

**ASSESSMENT AND SELF-ASSESSMENT OF BEHAVIOURAL PROBLEMS OF  
PRIMARY SCHOOL PUPILS: OPPORTUNITIES AND CHALLENGES**

**Dejana Bouillet**

University of Zagreb

Faculty of Teacher Education

**SUMMARY**

*The objectives of the research presented in this paper are: (1) to determine the proportion of primary school students who are experiencing behavioural problems, in six primary schools from five Croatian counties; (2) to analyse the association of teachers' assessment and pupils' self-assessment of behavioural problems, and (3) to establish an estimate of resources within schools to meet their specific educational needs. The research is based on the data collected as part of the "Evidence based early educational interventions" project that is being implemented from August 2013 to February 2015 by the Forum for Freedom of Education, in cooperation with six Croatian primary schools in five Croatian counties. The survey was conducted on a sample of 174 teachers and other teachers' council members in six primary schools, and a further sample of 921 pupils from those schools. The applied measuring instruments (the Questionnaire for teachers, the Questionnaire for pupils and the Questionnaire for the assessment of the school's focus on the prevention of pupils' behaviour problems) were processed descriptively, while testing their factor structure and determining the correlation between the factors. The initial hypothesis of there being a correspondence of the teachers' assessment and the pupils' self-assessment of their behavioural problems, whose incidence is associated with potential of the schools to meet special educational needs of these pupils, is confirmed only partially. The results presented in this paper show that there is a partial correspondence in the assessment of the pupil's behaviour, but suggests that the school's focus on the prevention of behavioural problems is not significantly statistically correlated with the proportion of pupils who manifest behavioural problems. The obtained results point out the necessity of better conceptualisation of educational efforts in primary schools, which ought to be focused on the selected group of pupils with assessed behavioural problems at an early stage of their development.*

**Key words:** *primary school pupils, primary schools, behavioural problems of pupils in school, programs of selective prevention of pupils' behavioural problems*

## INTRODUCTION

Students who are exhibiting behavioural problems<sup>1</sup> are not similar in type, which indicates that there is a need to approach the matter in a broad manner, so that their difficulties may be detected in a timely manner, with the aim of ensuring appropriate support and interventions that would prevent serious socialization and behaviour problems in the future. In that sense, the existing research indubitably shows that there is a need for determining the onset of behavioural problems as early as possible, which needs to be complemented by the appropriate pedagogical and psycho-social interventions, followed by an evaluation of their outcomes and effects (Mooij and Smeets, 2009; Durlak et al., 2011; Abu-Rayya and Yang, 2012, to name but a few). The necessity of a timely professional intervention is also confirmed in the research that finds that there are undesirable effects of long-term behavioural problems on the social, educational, and emotional development of children and youths (Sutherland et al., 2008; Vannest et al., 2009), and positive effects of timely recognition of behavioural problems that were followed up on by appropriate interventions within the environment of the school (Conley, Marchant and Caldarella, 2014).

However, the teachers, as crucial factors in early intervention, typically display disorientation and unwillingness to engage with the pupils exhibiting behavioural problems (Stromont, Reinke and Herman, 2011a), which is often accompanied by a lack of organized and planned program of support for these pupils (Niesyn, 2009). This is particularly worrying due to the fact that the recent literature is abundant with examples of effective interventions that are being implemented in the educational environment of the school, and which are significantly contributing to prevention and lessening the problems in pupils' behaviour (Greenberg et al., 2003; Forman et al., 2009; Barnett, 2011 and others). Research has confirmed that successful schools have developed a particular way of dealing with situations of pupils exhibiting learning or behavioural problems, and that they have a detailed and focused system of action for solving the problems at both the individual and the group levels. In these successful schools, the teachers dedicate particular individualized attention to pupils with behavioural problems, and all the stakeholders in the educational process have reached a consensus on the relevant values, and are engaging in high-quality communication and cooperation (Odak et al., 2010).

On the other hand, Stromont, Reinke and Herman (2011b) have conducted a survey on a sample of

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1 In this paper, the term *behavioural problems*, in accordance with the *Standards of Terminology, Definition, Criteria, and Modes of Tracking the Appearance of Behavioural Disorders in Children and Youths* denotes an "umbrella term for a continuum of behaviours, from the simpler ones, of a smaller weight and level of danger/harm to themselves or others, to those that are defined and/or sanctioned in law, and are often more serious in consequences and the need for treatment (Koller-Trbović, Žižak and Jeđud Borić, 2011: 12).

239 teachers and have found that most of them are not acquainted with the types of interventions that have been proven effective, that they do not know if their schools keep records of behavioural problems among the pupils, or of the effects of the interventions applied in their cases. Simultaneously, the teachers have displayed an appropriate level of knowledge of strategies for effective classroom management. The authors point to a need for schools to be strengthened, and for teachers to be provided with strategies for providing appropriate support to pupils with behavioural problems, with a special emphasis on teachers and experts within the school making informed decisions concerning the development and implementation of effective interventions that rely on the school's existing resources, thus enabling them to become reliant on the knowledge of existing programs that are known to be effective.

The first step in this direction is certainly determining the frequency and types of behavioural problems in the first years in the educational system. However, there is little agreement in this regard in the literature, and the data on prevalence of behavioural problems vary from one study to the next. Thus Naik and Maharashtra (2014) report on the studies of primary school pupils in India, where these problems appear in as little as 1,16% of the population of pupils, up to 43,1%. The research conducted by Syed, Hussein and Haidry (2009) on a sample of 675 children, ages 5 to 11, in Pakistan found that as many as 34,4% of children could be in the group with behavioural problems, based on parents' assessments. This proportion is 35,8% for the assessment by the teachers. Conley, Marchant and Caldarella (2014) also point to assessments of prevalence of behavioural problems ranging from 3,5% to 32,3%, while Gritti et al. (2014) note the assessments that range from 9 to 20%. In their sample of 8 and 9 year-olds in southern Italy, they investigated emotional and behavioural problems among the pupils, relying on the assessments by teachers and parents. They found that one in ten exhibited serious emotional and behavioural problems, while a further 5% is at risk of developing these serious problems. They have also found that the internalized problems are more common than the externalized (11% and 5%, respectively).

Two large-scale studies in Britain report on 10% of school-aged children suffering psychological difficulties, half of which are dealing with clinically serious behavioural problems (Meltzer et al., 2000, Green et al., 2005, in Whear et al., 2013). The research conducted in Great Britain on a sample of 10438 children in the 5-10 age range found that 5-6% of primary school children manifest externalized, and 3-4% exhibit internalized behavioural problems (Ford et al., 2003, in Mooij and Smeets, 2009). Abu-Rayya and Yang (2012) found that 12% of children in Australia suffer from mental health problems, with the 4-15 year-olds suffer from emotional difficulties the most (12,1%), disorders of hyperactivity and attention deficit (11,1%), and behavioural disorders

(9,6%). Difficulties in relationships with peers were manifested in 8,9% of the population. The authors concluded that 7,6% of children under 15 years of age are at risk of developing serious mental illness (Abu-Rayya and Yang, 2012).

In Croatia, the prevalence of behavioural problems among primary school pupils was researched by Keresteš (2006). Based on the assessments by 149 primary school teachers in the Krapina-Zagorje County, who were assessing the behaviour of 2620 pupils, she found that 9,1% of boys and 3,6% of girls were exhibiting difficulties of attention deficit and hyperactivity. She further found that 7,1% of boys and 3,3% of girls are prone to aggressive and antisocial behaviour, while 4,2% of boys and 3,5% of girls suffered emotional difficulties.

The differences in the behavioural problems prevalence assessments among school children stem from the differences in the type of person assessing (parents, teachers, or children themselves), from the ways in which the assessments were acquired (direct observation, interviews, application of different measurement instruments), from the cultural context that is reflected in the conceptualization and the non-standardized criteria of defining and categorizing behavioural problems. In that sense, Gimpel Peacock and Collett (2010) state that parents, teachers, and children often have very different assessments of problematic behaviours, which they link with the differences in understanding and perceiving particular difficulties, the context in which the child is being assessed (family, school), and the variability of the behaviour itself. They point out that the differences in the assessments should not be interpreted based on who is right and who is not, but as an encouragement for the development of assessment methods that are sensitive to the complexities of the problem at hand.

In any case, the assessments of behavioural problems of pupils are a part of the planning and realization of interventions aimed at their prevention and alleviation. Without the additional support and assistance from teachers and other experts employed in the schools, the pupils with behavioural problems have few opportunities for a successful continuation of schooling and growing up. This is due to the fact that behavioural problems, whatever form they appear in, are typically such that they greatly reduce the child's opportunity to reach a satisfactory level of academic and social development (Burke et al. 2009). Conley, Marchant and Caldarella (2014) quote the data according to which the proportion of pupils with behavioural problems who complete their education and receive a diploma is greatly smaller than it is for the pupils who are characterized by developmental difficulties and specific learning difficulties (such as dyslexia, ADHD syndrome, and linguistic difficulties), which makes stronger the argument in favour of early recognition of students with

behavioural difficulties.

Since, of all experts within the schools, the teachers are those that spend the most time with the students, they are the key factors in early recognition of students who exhibit behavioural problems. It is thus hardly surprising that many measurement instruments aimed at identifying pupils with behavioural problems are based precisely on their assessments (e.g. Systematic Screening for Behavior Disorders, Walker and Severson 1992, to name a prominent example). The question is, however, whether the assessments by one assessor only are enough and whether the teachers are able to assess all the aspects of the behavioural problem that are relevant for planning appropriate interventions.

The aims of the research presented in this paper are as follows:

- to establish the proportion of children in the six primary schools, from the five Croatian counties, who are having behavioural problems
- to analyse the association between teacher assessments and students' self-assessments of primary school children's behavioural problems
- to establish an estimate of school potential to satisfy these specific educational needs

The goal of the project is to contribute to the mainstreaming of the potential for timely prevention and early intervention in the behavioural problems of the younger pupils within the educational environment.

The hypothesis is that there is an alignment of the assessments and self-assessments of the pupils' behavioural problems whose appearance is related to the school potential to satisfy the specific educational needs of these children. The hypothesis is based on the conviction that the way in which the teachers perceive the pupils significantly contributes to the way the pupils assess their own behaviour. This would be due to the feedback that the teachers continuously give to the pupils in everyday interactions. During this process, the teachers often provide feedback that is based on non-acceptance and punishment (Sutherland et al., 2008), which undoubtedly contributes to the direction of the younger pupils' self-assessment. The second part of the hypothesis is based on the view that the schools which have a developed system for preventing behavioural problems will also see fewer pupils exhibiting such behaviours.

## RESEARCH METHODS

The project is based on the data collected as part of the "Early educational interventions based on success indicators" project that is being implemented from August 2013 to February 2015 by the Forum for Freedom in Education (FFE) in cooperation with six primary schools, in five counties in Croatia.<sup>2</sup> The project is financially supported by the European Union through the 4th Component of the IPA program "Development of Human Resources", within the specific grant for "Integrating the disadvantaged groups into the regular system of education", and by the Government of the Republic of Croatia Office for NGOs. The purpose of the project is to develop a model of early educational intervention with the aim of ensuring equal opportunities for successful education of children with behavioural problems, and to enhance Croatia's education policy. The project has been described in detail in "Development of the model of early educational intervention in primary schools: from idea to evaluation" (Bouillet, ed., 2015).

### Research participants

The survey was conducted on a sample of 174 teachers - members of teachers' councils of the six participating schools, and 921 pupils who were in second, third, fourth, and fifth grade during the 2013/2014 school year (47,1% were girls, and 52,9% were boys). This is a convenience sample, since the participants are teachers and pupils in the projects partner schools. The structure of the sample is a consequence of two circumstances. The first stems from the fact that the survey is part of the project that is aimed at early intervention, and here it matters that the beginning ought to be as early as possible, in the initial stages of development of behavioural problems. The second circumstance concerns the research method, i.e. assessment and self-assessment of pupils. This assumes the students' ability to understand and fill in the questionnaire, as well as a reasonable level of familiarity of the teachers with the pupils. Given that the data were collected at the beginning of the school year (September and October 2013), the first grade pupils were not able to fill in the questionnaire, nor were their teachers well enough acquainted with them to be able to provide a reliable assessment. For these reasons, the first grade pupils were excluded from the scope of the survey. Since the data gathered concern the educational period prior to the beginning of that school year, the assessments of the fifth graders related to their time in the fourth grade, so the survey covers the pupils in the primary school proper, who are still in single classrooms, attended to by a single teacher, rather having different teachers for particular courses (which is more similar to a British-style comprehensive school).

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<sup>2</sup> For the purpose of identity protection, the details about the schools are not published, but are known to the author.

The pupils' participation in the project was based on the written consent provided by their parent. These consent forms are stored with the FFE. The pupils were also given the opportunity to personally decide if they want to take part, after their teachers explained, in a manner appropriate for their age, what the purpose and the manner of conducting the survey is. The structure of the sample, based on sex, age, grade, and school, is described in detail in the online publication "Behavioural problems in young schoolchildren - phenomenological aspects" (Bouillet and Pavin Ivanec, 2013).

The 174 teachers - members of teachers' councils were asked to assess the potentials of the schools to satisfy the specific educational needs of the students having behavioural problems as part of the project related to the analysis of the weaknesses, strengths, threats, and opportunities that the schools have in educating these children. The data on assessments of students were gathered during the regular class hours, with the aid of 57 teachers.

### **Measurement instruments**

The project is based on the data gathered through the utilization of three measurement instruments: *the Questionnaire for teachers*, *the Questionnaire for pupils*, and *the Questionnaire for the assessment of the school's focus on the prevention of pupils' behaviour problems*. The matter at hand is universal prevention, i.e. targeted professional and overarching pedagogical activity directed at pupils with the aim of reducing and/or preventing the appearance of behavioural problems.

All the questionnaires have been designed for the purpose of this project, and have been applied here for the first time. They are in the form of ordinal scales of assessment/self-assessment which are typically used in evaluating individuals, their reactions and achievements, or during assessments/self-assessments of particular traits or behaviours of the respondents (Mejovšek, 2003). In the questionnaires, I aimed to take into account all behaviours that are relevant for social functioning of pupils in the school environment, and which can be assessed by observation or immediate contacts of the teachers with the pupils and their parents during a particular time period (in this case, one school year). The topics concern the pupils' relation to themselves, to adults, peers, property, obligations, school rules, and similar, including the appropriate (acceptable, socialized) and inappropriate (unacceptable, unsocialized) behaviours. While designing the questionnaire on pupils' behaviour, the model set by Walker and Severson (1992) was followed, in the part related to adjusted and maladjusted behaviour in the *Systematic Screening for Behavior Disorders*, with significant adjustments to account for Croatia's social and legal context, and the the participants'

age. This is a procedure aimed at identifying the internalized and externalized behavioural problems among the pupils, at an early point in their development, for the purpose of making timely interventions possible. The pupils' behaviour questionnaires were described in detail in the online publication "Behavioural problems in young schoolchildren - phenomenological aspects" (Bouillet and Pavin Ivanec, 2013). The Questionnaire for the assessment of the school's focus on the prevention of pupils' behaviour problems was modelled after the tool for assessing the application of positive support for pupils' behaviour at the level of the school (Sugai et al., 2005).

For the purposes of this paper, the questions concerning behavioural problems were extracted from the Questionnaire for teachers and the Questionnaire for pupils, and the ones that had a satisfactory level of variability were taken from the Questionnaire for the assessment of the school's focus on the prevention of pupils' behaviour problems. The variables were designed as three-level scales with the following categories: 1- never or not at all, 2 - sometimes or partially, and 3 - often or completely. The questions that were used in this paper are listed below (Tables 1, 2 and 5).

### **Data analysis**

The data used in this paper are descriptive (proportions of the distribution of the respondents' answers and mean values of the results on the extracted factors), with a display of the structure of the measurement instruments (principal components factor analysis, with the Varimax rotation for the purpose of maximizing the differentiation of some aspects of pupils' behaviour) that describe the structure of the behavioural problems among the pupils and the content of the school's focus on preventing them.

The frequency of assessments and self-assessments of the pupils' problematic behaviour manifestations was determined by a cluster analysis of the results on the factors of the analysed measurement instruments. Correlations of the assessments and self-assessments were conducted as well. The association of the frequency of pupils' behavioural problems and the school's focus on their prevention was analysed by means of correlation analysis of individual school scores on the extracted factors from the applied questionnaires (correlations and ANOVA).



**RESULTS****Assessments and self-assessments of the pupils' behavioural problems**

For the purpose of this paper, 19 (out of 54 total) questions from the Questionnaire for teachers assessing pupils' behaviour have been selected. These questions have both satisfied the variability criterion and are describing the pupils' behavioural problems. They thus satisfy the requirements for factor analysis (KMO = ,923; Bartlett's  $\chi^2 = 9584,730$ ,  $df = 171$ ,  $p = ,000$ ). Utilizing the Guttman-Kaiser criterion, four factors have been extracted, explaining 66,37% of total variance, with the Cronbach's  $\alpha$  coefficient of internal consistency at 0,914. The descriptive indicators and the factor structure, with pertaining measures, are displayed in Table 1.

**Table 1: The proportion of explained variance and the Cronbach's  $\alpha$  coefficient of reliability for each of the factors, coefficients of factor saturation by questions, and the distribution of the data - for teachers' assessments**

<b>First factor</b> <b>(% of explained variance 42,18; <math>\alpha</math> coefficient ,916)</b>	<b>Never</b> <b>(%)</b>	<b>Rarely</b> <b>(%)</b>	<b>Often</b> <b>(%)</b>	<b>Coeff.</b>
1. The pupil is disruptive in class (making noise, disturbing other pupils, interrupting class, interrupting others when speaking)	61,0	24,3	14,8	,820
2. The pupil acts in a way that is bothersome to other pupils.	60,0	25,4	14,5	,781
3. The pupil seeks too much attention.	56,9	28,9	14,1	,533
4. The pupil requires a warning and a punishment prior to ending unacceptable behaviour.	67,6	19,3	13,1	,737
5. The pupil uses officious means of communication in order to get one's attention.	67,2	21,3	11,5	,679
6. The pupil's behaviour is testing the teacher's boundaries.	76,7	13,7	9,6	,767
7. The pupils is using inappropriate language and communication (e.g., swearing, insults, talks back, and similar).	72,8	19,8	7,4	,656
8. The pupil is physically assaulting other pupils.	72,4	20,5	7,2	,541
<b>Second factor</b> <b>(% explained variance 11,26; <math>\alpha</math> coefficient ,839)</b>	<b>Never</b> <b>(%)</b>	<b>Rarely</b> <b>(%)</b>	<b>Often</b> <b>(%)</b>	<b>Coeff.</b>
9. The pupil complains about other pupils' behaviour towards him/her.	38,3	47,7	14,0	,616
10. The pupil manipulates other children and/or the circumstances in order to achieve his/her goals.	73,6	19,0	7,3	,706
11. The pupils uses lies to achieve his/her goals.	72,5	20,2	7,3	,699
12. The pupil says untrue things (gossips) about other pupils.	64,3	28,7	7,0	,725
<b>Third factor</b> <b>(% explained variance 7,59; <math>\alpha</math> coefficient ,876)</b>	<b>Never</b> <b>(%)</b>	<b>Rarely</b> <b>(%)</b>	<b>Often</b> <b>(%)</b>	<b>Coeff.</b>
13. The pupil is quick to give up on solving tasks and commenced activities.	41,3	38,2	20,5	,821
14. The pupil is having difficulties concentrating in class.	41,0	38,7	20,3	,826
15. The pupil is having difficulty understanding the class	38,9	41,6	19,5	,879

content.				
<b>Fourth factor (% explained variance 5,33; <math>\alpha</math> coefficient ,609)</b>	<b>Never (%)</b>	<b>Rarely (%)</b>	<b>Often (%)</b>	<b>Coeff.</b>
16. The pupil is prone to lonesomeness.	61,3	28,2	10,5	,808
17. The pupil is overly timid in exam situations.	46,8	43,0	10,2	,531
18. The pupil complains of headaches, stomach aches, and similar.	69,1	24,7	6,2	,501
19. The pupil is refusing to take part in games and activities with other children during break.	66,9	28,6	4,5	,632

The results in Table 1 suggest that the problems in pupils' behaviour, as assessed by their teachers, can be placed in the following four categories: *externalized behavioural problems* make up the first factor, including lack of discipline, officiousness, and violence; *problems in relations with peers* on the second factor, *learning difficulties* on the third factor, and *internalized behavioural problems* on the fourth factor. The most common among these are learning difficulties that manifest themselves in giving up on solving tasks, trouble concentrating and understanding the class materials (these are found in 20% of pupils), followed by a lack of discipline (14%), problems in relations with peers and internalized behavioural problems (10%), while the other researched problems (all forms of aggressive behaviour, manipulation, use of lies, lonesomeness, and psychosomatic symptoms) are manifested in about 4 to 7% of pupils, according to teachers' assessments.

There were 15 questions used from the Questionnaire for pupils, out of a total of 44, and these satisfied the conditions necessary for factor analysis (KMO = ,814; Bartlett's  $\chi^2 = 2460,251$ , df = 105, p = ,000). According to the Guttman-Kaiser criterion, four factors explaining 53,77% of the variance were extracted, with a Cronbach's  $\alpha$  coefficient of internal consistency of the scale at 0,792. The descriptive indicators and the factor structure, with pertaining measures, are displayed in Table 2.

**Table 2: The proportion of explained variance and the Cronbach's  $\alpha$  coefficient of reliability for each of the factors, coefficients of factor saturation by questions, and the distribution of the data - for the pupils' self-assessments**

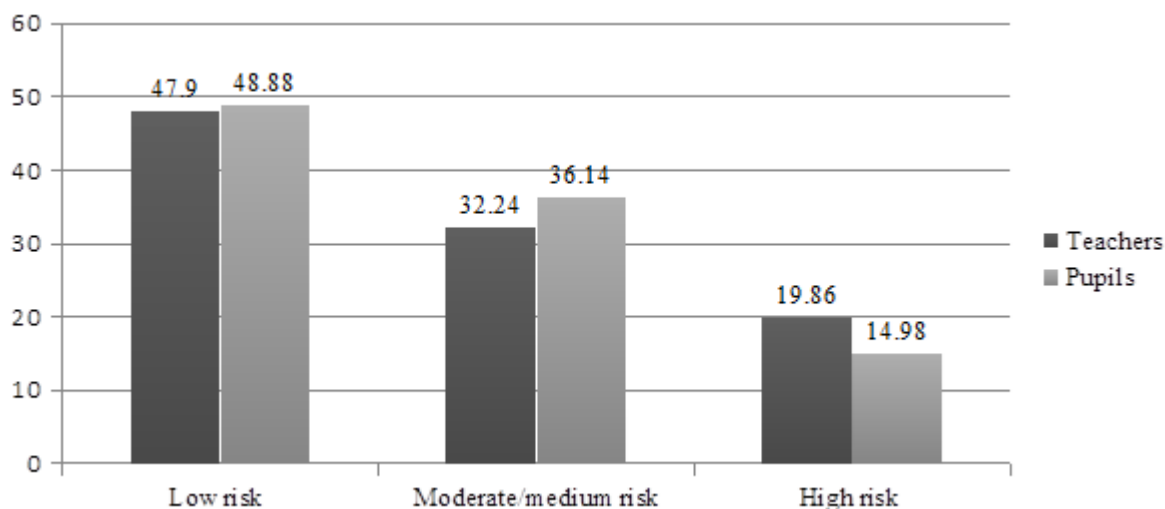
<b>First factor (% explained variance 26,69; <math>\alpha</math> coefficient ,758)</b>	<b>Never (%)</b>	<b>Rarely (%)</b>	<b>Often (%)</b>	<b>Coeff.</b>
1. I use swear words. .	80,9	13,4	5,7	,733
2. I beat other children.	86,4	8,9	4,6	,758
3. I tease and insult other children, and I gossip.	82,8	12,6	4,6	,753
<b>Second factor (% explained variance 10,76; <math>\alpha</math> coefficient ,700)</b>	<b>Never (%)</b>	<b>Rarely (%)</b>	<b>Often (%)</b>	<b>Coeff.</b>
4. It is difficult for me to sit still during class.	60,5	20,9	18,6	,577
5. When the teacher calls my name it sometimes happens that I had not heard what she asked.	55,3	31,6	13,1	,518

6. The teacher gives me warnings in class.	53,2	36,4	10,4	,518
7. My mind wanders during class.	55,6	35,9	8,4	,722
8. Other pupils are bothered by my behaviour.	63,1	30,1	6,8	,523
9. I give up quickly after I start doing something.	72,6	21,4	6,0	,445
<b>Third factor (% explained variance 8,86; <math>\alpha</math> coefficient ,6700)</b>	<b>Never (%)</b>	<b>Rarely (%)</b>	<b>Often (%)</b>	<b>Coeff.</b>
10. I am afraid when I have to answer the teacher's questions in class.	44,1	29,2	26,7	,845
11. I am afraid when we write exams.	44,0	31,5	24,5	,799
12. I get headaches, stomach aches, and similar.	28,6	58,1	13,3	,566
<b>Fourth factor (% explained variance 7,47; <math>\alpha</math> coefficient ,554)</b>	<b>Never (%)</b>	<b>Rarely (%)</b>	<b>Often (%)</b>	<b>Coeff.</b>
13. Other children tease and insult me, and gossip about me.	66,9	24,1	9,0	,745
14. Other children beat me.	78,4	15,8	5,8	,767
15. I avoid other pupils.	82,3	14,0	3,7	,514

Judging by the results in Table 2, behavioural problems in the pupils' self-assessments have grouped into the categories comparable to the teachers' assessments. These are as follows: *externalized forms of behavioural problems* (the first factor), made up of predominantly violent forms of behaviour, followed by *difficulties in learning* (second factor), mostly related to problems of maintaining focus, *internalized behavioural problems* (third factor), and *problems in peer relations* (fourth factor).

Compared to the teachers' assessments, the pupils found less of a prevalence of their own behavioural problems, which is particularly obvious in the category of externalized behavioural problems. On the other hand, the students' assessment of internalized problems almost doubles the teachers' assessment. Thus these problems are the most prevalent according to the self-assessments, followed by learning difficulties with undisciplined behaviour in the second spot, and problems in peer relations and externalized problems found by 5% of the pupils.

Graph 1 displays the mean values of the results on the extracted factors. The image indicates that the differences in assessments and self-assessments are greatest with regard to the internalized behavioural problems, which, as mentioned, are found more commonly by the pupils than they are by the teachers. All other problems are more often found by the teachers, particularly when it comes to learning difficulties.



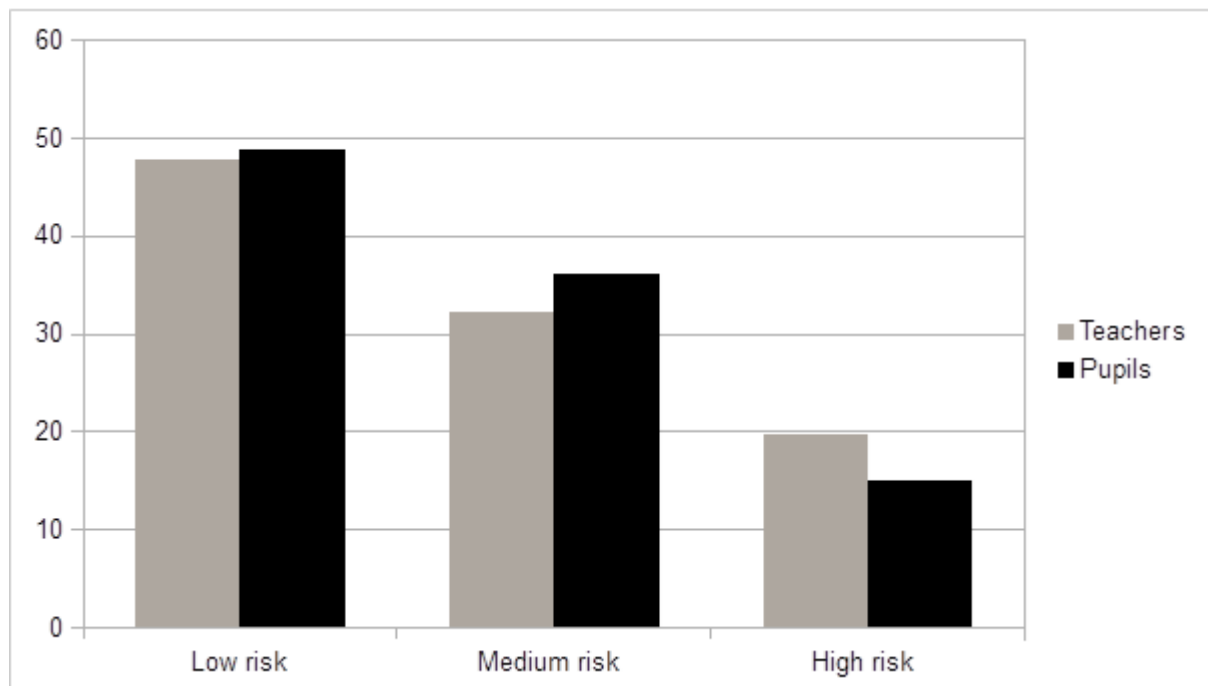
**Graph 1: Mean values on the factors of assessment and self-assessment of pupils' behavioural problems.**

The cluster analysis provides the information on the number of pupils with behavioural problems, based on the respondents' mean scores on individual factors. There are three clusters in the analysis, based on the level of risk of particular behaviours (low, medium, and high risk). According to teacher assessments (Table 3), the first cluster groups those students who more commonly manifest learning difficulties, while the internalized problems and peer relations problems appear just sometimes among them. For this first cluster of pupils, externalized problems almost never get manifested. The second cluster of children is that where the problems are not manifested, while the third cluster is made up of pupils who manifest all the analysed problems (apart from internalized ones) at a higher frequency. Thus, the first cluster relates to medium/moderate risk, the second to low risk, and the third relates to high risk.

**Table 3: Mean values on the clusters found in the assessments and self-assessments of pupils' behaviour**

Factor	Teachers' assessments			Pupils' self-assessment		
	Low risk	Medium risk	High risk	Low risk	Medium risk	High risk
Externalized behaviour problems	1,02	1,16	2,04	1,08	1,09	1,96
Problems in peer relations	1,21	1,34	2,31	1,19	1,20	1,80
Learning difficulties	1,24	2,32	2,30	1,33	1,47	2,10
Internalized behaviour problems	1,28	1,55	1,78	1,35	2,32	2,21

Graph 2 informs us of the individual clusters.<sup>3</sup> We can infer from those that, according to the teachers' assessments, 19,86% of younger primary school pupils are in need of extended support, and this proportion is 14,98% according to the pupils' self-assessments.



**Graph 2: The distribution of assessments and self-assessments of the pupils' behavioural problems, according to the levels of risk (in %)**

Even though the teachers' assessments and the pupils' self-assessments are not completely parallel, there is a certain congruence of the assessments and self-assessments of risk in the pupils' behaviour. There is a minor discrepancy reflected in the somewhat higher proportion of pupils exhibiting high risk behaviours in the teachers' assessments, and behaviour of moderate/medium risk in the pupils' self-assessment. Table 4 provides information on whether these differences are statistically significant.

<sup>3</sup> A more detailed analysis can be found in the online publication "Behavioural problems in young schoolchildren - phenomenological aspects" (Bouillet i Pavin Ivanec, 2013).

**Table 4: Correlation of the assessments and self-assessments of the pupils' behavioural problems - Pearson's correlation coefficients and levels of significance**

PUPILS' SELF-ASSESSMENT	Teachers' assessments			
	Externalized behaviour problems	Problems in peer relations	Learning difficulties	Internalized behaviour problems
Externalized behaviour problems	,211**	,152**	,120**	,027
Learning difficulties	,261**	,174**	,185**	,084*
Internalized behaviour problems	,030	,043	,007	,006
Problems in peer relations	,210**	,147**	,098*	,058

\*\* Sig. (p) < 0,01; \* Sig. (p) < 0,05

A comparison of the teachers' assessments and the pupils' self-assessments leads to statistically significant correlations when it comes to (self)assessed externalized behavioural problems, problems in peer relations, and learning difficulties. No statistically significant correlations were found for the (self)assessed internalized behavioural problems, which is in line with the existing research that points to a low correlation in the assessments by different assessors (Achenbach, McConaughy, Howell, 1987), particularly when it comes to internalized behaviours (Hinshaw et al., 1992; Kraatz, Keily, et al., 2000).

The results in Table 4 indicate that the assessments of internalized behavioural problems by the teachers have a mild correlation with the pupils' self-assessments of learning difficulties, while the assessments of other difficulties (externalized behavioural problems, problems in peer relations, and learning difficulties) are significantly correlated with the self-assessments of these same problems, which points to their multidimensional nature, particularly with regard to manifestations of externalized behavioural problems, which tend to be associated with learning difficulties and non-acceptance by the peer group.

### **Opportunities and challenges in preventing pupils' behavioural problems**

Of the 60 questions in the preliminary version of the Questionnaire for the assessment of the school's focus on the prevention of pupils' behavioural problems, this paper only analyses 18, which have satisfied the variability criterion, i.e. which have had a satisfactory distribution on the particular variable categories. For most of the questions of the applied Questionnaire, 174 surveyed

teachers expressed a rather uniform level of agreement, with a relatively low level of criticism, resulting in an overall high level of satisfaction in the schools' focus on prevention of pupils' behaviour problems. The chosen questions satisfy the requirements of factor analysis (KMO = ,858; Bartlett's  $\chi^2 = 996,092$ ,  $df = 171$ ,  $p = ,000$ ). Utilizing the Guttman-Kaiser criterion, four factors have been extracted, explaining 53,15% of total variance. Cronbach's  $\alpha$  coefficient of internal consistency is 0,874. The descriptive indicators and the factor structure, with pertaining measures, are displayed in Table 5.

**Table 5: The proportion of explained variance and the Cronbach's  $\alpha$  coefficient of reliability for each of the factors, coefficients of factor saturation by questions, and the distribution of the data - for the Questionnaire for the assessment of the school's focus on the prevention of pupils' behaviour problems**

<b>First factor</b> (% explained variance 31,72; $\alpha$ coefficient ,840)	<b>Not true (%)</b>	<b>Partially true (%)</b>	<b>Completely true (%)</b>	<b>Coeff.</b>
1. Most employees are aimed at creating a safe and encouraging environment for the students.	5,2	63,6	31,2	,572
2. I am competent to work with students who have behavioural problems.	20,2	56,6	23,1	,618
3. Most employees in this school have received training for recognizing the pupils' difficulties.	21,3	56,3	22,4	,816
4. Most employees in this school have been trained in prevention of peer violence.	24,3	57,2	18,5	,840
5. Most teachers in this school are competent to teach pupils who are exhibiting behaviour problems.	16,2	67,1	16,8	,580
<b>Second factor</b> (% explained variance 8,24; $\alpha$ coefficient ,736)	<b>Not true (%)</b>	<b>Partially true (%)</b>	<b>Completely true (%)</b>	<b>Coeff.</b>
6. Most employees in this school are engaged and consistent in maintaining discipline in school.	5,2	64,7	30,1	,635
7. Most teachers act in unison in cases of pupils breaking the rules of behaviour.	10,3	60,3	29,3	,750
8. Most teachers in this school are personally involved in working with students who have behavioural problems.	18,5	57,2	24,3	,603
9. There is a high level of agreement among the employees concerning what is allowed behaviour for the pupils, and what is not allowed.	8,7	71,7	19,7	,521
10. There is a developed culture of cooperation among the school employees.	11,5	74,7	13,8	,557
<b>Third factor</b> (% explained variance 6,92; $\alpha$ coefficient ,646)	<b>Not true (%)</b>	<b>Partially true (%)</b>	<b>Completely true (%)</b>	<b>Coeff.</b>
11. Pupils in all classes have the opportunity to learn through cooperation with other pupils.	9,2	54,9	35,8	,714
12. I personally am an active participant in school programmes for behaviour problem prevention among the pupils.	14,6	50,3	35,1	,520

13. The pupils in this school have enough of opportunities for developing the skills assertive behaviour, meaning that they are able to appropriately stand up for themselves.	15,7	65,1	19,2	,712
14. The methods of teaching are conceived in a way that encourages the development of the pupils' self-confidence.	9,2	75,3	15,5	,610
<b>Fourth factor (% explained variance 6,27; <math>\alpha</math> coefficient</b>	<b>Not true (%)</b>	<b>Partially true (%)</b>	<b>Completely true (%)</b>	<b>Coeff.</b>
15. There is a developed programme of support for pupils with behaviour problems in this school.	21,5	43,6	34,9	,520
16. There is developed and appropriate cooperation with parents of pupils with behaviour problems in this school.	5,8	60,1	34,1	,610
17. Most of this school's pupils can list and explain the rules of behaviour in school.	14,5	69,9	15,6	,613
18. Most parents support the efforts made by the school that are aimed at encouraging their children who have behaviour problems to change their behaviour.	22,1	64,5	13,4	,598

The structure of the extracted factors shows that they are aimed at measuring the assessment of *teacher competence* for educating the pupils with behavioural problems (the first factor), *the teachers' engagement* in preventing these problems (the second factor), *the appropriateness of the school environment and of the curriculum* for the prevention of behaviour problems (the third factor), and finally, *the detailedness of the prevention programmes* in the school (the fourth factor), understood as a cooperative process of planning and implementing the strategies that reduce the specific risks related to the behaviour problems among children, and are aimed at strengthening the protective factors that ensure their well-being (Gibbs and Bennett, 1990).

The descriptive indicators point to the conclusion that, in all the analysed segments of the schools' focus on prevention, the dominant assessment (40-70%) is that of only partially satisfactory characteristics that would make these programmes into powerful mechanisms of ensuring appropriate support for the pupils exhibiting behavioural problems. This means that all the elements of the schools' focus on prevention of behaviour problems - competencies and engagement of the teachers, appropriateness of the school environment and curriculum, and the prevention programmes themselves - can and should be strengthened and made recognizable in each school.

A mere 20% of the respondents state that the teachers' competencies for educating pupils with behavioural problems are at a satisfactory level, while a third consider the teachers as appropriately directed to creating a safe and encouraging environment for the pupils. One may notice a relatively low level of congruence among the teachers concerning the assessments of acceptability of



particular behaviours, as well as a low level of cooperation among the teachers, which was found to be satisfactory by less than 20% of the respondents. Nevertheless, a third of them are satisfied with the engagement and coordination among the teachers in dealing with pupils exhibiting behaviour problems. While the cooperation among teachers was deemed to be poor, more than a third of the respondents thought that the pupils have enough of opportunities for cooperative learning. More than a third of the teachers estimated that they are active in participating in the school's prevention programmes. These programmes, however, are not aimed at encouraging assertive behaviour and self-confidence among the pupils. These were only noticed by less than 20% of the teachers. The proportion of teachers who estimate a good level of knowledge of school rules among the pupils is equally modest, as is the proportion of those who think that the parents of the pupils with behaviour problems support the intervention efforts of the schools. However, more than a third of the teachers find that the cooperation with parents and the support programme are satisfactory.

The ANOVA results show that there are small statistically significant differences across schools in the assessments of schools' focus on prevention programmes in the area of behaviour problems, with the exception of teacher engagement (Table 6). No correlation has been found between particular schools' focus on prevention of behaviour problems and the estimated level of specific manifested behaviour problems among pupils.

**Table 6: Correlations of schools' focus on prevention programmes - means (M), standard deviations (SD), values and statistical significance of the F-ratios (F)**

School	Teacher competencies		Teacher engagement		Appropriateness of the environment and curriculum		Development of the prevention programme	
	M	SD	M	SD	M	SD	M	SD
1	1,86	,469	2,06	,370	2,22	,348	1,85	,402
2	1,92	,578	2,08	,468	2,21	,435	1,96	,427
3	2,08	,440	2,07	,360	2,01	,430	2,15	,459
4	2,24	,490	2,21	,429	2,27	,421	2,19	,423
5	1,95	,436	2,20	,358	1,99	,414	2,13	,357
6	2,11	,460	2,05	,388	2,16	,366	2,10	,396
	F = 2,704*		F = 1,048		F = 2,616*		F = 2,738*	

\*\* Sig. (p) < 0,01; \* Sig. (p) < 0,0

## **DISCUSSION**

The first aim of this survey was to determine the proportion of pupils in primary schools in Croatia that are exhibiting behavioural problems. In that regard, the finding is that the proportion is in the 15-20% range, depending on whether the assessment is made by the teachers or whether the problems recorded are a result of the pupils' self-assessment. These are the students whom the cluster analysis placed in the category of high-risk behaviour, who more often than others demonstrate learning difficulties, externalized behaviour problems and problems in relations with peers. It was found that the largest proportion of pupils exhibit learning difficulties and problems in relations with peers, which is typically accompanied by a lack of discipline.

These results are in line with the findings of Gritti et al. (2014), while other international work has found that the rates of children with behaviour problems are higher (Syed, Hussein and Haidry, 2009; Naik and Maharastra, 2014; Conley, Marchant and Caldarella, 2014), reaching up to 30%. Thus, the proportion of Croatian pupils with behaviour problems is around the mean of existing research, with nearly one in five pupils exhibiting some form of behaviour problem which requires an increase in support from the experts employed by the school (Graph2).

The second aim of the survey was to analyse the association of teachers' assessments and pupils' self-assessments. In that regard, the finding is that the two assessments are in relative congruence, with the pupils' self-assessment of externalized behaviour problems being lower than the teachers', while the opposite is true for the internalized behavioural problems. These findings suggest that the assessment of the level of risk requires multiple sources of information, and a combination of assessment and self-assessment. It is also important to guide the teachers to the assessment of the pupils' internalized problems, since those often remain unrecognised in spite of the need for support.

Regarding the estimated potentials of the schools to satisfy the specific educational needs of the pupils exhibiting behavioural problems, the findings indicate that there are both challenges and opportunities to be made use of in the school environments. On the one hand, it turned out that there is space and the need in all schools to improve the conceptualization of educational interventions with this group of pupils. On the other hand, however, a rather well developed set of foundations was found in all the schools that may assist in the development of these programs. The weakest component in the schools' focus on preventing the pupils' behaviour problems was cooperation among the stakeholders in the educational process, while the strongest one was the focus of teachers

on building a safe and encouraging environment, and their orientation towards the encouragement of cooperative learning among the pupils. It still appears that the developed programmes which are directed at the pupils with behaviour problems are not available in the schools. This stems from the teachers' assessments that show that there is little consciousness of the rules of proper behaviour among the pupils, and a weak support from parents for the school's efforts at altering the children's unacceptable behaviour. This indirectly points to there being a relatively poor ability for the schools to appropriately respond to specific educational needs of a select group of pupils that would require different forms and different content of early intervention and professional support as their behaviour problems are starting to become apparent. The basic purpose of this type of support is to stop the possible unfavourable development of the child, and to diminish the potential for these problems to become permanent and/or difficult to resolve. This support ought to strengthen the protective factors in the child's living environment, but it should also ensure the more long-term forms of professional support to children and families.

The lack of a systematic approach to the prevention of these problems in behaviour in Croatian schools is also indicated by the *Strategy for education, science, and technology* (NN, 124/14), which states that ensuring a complete system of support to children and pupils (within the educational institutions and outside them) is one of the main educational goals. This support system is to include support for learning, psychological support, and other forms of specific support to pupils suffering difficulties in the education process.

There is a need to develop programmes that will be pupil-oriented and will be implemented in the environment of the school, which are recognized in the Strategy as one of the most effective means of furthering the quality of the educational system. This would establish the mechanisms for identifying learning difficulties and mechanisms for the provision of additional support to the pupils, which should then lead to an enhancement of their academic achievements and social competencies.

In sum, the hypothesis of there being a congruence between the assessments and self-assessment of behaviour problems among the pupils, which is then associated with the schools' potential for satisfying the specific educational needs of the students exhibiting these problems has been only partially confirmed. On the one hand, there is partial congruence of the assessments and self-assessments of pupil behaviour, but on the other hand, the estimates of the schools' focus on preventing behaviour problems are not statistically significantly correlated with the proportion of pupils who exhibit behaviour problems. These results point to a need for a better conceptualization

of educational efforts in primary schools, which would be designed to focus on a selected group of pupils with assessments of behaviour problems at their earliest stage of development. This way, these pupils would have an opportunity to fulfil their right to the best possible education, with appropriate support, and the schools would fulfil their legal obligation to ensure the conditions for every pupil's success in the learning process, and to follow the social problems and indicators among pupils and take appropriate measures to remove their causes and consequences.

Without these types of efforts, at least one in five children in primary schools would lose an opportunity to direct their unfavourable development into behaviours that would fulfil their personal needs, in accordance with societal norms and expectations.

## **CONCLUSION**

This project's intent was to contribute to dissemination of the potential for timely identification of pupils who require additional forms of support in the educational setting. The measurement instruments used in this paper may serve as a stepping stone in the processes of assessment of each school's need for developing specific programmes of support for pupils, taking into consideration their particular behavioural problems, and the potential existing within the school. Nevertheless, future research ought to additionally develop the measurement of internalized behavioural problems because the questionnaires used here did not provide enough space for questions concerning those. It is possible to expand the number of questions for their measurement, and alternative methods of assessment altogether may be considered (direct observation, interviews, parent assessments, and similar).

The research presented here further indicated that there are weaknesses in the schools in relation to the pupils who are exhibiting behaviour problems, with the schools being unable to maximize their educational tasks, which is also supported by the report of the Children's Ombudsperson who stated in her yearly report that "the schools are not utilizing their potentials to the maximum, nor are they utilizing all the potential for educational influence, and are easy to delegate the problems to others to solve after which they become passive. One of the reasons for this, one noticed by the educational workers themselves, is a lack of professional competencies of the teachers for working with children who are having behavioural problems... The educational workers often provide detailed and long descriptions of unacceptable behaviours of a child, and along with their extensive "fire-fighting" measures, but fail to provide an insight into the potential causes of the problem, or to

design both the long- and short-term plan and program for intervention. They rarely recognize the child's strengths, which the educational activities could then lean on." (*Report on the Activities of the Children's Ombudsperson*, 2014, pg. 123). "Luckily", continues the Ombudsperson, "we also encounter the examples of schools (typically the most recent school in a series of transfers) that, in spite of the problems, maintain a positive tone when speaking of the child, and are not preoccupied by the need to get rid of the child, nor are they prone to neglecting the child's positive traits. These schools present plans and programs for action and often manage to ensure a high level of quality in the cooperation and coordination across sectors. These examples show that the situation can be improved by simply altering the attitude towards these children and by attempting to understand the child's needs."

Based on the experiences of the "Early educational interventions based on success indicators" project, that this paper is a part of (Bouillet, ed. 2015), the development of the programs ought to be based on the following steps:

- step one: **Reaching a school-level decision to develop a program** (at the level of the school, including the school board, the teachers' council, and the parents' council)
- step two: **Analysis of the existing condition** - of the prevalence and existing difficulties that the pupils with behaviour problems are facing (data acquisition and analysis)
- step three: **SWOT analysis** of weaknesses, advantages, difficulties, and the potential in the school to respond preventively and intervene timely when there is an appearance of behavioural problems (this includes the mutually inclusive defining of aims and the activities of prevention and early intervention)
- step four: **Forming a team of experts at the school level** which will be in charge of organizing all required activities for setting up the system and the activities of the programme
- step five: **Education and training of the members of the teachers' council** (based on recognized needs, and with the goal of developing competencies for designing high-quality cooperative relations)
- step six: **Detailing the activities and their inclusion in the school curriculum**, while bearing in mind the needs of the pupils exhibiting behaviour problems
- step seven: **Implementation and evaluation of the programme** which will enable the making of decisions based on relevant data concerning the effective educational strategies and models of working with pupils who have behavioural problems.

We believe that the described efforts are necessary, particularly in the light of the findings in this paper, i.e. the proportion of children who in the earliest stages of education exhibit behavioural

difficulties, and the schools' potentials for responding to these difficulties preventively and in a timely manner.

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