

# *Quality Evaluation in Education*

## *Hodnotenie kvality v školstve*

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# Introduction

- The quality of education and educational institutions is linked with the development of Slovak education.
- Quality education is a dynamic concept made up of the right balance between knowledge and skills.
- Pressure to rationalize the secondary school network (surplus of secondary schools, decline of children's population, change of preference for choosing a secondary school, financial undersizing, etc.).
- In paper we examine selected secondary schools (10 Business Academies) established in Banská Bystrica and Žilina self-governing regions.

The aim of this paper is to evaluate the quality of education on example of selected secondary schools by the value for money method.

- The value for money method works with three indicators 3E- effectiveness, efficiency, economy.
- *Effectiveness - for the measurement we use qualitative indicators.*
- *Efficiency – for the measurement we use quantitative and qualitative indicators.*
- *Economy – for the measurement we use monetary indicators.*
- The goal of the method is to find out which object makes the best use of its resources.
  
- We address the findings to the founders of the monitored secondary schools as well as the Minister of Education, as a basis for the planned rationalization in education.

# Methodological approach

- Theoretical background based on researches of domestic and foreign authors (Grimshaw a Hutchinson, 1995; Gilbert, Coté, 2009; Kosová a Porubský, 2011; Dolton, Gutiérrez, Still, 2014; Barr a Christie, 2014; Štrangfeldová, Štefanišinová, Hronec, 2018; etc.).
- *Primary research – semi-structured interview with the professionals in the field (directors, vice-directors, head of economic department, graduated students of BAs)*

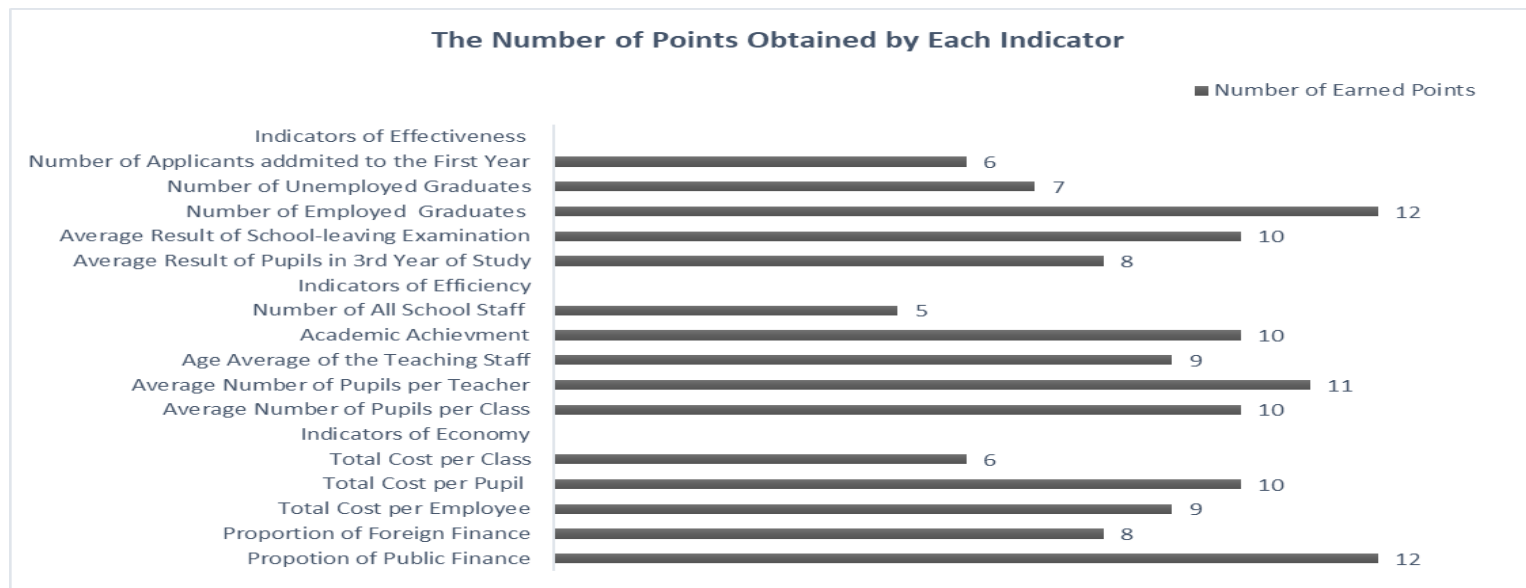


Figure 1 Appropriate indicators for measuring effectiveness, efficiency and economy according to professional public (in points)

Source: own processing based on semi-structured interview (2019)

# Methodological approach

- One of the main methods of the paper is multicriteria analysis – integral indicator:

$$d_i = \frac{\sum_{j=1}^m u_{ij} * p_j}{\sum_{j=1}^m p_j}$$

Where:  $u_{ij}$  - the value of the  $j$ -th indicator in the  $i$ -th subject;  $p_j$  - the weight of  $j$ -th indicator.

The best object is the one whose integral indicator is the maximum.

- The main method of research is value for money:

$$VFM_{ij} = \frac{1}{\log_{(H_{ij}E_{ij}U_{ij})} 1}$$

Where:  $H_{ij}$  – the overall economic performance indicator of the organization  $i$  in year  $j$ ;  $E_{ij}$  – the overall efficiency performance indicator of the organization  $i$  in year  $j$ ;  $U_{ij}$  – the overall effectiveness performance indicator of the organization  $i$  in year  $j$ .

The method expresses the relationship between all sub-indicators. The higher measured value of the entity means better use of resources and higher overall quality.

## *Research results – Žilina self-governing region*

Name of Academy/ VFM in School Year	VFM 2013/2014	VFM 2014/2015	VFM 2015/2016	VFM 2016/2017	VFM 2017/2018
BA in Liptovský Mikuláš	-0,268	-0,139	-0,122	-0,343	-0,201
BA in Dolný Kubín	0,397	0,679	0,416	0,457	0,585
BA in Žilina	0,386	0,482	0,627	0,597	-0,044
BA in Ružomberok	-0,047	-0,045	-0,063	0,15	-0,046
BA in Čadca	0,503	0,245	0,421	0,316	0,446
BA in Martin	0,268	0,247	0,214	0,354	0,327

Table 1 Value for Money of Business academies in Žilina self-governing region in the monitored periods

Source: own processing (2019)

## *Research results – Banská Bystrica self-governing region*

Name of Academy/ VFM in School Year	VFM 2013/2014	VFM 2014/2015	VFM 2015/2016	VFM 2016/2017	VFM 2017/2018
BA in Banská Bystrica	-0,304	0,322	-0,786	0,492	0,351
BA in Brezno	-0,676	-0,873	-0,786	0,272	0,228
BA in Rimavská Sobota	-0,231	-0,387	-0,214	-0,162	-0,904
BA in Lučenec	0,701	0,314	0,493	0,416	0,509

Table 2 Value for Money of Business academies in Banska Bystrica self-governing region in the monitored periods

Source: own processing (2019)

## *Proposed solutions*

- Four academies show below-average quality levels measured by value for money method: BA in Ružomberok, BA in Liptovský Mikuláš, BA in Rimavská Sobota and BA in Brezno.
- For this reason we proposed solutions in field of effectiveness, efficiency and economy for these academies.

### *Žilina self-governing region*

#### *BA in Ružomberku*

- to support the motivation of pupils for increase of school-leaving examination results.
- to reduce the number of classes by 1 and the number of teachers to 16, thus achieving an efficiency of 17,3%.
- to increase proportion of foreign finance to 6,34%; resulting is increase economy by 13%.

*After application total value for money will increase by 20,83%.*

#### *BA v Liptovskom Mikuláši*

- focus on systematic foreign language preparation of pupils to improve school results.
- to reduce the number of classes to 6 and the number of teachers by 9, so efficiency increasing to 48,3%.
- to increase proportion of foreign finance on the 25% level of public finance – it should increase the economy by 59,6%.

*After application total value for money will increase by 23,48%.*

### *Banská Bystrica self-governing region*

#### *BA in Rimavská Sobota*

- to raise the interest of students in different (extracurricular) areas to reduce absenteeism.
- to increase number of pupils by 9; increasing an overall efficiency to 59%.
- to increase proportion of foreign finance by 25%, resulting in increase of economy by 84,74% .

*After application total value for money will increase by 81,20%.*

#### *BA v Brezno*

- to increase the promotion of the academy at primary schools in order to increase the interest of future students.
- significantly reduce the number of teachers compared to the current number of pupils. This measure should increase the efficiency to 40.6%.
- we recommend keeping the proportion of foreign finance at 20.000 EUR.

*After application total value for money will increase by 12,30%.*



## *Conclusion*

- Collaborate with local companies and universities to employ graduates.
- We consider the value for money method to be suitable for a comprehensive measurement of quality in the field of education.
- We perceive added value in conducting primary research.
- Business academies in Dolný Kubín, Žilina, Lučenec and Banská Bystrica - excellent quality results.
- On the other hand, smaller academies achieve low results for all sub-indicators.
- We recommend focusing on increasing the share of foreign resources that academies can directly influence.
- In the case of BA in Brezno, consider the possibility of rationalization.

***Thank you for your attention!***

*This paper is part of the project VEGA 1/0334/19 Evaluating the performance of regional education by the value-for-money method, using the example of grammar schools.*