# The contribution of quality management  to the efficiency of education for sustainable development

Viorica Goraş-Postică•

**Abstract**

*Currently, in the education of adults, including through the studies at the university programs of professional master's degrees, there is an emphasis on initiation into quality management. Quality management, in turn, contributes to the efficiency of the educational process as a whole. Our study also includes the variable education for sustainable development, which is improved by advancing quality standards, with specific indicators and descriptors. All managerial functions, from planning to improvement, must be related to the imperatives of sustainable education in local and global contexts. Thus, we aim to sensitize the investigated subjects and potential readers to the interconnection of education for quality and sustainable development as elements of new education. The latter can offer viable solutions to the problems of the contemporary world. We propose to carry out mixed (qualitative and quantitative) research based on a questionnaire applied to a representative batch of master's students from the State University of Moldova, who study the discipline of Quality Management in Education. Representing different types of educational institutions and localities from the Republic of Moldova, the investigated subjects will evaluate the reflection of education for sustainable development in the quality management system of the institution and will analyze the school documentation from the given perspective. We are interested in ascertaining the level of awareness of the problem reported by us and identifying opportunities and solutions for improvement. The hypothesis of our study is: does the quality management in school influences the efficiency of education for sustainable development. The little representation of objectives for sustainable development in school and community policies and practices causes serious ecological problems and perpetuates local and global crises. Insignificant interventions by decision-makers, community, and educational actors perpetuate ecological catastrophes/bombs and enormously affect the well-being of the population.*

**Keywords:** education, quality, management, sustainable development.

## 1. Introduction

Quality management in education has become an imperative since the second half of the last century, being inspired by the business sphere and promoting internationally valid standards.  Thus, since the 1970s, UNESCO has been promoting the paradigm of quality education at the level of education policy, for the critical overcoming of the traditional model of approach to education and its replacement by a new paradigm, based on the direct relationship between education and society (Cf. Cristea, 2015, p.283). In our immediate context, starting with the Education Code of the Republic of Moldova (2014), the significance of the concept of *evaluating the quality of education* is officially

---

• Dr. hab. univ. prof., Moldova State University, Republic of Moldova, viorica.goras-postica@usm.md

established, as a *multi-criteria examination of the extent to which the educational institution and its programs meet the national reference educational standards*. In Article 7 of the same document, to the fundamental principles of education, we find the *principle of quality*, based on which *educational activities are related to national reference standards and good national and international practices.*

According to the document cited above, the education system in our country is provided with functional mechanisms (regulations, methodologies) for promoting and ensuring the quality of education at the level of institutions, processes, and results obtained. Thus, in the last 30 years, there have been useful legislations in this chapter, and the public policy system, decision makers of different ranks, and education managers have levers for planning, implementing, monitoring, evaluating, and optimizing quality. We would not like the multi-aspectual use of the concept of quality and all the related notions to become only slogans or statements, but, for real, to *regulate the accounts* on various levels to optimally function the institutions and the maximum satisfaction of the beneficiaries of all ages.

The link between the effective management of education and sustainable development is a direct and functional one, with mutual benefits for both variables. Sustainable development and education for sustainable development prevailed a few decades later than quality management, globally, but its importance is huge, even though often (the immediate reality shows us) the content is neglected or the phrases given are used for free.

To complete the legal basis of our study, we also analyzed the Education Code from the perspective of its sensitivity to sustainable development. Thus, Article 4 (1) refers to state policy in the field of education, which specifies that "education is a national priority and the primary factor of the sustainable development of a knowledge-based society." In Art. 5 a and b of the same document - *the mission of education*- is supposed, among other things, to meet the educational requirements of the individual and society and to develop human potential to ensure the quality of life, *sustainable growth of the economy and the* well-being of the people. Also, in art. 75.- *the mission of higher education* - states that it "is a key factor for the cultural, economic and social development of society increasingly based on knowledge and a *promoter of* human rights, *sustainable development*, democracy, peace, and justice". Therefore, the analyzed document and the introductory arguments presented justify the conjugated and comparative approach of the variable's *quality management in education and sustainable development*, to identify common axiological and praxiological landmarks, and to increase their relevance and functionality *here* and *now*.

## 2. Conceptual Landmarks and Regulators

In the Romanian space, including in the Republic of Moldova, policy studies and theoretical and practical studies in the field of education sciences, in terms of quality management in education and education for sustainable development, are quite a few.

Before resorting to some reference sources, we researched the profile page of the National Agency for Quality Assurance in Education and Evaluation (ANACEC) - http://www.cnaa.md/theses/pedagogy/   - and we found that, in the last 10 years, 3 doctoral theses (from approximately 200 theses)  have been defended related to the fields investigated by us: Theoretical and methodological landmarks of ecological education in primary education in the Arab sector of Israel (Shalash,  2017) and Theoretical and methodological landmarks for training the competence of climate resilience in adolescents  (Damian – Timosenco, 2020). The thesis of doctor habilitate "The theory and methodology of quality management in higher education" comes with an original scientific result that "consists in substantiating, elaborating and validating the Quality Management Paradigm – emerging scientific product, generating new praxiological solutions in the issue of educational management in the Republic of Moldova" (Baciu, 2013, p. 5).

Generally speaking, under the positive connotations of the ancient concept of *education,* "the management of education becomes, by definition, quality management, engaging the functions of *the global-optimal-innovative* leadership of education and their corresponding structures at all levels of the system. Their specificity and interdependence is an objective reality that the decision-maker must know how to fully capitalize, respecting the concrete conditions of design and realization of education and training in the chariot of the education system and process" (Cristea, 2000, p. 232) 15 years later, Prof. S. Cristea approaches in a complex manner, after the work cited above, quality in education, inferring that quality management in education can include "the leap from the pedagogical model of quality in education to the pedagogical reality of quality education, which is possible only by capitalizing on the axiomatic framework promoted by the curriculum paradigm in the postmodern, informational, knowledge-based society, based on the capacity of the system and the educational process, of quality,  to evolve in an open pedagogical system, to anticipate the sustainable development of the social-cultural, economic, political, community, natural system (Cristea, 2015, p. 288).

Given the fact that Prof. S. Cristea directly connected the quality of education with sustainable development, which we discovered in the documentation process of the given study and not in the process of elaborating on the issue of the article, we enjoyed and guided more firmly the value orientation of the research. As a 3rd Millennium Goal, which is among the 17 Sustainable Development Goals, *quality education* includes in the International Agenda 2030 "guaranteeing and promoting lifelong learning opportunities for all". To achieve the 17 Sustainable Development Goals (SDGs) and 169 specific objectives or targets, focusing on three main areas of sustainable development: *economy, society, and the environment,* and to measure progress in achieving the SDGs' targets, global monitoring indicators have been approved for each target.  SDG 4 underlines that education is the foundation for addressing the social, environmental, and economic challenges facing the world today, the global target being: "by 2030 - ensuring that all students acquire the knowledge and skills necessary to promote sustainable

development, including, inter alia, through education for sustainable development and sustainable lifestyles, human rights,  gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and the contribution of culture to sustainable development" (SDGs, p.  9).

*Education for sustainable development (ESD)*, in its turn, also includes an essential component of environmental/ environmental education, which has as its objectives the awareness of the educated "in the line of cultivating respect for the natural environment, the rational use of resources, the accountability about waste management, the aestheticization of the environment, the increase of resources." Ecological illiteracy" generates irresponsible conduct with direct effects in the present and, above all, in perspective (Cucoș, 2002, p.56). Completing education for the environment or extending it to education for society and economic education completes the vision and targets of the much-discussed sustainable development goals.

In the same vein, we adhere to the conclusion that, to practice a quality education, the teacher will resort to "the complex combination of knowledge, capacities, and skills, developed at a high level of performance, we are talking about parameters of professionalism ..., a category that also includes specialized professional training, vocation, pedagogical aptitude, sense of responsibility and the desire for self-improvement, all these acquisitions, capitalized in an integrated manner" (Şerbănescu & al., 2020, p.28). Quality education/education in general cannot exclude from the significance of the component of education for sustainable development.

With the recently approved *Education 2030* Strategy, which is based on the Sustainable Development Goals (Cf. *Sustainable Development Goals...)*, similar to the *Moldova 2030* strategy, quality education is a significant presence, running like a red thread through all the strategic goals, including:

- **Objective 2** - Inclusive education for an inclusive society - is geared towards ensuring access to quality education for all;
- **Objective 3** - Qualified teachers for quality education;
- **Objective 4** - Society, community, and family for quality education;
- **Objective 8** - Scientific research for quality innovation in education.

In the same vein, the Strategy proposes a series of priority lines of action, aimed to increase the performance of our sector, by making the network more efficient, modernizing the infrastructure, and strengthening managerial capacity and quality culture at all levels of the education system. In turn, the optimization of education management will be linked to the promotion and development of participatory, democratic, pupil and student-friendly management, information management, as well as management integrity in the decision-making process, management reform at all levels of the education system from the perspective of strategic leadership, efficient and transparent management, and public accountability.

### 3. Methodological framework

*The research purpose* consists of the validation of the working hypothesis: does effective quality management system exist in the educational institution; and how it contributes to the effectiveness of education for sustainable development.

The argues for *research questions* proposed in the questionnaire are based on the following contradictions: Studying the strategic development documents of educational institutions and in particular, the strategic development plans drawn up for the last 5 years, we found that they are not sufficiently linked to the sustainable development goals (proposed in 2015 and becoming key elements of the 2030 Agenda in 2017) nor do they prioritize education quality management, which officially became a political and strategic priority of the education system in 2014, with the promulgation of the Education Code. Another contradiction is that, at the declarative level, the given variables are still sporadically found in certain structural elements of the SDP - for example, quality education as an element of the mission and/or vision; the issue of quality education, but not quality education management - in the SWOT analysis or the issue of environmental/ecological education as a factor influencing the strategic development of the institution in the PESTE analysis. In operational planning, however, these elements can be inferred indirectly and we cannot see that the educational institution has a quality management system or that the planned actions lead directly to quality management to ensure sustainable development.

*Research instrument:* The praxiological study of the problem we are addressing was conducted with a group of students from the Master's program of professionalization "Educational Management" at the State University of Moldova, in the study year 2022-2023. For the practical validation of the 2 variables - quality management in education and education for sustainable development, we used a questionnaire developed by us, consisting of composed items (see Annex).

*Research procedure*: Starting from these contradictions, to ascertain the situation in the field, from the practitioners' point of view, we developed the given evaluation sample, which was completed by 26 master students, representing pre-university educational institutions in the Republic of Moldova, starting with kindergartens and ending with technical vocational schools.

*Participants:* The group of respondents is characterized as 26 women, average age – of 37 years, 73% of them work in urban areas and 27% in rural institutions. The average overall length of teaching experience is 9 years, and managerial experience - 2.5 years.

### 4. Results and discussions

According to the diagnosis of the sustainable development goals, in general, and quality education, in particular, only one respondent rated the level of reflection of the SDGs in the education policy documents known by the respondents as minimal, not significant,

while the other answers are divided as follows: (30.8% - excellent and very good) and 34.6% - good.
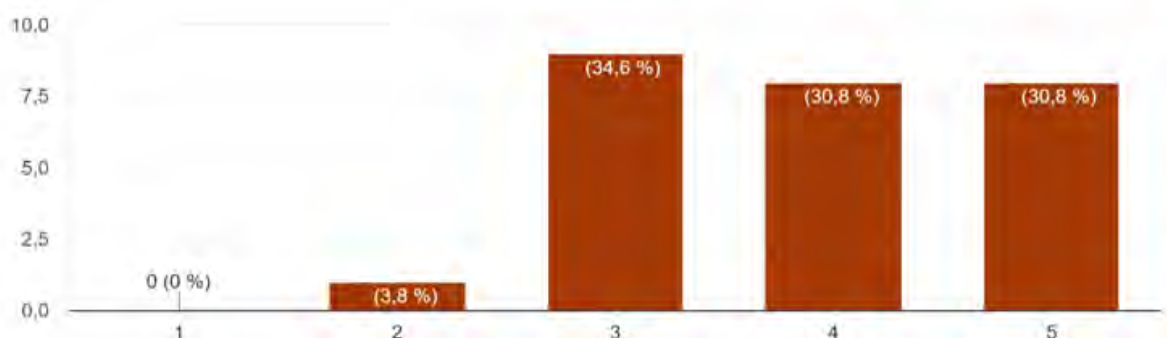


Figure 1. Perception of the level of reflection of the SDGs in education policy documents

The perception of the SDGs' implementation level is characterized in the figure below and we see that the situation is less positive, but traditionally what is "written/planned" is better than what is implemented. The Republic of Moldova, as a country in the process of preparing for European accession, still has a lot of work to do in this area.
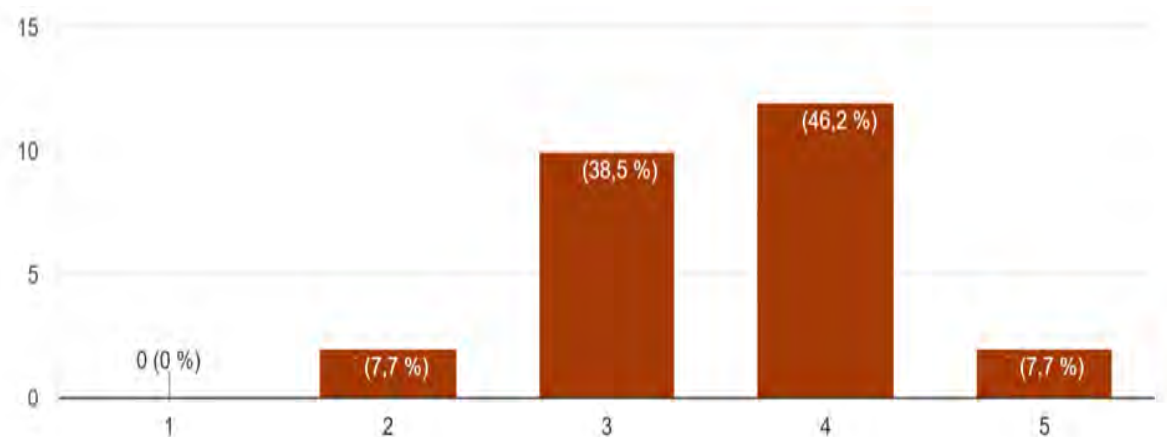


Figure 2. The general perception of the level of implementation of the SDGs

For the item related to the selection of 3 of the SDGs which, according to the respondents, are least addressed in the curriculum, but also in general in other documents, the range of answers, given in order of priority (those with more options), is as follows:

- Peace, justice, and strong institutions
- Life underwater
- Industry, innovation, and infrastructure
- Responsible consumption and production
- Poverty-free
- Climate action
- Sustainable cities and communities
- Zero hunger
- Reduced inequality

The answers obtained and listed above are useful for the designers of curriculum pieces, but also for the managers themselves, who have the freedom to supplement them with curricula at the school's discretion. We also conclude that the situation at the country level in the field we are addressing confirms what the respondents have reported and many changes are to be made, as the SDGs highlighted are very important for our country and each individual, directly influencing the quality management of school education and education for sustainable development.

The next item aimed at selecting 5 SDGs directly reflected in the Strategic Development Plan of your institution, as a basic document reflecting the policy of the institution, but also the implementation of educational policies in general. The situation is very mixed and is shown in Figure 3.
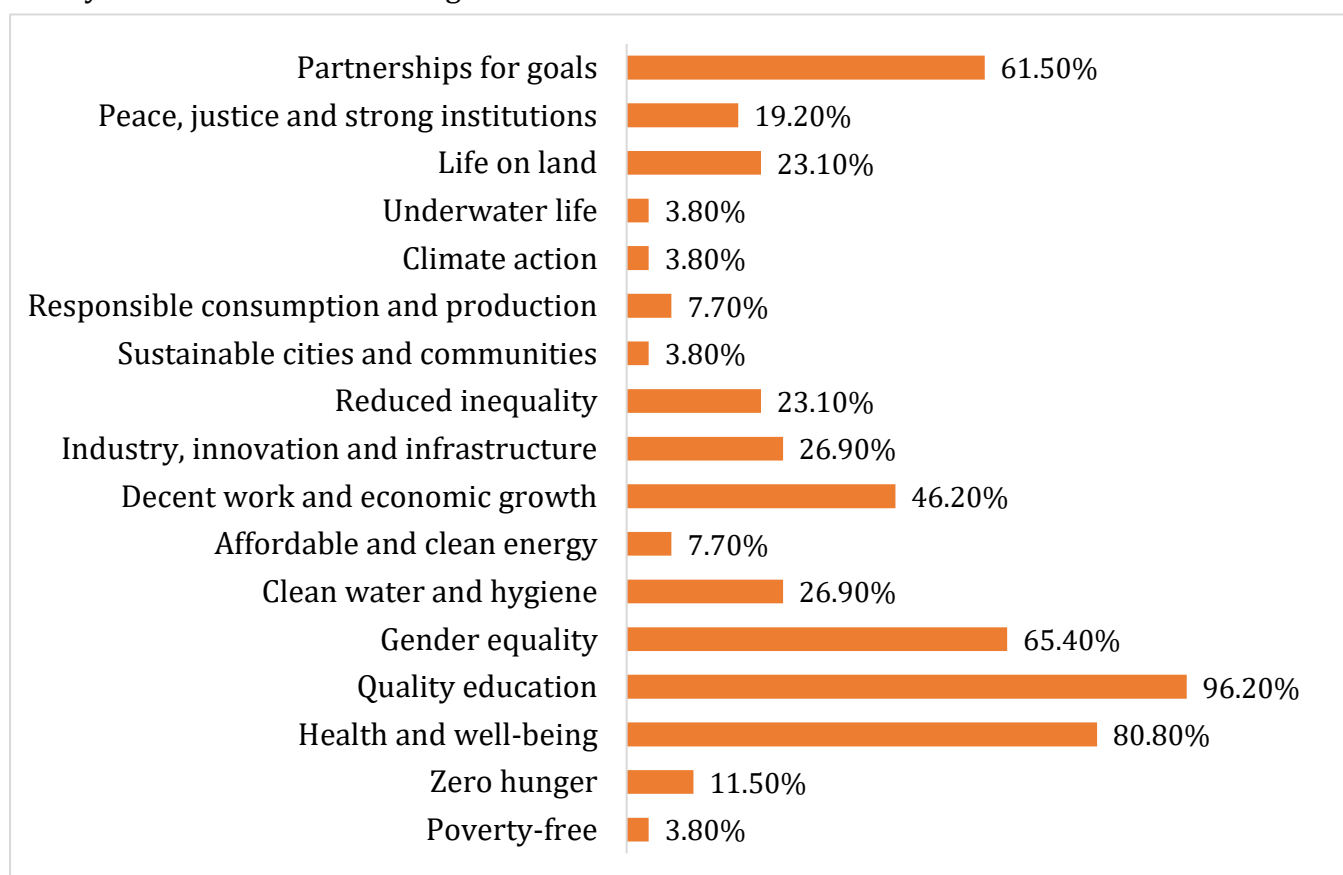


Figure 3. SDGs prioritized in the DDA

Of the SDGs that directly support quality management in education, in the respondents view, the following were logically highlighted in order of priority: quality education (96.2%), followed by health and well-being (80.8%), gender equality (65.4%), partnerships for goals (61.5%), decent work and economic growth (46.2%) and reduced inequalities (34.6%).

Why do you think that your institution has shortcomings in the practical use of certain objectives? These are explicitly shown in the diagram below and we believe that both teacher and management training and teaching material resources could be well expanded and strengthened as important means of implementing the SDGs. Most

initiatives in this regard are taken at the central level, but we point out the need for local initiatives and mobilization to reduce, at least, the causes mentioned by respondents.



Figure 4. Causes of shortcomings in the practical use of the improved SDGs

In the item that aimed to identify solutions *that would be to be found/ proposed to the above problem(s)?* - several were proposed, but these can be summarized in a few basic categories:

a) Training, training of teachers and managers;

b) Inclusion of the given strategies in the curricular contents and revision of the curricula;

c) Motivating teachers with a more motivating salary;

d) Sufficient materials and literature, equipping libraries;

e) Involvement in external projects, identification of donors

involvement in school life

g) Effective communication, active involvement, and collaboration between institutions

h) Cooperation and solidarity between all educational actors. The motivation of employees to work effectively. State support.

The question - *What does education for sustainable development mean, in your view?* – gave us a varied track record of the answers, which can be classified in the following table.

Table 1. The Significance of Education for sustainable development

| **Educational aspects** | **Social aspects** | **Integrative aspects** |
|---|---|---|
| - environmental, economic, and social education;<br>- enables each person to acquire knowledge in various fields and produces motivation;<br>- developing present needs for future generations requirements;<br>- development of educational skills; | - to society's standard of living;<br>- to a good and healthy life;<br>- to the future;<br>- quality, well-being, partnership, consistency, efficiency, fairness;<br>- tolerance, and responsibility in the use of resources; | - is the orientation of humanity towards solving the problems facing the whole planet;<br>- a paradigm based on ethics and education for sustainable development and aims to develop skills that help citizens |

| | | |
|---|---|---|
| - ensuring opportunities for all pupils to acquire knowledge, skills, and competencies needed through education;<br>- continuous development of professional skills;<br>- developing career orientation, a flexible, resilient, and responsible personality;<br>- creating goals that will be achieved shortly or will have an impact on the future and will bring about essential changes in the educational process and the perception of the world around us;<br>- the quality of education<br>- acquiring the necessary knowledge in time to reflect on one's actions, taking into account current cultural diversity. | - critical thinking;<br>- responsible action at all levels. | reflect on their actions, taking into account their current and future social, cultural, economic, and environmental impacts;<br>- a process of development that meets the needs of the present without compromising the ability of future generations to enjoy these benefits. |

Regarding the self-assessment of the level of information and training on *education for sustainable development and Sustainable Development Goals*, the overall situation is average. The SDGs are nothing new, at the national level things have been going quite well, with the *Education 2030* Strategy recording them and hopefully the related National Strategic Implementation Plan will bring the long-awaited fruits, which, admittedly, do not come overnight, requiring time and resources.
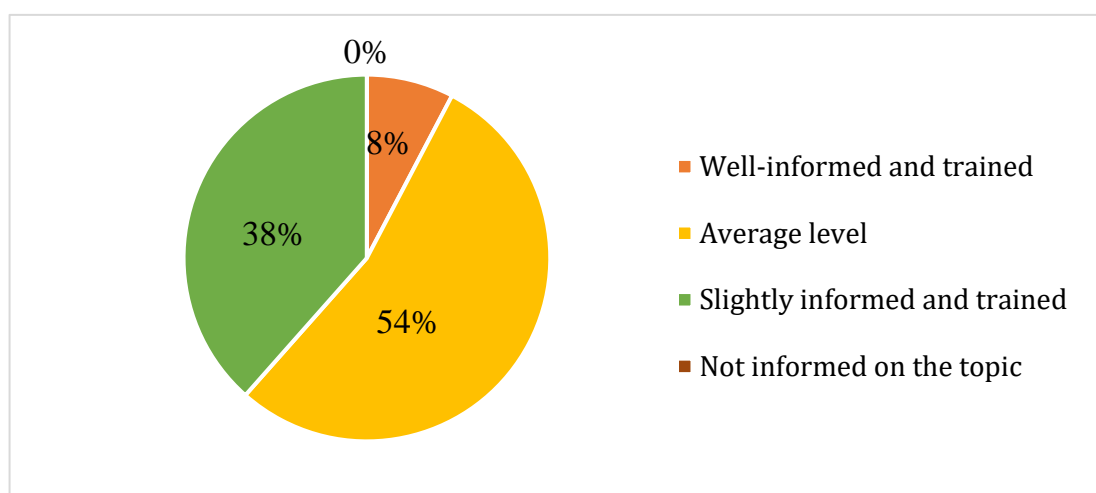


Figure 5. Degree of familiarity and training on SDGs and ESD

Concerning the direct managerial domain, the level of information and training for the application of quality standards and indicators in education, respondents consider

themselves prepared according to the response scale in the following diagram. We confirm in this respect the multitude of information and training programs proposed through various projects, including those initiated by the relevant ministry and the voluntary sector. These do indeed help managers a lot, but the application with visible impact is yet to be extended and noticed.
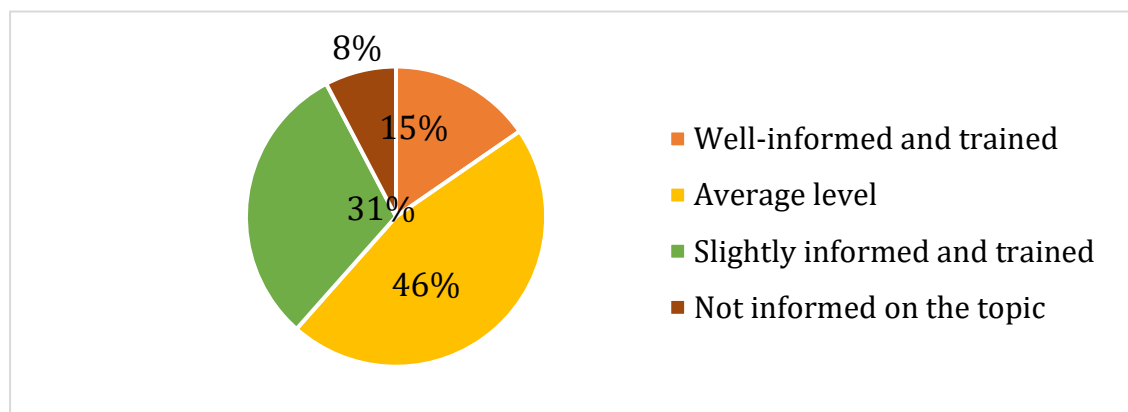


Figure 6. Level of managerial training in the field

Question also of an estimative nature, in the spirit of traditional school evaluations - *What grade would you give, overall, to the management of the quality of education to ensure sustainable development in your institution?* - gave us a generally positive picture of reality. This is because only one respondent chose the answer "minimal", all the others (96.2%) rated the situation as good, very good, and excellent. However, we would like to express some reservations about certain realities, where the problems of sustainable development are quite serious, starting with environmental and continuing with economic and social issues. However, if each institution does its work well in this direction, if its actors' approach sustainable development on the three interlinked levels: environmental, economic, and social, we could have visible results in at least some communities. We are still waiting for good local practices, which could "mollify" and mobilize a growing number of other localities, which are still in a "dangerous" and short-sighted phase.
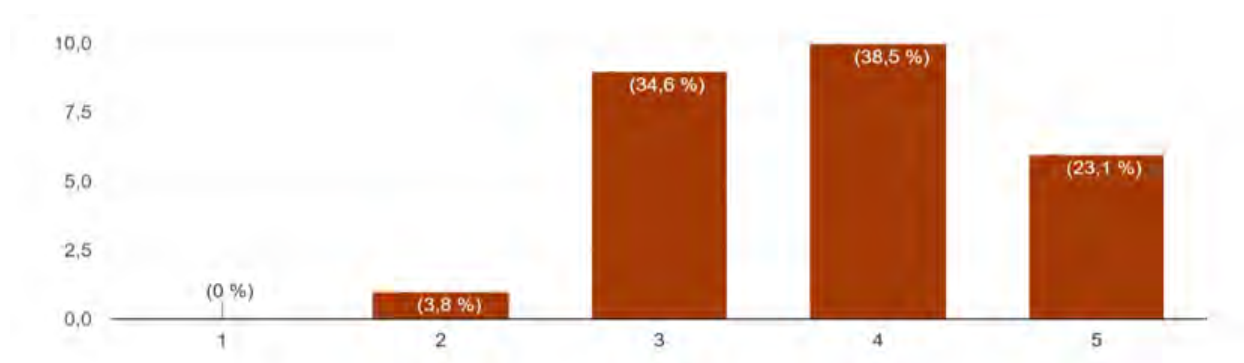


Figure 7. Assessment of the situation at the institutional level

*But at the country level, how would you rate the management of education quality to ensure sustainable development?* - was the last question in our tool, the situation is shown in the figure below. From this we can see that the perceived picture at the country level differs slightly from that at the institutional level, with which we partly agree, considering that we have good policies but their implementation continues to be flawed. In this context, we adhere to the assertion of the Romanian researcher R. China (2014, p.27), who refers to the fact that "public education policies can play the role of strategic visions, provided that they are thought prospectively, in the long and medium term. Quality management in education means quality management is implemented and developed at the level of the education system.
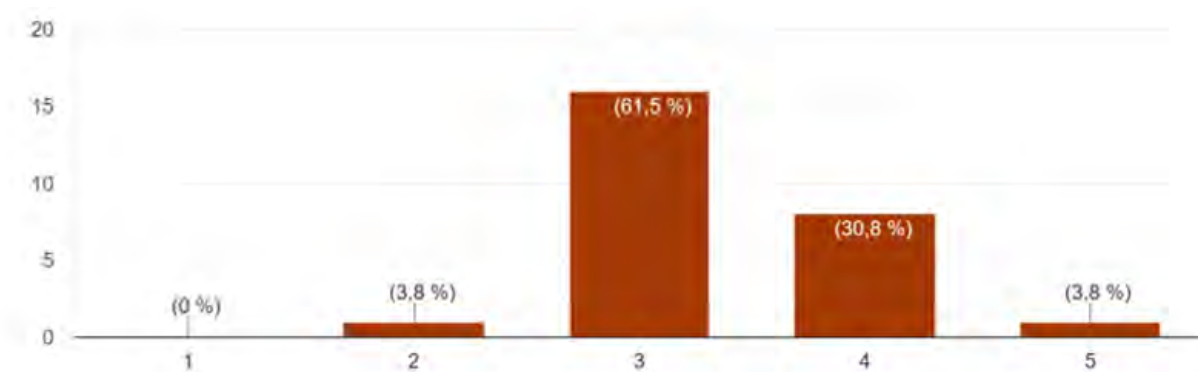


Figure 8. Appraising education quality management to support sustainable development

**Conclusions and perspectives**

Through the given praxiological research, we have confirmed the hypothesis put forward that if there is effective quality management in educational institutions, it contributes directly to the effectiveness of education for sustainable development. Educational actors at different levels, some of whom are professing managers, and others who have just started their qualification in the given field, have brought different points of view regarding quality education as a goal of sustainable development and education for sustainable development as such.  We got to know realities in our educational institutions, discovering a still approximate knowledge and application of the much-discussed SDGs. They also reviewed several problems felt by practitioners which, in their view, could improve the quality of education in our country, but also in each institution, relating quality education directly to all other objectives, obviously to different degrees. Management quality is revealed by the optimal exercise of each managerial function - planning, organization and implementation, monitoring and evaluation, but also continuous improvement. Unless school managers realize this and take full responsibility for it, neither teachers, pupils nor parents will bring the expected added value to the value of the SDGs as a guarantee of a quality present, a prosperous future, and our individual and planetary security (Cf. Sustainability and Bildung). In the context of the Republic of Moldova, making the management of education more efficient to ensure sustainable development remains a permanent prerogative, but the necessary resources do not exist

and have never existed in abundance. Now, however, the efficiency of the management of several types of resources, including resources (human, material, financial, and temporal) is to be aligned with the objectives of sustainable development in general and quality education in particular.  The study revealed the need for extensive and in-depth information and training in this field for school managers, but also the need for long-term investment and quality interventions at the national and local levels.

## References

Baciu S. (2013) Teoria şi metodologia managementului calităţii în învăţământului superior. Available: https://www.scribd.com/doc/253185570/Sergiu-Baciu-Thesis . Accessed: 23.04.2023.

Baciu S, Mija V. ş.a (2011). Managementul calităţii sistemului educaţional din Republica Moldova: teorie şi metodologie. În: Univers Pedagogic, pag. 43-50, Chişinău. Available: https://www.google.com/search?rlz=1C1GCEA_enMD970MD970&q=Managementul+calitatii+in+educatie+pdf&sa=X&ved=2ahUKEwim9qis6Pv9AhXmhP0HHWDHAH84ChDVAnoECBsQAQ&biw=1366&bih=657&dpr=1 .  Accessed: 20.02.2023

Chicu V., Lîsenco S. (2020). *Managementul calităţii versus calitatea managementului*. Chişinău: CE PRO DIDACTICA. 52 p. ISBN  978-9975-3355-9-1

Chină  R. (2014) Calitate în educaţie versus calitatea educaţiei (I) Aspecte privind managementul calităţii la nivelul sistemului educaţional şi al organizaţiei şcolare. În: Calitatea. *Acces la succes*. Vol. 15, nr. 139.

Codul Educaţiei al Republicii Moldova (2014), Chişinău. Available: https://www.legis.md/cautare/getResults?doc_id=110112&lang=ro . Accessed:17.03.2023

Cristea S. (2000). *Dicţionar de pedagogie*. Chişinău-Bucureşti: LITERA INTERNAŢIONAL. 398 p. ISBN 973-9355-51-X.

Cristea S. (2015). *Dicţionar enciclopedic de pedagogie*, vol. 1, A-C. Bucureşti: Didactica Publishing House. 832 p. ISBN 978-606-683-295-3.

Cucoş Const. (2002). *Pedagogie*. Iaşi: POLIROM. 464 p. ISBN 973-681-063-1

Damian-Timosenco G. (2020). Theoretical and methodological framework for development of climate resilience competence in adolescents. Available: http://www.cnaa.md/files/theses/2020/56203/gavbriela_damian-timosenco_abstract_en.pdf . Accessed: 23.03.2023

Metodologia de evaluare a instituţiilor de învăţământ general (2020). Chişinău: Ministerul Educaţiei şi Cercetării. Available: https://mecc.gov.md/sites/default/files/anexa_1_ord_581_metodologie_evaluare_institutii_invatamant.pdf . Accessed 9.05-2023

Obiectivele de dezvoltare durabilă. Available: https://statistica.gov.md/ro/obiectivele-de-dezvoltare-durabila-183.html. Accessed 23.03.2023

Shalash R.  (2017) Theoretical and methodological approaches of environmental education within primary schools in the Israeli Arab sector. Available: http://www.cnaa.md/files/theses/2017/51075/rania_shalash_thesis.pdf / . Accessed 23.03.2023

Strategia de dezvoltare Educaţia 2030 (2022), Available: https://ipp.md/wp-content/uploads/2022/06/Buletin-informativ-aprilie-Educatia-2030.pdf . Accessed 15.03.2023

Şerbănescu L., Bocoş M.-D., Ioja I. (2020). *Managementul programelor de formare continuă a cadrelor didactice. Ghid practic*. Iaşi: POLIROM, 2020, 278 p. ISBN 978-973-46-8245-4

Sustainability and Bildung. Available: https://eaea.org/project/bildung/?pid=19179 . Accessed: 2.03.2023

Sustainability development goals. Available: https://www.undp.org/sustainable-development-goals . Accessed: 20.03.2023

Sustainable Development Goals - Resources for educators. Available: https://en.unesco.org/themes/education/sdgs/material/ . Accessed: 20.03.2023

ANNEX

QUESTIONNAIRE

Dear master students, please answer honestly the questions that follow, which are part of a study in this issue.

• Age:

• Gender: M F

• Workplace in urban areas: urban rural

• Pedagogical work experience: 1-3 years, 4-7 years, more than 10 years, more than 15 years, more than 20 years, more than 30 years.

• Managerial seniority of activity: -3 years, 4-7 years, more than 10 years, more than 15 years, more than 20 years, more than 30 years.

Introduction: The Sustainable Development Goals (SDGs), otherwise known as the Global Goals, are a universal call for action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. These 17 objectives build on the successes of the Millennium Development Goals and now also cover new areas such as climate change, economic inequality, innovations, sustainable consumption, peace and justice, among other priorities. Goals are interlinked – often the key to success in one area will involve addressing issues more frequently associated with another.

• In this context, please note two figures next to each objective:

a) The first to indicate the level of reflection of the actions necessary for implementation in the public policy documents known to you: 1 – insignificant, 2 – minimum, 3 – medium/good, 4 – very good, 5 – excellent.

b) The overall level of implementation of each objective in your institution through the daily educational process of the classes, but also the extra-course and extracurricular one. 1 – insignificant, 2 – minimum, 3 – medium/good, 4 – very good, 5 – excellent.

1. Select 3 of the above objectives, which, in your opinion, are the least addressed in the curriculum, but also, in general, in other educational activities in your institution. Just write down those figures.

2. Select 5 SDGs directly reflected in your institution's SDP.

3. List 5 SDGs that directly support quality management in education.

4. For what reason do you think your institution is not the only one who has been able to do this? is it lacking in the practical use of certain objectives?

a) Poor strategic management
b) Poor operational management
c) Implementation without being trained in the field
d) Insufficient teaching and material resources
e) Other_____

f) All in one place

5. What solutions should be found/proposed to the above problem(s)?

a)

b)

c)

d)

e)

f)

6. What is sustainable development education about, in your view? Take a brief note.

_____

7. How familiar and knowledgeable and trained do you consider yourself in the education for sustainable development chapter and the Sustainable Development Goals in general?

Very well informed and trained, Medium, somewhat informed and trained, Not prepared for the given topic

8. But as a manager, how informed/trained do you consider yourself in order to apply quality standards and indicators in education?

Very well informed and trained, Medium, somewhat informed and trained, Not prepared for the given topic

9. How would you rate the overall quality management of education to ensure sustainable development in your institution? Circle the figure on the 5-point scale 1-insufficient .... 5 - very good.

1    2    3    4    5

10. What about at the country level?

1    2    3    4    5