

## Mathematics and the Prestige of the School Unit

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### Abstract

*The scientific innovation of the research is determined by the elaboration of the psycho-pedagogical forming fundamentals for the prestige of the educational institution: the essence and structure of the pedagogical phenomena are researched: the image of the school, educational management; the structural-functional correlation in the continuous training and the general knowledge, the pedagogical, psychosocial one, the functions and roles performed by the manager for the improvement of the school image. Technology is a reality of the current times we live in, a constantly changing field that can bring enormous benefits in the field of mathematics, but teaching mathematics cannot be done online for too long, if you want performance.*

*The aim of the paper: to establish the variables of a psycho-pedagogical experiment that consisted in applying two questionnaires regarding math class in the online environment and the components of the image of the educational institution, respectively image realization of the school.*

*Research objectives: studying the literature; determining the identification elements of the problems regarding the math class in the online environment; determining the elements for identifying the image of the educational institution and the criteria for assessing the school image.*

**Key words:** prestige, image, educational partnership, educational management.

**J.E.L. classification:** I21

### 1. Introduction

In the current context, the school is going through a very difficult period, online learning must be complementary to face-to-face learning and not become a way of organizing the education system; the online school must be a temporary measure that is required in this period of health crisis and not a permanent measure for teaching-learning-assessment in Romania. To achieve this goal, the school must gain the trust of parents, community and students by turning them into partners in their own education.

The school's concern to promote a credible and realistic image is also justified by situations that illustrate undesirable behaviors.

At the level of school units in Romania, there is a responsibility assumed by an image counselor, to promote the image of the school among parents and at the community level. At the same time, the image counselor has the role of establishing relationships with institutions and partners that could improve the school's performance. At the level of rural institutions, the responsibility of the image counselor is perceived as formal, neglecting its importance. There is no thorough training in this regard, the prestige of the school is promoted intuitively, in rare cases being formulated an educational marketing strategy and image. I consider it a virgin land because the need to form and maintain the prestige of the school was realized only after unprecedented situations that could have tarnished the authority of the teacher.

### 2. Theoretical background

The prestige of the school is a balance between its personality, the projected image and the received image. Externally, if his personality does not correspond to the image he wants to convey, the image will be random depending on the parameters of reality. An image that is not worked on is an abandoned image, an impermissible negligence.

The knowledge of the image that the school has is of great importance, because the images have the function of a formative element of opinions and attitudes, influencing the appreciations of the beneficiaries and thus their manifestations.

Basically, in order to live and survive, a school must make its programs or ideas known and accepted. It must be in close accordance with the environment to which it is addressed. A school that is not talked about, does not exist.

In order to defend a school, it has to face dissatisfied opponents, and even journalists. The image inspector and image counselor play a key role in finding the right responses to attacks. Socially, the school must build an image of morality, social responsibility, active partner in the community. To prepare a background of sympathy on which all development actions will be folded. This concern makes the difference when the organization is in a crisis situations

It is very important for the school to know what others think about it. The relationalist has the obligation to structure his needs and desires and to translate them to the top management. This can be done through passive listening (press review) or proactive listening (regular consultation).

In order to convert all the information gathered into dynamic and effective actions, someone must understand it, analyze it and interpret it. In Romania, these tasks are assumed by the image inspector (from the school inspectorates) and by the image counselors (from the school units). Journalists need to look for additional information where they know they will be well received and get what they want quickly. Hence the need to have a high-performance welcoming structure for them, more precisely the image department.

Internally, any school is structured based on information circulating inside. If an employee does not know the changes in the organization of the school, he will be counterproductive. The school must therefore inform its internal staff about the policies, projects and services so as to make them better understood and accepted.

If in a school each teacher decides to organize a press conference, a launch, an event, there will be some confusion somewhere. In order to ensure the internal coherence of an organization's communication, all related activities are channeled to the image advisor.

The image inspector must support all schools for communication and material production activities. When drafting a press release, if each unit should learn the rules of issuing a press release each time, a lot of energy will be lost within the school unit.

In order to maintain a sense of belonging and loyalty, staff awareness strategies need to be developed. The spirit of a team can no longer be animated only by cold information, but by seminars, meetings, attitudes. Raising the awareness of employees (teachers, support staff, non-teaching staff) in contact with the public facilitates success.

To achieve this, the public must be constantly consulted to know their state of mind, resistance and appreciation. The image department will consult with the school management in connection with the elaboration of image policies and strategies, with the setting and definition of the current and long-term objectives in public relations and with the elaboration of communication programs regarding the school unit projects.

### **3. Research methodology**

The pedagogical experiment consisted in the application of two questionnaires, a questionnaire was applied to the ninth grade students from the college where i teach and a questionnaire to the managers of the educational units. 94 and respectively 82 respondents answered these questionnaires. According to the issues addressed, it is a psycho-pedagogical experiment, according to the number of variables it is a multivariate one, according to the purpose of the research it is a complex one, which includes ascertaining, training and verifying the results obtained.

The objectives of the ascertaining experiment were aimed in particular at:

- Managers of the educational unit must determine the components of the image of the school institution they coordinate;
- Math class in the online environment
- Determining gaps / shortcomings among students and managers;

In order to achieve these objectives, the following methods were applied: the opinion questionnaire, the conversation and the scientific observation. I mention the fact that the observation had a scientific character; the observation action was very well prepared in advance, the data were recorded following the unfolding phenomenon, the managers were from all forms of education, directly framing us in the activities of the investigated samples. Regarding online math class, students believe that:

- math class can also take place with the help of videos specific to the lessons, which could help them to understand better (2.12%)
- The first time should be a recapitulation of what was done last hour and if we have ambiguities then let's do exercises (1.06%)
- they like math class, exactly in the format it is now (54.06%)
- how it went so far (11.66%)
- seriosity (2.12%)
- the teacher at the end of the lesson to do a small recapitulation with the students (1.06%)
- fewer homework and explanations to be clearer (1.06%)
- Not to be a stressful hour (2.12%)
- In the 50 minutes the teacher must speak for 25 minutes and the other minutes for the students. (1.06%)
- I think that the teacher should be close to the students and explain them, several times, to those who did not understand. (1.06%)
- The student to answer when asked and the teacher to help the student where he does not know and not to put minus if he does not know (1.06%)
- There should be an equal relationship with the student and the teacher. (1.06%)
- To be a quiet and stress-free hour (1.06%)
- Quiet (2.12%)
- more detailed explanation of the exercises and of the taught subject (3.18%)
- Our math class should be interactive. (1.06%)
- to have a material taught and explained and then to be exercised based on the material (2.12%)
- there is a dialogue between teacher and student and we are explained everything we do not understand (3.18%)
- I think that the math class must be more interactive by using specific tools where we are presented with various materials (PDFs, PowerPoint) (2.12%)
- prefers to work easier exercises and homework to be less. (3.18%)
- explaining the exercises several times and a little patience with the students who were left behind. (1.06%)
- It must be a relaxing time for all students to participate (1.06%)

This questionnaire was generated on the Classroom and although it was confidential, some students signed up. Depending on the student's area of interest, they expressed their opinion about the math class online. The next hour I discussed these answers with them and I was very pleased with the way they expressed their opinion. I drew a parallel with the prestige of the class and how very good students in mathematics can raise the prestige of the college.

They are very serious and hard-working students who want to return to school.

Regarding the second finding experiment, it allowed us to highlight the following aspects: 30.4% of managers are from rural areas and 69.6% of managers are from urban areas.

Regarding the highlighting of the components of the image of the educational institution, the finding experiment (item 1- What are the components of the image of the educational institution that you coordinate?) Helped us to establish them as the following:

- 1.1. Emphasizing individual responsibilities for achieving goals. (1.21%)
- 1.2. Increasing the degree of autonomy and managerial flexibility. (2.43%)
- 1.3. Introduction of performance indicators for measuring the degree of achievement of fundamental and individual objectives. (1.21%)
- 1.4. Integration in the managerial thinking of the 3E: economy, efficiency, effectiveness. (1.21%)

- 1.5. Educational offer. (28.04%)
- 1.6. Partnerships. (28.04%)
- 1.7. Participation in local, national and international symposia. (1.21%)
- 1.8. Promoting the positive image of the school unit in the community. (7.39%)
- 1.9. Educational management. (1.21%)
- 1.10. Professionalism of teachers. (6.09%)
- 1.11. Organizational culture: traditions, personality, professional teachers, school website, school logo, uniform, badge, school days, billboards, school magazine  
Visible elements: slogan, ceremonies, rituals, behaviors  
Invisible elements: norms, values, beliefs. (14.63%)
- 1.12. Results obtained in various educational competitions and at school. (8.53%)
- 1.13. C.D.S. diversified that respects local traditions, interculturality and the wishes of parents. (1.21%)
- 1.14. Internal regulations. (6.09%)
- 1.15. Quality education. (3.65%)
- 1.16. Permanent concern for increasing the area of activities carried out in the institution. (1.21%)
- 1.17. Good collaboration with different segments of the local community, social partners. (19.51%)
- 1.18. Qualified teachers. (10.97%)
- 1.19. New school unit, properly equipped. (3.65%)
- 1.20. Educational / exceptional projects at national, regional and county, international level. (4.87%)
- 1.21. Didactic and extradidactic efficiency. (2.43%)
- 1.22. The school institution is a stable nucleus of scientific, cultural values and social norms. (1.21%)
- 1.23. Educational projects (3.65%)
- 1.24. Didactic-material basis. (8.53%)
- 1.25. Development of community relations. (2.43%)
- 1.26. Promoting the image of the school with the help of the media, press releases. (8.53%)
- 1.27. Good communication with parents / family. (9.75%)
- 1.28. Interest in carrying out a quality educational act. (1.21%)
- 1.29. Detecting and improving weaknesses. (1.21%)
- 1.30. Extracurricular, extracurricular activities carried out in the form of artistic programs, carried out for the benefit of the community. (10.97%)
- 1.31. Orientation towards a well-established goal. (1.21%)
- 1.32. Precise, concrete objectives. (1.21%)
- 1.33. Quality instructive-educational process. (4.87%)
- 1.34. Information management. (1.21%)
- 1.35. Organization design. (1.21%)
- 1.36. Practicing a participatory management based on the quality of the services offered to the trainees. (1.21%)
- 1.37. Carrying out an advertising campaign. (1.21%)
- 1.38. Opening the school gates to the entire school population (inclusive education unit). (1.21%)
- 1.39. Attracting high-performing students. (1.21%)
- 1.40. School website. (3.65%)
- 1.41. Students. (8.53%)
- 1.42. Making exhibition panels on school halls, leaflets, posters. (2.43%)
- 1.43. The mission and vision of the school. (1.21%)
- 1.44. Interest for the organization and the public. (1.21%)
- 1.45. The quality of the educational act. (2.43%)
- 1.46. Seriousness. (1.21%)
- 1.47. Exterior / interior design of the school. (1.21%)

1.48. Notoriety - the quantitative component of the image of an organization, it is expressed as a percentage of members of a particular target group who have heard of the subject. (1.21%)

1.49. Image content - a predominantly qualitative component of the image, which targets the existing connotations in the minds of the interviewees in connection with an organization, a person, a public institution, etc. (1.21%)

1.50. Image intensity - is a predominantly quantitative component of the image, which reveals how strong a certain image is. (1.21%)

1.51. Teachers with a cooperative behavior, complex and impeccable personalities (models) and their effort for education reform. (3.65%)

1.52. Beliefs: "Good wins, and working with the student brings professional satisfaction". (1.21%)

1.53. School security. (2.43%)

1.54. Educational marketing. (1.21%)

1.55. Operational plans aimed at the school-family relationship in order to reduce school dropout and deviant behaviors. (2.43%)

1.56. School and extracurricular educational activities in order to facilitate the process of social integration of students with disabilities. (1.21%)

1.57. Activities that aim to remove the prejudices of the community about these students. (1.21%)

1.58. Opening the local community for the issue of the child with SEN. (1.21%)

1.59. The receptivity of the mass schools towards the problem of the child with disabilities and its integration in the regular education. (1.21%)

1.60. Materials for presenting the institution in other school units. (1.21%)

1.61. Tradition and competence. (1.21%)

1.62. Level of preparation of students. (2.43%)

1.63. The attractiveness of school history. (1.21%)

1.64. The public relations department in the school defined by the efficient public relations management. It is based on a distinct image and ethos, a public relations campaign planning and not least open relations with community and media representatives. (1.21%)

1.65. Transparency. (1.21%)

1.66. Collaboration with representatives of ethnic minorities. (1.21%)

1.67. Quality assurance. (1.21%)

1.68. Message harmonization. (1.21%)

1.69. In order to provide efficient and fast information on the education system, the Image Department includes:

a) the image folder, the mirror of the school institution, includes information of interest, such as: high school presentation, databases-teachers, students-parents, legislative landmarks (law 544 of October 12, 2001, on free access to information of public interest ), diplomas that reflect the participation and performances of students in competitions or cultural-educational events, etc.

b) the school dashboard and notice board provide all interested parties with information on the staff of the school, the news in the life of the school, the legislative landmarks regarding the registration, taking and graduation of the exams, Methodical, support and working commissions. (1.21%)

1.70. Real desirable and reflected component.

1.71. Performance activity. (2.43%)

1.72. Reflecting the current activity of the school unit. (1.21%)

1.73. Tradition, openness to the new, respect for culture. (1.21%)

By interpreting the results we notice that prestige is created internally, but is promoted and capitalized externally. The image of the educational institution is the set of representations, more or less subjective, the synthesis of mental representations of cognitive, affective, social and personal nature, which are associated with the school by partners, educational actors and tutelary authority, crystallized in a specific identity.

The components that define it can be grouped into: corporal (school location, interior and exterior appearance of the building, facilities, exterior appearance of teachers, non-teachers, students, purposes offered, forms of organization of the instructional-educational process);

noncorporal (name of school, teachers and students, services provided to customers, their price); product communications (advertising, promotional actions).

The image (real or actual) is a synthesis of the received images. Image intensity is a kind of indicator of the dispersion of the content of received images, it specifies how "centered" a certain image is. If, for example, all the interviewees appreciate a certain candidate by only two attributes (demagogue and extremist, for example), the intensity of his image can be considered quite high, while, if, for the appreciation of another candidate, the attributes used are much more numerous (honest, intelligent, influential, patriotic, sociable, erased, etc.) the intensity of its image will be much lower.

Regarding the realization of the image of the educational institution, as it results from the opinion questionnaire (item 2- How do you realize the image of the institution?), The managers highlighted that they realize their image as follows:

- 2.1. By creating a pleasant, safe environment. (3.65%)
- 2.2. Modernization of the didactic-material base. (2.43%)
- 2.3. Increasing the quality of the educational act. (3.65%)
- 2.4. Intensifying partnership relations. (6.09%)
- 2.5. Realization of the image strategy. (7.31%)
- 2.6. Popularization of representative actions in the press, local and national television, press releases. (43.14%)
- 2.7. Extracurricular activities. (29.26%)
- 2.8. Activities carried out together with the parents and at their proposal. (2.43%)
- 2.9. Educational offer. (17.07%)
- 2.10. Contests, local and national competitions. (15.85%)
- 2.11. Actions specific to bilingual groups (Romanian-German) (1.21%)
- 2.12. Permanent participation in community activities. (13.41%)
- 2.13. Exchanges of experience with the school. (2.43%)
- 2.14. Permanent training of teachers. (4.87%)
- 2.15. Attracting new partners. (4.87%)
- 2.16. Organization of exhibitions. (4.87%)
- 2.17. Partnerships with O.N.G. (2.43%)
- 2.18. Participation in activities initiated by partners, in which the activity of the school is popularized, its volunteer actions. (6.09%)
- 2.19. Through the qualitative content of the training and education work. (10.97%)
- 2.20. Through adult education. (1.21%)
- 2.21. Supporting and working with programs adapted for those with special educational needs. (2.43%)
- 2.22. Partnerships with parents, the local community, the Church and other institutions, the Police, etc. (7.31%)
- 2.23. Ensuring the transparency of the activities carried out. (7.31%)
- 2.24. Supporting countless methodological activities at the level of the Methodical Center. (3.65%)
- 2.25. Preserving traditions. (1.21%)
- 2.26. Through the procedure of a pleasant, favorable impression about the institution by spreading positive information, inciting interest and curiosity in any circumstance and in any place, whenever the opportunity arises. (2.43%)
- 2.27. Maintaining a permanent connection with former graduates. (1.21%)
- 2.28. Educational visits and collaborations. (2.43%)
- 2.29. Continuous information of the target audience. (7.31%)
- 2.30. Educational activities within partnerships. (6.09%)
- 2.31. Presentation leaflets. (25.60%)
- 2.32. Cultural-artistic performances for the community. (3.65%)
- 2.33. Popularization of activities and successes (through participation, display, website, school offer, school magazine, inter-institutional collaboration, motivation). (26.82%)
- 2.34. Harmonization of messages, mediation of conflicts and dysfunctions. (3.65%)
- 2.35. Projects, programs for the benefit of the organization. (3.65%)

- 2.36. Permanent contact with the upper forums. (2.43%)
- 2.37. Organizing activities to mark cultural and historical events. (3.65%)
- 2.38. Meetings with parents. (3.65%)
- 2.39. Participation in joint activities with the surrounding schools. (1.21%)
- 2.40. Portfolio composition. (1.21%)
- 2.41. Openness to the community. (1.21%)
- 2.42. Communication. (1.21%)
- 2.43. Caring for students. (1.21%)
- 2.44. Optimal internal public relations, as a strategic management tool. (1.21%)
- 2.45. Institution of pedagogical practice for the students of the “Ovidius” University of Constanța. (1.21%)
- 2.46. Rewarding deserving students at the school level, together with the local community. (1.21%)

By interpreting the results we notice that the images about the school organization that is constituted and function within it acquire special meanings for the global image of the school organization. The prestige of the school is the result of many perceptions made by its own staff. It has a stratified character and crystallizes according to:

- the status and role of the different categories of staff in the structures of the school organization;
- the hierarchical organizational levels in which the Image Advisors operate;
- bringing the Image Advisors closer or further away from the decision structures;
- the place and role they play in information flows;
- respect and loyalty to the organization;
- knowledge, acceptance and internalization of the norms, values, and culture of the organization, the concordance between aspirations, expectations and the possibilities to satisfy them;
- the perception of social protection within the school organization;
- organizational climate;
- the influence of the educational potential of the organization on its members.

The managers of the educational institutions consider the image of the educational institution they lead, as it results from the opinion questionnaire (item 3- How do you consider the image of the educational institution you run?) As:

- 3.1. Very good. / Excellent. (20.39%)
- 3.2. Favorable to the development of an efficient, optimal instructive-educational process. (2.43%)
- 3.3. In a permanent development. (17.07%)
- 3.4. Good. (21.95%)
- 3.5. The school has earned the respect and importance that all schools should have at the community level. (2.43%)
- 3.6. The institution offers quality educational services, professionalism, morality. (2.43%)
- 3.7. The institution has a well-defined image with visible, rising signs. (12.19%)
- 3.8. An image overshadowed by unfair competition from neighboring schools. (1.21%)
- 3.9. Integrative-inclusive school, for minorities: Roma, Muslims. (2.43%)
- 3.10. Positive, strong / intense, perfectible in agreement with the social partners. (17.07%)
- 3.11. An institution appreciated internally, externally. (1.21%)
- 3.12. A favorable image. (1.21%)
- 3.13. In the organization, for improvement. (1.21%)
- 3.14. Perfectible, being consolidated. (1.21%)

We notice that currently, customer service is the decisive starting point for many school organizations, but it has become vital for the strategy of the Romanian education system, as competition intensifies and the development of many educational alternatives.

#### 4. Findings

The way in which the desired image is materialized in the transmitted messages, shows that in ensuring quality educational services, at all times, the sides of concern for customers must be reached.

The precise needs and desires of each person are difficult to quantify and it is difficult to gather information about all the factors that influence individual behavior.

#### 5. Conclusions

Mathematics is a very important subject of study that helps us find many ways to solve a problem. And there are even more methods that seem to solve a problem, but which, in fact, do not lead to any results. In most cases, people consider prestige as a linear indicator, which can be located on a scale of the semantic differential type, with several levels, between "very good" and "very bad". In reality, consciously or unconsciously, they associate with each organization, person, etc. a set of connotations, which outlines a much more complex image of it. It is important not only to know if the image is good or bad, but also why it is good or bad, what is the exact content of that image. In this way we will be able to act in the direction of improving the image, an improvement which, in fact, is nothing more than a change in a favorable sense of the content of the image.

The mission of the educational institution has as main desideratum the transformation of the school into a provider of quality educational services, adapted to the socio-economic environment, which will satisfy the trust of the beneficiaries and ensure their socio-professional insertion.

The real image, perceived by the public and which corresponds to its representations about the school, is in fact what matters in the decision to use the educational services of the school.

The knowledge of the image that the target audiences have about an educational service is of great importance, because the image has the function of a formative element of opinions and attitudes, influencing the appreciations of the beneficiaries and thus their manifestations.

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