

TEACHERS ON STUDENTS' TIME. A STUDY ON TIME AS LEARNING RESOURCE

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Abstract: *The current study represents a synthesis of a hands-on research carried out among primary and secondary school teachers concerning the way in which students' time is shared among learning activities and other activities that that students carry out outside the school programme. By tackling time as a resource of school learning, and by underlying the predominantly limited character of this resource, the present study raises the issue of competition between school learning and other activities that students carry out. The investigation among teachers is focused on two aspects: the former being the dynamics of the time that students set aside for individual study and doing home assignments, the latter pertaining to extra-curricular activities that occupy students' time, diminishing time resources allocated for school learning.*

Key words: *time as resource, school learning, learning time, individual study*

Introduction

The current study represents a synthesis of a hands-on research carried out among primary and secondary school teachers concerning the way in which students' time is shared among learning activities and other activities that that students carry out outside the school programme.

We tackle time as a *school learning resource* in the context of the relationship between resources and needs. We start from the assumption that the special issue of time management is the issue of *concurrent needs*, i.e. those needs which require the same resources and therefore cannot be satisfied simultaneously. Hence, *satisfying some needs hampers or postpones the satisfaction of others*. From this perspective, *all human needs are concurrent in relation to time resources*. This is motivated both by the fact that *time is essentially a limited resource*, and the fact that any human need, in the process of being satisfied, entails a smaller or larger time consumption.

School learning does not overlook this competition for the time resource, since *school learning is not the only activity that consumes students' available time*. This activity is concurrent with other activities that students carry out, so that managing rationally the time required from students for school learning is not possible without knowing the way in which the time students have at their disposal is allocated from the global perspective of school and extracurricular activities. We opted for circadian and weekly rhythms since the school day and the school week are time units with which we operate unmediatedly in the educational process and which represent the main element of learning time management.

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Research methodology

Concepts, dimensions, indicators

The central concept of our research is that of *structure and dynamics of active time* that students have at their disposal and which they allocate daily and weekly to different learning, working or recreational activities. Two dimensions considered significant for the diagnosis of the current situation and as database for rationalising time management:

1. *Structure and dynamics of active time* (daily and weekly), with the following indicators:

a) institutionalised learning time, with its components:

- time for collective learning activities (school timetable), which entails the students' physical presence in the classroom;
- time for independent/individual learning activities;

b) optional / elective learning time;

c) working time (not connected with school learning);

d) free time.

2. *The structure of activities* (daily and weekly), with the following indicators:

a) compulsory activities intrinsically linked to the institutionalised school programme:

- participating in the compulsory school programme (timetable);
- doing homework and preparing lessons;

b) optional learning activities (school-related, but not imposed by the school);

- private tuition for certain school subjects;
- other optional learning activities;

c) optional recreational activities (entertainment):

- TV programmes watching;
- working on the computer (INTERNET, games, etc.);
- freely chosen recreational activities (sport, music, etc.);

d) family-directed activities (tasks).

Research sampling

The sample of teachers involved in the research was established in direct consideration of the samples of students that the teachers teach. Therefore, the first step of our research was to establish the students' samples.

In selecting students' samples, we opted for *stratified sampling*. This technique was decided upon because in schools we come across a natural stratification of students' samples by age and classes, each class potentially being a representative sample for all the classes at the same level, from institutions with the same profile and that function in similar, or at least comparable, contexts. Taking as criterion the *school age*, three types of samples were selected, each sample consisting of three classes of students:

a) samples of VIIIth grade;

b) samples of Xth grade;

c) samples of XIIth grade.

As concerns the teachers' sample, the same technique of stratified sampling by classes was used. As a matter of fact, paired sample (teacher-student) were set up, with the mention that each teacher sample included all teachers that teach the same class of

students. We opted for this solution since the research objective was to investigate the way in which time is allocated to students per all curricular subjects, through computing all the requirements that all teachers teaching the same class have of their students.

Research instruments

The research bears mainly the character of a sociological research, in which, in order to collect data by samples included in the research, the questionnaire technique was used. The questionnaire was designed on the basis of the dimensions and indicators of the concept of *structure and dynamics of active time*, to each indicator being assigned one or more items in the structure of the questionnaires. In particular, the questionnaire focused on two topics: one related to the time required of students to do their homework and individual study, and the other one pertaining to extracurricular activities which compete with the learning activities. The questionnaire is presented in the Annex.

Data analysis and interpretation

Individual study – between necessity and possibility

From the perspective of learning time management, the issue of time needed for learning through individual study and by doing homework bears a special relevance. This is due to the fact that more or less of this time, as well as the degree of burdening with learning tasks, represents the main lever through which teachers and the school can control and ensure rational time management of all students' programme. Indeed, while the time allocated to the school timetable is almost inflexible, both as duration and programme, the time allocated by students to do homework and for individual study, is variable, fluctuating, both as duration and programme.

Every time there exist concurrent extracurricular activities, the first and the most affected one is particularly the time allotted to individual study. The very overcharging of students is most of the times considered as a result of the excess of learning tasks outside the school classes and the non-existence of *class study*. The solution to the problem of overcharging practiced by both teachers and students is, most of the time, the diminishing of time allotted to individual study and doing homework.

In order to investigate these aspects, the questionnaire for teachers included several successive questions. Thus:

- Question no.1 required of teachers to assess how necessary individual study is;
- Questions nos.2 and 3 asked teachers to reveal whether they are in the habit of assigning homework and how much time they reckon students need to do the assigned homework;
- Question no.4 asked teachers to show the type of assignments and tasks for individual study are required of students.

The results of processing teachers' responses are presented in Tables nos. 1 and 2.

Table no. 1 Frequency of answers to Question no. 1

Classes	No. of teachers	No. of answers	Frequency of responses variants					Non answers
			Very necessary	Necessary	Partly necessary	Not very necessary	Unnecessary	
VIII	58	56	38	16	2	-	-	2
X	62	62	39	16	6	-	1	-
XII	48	46	32	10	2	-	2	2
Total	168	164	109	42	10	-	3	4

Table no. 2 Frequency of answers to Questions nos. 2,3,4

Classes	No. of teachers	No. of answers	Question no. 2 (Homework assignments)		Question no. 3 (How much time?)					Question no. 4 (What type of assignments?)			Non answers
			YES	NO	Below 30'	1/2 hour	1 hour	2 hours	3 hours	Assignments that entail written solutions	Assignments that entail study (reading)	Assignments that entail practical works	
VIII	58	58	38	20	14	10	10	2	2	26	38	10	-
X	62	62	48	14	8	18	18	4	-	37	35	7	-
XII	48	48	39	9	6	15	13	5	-	32	26	9	-
Total	168	168	125	43	28	43	41	11	2	95	99	26	-

In the case of the first question, the conclusion is self-evident: the majority of teachers (66.5%) consider individual study as *very necessary*, while 25.6% appreciate that individual study is *necessary*. Few answers that appreciate individual study as *partly necessary* or *unnecessary* belong to teachers of physical education or other disciplines, which, through their nature do not entail individual study. This conclusion is also confirmed by the answers to Question no. 2, out of which we learned that most teachers, (74.4%), out of which we draw the conclusion that most teachers frequently require of students to do homework and individual study.

As concerns *the time necessary for doing homework and individual study*, if we

calculate the weighted average of responses provided by teachers to Question no. 3 (see Table no. 2), we obtain an amount of time equal to an hour per day / school discipline. This means that in the case of a regular timetable, which comprises 3-4 disciplines for which students have to do assignments and / or individual study, the average daily time required of students 3-4 hours.

From the perspective of the type of requests, the research data reveal the following frequencies:

- assignments that entail individual study (reading) – 45%;
- assignments that entail written solutions – 43%;
- assignments that entail practical works – 12%.

In order to clarify aspects concerning the minimum time necessary for lesson preparation, the questionnaire contained two more questions:

- Question no. 5, which asked teachers to mention the minimum time necessary to students in order to prepare their lessons (learning through study), provided they have no written assignments to do;
- Question no. 6, which asked teachers to mention how often it happens that students do not do their homework, or they do them superficially.

The results of processing the responses are presented in Table no.3.

Table no. 3 Frequency of responses to Questions nos. 5 and 6

Classes	No. of teachers	No. of answers	Question no. 5 (Time needed for preparing lessons)								Question no. 6 (Students' not doing homework)					Non answers
			- 20'	20-30'	40'	50'	60'	1.5 hours	2 hours	Over 2 hours	Frequently	Quite frequently	Often	Rarely	Never	
VIII	58	58	-	28	3	6	16	4	1	-	5	10	30	12	1	-
X	62	53	5	25	11	2	8	1	1	-	1	9	30	10	3	9
XII	48	44	7	15	8	3	6	-	3	2	-	11	22	9	2	4
Total	168	155	12	68	22	11	30	5	5	2	6	30	82	31	6	13

By calculating the arithmetic weighted average of responses concerning time spent on doing homework, we obtain a duration of approximately 40 minutes per day/discipline, and if we take into consideration that the daily timetable consists of 4-5 disciplines that require a minimum preparation of lessons, we find out a daily average time necessary for lesson preparation of approximately 2.5-3 hours. This may be considered as a minimal time, since written assignments were not taken into consideration, only the study necessary for preparing lessons for the next day.

The question that arises is whether students really allot time to lesson preparation. From this perspective, most of the answers provided by teachers (52.9%) are situated under the variant sometimes, which means that the phenomenon of not preparing lessons is real,

but not very frequent. However, there are teachers (23%) who declare that not preparing one's lessons is a frequent or quite frequent phenomenon, which confirms, from teachers' perspective, the fluctuating character of the time spent by students on learning outside school classes.

In order to obtain supplementary information about the real situation of learning time through doing homework and individual study, Question no. 7 from the Questionnaire asked teachers to appreciate the concrete situation of the classes they teach. The question provided 5 variants of responses, and teachers were required to appreciate in percentages the weight of each variant out of the students' total. The results of processing the responses are the following:

	Student categories	Frequency
1	Students who fulfil completely, systematically and thoroughly the home assignments and learning tasks	43.51%
2	Students who do their homework and learning tasks at an acceptable level, sometimes better, sometimes more superficially	28.51%
3	Students who do their homework and learning tasks occasionally, generally rarely and only if they are warned or forced by a certain circumstance (to avoid an F grade).	13.28%
4	Students who do their homework and learning tasks sporadically, partially and selectively (only from time to time and only for certain disciplines)	9.13%
5	Students who frequently do not do either their written assignments or the learning tasks, usually coming to school unprepared	6.04%

Data reflects a quite optimistic situation, teachers appreciating that 43.51% of their students are *students who fulfil completely, systematically and thoroughly the home assignments and learning tasks*. We obviously need to take into consideration the percentages, quite significant, of those other categories of students, as they result from the table. However, as they are presented, the data in the table lend themselves to different interpretations, to a large extent, dependent on the concrete situation of each classroom. For example, we may assume that classes with a high level of school performance in the case of "good" classes, the data in the table reflect correctly the reality. We need however to see to what extent the configuration of data in the table corresponds to reality in the case of classes of students with low school performances, especially the percentage of students who prepare thoroughly and systematically.

Complementary information concerning the real situation of preparing lessons is given by the teachers' answers to Question no. 8, which required them to mention the causes/reasons for which some students do not do their homework. The results of processing responses are presented in Table no.4. The data in the table is significant in itself, and does not need any supplementary considerations. The only mention we need to

make is that the highest percentage (52.6%) is held by *student-related causes*: laziness, carelessness, disinterest from the student or the family, and less related to some objective conditions, including school.

Table no. 4 Frequency of answers to Question no. 8

Classes	No. of teachers	No. of answers	Causes (reasons)									Non answers
			carelessness, unconsciousness, low of disinterest,	negative motivation	Lack of supervision, disinterest from the part of the family (too many home extra-curricular activities and tasks other activities, and leisure preoccupations (TV, (slow rhythm, accumulated	Health state	Other causes					
VIII	58	58	20	30	24	14	8	18	6	2	12	-
X	62	59	17	26	7	18	11	15	4	1	5	3
XII	48	47	14	27	8	13	2	14	2	1	6	1
Total	168	164	51	83	39	45	21	47	12	4	23	4

School learning versus other activities

A more faithful image on allocated time effectively on school learning may be obtained if we take into consideration all the activities carried out by students and in particular those activities that compete directly with the school learning activities. We state that the term concurrent activities refer to those activities (school related or unrelated) which, through distributing a set of common time, the time allocated to some activities cannot increase or decrease but on account of the increase or decrease in time allocated to other activities. The idea is that we cannot either know or control the time allocated in real terms by students to school learning if we do not know which are the concurrent activities that limit in fact the time available for school learning.

In order to investigate these aspects, the questionnaire included a question (no.14) which asked teachers to show, according to their information, whether there exist students who perform different works in the family and if these may be considered as a reason why students come to school unprepared. Moreover, we requested teachers, through Question no. 15, to show whether they identify states of tiredness, of fatigue among students, and if yes, what are, in their opinion, the factors that generate such states.

The results of processing the responses are presented in Tables nos.5 and 6, with the mention that in Table no.6, the factors that generated the stated of tiredness are listed in the form of a scale, according to the teachers' appreciation concerning the intensity of each factor.

Data collected reveal that a significant share of teachers (57.7%) appreciate that there exist students who, on family's imposition, perform certain household chores or other school-unrelated tasks. 16.7% of teachers consider that this situation does not exist in the

classes they teach.

However, more important is the percentage of 25.6% of the teachers declaring that they „don't know” whether such situations exist in the classes they teach. This percentage is important since not knowing the „extracurricular” activities that occupy students' time, to the detriment of the school time, is one of the causes of the lack in rationality or unrealism in didactic design, with reference to designing learning tasks outside classroom hours. In extreme situations, the tasks imposed by the family may affect even students' presence in the compulsory school programme (timetable).

Table no. 5 Frequency of responses to Questions nos. 14 and 15

Classes	No. of teachers	No. of responses	Question no. 14 (if there are students who, on family's request, perform different household chores or other school-unrelated tasks)						Question no. 15 (If teachers notice tiredness, fatigue in students)		Non answers
			YES	NO	I don't know	If YES:			YES	NO	
						YES	NO	I don't know			
VIII	58	58	38	12	8	12	26	-	50	8	-
X	62	62	35	7	20	14	18	3	49	13	-
XII	48	48	24	9	15	10	12	2	42	6	-
Total	168	168	97	28	43	36	56	5	141	27	-

Table no. 6 A hierarchy of tiredness-conducive factors for students, on the basis of responses to Question no.15

Factors	VIIIth grade		Xth grade		XIIth grade		Total	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank
Very busy school programme (timetable)	154	2	148	1	114	2	416	1
Time spent in front of the TV	164	1	134	2	115	1	413	2
Large amount of school homework (assignments, study)	144	3	113	3	91	4	348	3
Excessive work on the computer (unrelated to school learning)	118	4	107	4	113	3	338	4

Private tuition (numerous and for many disciplines)	68	5	75	5	70	5	213	5
Works performed for the family (household chores)	4	6	50	6	44	6	98	6
Family issues (misunderstandings, fights)	18	7	4	8	2	8	25	7
Time spent on parties, discos, etc.	4	8	6	7	5	7	15	8
Medical problems	2	9	1	9	1	9	4	9

Useful information is also offered by the answers given by teachers to the question referring to some states of fatigue in students. As results from Table no. 5, the majority of teachers (83.9%) confirm the existence of such states. In order to study the factors that generate or contribute to the installation of fatigue in students, teachers were required to make a hierarchy, in accordance with their intensity, a series of factors mentioned in the questionnaire, but having the possibility to add other factors that they consider significant. The results of scaling the factors are presented in Table no. 6, both by school classes and by the teachers sample in its entirety. The hierarchy of factors is relevant in itself and would not impose supplementary considerations.

However, we deem that some accents and underpinnings are necessary in the end of this study. It is noteworthy in this sense that, even if there are some differences from one class to another, *the very busy school programme* is situated at the forefront of tiredness in students. The unmediated applicative conclusion of this remark is that rationalising the management of learning time is not possible without a substantial reduction in the quantitative burden (in number of hours) of the compulsory school programme. At the same time, if we consider that a superior rank is held by the high number of school home assignments (tasks, study), it results that a *curriculum contents restructuring* is necessary, under the perspective of the volume and difficulty / accessibility of knowledge provided for by the school curricula. At the same time, private tuition may also be added up to the category of *school factors* of tiredness in students.

Annex
QUESTIONNAIRE
For teachers teaching class _____

Please answer some of the questions concerning the way in which you use independent individual study in the realisation of the objectives of the discipline you teach.

Your answers are necessary for an investigation on the topic of didactic design. Thank you for your collaboration!

We mention that through students' individual independent study we refer to the activity carried out by students outside classroom hours, mainly through doing homework and preparing lessons.

It is obvious that your sincerity will be decisive for the value of the research.

Thank you for your collaboration!

1. How necessary do you appreciate that students' individual independent study is in assimilating knowledge and capacities provided for by the school curricula of the discipline you teach?

- a) Very necessary
- b) Necessary
- c) Partially necessary
- d) Not very necessary
- e) Not necessary.

2. Do you usually assign homework to students?

- a) YES
- b) NO

3. If YES, how much time do you think students require in order to do their assigned homework for your discipline? Think of an average, common situation. The answer may be given in hours or/and minutes.

4. What type of assignments and individual study tasks do you usually assign students for homework? (You may choose as many options as you want, including all).

- a) Assignments that entail written (answers) solutions.
 - b) Assignments that entail study (reading).
 - c) Assignments that entail practical works (objects, drawings).
 - d) Other types of assignments, such as:
-
-

5. Supposing students do not have to do, for your discipline, neither written assignments nor supplementary study for home, how much time do you think they still need to learn (prepare) a topic / a lesson for the next class, at an acceptable level.

Answer in hours or minutes.

6. Does it happen that an important number of students do not do their homework, or do

them superficially (carelessly)?

- a) Frequently.
- b) Quite frequently.
- c) Usually.
- d) Rarely.
- e) Never.

7. Obviously, the way and the extent to which students do their homework and prepare the next lesson differ from one students to another, and from classroom to classroom On analysing the concrete situation in your classes, which is the percentage of students in one of the following situations?

Please answer in percentage (%), ensuring that the sum of percentages for all variants be 100%.

Student categories	Percentage (%)
a) Students who fulfil completely, systematically and thoroughly the home assignments and learning tasks	
b) Students who do their homework and learning tasks at an acceptable level, sometimes better, sometimes more superficially	
c) Students who do their homework and learning tasks occasionally, generally rarely and only if they are warned or forced by a certain circumstance (to avoid an F grade).	
d) Students who do their homework and learning tasks sporadically, partially and selectively (only from time to time and only for certain disciplines)	
e) Students who frequently do not do either their written assignments or the learning tasks, usually coming to school unprepared	

8. Which are, in your opinion, the causes or reasons for which some students do not do their homework, do them superficially or do prepare themselves for the next lesson?

9. As far as you know, between which hours ranges your students' daily programme

- a) I believe that usually they wake up at about _____
- b) I believe that usually they go to bed at about _____

10. Now please think about the real situation existing at present in the classes you teach. How much time do you think students allocate effectively, on a regular school day to doing homework and preparing the lesson for the next day, for your discipline?

You may answer in hours, minutes or, if the case may be, with "not at all".

- h) _____
i) _____

16. From the perspective of school performances, in the case of your subject, your class's level, in its entirety, is:

- a) very good;
- b) good;
- c) medium;
- d) low;
- e) very low.

You teach the school subject _____ at class _____

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