## 2.2. RELATIONSHIPS BETWEEN ORGANIZATIONAL CULTURE AND PERFORMANCE IN ESTONIAN SCHOOLS WITH REGARD TO THEIR SIZE AND LOCATION

*Anne Aidla, Maaja Vadi*
*University of Tartu*

### Introduction

A good education is highly valued in society. The process of education begins in an institution of general education and its efficiency largely contributes to the success in the learner's further periods of life. There have been many problems with the administration of Estonian schools lately. On the one hand, teachers are not content with their salary, increasing workload, shortage of teaching aids, etc. (Tohver, 2004; Kivine, 2004; Jõemaa, 2004). On the other hand, they are required to be highly professional and committed in order to teach pupils better so that they would show better results at the national examinations. The ranking of schools based on the results of national examinations and public discussions on which school is better and which is worse, increases the tension even more. School administrators are therefore in a complicated position and it is difficult to find a way out.

There are numerous factors that affect school performance. Some of them can be influenced by school principals, some of them cannot. For instance, school administration has little to say in matters like the size and location specifics of a school but these

factors have nevertheless an important role in school performance. But there are also mechanisms that are manageable. One of these mechanisms is organizational culture (OC) that researchers have found influences both employees' behavior and work results (e.g. performance).

The aim of the article is to explore the relationships between the OC estimations and actual school performance vis-à-vis the size and location of Estonian secondary schools. If the two are interdependent, then the school administration can also seek to influence its OC, besides other areas, in order to manage their organization better and show higher performance.

Firstly, the principles of measuring the performance of schools are presented. Next, the article gives an overview of OC and how it affects the performance of schools, after which the effects of the size and location of schools on their performance are discussed. In the empirical part connections between the OC task and relationship orientations estimations and performance (in the given study, the results of the national examinations of secondary schools) are analyzed. The size and location of schools is thereby considered. In the discussion part some suggestions are made on how to improve the performance of schools by managing OC.

## Measurement of school performance

There are numerous criteria for measuring the performance of secondary schools. When we look at the school performance criteria brought out by different studies, we can divide them roughly into three groups (see Appendix 1 as well):

1. Pupils' success (incl. academic performance and non-academic skills);
2. The contribution, satisfaction and cooperation of the stakeholders of the school;
3. The importance of school environment.

Formatted
Numbering

Formatted
Numbering

It is rarely that publications bring forth just one type of criteria for measuring performance (as e.g., Goldstein (2001) has applied the public examinations results). Usually several aspects are considered to be important (e.g., Mulford, Kendall, Kendall, 2004; Anderson, MacDonald, Sinnemann, 2004; Griffith, 2004; Visscher, Coe, 2003; Bosker, Scheerens, 2000), which often include criteria concerning the pupils' academic performance (examinations results, etc.) and then other criteria. Griffith (2003) argues that different performance criteria receive different attention in schools. Some schools lay emphasis mainly on their pupils' academic performance, while some other schools consider it important to maintain the satisfaction of the school personnel, good interpersonal relations, and good cooperation with parents and society in general. Griffith (2003) proposes that all the criteria should be equally considered; and if a school has paid little attention to some area, this should be changed in order to make the school's work more efficient.

In the empirical part of this article, analyzing the relationships between OC and performance, the mean results of the national examinations are used as the performance criterion for schools because in most previous studies this has been the central criterion for measuring the performance of schools. This is also a rather objective and easily available method for comparing schools with one another. The public interest and ongoing discussions around the national examinations results of schools are the reason why this method is applied herein as well.

# The effects of organizational culture, school size and location on the performance of secondary schools

## Organizational culture and its effects on the performance of an organization

OC is considered to be an important factor that influences the performance of an organization, and the relationships between the performance and OC have often been analyzed in the past decades. In 1986–2004 a total of 144 publications on this topic could be found in the database of ABI/INFORM (Desphande, Farley, 2004). Gordon and DiTomaso (1992) have said that while before the 1990s the discussion on the above mentioned topic was largely theoretical (for example, by Wilkins and Ouchi; Deal and Kennedy; Peters and Watermann; Schein), later on also empirical studies have proved the connection between OC and performance.

Over the last decades, many researchers (e.g., E. H. Schein, L. Smircich, T. Peters and R. Waterman, T. Deal and A. Kennedy, J. Kotter and J. Heskett) have made attempts to define OC and explain its essence. Although they have not succeeded in formulating a satisfactory general conception, all the abovementioned scientists state that OC is a set of generally accepted principles, values and behaviors within an organization. Many researches have shown that OC has an impact on job satisfaction, job efficiency, employee commitment and cooperation, decision-making etc. (Langan-Fox, Tan, 1997; O'Reilly, Chatman, Caldwell, 1991).

Measuring OC to find its relationships with performance, the opposition between strong and weak OC is widely spread. For example, Gordon *et al*. (1992) and Lim (1995) have found that the stronger the OC, the better the performance of the organization. In addition to that, OC is often divided into several types (e.g., Deshpande *et al*., 2004; Ogbonna, Harris, 2000) and to what extent a specific type of OC contributes and supports performance

is discussed. Besides that, various characteristics of OC are brought out (Denison, Mishra, 1995) and different OC elements are also distinguished between (Onken, 1999). All the aforementioned authors have found relationships between OC and performance in empirical studies.

## Size and location effects on school performance

The size and location of a school are important factors for its performance. Not all schools have equal opportunities for teaching pupils. There can be numerous reasons for that and the issues of size and location will be discussed in the following section.

The size of the school is mostly measured by the number of pupils enrolled in it (e.g., Barnett *et al*., 2002; Bradley, Taylor, 1998). There are numerous studies that have proved that its size has an impact on the performance of a school (e.g., Driscoll, Halcoussis, Svorny, 2003; Borland, Howsen, 2003; Barnett, *et al*., 2002; Bradley, Taylor, 1998, Eberts, Schwarts, 1990; Mok, Flynn, 1986).

The results of empirical studies mostly show that in larger schools the pupils' performance is better (e.g., Driscoll *et al*., 2003, Barnett *et al*., 2002; Bradley *et al*., 1998; Mok *et al*., 1986). For example, Bradley *et al*. (1998) found that in schools with the number of pupils under 799 the examinations results were, for example, between 29.4 and 36.6, whereas in schools with the number of pupils exceeding 800 the examinations results were between 41.7 and 44.8. All the aforementioned authors used examinations results for measuring their pupils' performance.

However, Eberts *et al*. (1990) in their study additionally used other performance indicators (for example, student, teacher and leadership characteristics), and their results show that smaller schools perform better than larger ones. This evidence, in the authors' opinion, indicates that the role of the size of a school in its performance can depend on what factors are considered when measuring performance. When the examinations results are meas-

ured, then larger schools have an advantage and when additionally other criteria are considered, then smaller schools also have a chance to show good results. Bradley *et al*. (1998) confirm this approach by saying: "Benefits of smaller school may include, for instance, the development of personal and social skills, and greater awareness of each person's responsibility to fellow human beings, rather than focusing blindly on developing skills to pass exams."

Borland *et al*. (2003) additionally indicate that there can be an optimum level of pupils in a school (they have found that 760 is the optimum), because too small is not beneficial but too large has disadvantages, too. Some of the advantages and disadvantages of large schools presented in the pertaining literature are summarized in Table 1.

**Table 1.** Advantages and disadvantages of large school

| Advantages | Disadvantages |
|---|---|
| More effective in recruitment of teachers | Fewer opportunities for developing student leadership |
| Greater specialization among teachers | Interaction between pupils and teachers may suffer |
| More effective in the offering of diverse and comprehensive curricula | Less attention to personal and social skills of pupils |
| Greater specialization among curriculum subjects | Less attention to pupils with special needs |
| Fewer administrative tasks for teachers | Problems with school discipline |
| Additional resources for teaching | Higher dropout rates |
| Less teacher turnover | A less improved school climate |

*Sources*: Borland *et al*. (2003); Barnett *et al*. (2002); Bradley *et al*. (1998); Eberts *et al*. (1990); Mok *et al*. (1986)

Indeed, the optimal number of pupils is not universal for all the environments because the local traditions may have various impacts. For example, Bush, Moffatt and Dunn (2002) present the results of in-depths interviews and conclude that local history, experience, local knowledge and everyday existence play an important role when people construe their understanding of surroundings. In general, Trice and Beyer (1993) refer to the local trends among others as a source of new ideologies in the organizational environment and consequently, the location factor would be relevant for such a specific cultural field as education and its performance measurement because it opens one aspect of an organizational culture on the one hand; and on the other hand, the school's size and location are very often interrelated. Thus, this is a complicated aspect which may form factors influencing the school's performance.

Fewer publications are available about location effects on school performance. Therefore it is difficult to compile a sufficient summary about this subject. But there is still some relevant evidence. Young (1998) discusses that there are controversial outcomes about the location effect on pupils' performance in previous research, but his results show that in rural schools the performance is lower than in urban schools. He believes that the reason for that lies in pupils' social and economic backgrounds − the results are significantly better for pupils from more affluent homes compared with students of poorer families. Bradley *et al*. (1998) also have an opinion that parents with a higher education, better income and more interest in their children's education, etc. have better-performing children.

In the context of this article, we relate some size effects to the location of a school as well. For example, in rural areas schools have fewer opportunities for both effective recruitment of teachers, and specialization among teachers (teachers in rural area schools may have to teach a wider range of subjects across the curriculum). Also there can be fewer opportunities to offer diverse

and comprehensive curricula. But despite these problems the schools in rural areas are often an integral part of the local community (*Ibid*.) and therefore we cannot underestimate the role of such schools in society.

The school's administration has few possibilities to influence the size and location specifics of schools. The problems with in-sufficiently qualified teachers, pupils and their socio-economic background, etc. are mostly out of the school administration's control. The latter can only try to cope with these problems as best they can. OC, however, is a phenomenon that can be influenced. Therefore these three fields related to school performance (OC, size and location of schools) are analyzed together in the following empirical part of the article.

## Method

### Sample

In order to find connections between OC and performance, a sample was compiled from secondary schools of Estonia, assuring that schools with various sizes and locations were presented in the sample. The elite schools and schools in Tallinn were not included.

In 2002/2003 there were 241 secondary schools in Estonia; 160 of them were municipal- or state-owned schools where the language of instruction was Estonian (Mägi, 2004). An empirical study among these schools was carried out by A. Aidla in January and February 2003. In the study participated 28 secondary schools from 12 out of 15 counties of Estonia. Therefore, the sample represents 17.5% of the school population. On the whole, 398 individuals agreed to participate in the study.

The information about gender and position of participants is presented in Table 2.

**Table 2.** Sample characteristics (%)

| | | |
|---|---|---|
| Gender | Male | 14 |
| | Female | 83 |
| | Not answered | 3 |
| Position | Administration | 10 |
| | Teachers | 64 |
| | Support personnel | 8 |
| | Not answered | 18 |

The participants ranged from ages 20 to 70. The average age was 41 (standard deviation (further referred to as SD) was 15.05).

## Measurement of organizational culture

The OC estimations for secondary schools were measured with the method worked out by M. Vadi. The questionnaire consists of 43 statements. The respondents were asked to indicate their attitude towards the items on a 10–point scale ranging from "completely disagree" (1 point) to "completely agree" (10 points). On the basis of factor analysis, two factors were identified that were called the task and relationship orientations (Vadi *et al*., 2002). Both the task and the relationship factor consisted of 8 features.

Task orientation reflects to what extent all members are willing to support their organization. The representative statements in this orientation are, for example: in our organization "people are proud of their organization", "positive changes constantly take place", "people are rewarded for their good work", and "people's well-being is important". Relationship orientation indicates belongingness. The characteristic statements are, for example: in our organization "people know one another", "all important matters are discussed with each other", "people help each other in job-related situations" and "in tough situations there is a strong feel-

ing of togetherness". (*Ibid*.) With respect to the given method, it is possible to establish what the dominating OC orientation of the organization is and also how content the organizational members are with certain aspects of the organization.

The reliabilities of OC orientation scales in our sample were also measured, the results being 0.78 in task orientation and 0.77 in relationship orientation. In social sciences the accepted value of reliability exceeds 0.7 (Ogbonna *et al*., 2000). Thus, the reliability of OC orientations in our sample is acceptable.

## Measurement of performance

In order to measure secondary school performance, the results of the national examinations of secondary schools within the last five years (2000–2004) were used. The results are presented on the homepage of the National Examinations and Qualification Centre (NEQC) (Homepage of …). The exam results in mathematics, English, composition and history were considered as the basis of comparison. These subjects were chosen in the first place because they are those that students most frequently choose to take the national examinations in (*Ibid*.), and secondly because the results in these subjects are often considered as a criteria when selecting students for university places in Estonia.

On the NEQC homepage the schools are divided into three major groups depending on their location, namely, schools in cities (in Estonian *suurlinn*), in county towns (in Estonian *maakonnakeskus*), and in rural municipalities (in Estonian *vald*) and small towns (in Estonian *väikelinn*).

For measuring the size of the school, the number of its pupils was used. A large school has over 800 pupils and a small school less than 800 pupils (firstly, because the average number of pupils in a school is around 800 in our sample and secondly, because in previous studies this rate has been used for distinguishing between smaller and larger schools (e.g., Borland *et al*., 2003; Bradley

*et al*., 1998; Eberts *et al*., 1990)[1]. The data about the number of pupils in a secondary school was found form the Database of Estonian schools on the Internet (Database of …). In order to find the connections between performance and OC orientation estimations correlation analysis, the t-test and ANOVA method were used. The acceptable significance level chosen was 0.05. In data analysis the statistical data processing package SPSS 10.0 was used.

## Results

### Organizational culture and performance in different types of schools

Firstly, the OC orientations estimations for the 28 participating secondary schools were calculated. The estimations ranged from 5.3 to 7.9 on the task orientation scale, the average estimation among schools being 6.7 (SD = 0.6). The relationship orientation estimations ranged from 5.8 to 8.5, the average estimation among schools being 7.0 (SD = 0.6). We can see that in the relationship orientation, estimations are higher (the difference is statistically significant ($t = –2.8$, $p = 0.008$)).

Secondly, the correlation between OC estimations and performance of schools was found. This relationship was not statistically significant (in task orientation, $r = 0.29$, $p = 0.12$ and in relationship orientation, $r = 0.20$, $p = 0.17$). Therefore, we also tested the impact of other variables like size and location of schools in order to explore the connections between OC and school performance.

Compared to city and county town schools, the results in national examinations in rural municipality and small town schools are on average mostly lower. For example, the national examinations re-

[1] In 2002/2003 there were 150916 pupils in secondary schools in Estonia (Report of…). The average of pupils in a school is therefore 626 (150916 divided with 241).

sults within the last five years in the four subjects calculated for this study showed the following results: on average 58.6 points in cities, on average 58.2 points in county towns and on average 52.4 points in rural municipalities and small towns. As the results of the first two groups do not differ significantly, but in rural municipalities and small towns the results are statistically significantly lower ($p = 0.014$), two groups were formed in our sample on the basis of the location of secondary schools: firstly, city and county town schools (32 percent in our sample) and, secondly, rural municipality and small town schools (68 percent in our sample).

Comparison of the national examinations results with respect to the size of schools showed that in larger schools the public examination results are statistically significantly higher (on average 58.9 points) than in smaller schools (on average 53.2 points) ($p = 0.003$). In our sample, 68 percent were smaller schools and 32 percent larger schools.

In the light of the notion that size and location are interrelated, the distribution of participated secondary schools with respect to location and size was found and is presented in Table 3.

**Table 3.** Distribution of secondary schools with respect to location and size in our sample (%)

| **Location** | **Secondary school size** | |
|---|---|---|
| | **Large school** | **Small school** |
| City or county town | 77.8 | 22.2 |
| Rural municipality or small town | 10.5 | 89.5 |

We can see that in our sample larger schools are more likely situated in a city or in a county town (77.8 percent of cases), while smaller schools are more likely to be found in rural municipalities or small towns (89.5 percent of cases). Therefore the results about the relationships between OC and performance vis-à-vis the size and location of schools could turn out to be somewhat similar.

## Relationships between organizational culture and performance vis-à-vis the location and size of schools

In order to find how the participating secondary schools are positioned with respect to their location, size and performance, Table 4 was drawn, according to which from among all the city and county town schools five have performed better than average in their group and four have performed worse than average in their group. Among rural municipality and small town schools these numbers are 13 and six, respectively. Of all the large schools, five have performed better than average in their group and four have performed worse than average in their group. Among smaller schools, these numbers are nine and ten, respectively.

**Table 4.** Distribution of secondary schools with respect to their location, size and performance

| Location and size of a secondary school | Performance* | |
|---|---|---|
| | Above average | Below average |
| City or county town | 5 | 4 |
| Rural municipality or small town | 13 | 6 |
| Large school | 5 | 4 |
| Small school | 9 | 10 |

*Notes*: * performance compared to the group the school belongs to

The results of our correlation analysis are presented in Table 5. The relationship between the OC task orientation estimations and performance in city and county town schools is significant ($r = 0.81$), whereas in rural municipality and small town schools this correlation ($r = 0.16$) is not significant. A statistically significant correlation also appears to be between the relationship orientation estimations of OC and performance of city and county town schools ($r = 0.51$), but, in rural municipality and small town schools no statistically significant relationship occurs.

**Table 5.** Correlations between OC orientations and school performance (with respect to the location and size of schools)

| Performance with respect to the location and size of the school | OC orientations | |
|---|---|---|
| | **OC1[1]** | **OC2[2]** |
| City or county town | 0.81** | 0.51* |
| Rural municipality or small town | 0.16 | 0.32 |
| Large school | 0.85** | 0.62* |
| Small school | 0.04 | 0.11 |

*Notes*: ** correlation is significant at the 0.01 level, * correlation is significant at the 0.05 level
OC1[1] – task orientation, OC2[2] – relationship orientation

The analysis based on school size showed that the performance and both OC orientations are correlated in larger schools. In smaller schools, however, no statistically significant relationship between the performance and OC orientations was found.

The ANOVA method also gives the result that the performance of city and county town schools and larger schools is related to estimations on OC orientations (see Table 6). To be more precise, the performance differs in this type of schools, depending on whether the estimations on task or relationship orientations in a school are above or below the average. In schools where OC estimations are higher, the performance is higher, too. For example, in city and county town schools, which have higher estimations on task orientation, the performance is on average 61.1; with lower estimations on task orientation the performance is on average 53.6 (the difference is statistically significant, $p = 0.00$).

As for relationship orientations, then these differences are smaller (as also the correlation analysis showed) because with higher estimations on relationship orientation the performance is 59.3 and with lower estimations the performance is 56.5 (the difference is statistically significant, $p = 0.04$). ANOVA did not identify any statistically significant differences between OC orientations and performance in rural municipality and small town schools.

**Table 6.** ANOVA results about the performance of different types of schools vis-à-vis their OC estimations

| Type of the school | Performance with respect to OC estimations | | | | | |
|---|---|---|---|---|---|---|
| | OC1[1] estimations | | | OC2[2] estimations | | |
| | High | Low | Sig. | High | Low | Sig. |
| City or county town | 61.1 | 53.6 | p = 0.00 | 59.3 | 56.5 | p = 0.04 |
| Rural municipality or small town | 53.7 | 53.6 | p = 0.96 | 53.5 | 53.7 | p = 0.92 |
| Large school | 60.7 | 55.5 | p = 0.00 | 61.4 | 57.7 | p = 0.04 |
| Small school | 53.4 | 53.0 | p = 0.89 | 52.6 | 53.6 | p = 0.64 |

*Notes*: OC1[1] – task orientation, OC2[2] – relationship orientation, sig.– significance

To sum up this part of the analysis, we can say that OC and performance are related in the case of city or county town schools and larger schools. In rural municipality or small town and smaller schools, OC and performance are not statistically significantly related. This also proves the idea that the results with respect to the location and size of schools are quite similar because the location and size of schools are strongly interrelated in our sample.

## Discussion

The results of our empirical study showed that in Estonian secondary schools OC and performance are related, depending on the location and size of a particular school (see Figure 1). The performance of larger schools and city or county town schools, is related to their OC task orientation. In secondary schools whose personnel, for example, feels that people are proud of their organization, the employees are rewarded for their good work, positive changes take place constantly, the well-being of organizational members is important, etc., the performance is higher and vice versa.

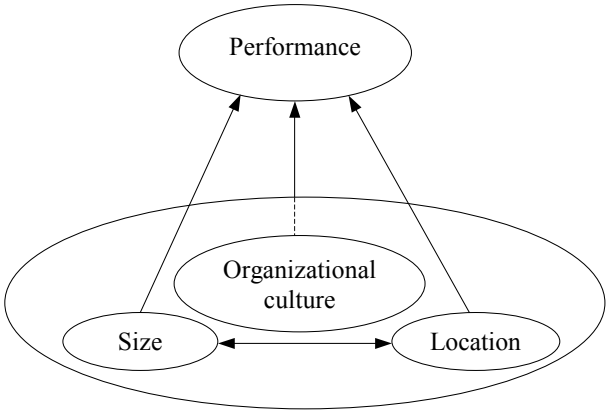


**Figure 1.** Relationships between OC and performance with respect to the location and size of a school.

The correlation between relationship orientation and performance is also significant, and therefore in schools where the employees perceive that all important matters are discussed with others, people help each other with job-related problems, in tough situations there is a strong feeling of togetherness, etc., the performance is higher and vice versa. In a larger school it is difficult for people to effectively communicate with one another and regard all individuals but when they succeed, then it can give an advantage in performance issues.

In smaller schools and schools in rural municipalities or small towns no significant relationship between OC orientations and performance was found. This implies that in these secondary schools the average results of the national examinations do not depend on the OC estimations of school members. In smaller schools and in rural municipality or small town schools the OC can be very strong and supportive of performance, but there are other factors that influence the performance more. In the following part we will discuss some of them. As stated in the theoretical part, some of the reasons are more size-caused, some are more location-caused, while some can coincide along both criteria.

1. The shortage of qualified teachers. It is often the case in Estonia that some of necessary teaching positions in schools are not filled at all, or the work is done by teachers of other subjects (for example the teacher of history gives lessons in mathematics) (see, for example, Kivine, 2004). In rural municipalities or in small towns there is a small probability that there are many candidates to one position like often is the case in a larger city and therefore the school administration has fewer opportunities to choose proper candidates. This also affects the possibilities for specialization among teachers.
2. Many successful pupils living in a small town try to go to study into a city of county town school because they think that there are more opportunities to get a proper education (Kreizberg, 2005).
3. Sometimes in Estonia the social background or economic situation of pupils in country areas does not support learning. Pupils' opportunities and motivation etc. are especially relevant for school performance (e.g., Bradley, Taylor, 1998; Eberts, Schwartz, 1990) because if the pupils cannot or do not want to learn, then the qualified teachers and supporting OC will not help much.

These problems are relevant here because in our research the examinations results were used for measuring performance. If also other performance criteria were taken into account, then smaller schools could have more advantages compared to larger schools.

The research still proved that in certain circumstances the OC and performance of Estonian secondary schools are related. Therefore, in order to improve the performance of schools, the following aspects should be taken into account:

- If one has an intention to achieve better results in the national examinations, then, in addition to teaching pupils, it is relevant to improve the OC. Our research showed that not only

direct work obligations but also the environment around them is important for school personnel.

- The task orientation showed more impact than relationship orientation towards the national examinations results. Research showed that employees need for example more recognition, encouragement, freedom of activity and acceptance. Therefore school administration should take into account that the school personnel could value highly also other motivators besides wage. The school specifics in Estonia (prescribed wage floors) determine that, as a rule, there are not many opportunities to pay more for better work. Therefore other motivators should be more actively applied to encourage employees (e.g., teachers) to work better.
- The school administration should take into account that the personnel of schools are more satisfied with interpersonal relationships than with task and management practices in an organization (average estimations of relationship orientation are higher than those of task orientation). This proves again that the latter area needs additional attention.
- The relationship issues – helping each other, discussing important matters, etc. are also very important when the aim is higher performance.
- Changes in an organization (in particular those concerned about OC) need to be conducted thoughtfully and carefully. OC is a phenomenon that is relatively steady and whose changing, influencing, etc. needs time and persistence. Previous research shows that only 10–32 percent of planned OC changes succeed (Smith, 2003) because not all organizational members agree to the changes.
- Since not only school management and personnel play a role in shaping OC (Peterson *et al*., 1998), there is a need for pupils and parents to contribute as well.

There study has some limitations that must be taken into consideration. One is the fact that the number of participating schools is

relatively small. The other limitation is that the article mainly analyzes how OC influences performance, but it can well be that performance influences also OC.

In the current article the national examinations results were applied for measuring secondary schools' performance. In future research other performance criteria (pupils' non-academic skills; contribution, satisfaction and cooperation by school stakeholders; school environment) are going to be used.

## References

**Anderson, B., MacDonald, D. S., Sinnemann, C.** (2003). Can Measurement of Results Help Improve The Performance of Schools? Revised version of a paper presented at the annual meeting of the American Educational Research Association, Chicago.

**Barnett, R., Glass, J. C., Snowdon, R. I., Stringer, K. S.** (2002). Size, Performance and Effectiveness: Cost-Constrained Measures of Best-Practice Performance and Secondary-School Size. *Education Economics*, Vol. 10, Issue 3, pp. 291–311.

**Baumert, J., Koller, O.** (2000). National and International School Performance Studies. *European Education*, Vol. 32, Issue 3, pp. 37–49.

**Borland, M. V., Howsen, R. M.** (2003). An Examinatiation of the Effect of Elementary School Size on Student Academic Achievement. *International Review of Education*, Vol. 49, Issue 5, pp. 463–474.

**Bosker, R. J., Scheerens, J.** (2000). Publishing School Performance Data. *European Education*, Vol. 32, Issue 3, pp. 12–30.

**Bradley, S., Taylor, J.** (1998). The effect of school size on exam performance in secondary schools. *Oxford Bulletin of Economics & Statistics*, Vol. 60, Issue 3, pp. 291–324.

**Bush, J., Moffatt, S., Dunn, C. E.** (2002). Contextualization of Local and Global Environmental Issues in North-east England: implications for debates on globalisation and 'risk society'. *Local Environment*, Vol. 7, No 2, pp. 119–133.

Database of Estonian Schools (in Estonian *Eesti koolide andmebaas*) [http://www.edu.ee/koolid/e_kool.html] 28.05.05.

**Denison, D. R., Mishra, A. K.** (1995). Toward a Theory of Organizational Culture and Effectiveness. *Organizational Science*, Vol. 6, No 2, pp. 204–223.

**Deshpande, R., Farley, J. U.** (2004). Organizational culture, market orientation, innovativeness, and firm performance: an international research odyssey. *International Journal of Research in Marketing*, Vol. 21, pp. 3–22.

**Driscoll, D., Halcoussis, D., Svorny, S.** (2003). School district size and student performance. *Economics of Education Review*, Vol. 22, Issue 2, pp. 193–201.

**Eberts, R. W., Schwartz, E. K.** (1990). School reform, school size, and student achievement Economic Review (Federal Reserve Bank of Cleveland), 2nd Quarter, Vol. 26, Issue 2. pp. 2–13.

**Goldstein, H.** (2001). Using Pupil Performance Data for Judging Schools and teachers: scope and limitations. *British Educational Research Journal*, Vol. 27, No 4. pp. 433–442.

**Gordon, G. G., DiTomaso, N.** (1992). Predicting Corporate Performance from Organizational Culture. *Journal of Management Studies*, Vol. 29, Issue 6, pp. 783–798.

**Graddy, K., Stevens, M.** (2005). The Impact of School Resources on Student Performance: A Study of Private Schools in the United Kingdom. *Industrial & Labor Relations Review*, Vol. 28, Issue 3, pp. 435–450.

**Griffith, J.** (2003). Schools as Organizational Models: Implications for Examining School Effectiveness. *The Elementary School Journal*, Vol. 104, No 1, pp. 29–47.

**Griffith, J.** (2004). Relation of principal transformational leadership to school staff job satisfaction, staff turnover, and school performance. *Journal of Educational Administration*, Vol. 42, No 3, pp. 333–356.

**Homepage of the National Examination and Qualification Centre** (in Estonian *Riikliku Eksami- ja Kvalifikatsioonikeskuse kodulehekülg*) [http://www.ekk.edu.ee/index2.html] 20.05.05.

**Jõemaa, L.** (2004). Muutused käivitagu õpetajad ise, [http://www.opleht.ee/Arhiiv/2004/26.03.04/tekstid/dialoog/2.html] 06.06.05.

**Kivine, M.** (2004). Lapsi aina vähem, aga õpetajaid ikka puudu [http://www.opleht.ee/Arhiiv/2004/19.03.04/tekstid/teave/1.html] 06.06.05.

**Kreizberg, P.** Võrdsed haridusvõimalused ja koolivõrk. [http://www.opleht.ee/Arhiiv/2005/13.05.05/tekstid/dialoog/1.html] 10.06.05.

**Langan-Fox, J., Tan, P.** (1998). Images of a culture in transition: Personal constructs of organizational stability and change. *Journal of Occupational & Organizational Psychology*, Vol. 70, Issue 3, pp. 273–293.

**Lim, B.** (1995). Examining the organizational culture and organizational performance link. *Leadership & Organization Development Journal*, Vol. 16, No 5, pp. 16–21.

**Louden, W., Wildy, H.** (1999). Short shrift to long lists. *Journal of Educational Administration*, Vol. 37, No 2, pp. 99–120.

**Mägi, K.** Haridus- ja Teadusministeeriumi analüütiku vastus teabenõudele Eesti keskkoolide arvu kohta. 19.01.04.

**Mok, M., Flynn, M.** (1986). School Size and Academic Achievement in the HSC Examination: Is There a Relationship? *Issues in Educational Research*, Vol. 6, pp. 57–78.

**Mulford, B., Kendall, L., Kendall, D.** (2004). Administrative practice and high school students' perceptions of their school, teachers and performance. *Journal of Educational Administration*, Vol. 42, No 1, pp. 78–97.

**O'Reilly, C. A., Chatman, J. A., Caldwell, D. F.** (1991). People and Organizational Culture: A Profile Comparison Approach to As-

sessing Person-Organization Fit. *The Academy of Management Journal*, Vol. 34, Issue 3, pp. 487–516.

**Ogbonna, E., Harris, L.** (2000). Leadership style, organizational culture and performance: empirical evidence from UK companies. International. *Journal of Human Resource Management*, Vol. 11, Issue 4, pp. 766–788.

**Onken, M. H.** (1999). Temporal elements of organizational culture and impact on firm performance. *Journal of Managerial Psychology*, Vol. 14, No 3/4, pp. 231–243.

**Pashiardis, G.** (2000). School climate in elementary and secondary school: views of Cypriot principals and teachers. *International Journal of Educational Management*, Vol. 14, Issue 5, pp. 224–237.

**Peterson, K., Deal, T. E.** (1998). How leaders influence the culture of schools. *Educational Leadership*, Vol. 56, Issue 1, pp. 28–31.

**Pors, N. O.** (2001). Measuring students' performance and perceptions: empirical studies in different dimensions of quality assurance at a library school. *New Library World*, Vol. 102, No 11, pp. 429–435.

Report of Praxis (presented in 26.04.05). Üldhariduskoolide võrgu korraldamine [http://www.hm.ee/failid/Praxis_esitlus.ppt] 06.06.05.

**Smith, K. B., Laimer, C. W. A.** (2004). Mixed Relationship: Bureaucracy and School Performance. *Public Administration Review*, Vol. 64, Issue 6, pp. 728–736.

**Smith, M.** (2003). Changing an Organisations's culture: correlates of success and failure. *Leadership & Organization Development Journal*, Vol. 24, Issue 5, pp. 249–261.

**Tohver, S.** (2004). Palgatõus tekitab probleeme, [http://www.opleht.ee/Arhiiv/2004/30.04.04/tekstid/paevateema/1.html] 06.06.05.

**Trice, H. M., Beyer, J. M.** (1993). *The Cultures of Work Organizations*. Prentice Hall.

**Vadi, M., Allik, J., Realo, A.** (2002). *Collectivism and It's Consequences for Organizational Culture*. Tartu: Tartu University Press.

**Visscher, A., Coe, R.** (2003). School Performance Feedback Systems: Conceptualization, Analysis, and Reflection. *School Effectiveness and School Improvement*, Vol. 14, No 3, pp. 321–349.

**Young, D.** (1998). Rural and Urban Differences in Student Achievement in Science and Mathematics: A Multilevel Analysis. *School Effectiveness & School Improvement*, Vol. 9, Issue 4, pp. 386–418.

# KOKKUVÕTE

## Organisatsioonikultuuri ja tulemuslikkuse vahelised seosed Eesti koolides sõltuvalt kooli suurusest ja asukohast

*Anne Aidla, Maaja Vadi*

Organisatsioonikultuur (edaspidi OK) väljendab kuivõrd organisatsiooni liikmed teineteist ning organisatsiooni eesmärke ja juhtkonna tegevust toetavad. Varasemad uurimused näitavad, et OK-st sõltuvad olulisel määral nii töötajate käitumine kui ka töötulemused. Käesoleva artikli eesmärgiks oli määrata kindlaks Eesti keskkoolide töötajate OK-i hinnangute ja kooli tulemuslikkuse vahelised seosed. Empiiriline uurimus (n = 398) viidi A. Aidla poolt läbi 2003. aasta alguses. Osalesid nii juhtkond, õpetajad kui ka lihttöölised 28-st keskkoolist või gümnaasiumist. Esindatud oli kaksteist Eesti maakonda viieteistkümnest. OK hinnangute mõõtmiseks kasutati M. Vadi poolt koostatud OK-orientatsioonide mõõtmise metoodikat, mis eristab OK ülesande ja suhete orientatsioonid (Vadi, Allik, Realo, 2002). Koolide tulemuslikkusse aluseks võeti keskkoolide ja gümnaasiumide keskmised riigieksamitulemused nelja aine (matemaatika, ajalugu, kirjand ja inglise keel) lõikes viie aasta jooksul (2000–2004). OK-orientatsioonidele antud hinnangute ja tulemuslikkuse vaheliste seoste leidmiseks kasutati korrelatsioonanalüüsi ja ANOVA meetodit. Olulisuse nivooks võeti 0,05. Eraldi analüüs viidi läbi koolide asukoha ja suuruse alusel.

Empiirilise uurimuse tulemused näitasid, et OK-i orientatsioonidele antud hinnangute ja tulemuslikkuse (antud juhul riigieksamitulemuste) vahel on teatud tingimustel statistiliselt oluline seos. Seega, kui koolides soovitakse riigieksamitel paremaid tulemusi saada, siis on lisaks õpilaste õpetamisele kasulik ka OK suunamise ja mõjutamisega tegeleda.

**Appendix 1.** Criteria's for measuring performance

| Pupils' success | The contribution, satisfaction and cooperation of school stakeholders |
|---|---|
| pupils' overall development (e.g., interpersonal and public speaking skills, cooperation, tolerance, etc) | well-coordinated communication between the management, teachers, pupils and parents |
| pupils' success in further stages of study (e.g., in an secondary school, institution of higher education) | participation of school personnel in decision-making |
| pupils' results in national examinations | participation of parents in school life |
| pupils' results in final examinations | successful management |
| pupil's marks for in-school examinations | training opportunities for teachers |
| few dropouts | extracurricular activities (activity clubs, etc.) |
| few school year retakers | job satisfaction of school personnel (inc. teachers) |

*Sources*: Graddy, Stevens, 2005; Anderson, MacDonald, Sinnemann, 2004; Griffith, 2004; Mulford, Ke
Smith, Laimer, 2004; Driscoll, Halcousiss, Svorny, 2003; Griffith, 2003; Visscher, Coe, 2003; Barne
2001; Goldstein, 2001; Pashiardis, 2000; Baumert, Koller, 2000; Bosker, Scheerens, 2000; Louden, W
Taylor, 1998; Peterson, Deal, 1998; Young, 1998