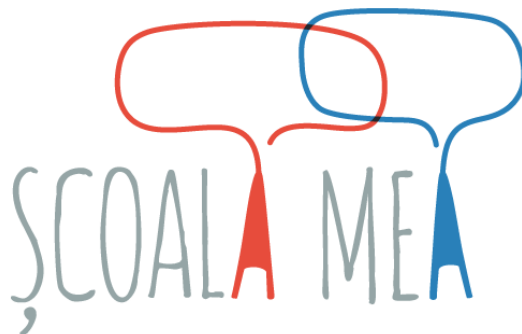


HOW-TO NOTES: ASSESSMENT OF OPEN DATA



**Social accountability for the education reform in Moldova.
Evaluation 2017.**

Ion GUMENE

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What does Open Data in Education mean?

Before starting the assessment of availability of the Open Data in education, it is advisable to have a clear understanding of “Open Data” and “Open Government Data” concepts. There are plenty of on-line sources on this topic¹.

In the context of this document, “Open Data in Education” are perceived as part of “Open Government Data”. The exact term to be used is “Open Government Data in Education” and it is the most important part of the “Open Data in Education”. In our case, the definition of “Open Data” is provided by “open definition”² as “*data that can be freely used, reused and redistributed by anyone - subject only, at most, to the requirement to attribute and sharealike*”³.

Thus, the definition of Open Data implies that the owner of data could be anyone, including a private person. We intend to discuss mostly about open data in education whose owner is the Ministry of Education, Culture and Research and educational institutions financed from the public budget, but as well other public institutions that produce or have data in the education system. Open data in education do not include any personal data.

Why do We Need to Assess the Availability of Open Data in Education?

The assessment was initiated in 2014 and is performed for the fourth year in the framework of the “*My School - Empowered Citizens Enhancing Accountability of the Education Reform and Quality of Education in Moldova*” Project. The main goal of this initiative is to allow citizens from the Republic of Moldova to be involved more actively in the reform of the education sector aimed at improving the quality of services in the mainstream educational institutions and increasing the efficiency of the use of funds in the sector. In this context, the opening of educational data is both a condition and a factor in the achievement of this goal.

Data opening provides factual databases to apply social accountability tools, serves as an information and communication tool, increases the transparency of money allocated per educational institutions, localities (regions), education levels and inclusive education. Also, the data opening creates a healthy competitive environment among educational institutions.

Thus, considering the facts mentioned above, the assessment of open data availability is needed in order to provide a complex panorama about the data opening in education, identify the main constraints and develop recommendations for improvement of situation.

¹ <https://okfn.org/>, <http://theodi.org/>, <http://opengovernmentdata.org/>, <http://opendatagroup.com/>, <http://opengovdata.org/>, <http://www.opendatafoundation.org/>

² <http://opendefinition.org/>, available in several languages

³ From the Open Data Handbook available in several languages, <http://opendatahandbook.org/ro/what-is-open-data/index.html#open-definition>

How do We Assess the Availability of Open Data in Education?

Conventionally, the assessment process could be divided in 6 stages:

- a) Development of methodology and preparatory activities;
- b) Collection of the necessary data and information;
- c) Assessment of the extent to which each dimension constraints the data opening;
- d) Development of recommendations;
- e) Discussion of the results with the stakeholders;
- f) Completion of the assessment.

In the case of reassessment, which is performed annually, the same stages are followed, by proper updating of necessary data and information, evaluation of constraints, evaluation of action taken according to previous recommendations and their proper reformulation, if needed, presenting the progress during one year.

a. Development of methodology and preparatory activities

This assessment is carried out on the basis of a methodology developed by the World Bank for the assessment of Government open data⁴, adjusted for the education sector. Thus, the assessment is performed on eight dimensions: (i) Leadership, (ii) Policy and legal framework, (iii) Institutional structures, responsibilities and skills of the staff, (iv) Data of the Ministry of Education, Culture and Research, (v) Demand for Open Data, (vi) Open Data Ecosystem, (vii) Financing, (viii) National ICT and Skills Infrastructure. The dimensions contain several sub-dimensions.

Each analysed dimension is presented in three sections: *Evidence, Question, Recommendations*. Individual items of evidence are marked "+" for positive evidence or "-" for negative evidence of data opening. In this approach, there is not any neutral evidence. If an item of evidence seems to be neutral, but it is important for data opening, it is necessary to divide this item into several, so that it is possible to mark them as positive or negative. Evidence is brought for each sub-dimension of the respective dimension. The assessment of each dimension and sub-dimension is presented as a color:

- **Green (G)** - denotes a state that facilitates significantly the opening of data;
- **Yellow (Y)** - represents a situation in which evidences do not indicate crucial obstacles, but neither favor the opening of data (with some improvements it could facilitate it);
- **Red (R)** - evidence denotes critical obstacles in the process of data opening.

The assessment of each of those eight dimensions is the summary result of the sub-dimensions' assessment. For this purpose, besides color-based assessment (green, yellow, red), to each sub-dimension is assigned a degree of importance on a three-level scale: "very high", "high", "average".

⁴ The World Bank's Open Government Data Working Group has developed an 'Open Data Readiness Assessment' (ODRA) methodological tool for conducting an action-oriented assessment of the readiness of a government - or even an individual agency - to evaluate, design and implement an open data initiative, <http://opendatatoolkit.worldbank.org/en/odra.html>

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Thus, while determining the final result for each dimension, the assessments of the level of constraint and importance of sub-dimensions in the respective dimension regarding data opening are taken into account.

At this stage, it is important to identify as accurately as possible all the stakeholders that could provide evidence or relevant information to assess each dimension, as well as the main information sources. Also, an important result of this stage is the detailed formulation of sub-dimensions and questions, based on which evidences will be identified.

The recommendations for each dimension are formulated in terms of removing obstacles and achieving a more favorable situation concerning data opening.

b. Collection of the necessary data and information

At this stage, it is important to gather all the information necessary for: identification of evidence (positive or negative); assignment of the level of constraint or facilitation for sub-dimensions (green, yellow, red); and the importance degree (very high, high, average) of sub-dimensions when assessing the dimension.

The data and information are collected by analysing all relevant sources of public information in order to answer to the questions, as well as during the interviews held with representatives of authorities, civil society in education sector, open data, promotion of transparency, mass media representatives and their associations, representatives of the IT sector, including the private sector, public figures and education professionals.

During the collection of data, it could be necessary to add or delete some sub-dimensions and the related questions to/from the initial list. It is important for the collected information to be as thoroughly as possible, to highlight the context and interconnections between items of evidence, sub-dimensions and dimensions. The interviews conducted with the identified representative of stakeholders have proved to be the most useful tools to obtain all the necessary information.

Ministry of Education, Culture and Research, at least in the Republic of Moldova, plays an important role in the assessment process. That is why it is advisable to have a good cooperation with this institution. This would greatly facilitate the communication with subordinated divisions and institutions that contribute to the improvement of the assessment results' quality, including usefulness and practicality of the recommendations.

From this perspective, it is advisable to start the assessment process with a meeting with the ministry's management in order to describe the purpose of the assessment and the direct advantages for this institution and for the overall sector, as a result of this assessment. It is important to note that this collaboration with the ministry should not harm the impartiality of assessment under any circumstances, otherwise it will significantly lose its usefulness.

It is also worth noting that, the assessment could be done even if the ministry refuses such cooperation, based on public information and official inquiries for information, but in this event the assessment of Leadership dimension will be less complete.

c. Assessment of the extent to which each dimension constraints the data opening

Once the information mentioned above is collected, it is necessary to assess the extent to which they constrain or facilitate the data opening in education. Thus, each sub-dimension is assessed by assigning a

color - green, yellow or red - depending on the obtained evidence. Also, each sub-dimension is assigned a degree of importance (very high, high, average) in order to assess the extent of constraint (or facilitation) on data opening per total dimension. Further, once the assessments (colors and importance) are available for each sub-dimension, the level of constraint or facilitation of data opening is estimated for the respective dimension.

It is advisable for the final assessment to be performed by only one person. This will ensure a uniform application of the methodology for all the dimensions. The assessment results can be viewed in different forms, table being the simplest form.

d. Development of recommendations

The recommendations are developed for each dimension in the form of table. To increase the efficiency of the recommendations it is advisable to develop only few concrete recommendations that will be focused on elimination of constraints. Recommendations could be addressed to the Ministry of Education, Culture and Research or to another institution that “owns” the constraints and has powers to remedy the situation.

It is also advisable to address the recommendations to the divisions, departments or top management of the identified institution that are (or should or could be) directly responsible for the implementation of recommendations. In addition, in order to facilitate the understanding of the recommendations or their implementation, it is advisable to provide some comments and additional explanations.

e. Discussion of the results with stakeholders

The main goal of this stage is to check whether all the used data and information were understood correctly, to correct the eventual mistakes or gaps, as well as to get the feedback regarding the assessment and developed recommendations. It is important to take into account that the stakeholders' availability and ability to get involved in this process are different and the level of involvement is not always at the level expected by authors. Therefore, it is recommended to allocate more time in order to manage to consult at least the most important stakeholders.

It is also recommended to present the assessment results during round table discussions with representatives of all public authorities who are responsible for data opening at the Government level, and that could be organized with the help of the institution responsible for data opening at the country level (in Moldova it is the e-Government Center).

Given the importance of the Ministry of Education, Culture and Research for the success of data opening process, it is important to discuss with it the assessment results before making them public. Since the final goal of this assessment is to overcome the most important constraints rather than the general criticism of the institutions involved, one of the objectives of this stage in the interaction with the ministry (or other public institutions) is to find some appropriate wordings, aimed at problem solving.

f. Completion of the assessment

The Assessment Report can be finished once all feedbacks and comments are obtained. To ensure a better involvement of the Ministry of Education, Culture and Research in the data opening in education, it is advisable for the report to be presented during a public event attended by representatives of the Ministry and other public institutions (Ministry of Finance, National Bureau of Statistics, etc.).

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The main objective of this stage is to determine the ministry to assume the results of this report and to start implementing the recommendations. With regard to the publication of the Assessment Report, there is a risk that should be considered, at least in certain countries, elections period. During this period, there is the risk that some political forces will unfairly speculate on the results of the assessment for their political purposes, as education represents a highly sensible sector for politicians. From this perspective, it is advisable to avoid conducting the assessment during such periods or to postpone the publication of results after the completion of the election campaign.

Disclaimer:

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