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INTERNAL SETTING AND ORGANISATIONAL LEARNING IN SCHOOLS

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Abstract

This article is one of the outcomes of a research project in which we focused on the recognition of the processes of organisational learning in Czech basic schools (6-15). In this article, we deal with the dimension of the systematic way of organisational learning. In agreement with many other authors we consider the systematic way of organisational learning in schools an important condition for the depth and, therefore, efficiency of organisational learning. We look for an answer to the question of how much influence is exerted by factors in the internal school setting on the systematic way of organisational learning. For this analysis, we use data of a representative survey conducted in two Regions of the Czech Republic.

Keywords

organisational learning, school, systematic way of organisational learning, factors of internal school setting

Introduction

Organisational learning has come to the foreground along with changed requirements for the behavior of organisations. Globalisation, the pace of development of technologies, transformation of markets and new expectations of clients: all this has forced organisations in any sphere–private, public or governmental–and in almost every field of activity to employ their internal resources efficiently. If organisations are to accomplish their objectives they have to learn from their own experience and develop their own inner potential. This is also why organisational learning has become a subject matter for various scientific disciplines (management, cultural anthropology, psychology and others). Only a little later organisational learning has been observed and theoretically developed in schools (cf. Collinson & Cook, 2007; Leithwood, 2000; Leithwood, Jantzi & Steinbach, 1998; Leithwood & Louis, 1998; Schratz & Steiner-Löffler, 1998; Verbiest, 2002; Verbiest et al, 2005; and others). The results of many studies have shown that adult learning in schools is one of the essential conditions for school development.

This article deals with organisational learning in Czech basic schools.[1] A fundamental starting point is the description of organisational learning as a comprehensive process comprising the gain, creation and share of knowledge used in the life of schools (cf. Bontis, Crossan, & Hulland, 2002; and others). Our focus in this article is on one of the dimensions of organisational learning in schools: the systematic way of organisational learning in Czech basic schools. In specific terms, we look for an answer to the question of how much the systematic way of organisational learning in Czech basic schools is influenced by factors in the internal setting of schools. We use data from representative research in two Regions of the Czech Republic (1,003 teachers, 52 schools). The opening part of this article describes our delimitation and operationalisation of the constructs of the systematic way of organisational learning and the factors of internal school setting. Also in this part we present the methodology of our procedure. Then the results of the statistical analyses that were carried out are presented. The relation between the systematic way of organisational learning in schools and the factors of the internal school setting are verified. In regard to our research question, the unit of analysis of all the statistical procedures presented is the school or, in other words, summarised statements of teachers at a school. In the concluding part of the article, the results of statistical analyses are enhanced by a quality analysis of questionnaire data.

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Theoretical and methodological context

Systematic way of organisational learning

One of the characteristics of organisational learning in any setting including schools is the differing scope of the effect of its forms (cf. Argyris & Schön, 1974, 1978, 1996). Regarding this, Hill and Crévola (2003) have remarked that learning at its highest level affects the very substance of the organisation. Learning in this complete form is aimed at the achievement of a change of quality. In this context, the change may also be a consolidation of the current state of the organisation, if it is assessed as good; or the change is aimed at innovations if the situation of the organisation is considered unsatisfactory. In both cases, people at the school learn. Yet an important question is what kind of learning in an organisation can be regarded as being so deep. Authors do not totally agree with each other on this, but many of them think–and have empirically documented–that a crucial condition for really deep learning is a systematic approach (cf. Verbiest, 2004; Verbiest et al., 2005). In other words, if adult learning is to become a natural feature of the life of the school, and if it is to contribute to school development on a long-term basis, it has to be continuous. It cannot be random learning in connection to some *ad hoc* events. On the contrary, as for instance Marsick (1994) says, it has to be a coordinated and systematic process. Organisational learning at its deepest is regular, structured and controlled, Marsick (1994) adds. Only such a systematic approach to organisational learning brings a long-term effect in the form of positive changes in the organisation, as Hill and Crévola (2003), mentioned above, describe it.

Operationalisation of the systematic way of organisational learning

To capture empirically how systematic is the provision of adult learning opportunities in an organisation is not an easy task. In our representative questionnaire survey we endeavored to do so by means of key subjects of organisational learning. These subjects had been identified previously, during the qualitative stage of the research (cf. Pol, Hloušková, Lazarová, Novotný, & Sedláček, 2013). So first we briefly present the framework of the research.

The design of the qualitative research was a multiple case study. Our objective was to recognise and describe the relationship between the processes of organisational learning and the specific conditions of schools and people

in them. The research was carried out in three intentionally selected schools,[2] which enabled us to observe adult learning in various contexts. One of the results of the multiple case study was a data-substantiated list of subjects of organisational learning. This list became the starting point for the construction of items of the questionnaire survey. These subjects were: School Education Programme, choice and use of teaching methods, teaching of children with special educational needs, risk-inducing behavior of pupils, pupils' educational results, cooperation with parents, use of information and communication technologies, choice and use of textbooks and use of in-service training experience. We are aware that such a listing of subjects is limited in its scope and does not give a complete picture of organisational learning in schools. On the other hand, our selection of schools allowed us to suppose that these subjects cover a satisfactory portion of real school life in terms of internal development, cooperation and adult learning.

As indicated, our subjects were used to measure the construct of the systematic way of organisational learning. We offered the subjects of learning to the respondents[3] and asked them how systematically they deal with these subjects in their schools. They assessed each subject on a six-degree scale from (1) as systematic to (6) as random engagement.[4] Based on this assessment of particular subjects, a summation index of systematic way of organisational learning was calculated. We suppose that the term *index of systematic way of organisational learning*, which we use, describes the dimension of the systematic way of organisational learning. What is measured in this study, however, is the rate of systematic way in dealing with the subjects offered. We think that the theoretical assumptions (cf. Verbiest, 2004, and others) as well as the results of the previous multiple case study can justify this simplification. An index can only be created if the rules of internal consistency of items (scales of specific subjects) are fulfilled. The analysis showed that all

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2 The gradually organised selection was based on the theoretical assumption that the processes of organisational learning are more efficient in schools with active leadership. Hence, the first of the selected schools was one which corresponds to the assumption of strong leadership. The second school was chosen as a contrast case. The selection of the third school was motivated by the effort to find an extended case in which active leadership is enhanced by the assumption of a community-focused school. For more about these schools including the selection criteria, see Pol et al., 2013.

3 The research sample for this analysis consisted of basic school teachers (N 1003). The questionnaire survey was carried out in spring 2012. The research population consisted of full basic schools in two Regions of the Czech Republic (*South Moravian Region* and *Highlands Region*). Fifty-two schools were chosen by probability sampling (33 in *South Moravian Region* and 19 in *Highlands Region*).

4 The respondents could also choose the option of no engagement at all in the subject.

the subjects of learning are internally consistent, which means they correlate positively and with sufficient strength.[5] To complete the explanation, the index of systematic way of organisational learning was created as the arithmetic mean of the respondent's answers to nine subjects of learning. The lower the index, the more systematic teachers evaluate work with the subjects. Subsequently, we use the summation index of systematic way of organisational learning to test the impact of the factors of internal school setting.

Factors of internal school setting

The independent variables of the research question are the factors of the internal school setting. They represent the second listing of items in the research tool, again arising from the results of the multiple case study. In the schools which were involved in the multiple case study we examined the following factors: vision, cooperation, material and organisational conditions, external support, individual attitude and management. For the factors of vision, organisational and material conditions and external support, their names describe the substance of their decisive elements. For the rest, we consider it important to add explanations: the factor of cooperation stands for the level of formal and informal relations among adults in the school. The factor of individual attitude represents a personal expression of one's own willingness or ability to adopt a positive attitude to cooperation and collective learning. Finally, the factor of management is understood as a sum of selected interventions, behaviors and actions of school leaders aimed at the development of organisational learning. Regarding the research question as focused on the relation between organisational learning and the factors of internal school setting, in this study we will not work with the factor of external support, which is rather specific as referring to the relation between schools and their environment.

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[5] Cronbach's alpha equalled 0.85. The average correlation among subjects was 0.4. From this viewpoint, the use of the summation index of intensity is meaningful. In another study (Pol et al., 2013) we work with two summation indexes of systematicity. It was the result of a factor analysis of particular subjects. The two factors which originated could be interpreted with relative ease because on one hand they clustered subjects relating the job of the teacher and on the other there were subjects relating to pupils' activities. We used this for further interpretations. Nevertheless, the factors explained only 57 % of deviation in the items. So for this study, and in regard to its research question, we prefer to use one summation index. We consider this methodology possible, for the use of one summation index is supported by a high correlation of both partial factors ($r= 0.64$ $p<0.01$) and by the high value of internal consistency of all nine items (subjects).

It is necessary to remark that–as for the identification of these determining factors–the results of the qualitative stage are not very surprising. Very similar determinants of organisational learning are defined by many other studies (e. g., Leithwood & Louis, 1998; Leithwood, Jantzi, & Steinbach, 1998; Bapuji & Crossan, 2004; Goh, Cousins, & Elliot, 2006; and others). Despite this, substantiation of data for the Czech context was important for us, particularly in regard to their transformation as a questionnaire survey. A battery of items was created for each factor, formulated in the form of the Likert scale: from "I agree" (value 1) to "I disagree" (value 4). The formulation of items was based on statements collected from the respondents during the qualitative stage.[6] Each factor was saturated by four to seven items (statements). Analogical to the procedure with the index of systematic way of organisational learning, we were able to create a summation index for the strength of each factor. Again, these summation indexes originate

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[6] The index of vision is based on answers to four statements: Teachers are clearly aware of where the school is heading. Teachers take part in the concept of school development. Most teachers accept the objectives of the school as their own. Teachers participate in discussions about the fulfillment of the school's objectives. Cronbach's alpha = 0.77.
The index of cooperation is based on answers to seven statements: Teachers look for opportunities for cooperation. Teachers support each other in their work. New ideas are welcome in the school. Teachers like to learn new things. Teachers learn from each other. Teachers are open to sharing experience. Cooperation is inhibited by unwillingness of some teachers. Cronbach's alpha = 0.80.
The index of material and organisational conditions is based on answers to seven statements: There is no time for cooperation with colleagues because of heavy teaching loads. There is no time for cooperation with colleagues because of administrative duties. There are insufficient material conditions for cooperation with colleagues in the school. Teachers may interfere in decisions related to school operation (statement inverted). The job of teachers does not offer enough opportunities for cooperation with colleagues. There are insufficient spatial conditions for cooperation with colleagues in the school. There are not enough suitable opportunities for cooperation among teachers in the school. Cronbach's alpha = 0.78.
The index of individual attitude is based on answers to seven statements: Pupils' results are the individual responsibility of every teacher. Cooperation with colleagues is important for me. Sharing experience of teaching is important for me. I try to evaluate and reflect on the quality of my work regularly. I want to see my colleagues at work and learn from them. I am willing to share experience with colleagues. I like to help colleagues in their development. Cronbach's alpha = 0.61. When the first of these statements was removed, Cronbach's alpha increased to 0.75. Thus the resulting index is based on six statements only.
The index of management is based on answers to seven statements: School leaders support mutual transfer of experience. School leaders support teachers' initiative. School leaders interfere actively in teachers' educational work. School leaders act as a model of cooperation. School leaders discuss their decisions with teachers. School leaders have a good overview of the work of teachers. School leaders stimulate mutual support of teachers. Cronbach's alpha = 0.85.

as arithmetic means of answers to statements belonging to given factors.[7] As in the previous case, we verified the internal consistency of these summation indexes (see note 5). The study of our question–whether and how strongly the factors of internal school setting influence the systematic way of organisational learning–is carried out with the use of statistical analyses described by all the summation indexes.

Empirical findings

The index of systematic way of organisational learning enables us to follow teachers' overall evaluation of the work with the subjects of learning in Czech basic schools. The formulation of our research question leads us to a procedure in which we do not follow the systematic way of organisational learning in the sample of all teachers, i. e., across all the schools, but the summation index is analysed for each school in the sample. In other words, the unit of analysis in this study is the school. The value of the index of systematic way of organisational learning was calculated for every school, based on answers given by its teachers only. The result is a mean value of the index of systematic way in each school. Table 1 sums up the results of the descriptive statistics of the index of systematic way of organisational learning in the schools of the sample.

Table 1
Descriptive statistics of the systematic way of organisational learning (the lower the value, the higher the assessment of the rate of systematic way)

	N (schools)	Mean	Standard deviation	Standard error of mean	Minimum	Maximum
Systematic way of organisational learning	52	1.82	0.3	0.04	1.47	2.38

The data show that the index of systematic way of organisational learning in an average school of the sample is 1.82. If taking into account the fact that the middle of the index is 3.5 (for a scale of 1 to 6), we can say, in simplified terms, that all the schools (i. e., teachers in them) perceive the work of

[7] Statements which were formulated negatively in the questionnaire were re-coded so that all scales were given equal orientation.

organisational learning as fairly systematic. The result of the best school in this ranking is 1.47. The school in which teachers perceive the systematic way of organisational learning as least intense, with a value of 2.38, is still closer to a systematic way than to randomness. Since there is good coherence among the sub-scales of the index (subjects of learning) and the index is internally consistent, we can proceed to the solution of our question of whether and how strongly the factors of the internal school setting influence the systematic way of organisational learning.[8] As with the systematic way of organisational learning, the values of the factors of internal school setting were calculated from the answers of teachers. Next we asked whether a more positive evaluation of one's own school in the factors of internal setting means more systematic work with subjects of organisational learning. As Table 2 shows, based on correlation coefficients, the connection between the factors of the internal school setting and the systematic way of organisational learning is fairly high.

Table 2
Correlation matrix; relation between the systematic way of organisational learning and factors

	vision	**cooperation**	**material and organisational conditions**	**individual attitude**	**mana-gement**
index of systematic way of organisational learning	0.77*	0.48*	0.61*	0.30*	0.51*

* Correlations marked by an asterisk are significant at the level of $p < 0.05$.

The correlation coefficients (Pearson) are statistically important, as they show a strong positive relation between the systematic way of organisational learning and the factors of internal school settings tested in the analysis. The correlations confirm that if there is better assessment of the factors of the setting, the respondents perceive more systematic work with the subjects of learning. Unequivocally, the strongest influence is that of a coherent and shared vision. Also, a very strong connection was confirmed for the factors of material and organisational conditions and management. In contrast, the weakest influence on organisational learning in schools is that of the factor of teachers' individual attitude to learning.

[8] Therefore in the perspective of statistical analyses it is irrelevant whether the index of systematic way describes precisely the real state of things in schools or the assessment of teachers is a little overestimated.

Let us take a more detailed look at particular factors. It is evident that they do not occur in isolation. Very probably they determine each other (for instance, a shared vision has to do with the factor of management; also, management influences organisational conditions, and so on). The point of interest for us was the pure effect of the factors we tested on the systematic way of organisational learning. This was made possible for us by the procedure of multiple linear regression.[9] Its results are summarised in Table 3.

Table 3
Results of regression

Y systematic way of organisational learning	**B**	**Beta**	**p**	**Zero R**	**Partial R**
X1 vision	0.86	0.92	0.000	0.77	0.61
X2 cooperation	0.09	0.12	0.45	0.48	0.11
X3 material and organisational conditions	0.19	0.23	0.16	0.61	0.20
X4 management	0.23	0.17	0.11	0.51	0.23

$R^2 = 0.62$ $p < 0.001$

What is indicated by the results? First of all we have to say that the factors subject to testing (vision, cooperation, organisational and material conditions and management) can explain 62 % of variance in the systematic way of learning as measured by means of the learning subjects. We consider this an interesting result. On the other hand we can see that not all the factors are statistically significant. In fact, significance was merely confirmed for the factor of vision (p column). Also, the influence of vision is clearly the strongest, as is shown by the standardised Beta regression coefficient. The more positively teachers assess the clarity of vision (and their own share in it), the more systematically they approach the work with the subjects of organisational learning in schools. The other factors also show a positive relation, which

[9] We used the so-called standard method (also called Enter), which means that all the independent variables (in our case, factors of internal school setting) were put into the calculation at one go. The objective of this procedure was to find out how big a portion of the variance of the dependent variable (index of the systematic way of learning) is explained by the effect of independent variables. At the same time, this enables us to follow the influence of each factor when checking the effect of other independent variables. Regarding the relatively low number of units (52 schools) and based on the correlations of the weakest confirmed impact for the factor of individual attitude, we did not include this variable in the regression procedure. Because of the method applied we did not test the causation of the influence of individual variables.

means that better assessment of the factors of internal school setting is projected in increased index of systematic way (positive values in the column of Beta coefficient). Yet the results are not statistically significant. One of the reasons for this may be the relatively small sample of 52 schools. Nevertheless, an explanation is also offered by mutual correlations among the factors. To filter away these links was therefore another target of our procedure.

We looked for the pure effect of the impact of particular factors. In the last two columns of Table 3 we can see the correlations of the factors of internal school setting on the systematic way of organisational learning. The column Zero R (correlation of the zeroth order; correlation matrix in Table 2) shows the common Pearson correlation coefficient, which measures correlation without checking for the influence of other variables. In our case these values are very high. Yet the question is how much this is influenced by mutual correlations as indicated by the last column. Partial correlations show the influence of given variables if the influence of other variables is eliminated. Again, our model shows a fundamental impact of the factor of vision. The value of the correlation coefficient remains very high. The influence of other factors is weaker if mutual relations are filtered away, although the influence of organisational and material conditions and management remains relatively strong.

Discussion of the results of correlation and regressive analyses

In general, the analyses of data confirmed the impact of the factors of the internal school setting under observation on the systematic way of the work with subjects of organisational learning. Bivariate correlations show that the weakest impact on the systematic way of organisational learning in schools is exerted by the factor of the individual attitude of teachers. At first sight this may be a surprising finding, as the systematic way of organisational learning is obviously influenced by attitudes of individual teachers. It seems, however, that in the context of the whole school this influence is not so essential, and this was confirmed by our results. In other words, in every school there are teachers with a highly active approach to organisational learning as well as those who are restrained in their use of it. In any case, our data show that the impact of all the other factors is stronger. In this respect our results do not differ very much from other authors' interpretations (cf. Leithwood et al., 1998; Senge, 2001).

The results of the subsequent regression analysis confirmed unequivocally that for the systematic way of organisational learning the factor of vision is the most important of all the factors of the internal school setting under our observation. For other factors (cooperation, organisational and material

conditions, management), the correlation matrix showed relatively strong relations (statistically significant as well), but regression does not confirm this statistical significance. In spite of this, we think that these impacts cannot be completely marginalised. After all, our analyses show that even these factors have a positive relation with the systematic way of organisational learning. Nevertheless, as the data from our research tool show, these relations are influenced strongly by intercorrelation to the factor of vision.

Let us have a more detailed look at individual factors. In our questionnaire the factor of cooperation was measured by items related to school climate or school culture. This is how we identified and described it in the multiple case study. Yet the items which saturated this factor, originated beforehand by transformation of qualitative data, largely overlap with the factors of vision and individual attitude (see Note 5). So the result of the regression analysis confirmed a strong correlation to vision, while the influence of the determining factor of cooperation as such was evaluated as weak and statistically insignificant. The factor of management can be interpreted similarly, although its pure effect was higher than that of cooperation (partial correlation $r = 0.23$). Nevertheless, the wording of these items indicates strong connection to the factor of vision as well. The result of the filtered-away factor of management is therefore less convincing than in the correlation matrix.

The result for the factor of material and organisational conditions was at first surprising. The qualitative stage of the research supported our assumption that the conditions of the school, especially spatial and temporal, are projected strongly in the work with the subjects of learning (cf. Sedláček, Pol, Hloušková, Lazarová, & Novotný, 2012). However, the regression analysis of the representative sample did not confirm this. The partial correlation also decreased significantly. We think that this result can be interpreted thus: there are schools in which material and organisational conditions represent a determining factor for the systematic way of organisational learning but, as the qualitative stage showed, most of them are probably schools with unsatisfactory (e. g., spatial) conditions. In such case, worse material and organisational conditions mean more randomness in organisational learning. Nevertheless, the sample shows that teachers in most schools do not perceive these conditions as being of key importance. Also, the creation of suitable conditions including a time schedule is often connected with other factors. So our judgment is that the respondents combine organisational and material conditions with time management, staff management and, consequently, process management.

In the following part of this study we will look at how these interpretations are supported by further analysis of the questionnaire data, this time by a microanalysis of schools in the representative sample. Based on the results of the index of organisational learning we will choose the three schools

with the highest rate and the three with the lowest rate of systematic way of organisational learning and compare them. We will observe how assessment of the state of particular factors of internal school setting develops.

Comparison of schools with highest and lowest systematic way of organisational learning

We will now focus on how the strength of the factors tested corresponds with the systematic way of organisational learning in selected schools. For this purpose, from all the schools in the sample we chose six: the three with the highest index and the three with the lowest index of systematic way of organisational learning. To recapitulate, the index is valued on a scale of 1 (systematic) to 6 (random) for organisational learning. The average for all schools was 1.82. The standard deviation was 0.61. The results of the three highest rated and the three lowest rated schools is are shown in Table 4.

Table 4
Schools with highest and lowest index of systematic way of organisational learning

schools with highest rate of systematic way of organisational learning	**index of systematic way of organisational learning (mean; teachers)**	**standard deviation**
school 26	1.47** (N33)	0.41
school 30	1.48** (N25)	0.40
school 46	1.52* (N16)	0.45
schools with lowest rate of systematic way		
school 19	2.38** (N17)	0.56
school 10	2.33* (N18)	0.83
school 40	2.30 (N16)	0.99

* Values marked by an asterisk are significant at the level of $p < 0.05$; for two asterisks, $p < 0.01$. Statistical significance was tested by t-test for independent selections; the reference invariable was the mean index of all schools in the sample (1.82).

First of all, the descriptive data show that even the least systematic schools are fairly close to the centre of the scale (3.5), oriented to the systematic end. This means that even in these schools teachers are convinced that they deal systematically rather than randomly with the subjects of organisational learning that we offered them. Still, the difference between the three "best-scoring" and the three "worst-scoring" schools is almost one point on a scale

of six. If we compare the mean of individual values with the value for the whole sample, the statistical significance of this difference can be seen for almost all schools (except for school 40; third lowest score). At the same time, the results for both the most and the least systematic school are significant at the level of 0.01. Therefore, these schools actually represent the extreme positions in the ranking. It is worth noting the values of standard deviation: apparently, teachers in schools ranked high are very consistent in their opinions on the systematic way of organisational learning. All three of these schools are above average in these values. Due to this conformity, we can assume that these are schools in which teachers (extraordinarily) share the opinion that their work with the subjects of organisational learning is really systematic. Schools at the opposite end of the ranking are not equal in terms of consistency of opinions. In terms of the variance of answers, the third but last school is more or less average, while the last two schools (19 and 10) are slightly below average in the sample. Regarding the moderate number of teachers who saturate the summation data for their schools, the reason for the "low" score may be caused by a low number of respondents, meaning that the result does not correspond with reality. This has to be taken into account when interpreting the results of these schools.

Let us now concentrate on how different the assessment of individual factors is in these schools. Table 5 offers a comparison of basic summation calculations. Again, the significance of the difference between values for each school and the reference invariable (mean of the whole representative sample) is marked.

Table 5
Index of systematic way of organisational learning and factors of internal school setting

	systematic way of organisational learning	**vision**	**cooperation**	**organisational and material conditions**	**manage-ment**
mean for schools	1.82	1.89	1.85	2.10	2.03
school 26	1.47**	1.71*	1.78	1.91	1.89
school 30	1.48**	1.58*	1.69	1.72**	1.47**
school 46	1.52 *	1.75	1.97	2.24	2.02
school 19	2.38**	2.56**	2.16*	2.40**	3.33**
school 10	2.33*	2.01	1.98	2.06	2.2
school 40	2.30	1.98	1.86	1.98	1.71*

* Values marked by an asterisk are significant at the level of $p < 0.05$; for two asterisks, $p < 0.01$. Statistical significance was tested by t-test for independent selections; the reference invariable was the mean index of all schools in the sample.

The main result of the regression analysis was the finding that the only statistically significant independent variable affecting the systematic way of organisational learning in our research tool is represented by the factor of vision. Our observation of the three most and three least systematic schools confirms this. It is true that all the three schools with the highest rate of systematic way of organisational learning are above average in their assessment of the state of vision, as compared to the rest of the sample. For the first two of them this difference is statistically significant. At the opposite end of the scale, the school with the lowest self-evaluation of systematic way of learning (school 19) also features by far the lowest result for the factor of vision. The difference from the sample average is significant, at a level of significance of 0.01. The other two schools at the end of the ranking also show lower values for the factor of vision, but their difference from the average is not statistically significant. In this respect, the qualitative analysis of data gives further evidence of the key role played by a purposeful vision for processes of organisational learning.

Generally, the analysis of other factors also confirms the results of the statistical analyses of the whole sample. The strong correlations of other factors with the systematic way of organisational learning, which were confirmed by bivariate analysis, were not confirmed by multiple regression, but there is evident interconnection of variables. Hence, a good assessment of particular factors is projected positively in the perception of the systematic way of organisational learning. However, there are always exceptions. For instance, school 46 was the third best in the index of systematic way of organisational learning but its value for the factor of cooperation was below the average of the sample. The same school had a rather poor result for the factor of organisational and material conditions. On the other hand, school 40 (the third worst result) is assessed by its teachers as above average for these conditions. Also, this school shows a better result in management. Thus, it can be said that the overall rate of systematic way of organisational learning in every school is a result of a specific constellation of particular factors of internal school setting. At the same time, a better evaluation for teachers in particular factors results in more systematic work with the subjects of organisational learning. Nevertheless, this is not valid universally, as was confirmed by the regression analysis and the analyses of schools with the highest and the lowest systematic way of organisational learning. An example of a school fully capturing the positive effect of well-adjusted factors of internal setting is school 30. This school achieved the second best result in the index of systematic way of organisational learning. The difference between its result and that of school 26 (the best result) is one hundredth only, which we consider a negligible difference. The results of this school in individual summation indexes confirm clearly that high systematic way of

learning is conditioned by the good state of all factors under observation. In other words, the assessment of this school's teachers is highly positive for every factor of the internal school setting. (Only the factor of cooperation is not statistically significant, but even in this factor the school is shown to act better than the average of the sample.) It is in part thanks to the results of this school (school 26) that we believe we have managed to demonstrate a direct connection between the factors we observed and the systematic way of organisational learning.

Conclusion

Organisational learning is a process which needs time and develops gradually, in seemingly simple as well as rather complicated activities. In accordance with the results of Verbiest's research (2004; Verbiest et al., 2005), we assume that an essential condition for more intense collective learning in schools is the systematic way and non-randomness of activities supporting the development of information and generating new knowledge. Therefore, we decided to analyse in greater depth the systematic way of organisational learning, a subject of key importance for us. This article gives an answer to the question if the systematic way of organisational learning in schools is influenced by their characteristics, and if so, how much. We observed the impact of factors inside the school. It is evident that the development of organisational learning in schools is also largely influenced, and sometimes forced, by external factors, but their impact was not tested in this study. We concentrated on recognition of the effect of inner characteristics of the school operation which were identified during the previous, qualitative stage of the research procedure. These were the factors of vision, cooperation, material and organisational conditions, individual attitude, and management. The construct of the systematic way of organisational learning was acquired by means of nine subjects of learning which in our opinion represent well the content of organisational learning in Czech schools. These subjects were chosen on the basis of results of a multiple case study. Subsequently, we carried out a questionnaire survey to ascertain how systematically teachers in schools deal with these subjects. Based on statistical procedures, we analysed relations between the rate of systematic way of organisational learning and specific factors of internal school setting. We focused on the strength of the impact of these factors.

To our initial surprise, our research tool found the weakest impact on the systematic way of organisational learning to be the factor of individual attitude. It therefore seems that a school is not made by one or two active or passive teachers. The other factors showed a stronger, statistically significant

relation to the rate of systematic way of organisational learning. Other procedures observed the clean influence of these factors, meaning that the effect of other independent variables had been filtered away.

On one hand, the overall result was good in that the factors of vision, cooperation, organisational and material conditions and management explain 62 % of the variance in the systematic way of organisational learning in schools (a better rating of the state of specific factors means a more systematic approach to work with the subjects of organisational learning). On the other hand, this positive influence proved to be statistically significant for the factor of vision only, and vision has an impact on the respondents when they assess all the other factors of the internal school setting. It is also for this reason that we studied the impact of these factors in more detail by means of the analysis of questionnaire data. We focused on schools in which teachers assess the systematic way of organisational learning as the best and the worst in our sample. The impact of the factor of a coherent and shared vision proved to be absolutely essential. Based on this, we can say that people in schools learn rather unsystematically or intuitively if they do not understand where these processes should lead. The influence of the other factors is not so apparent. In most schools, both at the top and the bottom of the rankings for systematic way of organisational learning, there is an evident positive impact of cooperative atmosphere, purposeful organisational conditions and management. At the same time, however, the results of the regression analysis are confirmed; neither is the influence of these factors in each school. Only one of the three "best" schools fulfils unconditionally the model in which an exceptionally high assessment of the rate of systematicity of organisational learning fully corresponds to a significantly superior (and statistically significant) state of the factors of internal school setting.

In general, we think that the results of the analysis presented in this article contribute to the mosaic of knowledge on processes of organisational learning in Czech basic schools. We consider the systematic way of organisational learning as an important supporting aspect of school development. It is therefore important to identify whatever affects the systematic way of organisational learning. It seems to us that we have succeeded in proving that the systematic way of organisational learning is essentially conditioned by the factors of the internal school setting we had identified. Viewed from this perspective, the dominant factor is a clear school vision and teachers' share in it. The whole of our research procedure (this article presents only a part of the quantitative data) shows that while some schools approach organisational learning very systematically, learning at others can be considered rather random. We believe that the findings presented in this article can help people in these schools to take another step towards more intensive organisational learning. At the same time, we wish

to add and emphasise that we do not consider organisational learning to be a miraculous cure-all. Nevertheless, together with a number of other authors we are convinced that organisational learning may help people in schools to master the difficulties and uncertainties arising from the difficulties of educational practice.

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