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**FUNCTIONAL ILLITERACY WITH FIRST-YEAR STUDENTS (18-  
25-YEAR-OLD ADULTS), IN JOURNALISM**

Claudia Talasman-Chiorean(a)\*

\*Corresponding author

(a)College of Political, Administrative and Communication Sciences, University Babes-Bolyai, str. Mosoiu, nr. 71,  
Cluj-Napoca, Romania, [chiorean@fspac.ro](mailto:chiorean@fspac.ro).

*Abstract*

The study on First-year Students' Functional Illiteracy, Journalism measured the correlation between the problem-solving capacity in new contexts as an expression of functional illiteracy in emerging adults – first-year students, Journalism – and academic performance. Problem solving is one of the indicators of functional illiteracy. The tests applied to first-year students of Journalism were: Pisa-2013 Test (intended for 15-year-old students) and a task specific to Journalism: identifying the relevant content elements of a news story (according to Laswell's communication theory: who? what? where? when and why?) and making a journalistic statement in a new context based on those 5 previously identified fundamental content elements. This study was conducted at the beginning of the second semester of the current academic year on first-year students, studying Journalism. The results of the study showed that out of 28 respondent students, 4 students fully completed the tasks required by the Pisa test in mathematics, 12 students in reading and 17 in problem solving. The tasks contained in this type of tests are practically-applicative. The correlation between the PISA results and the students' academic performance after the first semester showed that the 3 students who completed the reading comprehension requirement also have good results after the first session of exams in their lives as students of Journalism. In Romania the functional illiteracy rate among adolescents stands at 42%, the duration of its decrease to 35% is estimated at 8 years by the Center for Evaluation and Educational Analysis.

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## 1. Introduction

The definition of “illiteracy” given by UNESCO (2009) focuses on writing and reading skills: “a person is illiterate if they cannot write and read and cannot understand a simple statement that is related to their everyday life”. Between 1960-1970, the discourse regarding illiteracy as a social problem, to which socio-educational policies had to be designed to combat this scourge, was increasingly emphasized. Besides this, the eradication of illiteracy was also seen as a condition of economic growth and social development, an idea developed at the World Congress of Education Ministers, as well (1965).

At the same time, it was considered important to take into account assumptions about “functional literacy”: “literacy must be considered not as an end in itself, but as a means of preparing man for a social, civic and economic role that goes beyond the limitations of rudimentary literacy.” In 1978, UNESCO launched the definition of functional illiteracy, also valid today, and operationalized as follows: “A functional illiterate person is a person who does not have the science of books to start those activities that will ensure his/ her effective functioning in the group or community he/ she is part of in order to develop personally and socially.” The concept of “functional illiteracy” is not assimilated under this title in all countries (UNESCO, 2013).

The problem of literacy continues to be present in the discourse of specialists today as well. For the case of Romania, the problem is far from being solved. If, in the Communist period, the indicator of the literacy rate was 99%, today we sadly find out that illiteracy makes its presence felt. According to the data provided by the National Institute of Statistics, the result of the 2011 census shows that illiteracy in Romania has increased (Agenția Națională Socrates, 1996).

A functionally illiterate person is one who does not have educational, linguistic and numerical skills. Functional illiteracy is defined as a person’s inability to effectively use the skills related to: writing, reading, counting, making simple computer applications, responding to requests on solving current situations. It is also appreciated that these people have difficulties in understanding written and auditory messages. In a broad sense, functionally illiterate people do not understand the content of a form and how to fill it in, do not understand prescriptions or simple usage instructions of different purchased items, do not understand the written press, cannot follow the map, do not know how to use a dictionary, do not understand the signs of circulation, do not understand the meanings of the usual lexicon, they know the terms but cannot place them in a valid context, do not answer questions related to the given subject, rephrase poorly, give erroneous explanations related to a subject, do not understand the meaning of the TV discourses, of verbalizations presented as recommendations in “to do”, “to execute”, “to apply”, etc. (European Commission, 2014/2015)

At the level of a social problem, functional illiteracy as a process results from the number of early school leavers, the number of adults who do not follow any form of training after having graduated from the compulsory school level, from the poor results in PISA and IASL evaluations, from the low results in national and international school exams, from the low number of adult educational programs and of educational programs that do not meet the needs of social development. (The Memorandum on Lifelong Learning, 2000)

Worldwide, functional illiteracy is distributed heterogeneously, practically this problem is being recorded in all countries that have not developed high-performance education systems. According to the statistics made by HDR (Human Development Reports) in 2009, the percentage of functional illiteracy in

the age group 16-65 is as follows: 23% in the USA, Mexico 43.2%, Australia 17%, Norway 7.9%, New Zealand 18.4%, Sweden 7.5%. In our country, 40% of the 15-year-old students was identified as illiterate. In 2008, at the level of the countries in the European Union, 50% of the secondary school graduates were rated as functional illiterates

## 2. Problem Statement

At microsocial level, the following causes can be identified: social disadvantages following models of poor family education where the erroneous placement of social roles within the family generates identity perception disorders, personality disorders, personal constraints in social behavior due to the acquisition of sets of erroneous social values, escape from or refusal of individual and collective responsibility, poor motivational system, erroneous expectations of personal implications in social development according to the model, “I do not need to know, there are others who will do it for me”, “I’ll find someone who will solve this for me”, “Why should I know?”, negative social model, erroneous perceptions about the necessity and importance of knowledge, the destruction of the system of values, the development of deformed social behaviors following the devaluation and social functioning according to the explanatory model derived from the analyzes “cost-benefit”, socio-behavioral and educational deviations, individual and social addictions (Infante, 2000).

At macro-social level, functional illiteracy is supported by: social precariousness and vulnerabilities impacting the family nucleus (poverty, unemployment, welfare state deterioration, family dissolution, family conflicts, family violence, dramatic family events, etc.). All this causes the individual's attention to move away from the need and importance of personal and social development to the possibility of emerging from the crisis by following the action model, i.e. crisis intervention and problem solving in a very short time frame, without considering the actions with a preventative and sustainable role (Martinez & Fernandez, 2010).

The picture of this analysis is complemented by other descriptions of elements that make the object status/ role at the level of a multicultural social group: the place and position of the person within the majority ethnic group, in the membership group, workgroup, cohabitation group and their group of friends. The derivative issues are: marginalization, exclusion, stigmatization, isolation, labeling with direct and major implications on the person (low self-esteem, uselessness, demotivation, social activity of mechanic type, etc.).

Beyond these projections, the factors which are within the educational system are also taken into account. Poor learning conditions lead to imbalances regarding the quality of the acquired acquisitions and their long-term importance. Thus, overloading pupils with additional school tasks for each subject without an assessment of the pupil's performance leads to fatigue, repulsion to the subject, and implicitly to the school curriculum. The absence of an education centered on the pupil and on his/ her needs, the lack of progressive assessment of skills and the channeling of education on cognitive acquisition to the detriment of the development of applicative instrumental skills, facilitate the student's lack of interest in discovery and in their personal involvement in knowledge. To these can be added the causes which are extrinsic to the pupil's personality: poor or absent didactic means, didactic methods which are inappropriate to the contents, the poor personality of the didactic staff, poor management of the educational environment, etc.

The study that identified characteristic elements of the analyzed phenomenon was carried out by the Center for Evaluation and Educational Analysis. One of the conclusions showed that, although Romania's gross domestic product has grown since the revolution, the population's poverty stood at a constant level. And the explanation lies in the fact that adults are too poorly trained to succeed in getting well-paid jobs. Lack of professional training comes from the state of the education system, from pre-school to post-graduate education. The CEAE study concludes with the idea that the decline in functional illiteracy "can be achieved not only through support programs, but also by structural reforms in the education system." From the point of view of reforms and time-consuming programs, Poland is exemplary, since it needed almost a decade to reduce the functional illiteracy rate among adolescents from 22% to 14%. Given that in Romania this percentage stands at 42%, the duration of its decrease to 35% is estimated at 8 years by the Center for Evaluation and Educational Analysis, but only with the implementation of a package of reforms involving – among others – introducing standardized national assessments, pupil-centered education, continuing education programs even for teachers and an objective evaluation of their contribution to the educational process (Husanu & Hasu, 2017).

### **3. Research Questions**

The study on First-year Students' Functional Illiteracy, Journalism measured the correlation between the problem-solving capacity in new contexts as an expression of functional illiteracy in emerging adults – first-year students, Journalism – and academic performance.

The study measured the ability to solve general (PISA) and journalistic issues (drafting tasks) in new contexts. Problem solving is one of the indicators of functional illiteracy. The tests applied to first-year students of Journalism were: Pisa-2013 Test (intended for 15-year-old students) and a task specific to Journalism: identifying the relevant content elements of a news story (according to Laswell's communication theory: who? what? where? when and why?) and making a journalistic statement in a new context based on those 5 previously identified fundamental content elements. This study was conducted at the beginning of the second semester of the current academic year on first-year students, studying Journalism (OECD tests, 2013).

### **4. Purpose of the Study**

Establishing the correlation between the problem-solving capacity in new contexts as an expression of functional illiteracy in emerging adults – first-year students, Journalism – and academic performance.

#### **4.1. The objectives of the research:**

**4.1.1.** Identifying the problem-solving capacity in 18-20-year-old first-year students, studying Journalism, through PISA tests (OECD, 2013) and journalistic writing (identification of significant content elements from a piece of informative news and their integration into a new journalistic statement by changing the context).

**4.1.2.** Predicting the type of correlation between problem solving and the academic performance achieved by first-year students, studying Journalism, at the end of the first session of the current academic year.

## 4.2. Research assumptions:

4.2.1. Solving the requirements of the PISA 2013 test (International Student Assessment Program).

4.2.2. Students' selection of relevant information from a text (news) from the traditional / new media.

4.2.3. Students' realization of elemental cause-effect reasoning after reading some texts (sources of information) about a press event.

4.2.4. Writing a new text (news) of informative value based on previously obtained data.

4.2.5. Correlating the results obtained in the PISA 2013 tests, in the Journalism test, to the academic performance.

## 5. Research Methods

The research method was the correlation study. The pilot study was conducted on a segment of 28 first-year students, studying Journalism, aged 18-20.

Measured variables: Responses to the PISA 2013 tests, Selecting the relevant information in a text, Basic cause-effect reasoning from a text in the media, Writing a journalistic statement in a new context

### 5.1. The test applied to the first-year students, in Journalism The PISA 2013 test

#### The PISA 2013 test

##### *Mathematics*

##### Question 1:

Tourists can climb Mount Fuji only between July 1 and August 27 each year. About 200,000 people climb Mount Fuji during this period. On average, how many people climb the mountain every day?

- a) 340
- b) 710
- c) 3.400
- d) 7.100
- e) 7.400

##### Question 2:

The road that goes up Mount Fuji, Gotemba, is 9 Km long. Tourists should return from their 18-km hike by eight o'clock. Toshi estimates he can climb the mountain with an average of 1.5 km / h and that he can come down twice as fast. The speeds he has taken into consideration include meal breaks and rest. Starting from Toshi's speed estimates, which is the latest time he can go on the mountain so that he can return to the base by eight o'clock in the evening?

##### Question 3:

Toshi had a pedometer on him to number his steps as he walked along the Gotemba path. The pedometer showed him that he made a total of 22,500 steps in climb. Estimate the length of Toshi's steps during the 9-km climb, which is the length of the road.

Write the answer in centimetres.

### *Reading*

Attention to people allergic to peanuts, for lemon cream biscuits

Manufacturer's Name: Fine Foods Ltd.

Product information: Lemon cream biscuits weighing 125 grams (expiry date: June 18 and July 1)

Details: Some biscuits may contain pieces of peanuts that do not appear on the ingredients list.

People who are allergic to peanuts should not consume these biscuits.

What actions can the consumer take: If you purchased this product, you can return it to the store where you bought it from and you will be refunded. For further information call 1800 034 241.

Question 1: What is the purpose of this announcement?

- a) To advertise the lemon cream biscuits.
- b) To inform consumers when the biscuits were produced
- c) To warn consumers about the biscuits.
- d) To explain where to buy the biscuits

Question 2: What's the name of the company which produced the biscuits?

Question 3: Why does the announcement include the expiry date as well?

### *Problem solving:*

It's Alan's birthday party. Seven people are coming: Amy, Brad, Beth, Charles, Debbie, Emily and Frances. Everyone will have dinner at a round table.

The table arrangement must meet the following conditions:

Ami and Alan must sit next to each other

Brad and Beth must sit next to each other

Charles must sit near Debbie or Emily

Frances must sit near Debbie

Amy and Alan should not be seated near Brad or Beth

Brad should not be seated next to Charles or Frances

Debbie and Emily will not sit next to each other

Alan is seated next to Debbie or Emily

Amy should not be sitting next to Charles

Arrange invitations for the right places at the table so that they meet all of the above conditions.

### *Science:*

A bus goes on a straight road. The driver, Ray, has a glass of water on the board. Suddenly, Ray brakes.

What is most probably going to happen to the water from the glass?

- a) the water will remain unshaken
- b) the water will be spilled on part 1 of the glass
- c) the water will be poured on part 2 of the glass
- d) the water will spill but you cannot know the side of the glass

### Answers Pisa 2013

Mathematics:

1 – C; 2 – 11 am; 3 – 40 cm.

Reading:

1 – C; 2 – Fine Foods Ltd.; 3 – The expiry dates identify the productions of biscuits that are affected.

Problem solving: Alan-Amy-Emily-Brad-Beth-Charles-Debbie-Frances is one of the 11 possible solutions.

Science - B

### 5.2. Journalistic request:

*The news of the day:*

Simona Halep (5 WTA) qualified on Tuesday morning in the finals of the Miami tournament after a fabulous comeback against Australian Samantha Stosur. Led by 6-4, 5-2, the Romanian saved a match ball, won the second set with 7-5, and in the decisive set did not give any chance to the opponent, winning, score 4-6, 7-5, 6-2, after two hours and 10 minutes.

In the quarter-finals, Simona, who equaled her personal 2016 Miami performance, will play against Johanna Konta, the 11th world player and the 10th favorite player of the tournament, in a match she will not be allowed to make mistakes from the first two sets of the game with Stosur.

- Identify the relevant elements in the news:

*Answer:* No = 6

Who? Simona Halep; What did she do? She got qualified; Where? In Miami; When? On Tuesday morning; How? She defeated Australian S. Stosur with 4-6, 7-5, 6-2, after two hours and 10 minutes; Why? To get to the quarter-finals, where she is going to play against Johanna Konta, the 11th world player and the 10th favorite player of the tournament.

- Using the relevant elements in the above news, make another journalistic statement, in a new context, with other meanings and another message.

*Answer:* For example

In the finals of the tournament in Miami, Simona Halep (5 WTA) won on Tuesday morning in front of Australian S. Stosur with a score of 4-6, 7-5, 6-2, after two hours and 10 minutes of fabulous returns, which assured right from the start the meeting in the quarter-finals with the British Johanna Konta, the 11th world player and the 10th favorite player of the tournament.

or

In the finals of the Miami tournament, Simona Halep (5 WTA) struggled to defeat Australian S. Stosur on Tuesday morning with 4-6, 7-5, 6-2 so she could meet in the quarter-finals the British Johanna Konta, 11th world player and the 10th favorite player of the tournament.

### 5.3. The average of grades earned after the first semester

## 6. Findings

At the PISA 2013 Test, the following results were obtained:

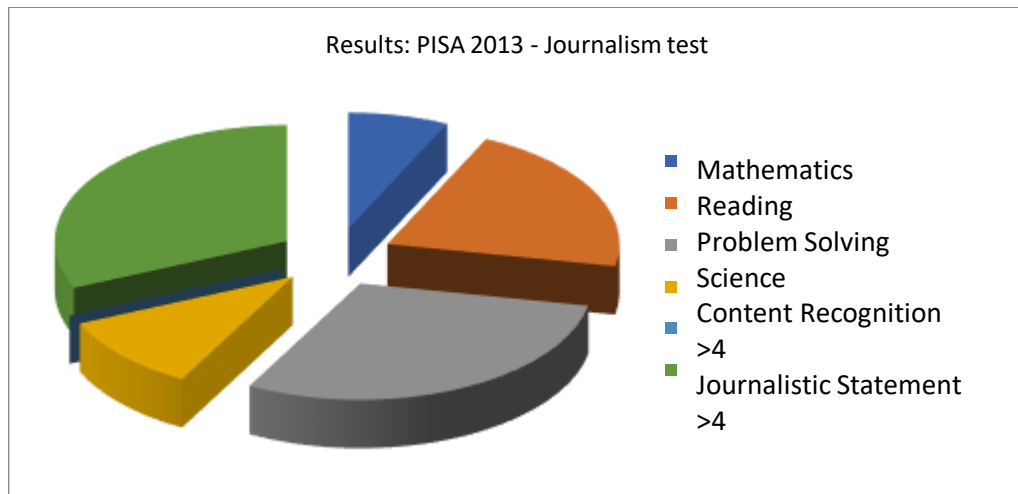
- Mathematics: out of 28, 4 students fully solved the 3 requirements.
- Reading: out of 28, 12 students fully solved the 3 requirements.
- Problem Solving: out of 28 students, 17 students solved the problems.
- Science: out of 28 respondents, 6 students answered correctly.

At the Journalistic Requirement students achieved the following results:

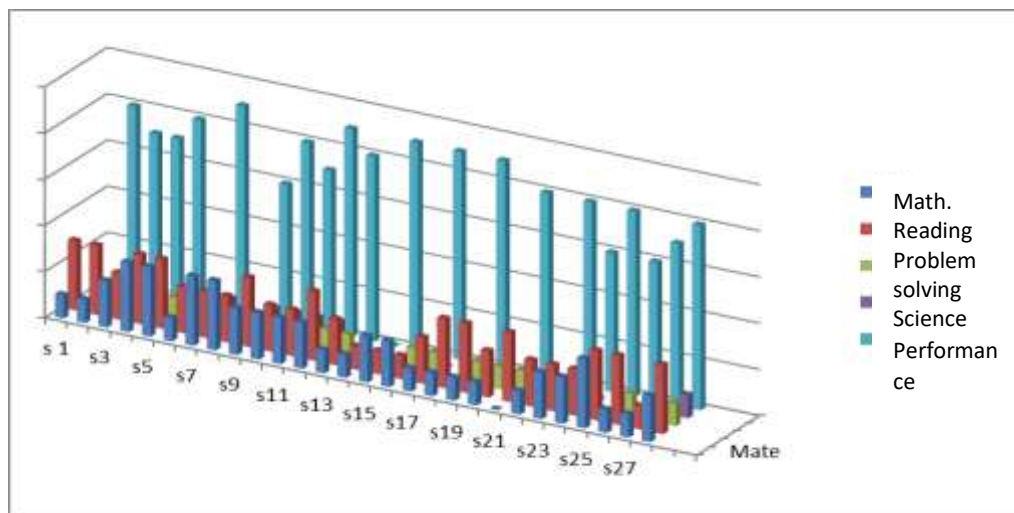
- In requirement 1, whose purpose was to check comprehension, 6 significant elements of content had to be identified (6 elements: who, what, where, when, how, why?).

- 6 recognized elements – 3 students, 5 recognized elements – 5 students, 4 recognized elements – 10 students, 3 recognized elements – 6 students, 0 recognized elements – 2 students,

- In requirement 2, which aimed to draft a new journalistic statement, students responded using the previously discovered content items: 13 students and 15 failed to create a journalistic statement with a message other than the original one (Figure 01, 02 and 03).

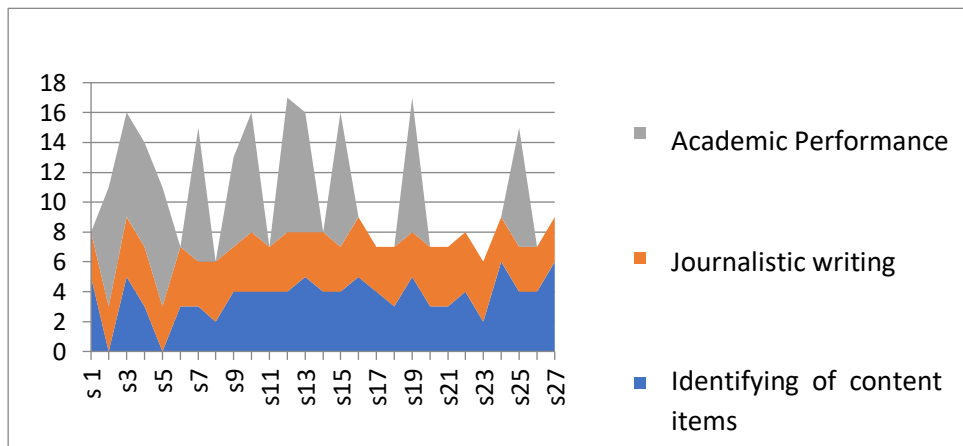


**Figure 01.** Results Pisa 2013



**Figure 02.** Correlations The Pisa Test – academic performance





**Figure 03.** Journalistic abilities – academic performance

### 6.1. Interpretation of results

The results of the study showed that out of 28 respondent students, 4 students fully completed the tasks required by the Pisa test in mathematics, 12 students in reading and 17 in problem solving. The tasks contained in this type of tests are practically-applicative. They ask the respondent pupil / student to translate them into real life not apply them in a context.

Romanian students, tributaries to a theoretical education system, are not able to use the information received in school in real life contexts. The mathematical tasks put them into difficulty, although the requirements involved life experiences that each of them had: walking on the mountain, walking, time-distance or time-speed-distance ratio. Mathematics is one of the most often rejected subjects by the students of the Romanian school, despite its practical and applicative character. This little performance is explained by the fact that these problems are being studied in schools, starting with the primary cycle, without insisting on connecting these problems with the child's living environment, on their usefulness in adapting each of us to the environment.

At reading comprehension, less than half of them answered correctly, which proves that the exercise of reading, practiced in first classes, has made it easier for them to understand the text and the reading context. In the problem-solving test, the performance was the highest: just a bit over half of the students (17 out of 28) successfully solved the proposed tasks. The practical-applicative character of the task, contextualized in the form of a life experience, without resorting to the theory of a specific field (as it happened in mathematics or in science, for example), managed to awaken the interest and the attention of the students, who responded to this challenge.

The last area in which work tasks were designed was science. Like mathematics, it raised difficulties for the questioned students. The joining of the laws of physics, which they learned about in the years of the gymnasium study, with the facts of life, went beyond the usual methodological framework of learning from the Romanian system. Students failed to contextualize and resolve the test requirements. Like the rest of the tasks, the entire test was designed for the level of development and of knowledge accumulation specific to the age of 15 (the age for which PISA tests are designed).

As far as the specific study requirement is concerned, 11 students out of 28 fully complied with the requirement to recognize the fundamental content elements and created a new journalistic content, as directed.

Considering that 17 of them had the capacity to solve problems and 11 responded to the journalistic requirements, the overall percentage would have been around an average coefficient. But among the 17 students who solved problems, not all the 11 students who solved journalistic requirements were found. The students who found themselves in both categories were 9.

In conclusion, out of the 28 students who underwent testing, 9 managed to solve, according to the requirements, the tasks received in the two types of testing. If we compare the results of the pilot study conducted by us and the results obtained by Romania at international level, we see that the proportion tends to be constant. One third of the students were able to adapt to requirements under their age of learning (PISA Tests) and for their age and specialization (journalistic requirements), while at national level, 40% of the 15-year-old high school students proved to be functional illiterates in the statistics of the last years.

## **6.2. The correlation with academic performance**

The correlation between the PISA results and the students' academic performance after the first semester showed that the 3 students who completed the reading comprehension requirement also have good results after the first session of exams in their lives as students of Journalism. There isn't a directly proportional correlation between the rest of the fields and their academic performance. The correlation between the results achieved in the journalistic requirement and the academic performance after the first session captures an interesting phenomenon: out of 28 surveyed students, only 3 identified correctly and completely the requested content elements, while for the second requirement (writing the news in a new context) 13 students used the previously requested elements in the first requirement, and made a new content. The conclusion here is that students automatically learn through repetitive exercises to produce journalistic content. The good grades from the winter session confirm that they are concerned about their academic training. But when they are faced with new content, the detachment of the relevant elements, involving a critical, analytical thinking effort, is a difficult exercise to solve

## **7. Conclusion**

The subject analyzed by this pilot study is only a preamble to extensive scientific research that can evolve both from the perspective of the communicational space and from the perspective of the educational field. The problem of functional illiteracy is not specific to a certain age segment, since it affects all age groups regardless of their urban or rural background. The need for cognitive acquisitions and their importance for social, cultural, personal development are elements that policy actors in education (teachers, ministers, legislators) have to mark as being of utmost importance. In every act of human knowledge, it is relevant what must be known, how it must be known, and the reason for which something must be known by every age category. In this context, these often-found statements start to get axiomatic value: A man without training and education is an incomplete man and a society without education and training is a lost society

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