L.H., RYAN, A.M., EDELIN, K.C., MIDGLEY, C., 2001, Teachers' communication of goal orientations in four fifth-grade classrooms. The Elementary School Journal, 102, 35-58.

PERRY, N.E., VANDEKAMP, K.J.O., 2000, Creating classroom contexts that support young children's development of self-regulated learning. International Journal of Educational Research, 33, 821-843.

PORTER, L., 2000, Behaviour in schools. Theory and practice for teachers. Buckingham, Open University Press.

PRESSLEY, M., ROEHRIG, A.D., RAPHAEL, L., DOLEZAL, S., BOHN, C., MOHAN, L., WHARTON-MCDONALD, R., BOGNER, K., HOGAN, K., 2003, Teaching processes in elementary and secondary education. In: W.M. Reynolds, G.E. Miller (Eds.), Handbook of psychology. Volume 7. Educational psychology, New Jersey. John Wiley & Sons, 153-175.

REEVE, J., BOLT, E., CAI, Y., 1999, Autonomy-supportive teachers: How they teach and motivate students. Journal of Educational Psychology, 91, 537-548.

ROGERS, B., 1994, Behaviour recovery. A whole-school program for mainstream schools. Melbourne, ACER.

ROHRBECK, C.A., AZAR, S.T., WAGNER, P.E., 1991, Child self-control rating scale: Validation of a child self-report measure. Journal of Clinical Child Psychology, 20, 179-183.

SAVAGE, T.V., 1999, Teaching self-control through management and discipline. Boston. Allyn and Bacon.

SKINNER, E.A., BELMONT, M.J., 1993, Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. Journal of Educational Psychology, 85, 571-581.

VPLYV VYUČOVACIEHO ŠTÝLU UČITEĽA
NA SEBAREGULAČNÉ SPRÁVANIE ŽIAKOV

K. K o š i r

Súhrn: V longitudinálnej štúdii analyzujeme štýl správania učiteľa, ktorý sa prejavuje kontrolovaním študentov, facilitáciou autonómie, dávaním možností výberu, posudzovaním nielen výsledku, ale aj postupu v procese vyučovania, a pod. Podľa stupňa takéhoto správania boli učitelia zaradení do dvoch skupín: do skupiny behaviorálne orientovaných učiteľov a skupiny kognitívno-behaviorálne orientovaných učiteľov. Výskum bol realizovaný v 54 triedach štvrtých ročníkov základnej školy. Do ďalšej analýzy bolo zahrnutých 24 z 54 tried. Potvrdilo sa, že učiteľov štýl vyučovania je signifikantným faktorom zvnútornenej motivácie žiakov v niektorých jej dimenziách. Žiaci kognitívno-behaviorálne orientovaných učiteľov v porovnaní so žiakmi behaviorálne orientovaných učiteľov dosahovali vyššiu úroveň nezávislosti v priebehu školského roku. Chlapci kognitívno-behaviorálne orientovaných učiteľov vykazovali v porovnaní s chlapcami behaviorálne orientovaných učiteľov väčší pokrok v úrovni zvnútornených kritérií hodnotenia vlastnej úspešnosti a v zvnútornenej motivácii ako celkovej sumy všetkých dimenzií. Toto zistenie sa však nepotvrdilo u dievčat.