

Available online at www.sciencedirect.com**ScienceDirect**

Procedia - Social and Behavioral Sciences 217 (2016) 139 – 148

Procedia
Social and Behavioral Sciences

Future Academy®'s Multidisciplinary Conference

Homework in primary education from the perspective of teachers and pupils

Marina Costa^a, Ana Paula Cardoso^{a,*}, Carla Lacerda^a, Ana Lopes^a, Celeste Gomes^b^a*Instituto Politécnico de Viseu, CI&DETS, Escola Superior de Educação, Portugal*^b*Faculdade de Ciências e Tecnologia, Universidade de Coimbra, Portugal*

Abstract

This study aims to understand the perceptions of teachers and students of the 4th year of schooling regarding homework and its relationship with the act of studying. A comparative research of a descriptive-correlational nature was undertaken, comprising two questionnaires one to the teachers and another to their pupils. The study covered a sample of fourteen primary teachers from all Nelas municipality state schools (central region of Portugal), and 128 pupils, aged from 9 to 11 years and of both sexes, in identical percentage. Data obtained show that all teachers ask their students to do homework, especially in the areas of Portuguese and Mathematics and consider it essential for learning. The students generally like to do their homework and consider it important. For the most part, if they could decide, students would do homework because it helps them to consolidate the content taught. Knowing the teachers and students perceptions about the homework is fundamental to developing teaching strategies that contribute to the academic success of all students.

© 2016 Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of Future Academy® Cognitive Trading

Keywords: Homework; primary education; pupils; teachers

1. Introduction

In the 1st Cycle of Basic Education [years 1-4 of schooling] homework is a regular procedure and takes up a significant part of the day-to-day life of children. Homework is defined as "tasks assigned to students by school teachers which are meant to be carried out during non-school hours" and therefore without the direct guidance of the

* Corresponding author. Tel.: +351-232-419-000; fax: +351-232-419-002.

E-mail address: a.p.cardoso@esev.ipv.pt

teacher, while the tasks are underway (Cooper, 1989a, p. 7). In other words, homework is a set of activities that are to be fulfilled by children after classes, which may take on various forms, such as copies, compositions, numerical operations, worksheets, etc.

Homework is generally seen as a means of consolidating what the students learnt in school, and allows extending the time for learning beyond the hours of formal schooling (Perrenoud, 1995). It is considered an instrument that reinforces learning and helps promote proper study methods and autonomous work capacities (Cooper, 2001; Cooper, Robinson & Patall, 2006; Corno & Xu, 2004; Epstein, 2001; Epstein & Van Voorhis, 2001; Marques, 2001).

However, when homework is excessive and repetitive, it is considered by pupils as a routine that can cause lack of interest and emotional fatigue and does not help children to value the school or create a positive feeling towards the act of learning. To be effective, homework must have meaning and sense to the pupil, be relevant, stimulating and accessible, so that children will be motivated to carry it out and able to complete the tasks successfully (Araújo, 2009; Marujo, Neto & Perloiro, 2002; Meirieu, 1998; Silva, 2004).

Parental involvement is fundamental to encourage children with homework (Villas-Boas, 2000a, 2000b) and contribute to give meaning to school learning, for example, bringing an exercise or a rule that has been learned in school to bear on this or that situation that one has lived (Meirieu, 1998). All parents, regardless of their educational level, can be encouraged to help their children, namely with regard to school expectations, activities of exploration of the environment and in work habits that in turn, positively affect school performance, as refers Bloom (1982). Parents should give their children the support they need, not forgetting that it is the students who have to do homework assignments and parents simply guide and support them in their difficulties (Marques, 2001).

However, the environments in which many children perform homework are often poorly structured which means that many of these students perform the assignments alone, without guidance and appropriate support, and are therefore easily distracted. The absence of active parental involvement or low investment and the lack of support and adequate monitoring in the fulfillment of homework lead to the loss of opportunity to use this educational action as a moment of modeling and learning (Rosário et al., 2005).

Generally considered an academic success factor, it should be noted that, especially for elementary children, homework can contribute to perpetuate inequalities in education, because the "more disadvantaged children get less help from their parents with their homework and so it can amplify existing inequalities through complementarities with home inputs "(Rønning, 2011, p. 55).

Taking into account the different perspectives on homework, it is essential to compare teachers and pupils' perspectives in order to understand its relevance in the teaching-learning process. Thus arises the problem of this research: "How is homework perceived by 4th year teachers and pupils in the municipality of Nelas (Portugal), and if they could decide, would the pupils do their homework?"

In this context, we intend to analyse the importance attached by teachers to homework, to check how often homework is assigned and if the tasks set are the same for the whole class, to identify the most common types of homework, to ascertain how regularly homework is verified as well as how it is corrected and also to know the opinion of teachers about homework and its usefulness. At the same time, we also seek to analyse the feelings of students in relation to homework, once it is essential to realize whether it is done with pleasure or not, to identify the types of homework assignments that pupils would rather do and why. We also intend to know the opinion of the respondent pupils on whether they find it easier to learn from homework, to know the context in which such tasks are carried out (place, time spent, who helps and time left for other activities), and ascertain whether, if they could decide, would or would not do homework.

Finally, we intend to verify if there are significant differences between the decision to do homework and the enjoyment in performing those tasks, the time it takes to fulfill them and the fact that pupils have (or do not have) time left for other activities. Thus, the following hypotheses were formulated:

Hypothesis 1 - There are significant differences between the decision to carry out homework and the enjoyment in doing it;

Hypothesis 2 - There are significant differences between the decision to do homework and the amount of time spent on it;

Hypothesis 3 - There are significant differences between the decision to do homework and the time left over for other activities.

2. Method

2.1. Data collection and samples

This research aims to analyse how homework is perceived by teachers and pupils of the 4th year. It is therefore research of a descriptive and correlational nature (Fortin, 2000), based on an inquiry undertaken through a questionnaire. The target population for this study comprised teachers and students of the 4th year of the two Nelas municipality Schools Groupings (central region of Portugal), more precisely, the Nelas Schools Grouping, which is made up of four schools, and Canas de Senhorim Schools Grouping, which has five schools.

We chose the 4th grade, as pupils are already at a level where they are able to give written answers, with coherence and some rigor and also because, along the previous years, pupils have most certainly undertaken several homework assignments and have an opinion on this subject.

The estimated population is 144 students and 14 teachers: 101 pupils and 7 teachers from the Nelas Group of Schools and 43 students and 7 teachers from the Canas de Senhorim Grouping. 128 pupil questionnaires were obtained (a response rate of 88.8%) and 14 questionnaires were answered by the teachers (the entirety).

The questionnaires were distributed to all pupils and teachers in order to obtain a sample as enlarged and representative of the population as possible. These are samples of convenience (Hill & Hill, 2000) since they were chosen according to criteria of a practical order, having to do with the ease of access to participants.

Of the 14 teachers surveyed, only one is male. Their ages range between 40 and 58, with more than half of the respondents being 43 or over. The average age is 45.35 years and the standard deviation is 5.904. It is clear that all teachers have a long professional experience, ranging between 18 and 36 years of practice. Almost all teachers have a degree.

Of the 128 pupils surveyed, more than half (50.8%) are female and others 63 (49.2%) are male. Ages range from 9 to 11, with 103 (80.5%) 9 year-old pupils, 24 (18.8%) 10 year-olds and only one of the pupils is an 11 year-old. The average age is 9.2 years and the standard deviation is 0.423.

2.2. Survey questionnaires

Towards an achievement of the data necessary to carry out this research, and considering the stated problem, we chose the questionnaire in order to obtain a set of objective and comparable data (Ghiglione & Matalon, 2005).

Two questionnaires were prepared, one addressed to the teachers and another to the pupils. For its construction, one relied on the previously defined goals and drafted a number of items, seeking to use a linguistic register that would be suitable to the participants.

The questionnaire for teachers is divided into two parts: the first aims to collect data for sociodemographic characterization and the second part is designed to obtain data on the perception of respondents about homework. At the beginning, teachers are asked if they assign homework. If not, the participation of teachers ends here.

The questionnaire addressed to the pupils is also divided into two parts: the former concerns the sociodemographic characterization and the latter intends to know the perception of students about homework. This second section consists of thirteen queries, two of which require an open answer. In the last issue, pupils are invited to take a stand, whether they would or would not do homework if given the chance to decide.

A pre-test to the questionnaires was carried out, which involved six teachers and eleven pupils of the 4th grade who were not part of the final study. The analysis has shown that the questionnaires were conveniently designed with an accessible language.

2.3. Procedure

For the implementation of the study and data collection, it was necessary to request monitoring of questionnaires to the General Directorate of Education (DGE) and obtain authorization from different entities (Directors of Nelas municipality Schools Groupings and parents/guardians).

Initially, questionnaires were sent to the DGE, in order to be approved and their application authorized within Nelas and Canas de Senhorim Schools Groupings to teachers and students of the 4th grade. The aforementioned entity replied briefly, and decided that "the request for undertaking a survey in school environments is authorized once, subject to analysis, the survey has shown to meet the requirements".

After we received authorization from the DGE, permission to the direction of school groupings was requested through a letter. After authorization from the directors, they themselves sent the information to all the staff involved in the study.

Later a request for authorization to parents/guardians was conceived, so that students could answer the questionnaires. After a meeting with the directors, days were scheduled which would be more convenient to go to schools, so as not to interrupt the course of lessons. We went into the schools, where we addressed the teachers of the various classes and also pupils; it was explained that questionnaires were intended only for academic purposes and would not have any bearing on the assessment of pupils and teachers. After the purpose of the study had been explained, we gave the teachers the authorizations designed for parents/guardians.

Then the questionnaires were distributed. There were some schools where the questionnaires were answered immediately, while in others, teachers requested that we leave the questionnaires and come back for them on another day. In schools where the questionnaires were handed out at once we had the opportunity to contact with the pupils and answer small doubts.

2.4. Analysis and processing of the data

Data collection was followed by systematization, analysis and interpretation. Quantitative data were subjected to statistical analysis using the SPSS software, version 21. After inserted into the database, several descriptive statistics were calculated (absolute and relative frequencies, means and standard deviations, among others) which allowed to describe and summarise all of the information obtained.

One also relied on inferential statistics to compare proportions (binomial test) and for the verification of the hypotheses formulated. For the latter, we used the chi-square in order to verify the existence of statistically significant differences between categorical variables (Maroco, 2007). Where there was a contingency table 2×2, the Yates continuity correction was considered, to improve the analysis undertaken (Pestana & Gageiro, 2000).

Qualitative data were object of content analysis, in order to extract the meaning of the information obtained. According to Bardin (2004, p. 37), content analysis consists in a "set of communication analysis techniques, so as to obtain, through systematic procedures and objectives of description of message content, indicators (quantitative or not) that enable the inference of knowledge regarding production/reception conditions (inferred variables) of these messages".

3. Results and discussion

3.1. Data on teachers

Through descriptive data analysis, we can say that all teachers surveyed request homework from their pupils, and, in their majority, regard homework as being very important (85.7%). None of the teachers said that homework assignments are of little or no importance to foster learning on the part of pupils. Thus, we can say that teachers consider that with homework, pupils learn more easily. This corroborates Cooper's perspective (2001), according to whom homework has an immediate effect on the retention and understanding of subject-matter and improves pupils' study skills.

Respondent teachers, in their majority, assign homework tasks every day and only one of them states that he sets homework only twice a week. The fact that teachers set homework almost every day reveals that homework assignments are a common practice.

Most teachers demand the same tasks from all pupils quite often. When the tasks are different, as mentioned, this is due to the fact that teachers find that some pupils have learning difficulties (61.5%), that it is necessary to reinforce learning (23.1%), or even because there are pupils with special educational needs (15.4%).

The areas of Portuguese and Mathematics are those where teachers set homework more often, with no responses given to the option rarely or never. On the other hand, the areas of Study of the Environment and especially Physical and Artistic Expression are those in which homework assignments are set less often. The reasons teachers point out for the fact that homework is more often assigned in the Portuguese and Mathematics areas highlight the fact that these are areas where they consider there are more difficulties in learning (36.8%). Another reason has to do with the need to consolidate subject-matters (31.6%) and also is related to the importance given to these two areas (31.6%) in the 1st Cycle of Basic Education curriculum.

Through the binomial test of comparison of proportions, we found that almost all teachers set homework very often in the areas of Portuguese and Mathematics, and that a small percentage does it infrequently, these differences being statistically significant ($p < 0.05$). On the other hand, in the area of Physical and Artistic Expression, most teachers very seldom request homework and only a tiny minority does it very frequently, this difference being statistically significant ($p < 0.05$).

When asked about how often they assign the various types of homework, we find that most teachers set tasks which comprise exercises from textbooks, numerical operations, compositions and worksheets, while project work assignments, done, for example, on PowerPoint are never or rarely requested. This means that, in general, the same type of tasks are asked to pupils, predominantly exercises from textbooks and worksheets, which may contribute to a lack of interest in performing them (Araújo, 2009).

All teachers say they always or almost always check if students have performed the homework assignments, and the correction is done, individually (52.2%) or in group (47.8%). We can see that all teachers value the fact that homework is corrected on time, so that pupils can check where they have not done so well and can improve their performance, which reveals concern on the part of teachers for the pedagogical use of homework.

In turn, when asked about how much time, on average, a day, pupils should devote to homework, the vast majority of teachers think pupils should only spend between 30 minutes to 1 hour (71.4%), or up to 30 minutes (21.4%), which means that teachers consider it important that pupils carry out the homework assignments, but that should not take up too much of their time.

Faced with some statements about homework, most teachers strongly agree (42.9%) with the idea that "homework assignments should be done at home and not in a leisure time centre or other spaces". However, there is still a reasonable percentage of teachers who neither agree nor disagree (35.7%) or who disagree (21.4%) with this statement. Only a small proportion of teachers agree (28.6%) that "pupils regard homework as a duty", and the remaining are undecided (35.7%) some even disagreeing with this statement (35.7%). In their majority, teachers agree (57.1%) or strongly agree (21.4% and 28.6%, respectively), that "pupils are motivated to do the homework assignments" still "having time for other activities afterwards". Also according to the vast majority of teachers (71.4%), "parents/guardians should help children solve their homework assignments" in line with the perspective of several authors, who hold that parents can be regarded as a resource allowing continued success in learning (Villas-Boas, 2000a, 2000b).

Regarding the primary utility of homework, most teachers refer that they are useful to consolidate contents/enhance learning (57.2%), followed by the importance of creating study and work habits (25.0%). These data are consistent with the results obtained through several research studies (Cooper, 2001, Cooper et al., 2006) where it is also considered that homework has immediate impact on memorization and understanding of the contents covered, learning thus being the main benefit of homework assignments. Some teachers (17.9%) also mentioned that the main usefulness of homework is to make known the subject-matters taught to parents/guardians, contrarily to the perspective of Perrenoud (1995) who argues that homework is not done for parents and does not have the function of showing them what was done in class.

3.2. Data on pupils

All pupils claim that teachers set homework which is in line with the teachers' answers. The vast majority of pupils mention that they like homework very much (34.4%) or quite a lot (43.8%); even so, about one fourth of the pupils said they do not enjoy much (19.5%) or don't like (2.3%) fulfilling set homework, which means that some pupils carry out homework assignments unwillingly.

Through the binomial test we found out that the large majority of pupils like doing or like it very much, while a small part states disliking or not liking to do homework very much, these differences being statistically significant ($p < 0.001$).

When asked about the degree of frequency which homework is set, pupils, in their majority, state that they are required to do homework every day (97.7%) and only two pupils admit that they fulfill homework assignments once a week, which is consistent with the data obtained concerning to teachers.

Also consistent with the responses of teachers, the most requested curriculum areas are Portuguese and Mathematics, where most pupils always or almost always perform homework assignments, respectively 47.7% and 44.5%. In the area of Study of the Environment, homework is set but a few times (53.1%) and in the Physical and Artistic Expression area, homework is never or rarely set (64.8%).

Through the binomial test, it was found that a large part of pupils perform homework very often in the areas of Portuguese and Mathematics and a small part does so infrequently, these differences being statistically significant ($p < 0.001$). In the areas of Study of the Environment and Physical and Artistic Expression most pupils state that they do homework very infrequently and only a small part state they fulfill it very often, and these differences are also statistically significant.

Table 1. Frequency of fulfillment of several types of homework

Type of homework \ Frequency	Never or rarely		Sometimes		Very often		Always or almost always	
	N	%	N	%	N	%	N	%
Worksheets	6	4.7	52	40.6	46	35.9	24	18.8
Textbook exercises	9	7.0	35	27.3	55	43.0	29	22.7
Research	37	28.9	77	60.2	7	5.5	7	5.5
Project work (e.g., PowerPoint)	78	60.9	34	26.6	8	6.3	8	6.3
Numerical operations	2	1.6	44	34.4	53	41.4	29	22.7
Compositions	9	7.0	58	45.3	45	35.2	16	12.5

The type of homework more often requested are exercises from textbooks and numerical operations, which are set very often (43.0% and 41.4%, respectively). Next come the worksheets and compositions also requested quite often and afterwards research, which the majority of pupils say they carry out sometimes (60.2%). Finally, we have project work (e.g., PowerPoint) that, according to most pupils is never or rarely ever requested (60.9%) (cf. Table 1).

The binomial test corroborates the existence of significant differences regarding the type of homework most requested, such as exercises from textbooks and numerical operations, that are done very frequently by most pupils, and quite infrequently by a small part ($p < 0.05$). In research and project work there are also significant differences, with almost all of the pupils stating that they perform the assignments infrequently and a small part holding they do so very often ($p < 0.001$).

As concerns the type of homework assignments pupils would like the teacher to set, we highlight group work, mentioned by a large majority of pupils (69.5%) as well as research on the Internet (51.6%). The suggestions of

pupils are interesting, since they are in line with what Sprinthall and Sprinthall (1993) and also Lopes and Silva (2009) hold, when they claim that group work facilitates and promotes the development of learning and the acquisition of social competences.

The correction of homework, according to pupils, is done very regularly, with only a small part stating that sometimes (14.8%), or never or rarely (3.1%), does the teacher correct homework. The answers given by this small group of pupils are not in accordance with the teachers', who state they always or almost always correct homework.

It should be noted that most pupils, except for four, said it is easier to learn if they do their homework. The vast majority of pupils perform homework at home (96.9%) helped mainly by parents (82.0%), which proves to be extremely positive as it contributes to the development of children and to the improvement of their school performance (Marques, 2001; Meirieu, 1998; Pires, 2012; Villas-Boas, 2000a).

Regarding the time that respondents take to fulfill homework, about half of the pupils (47.7%) state that it takes up to 30 minutes; a reasonable percentage (41.4%) say it takes between 30 minutes and an hour; and a small part (10.9%, equivalent to 14 students) admit that it takes from 1 to 2 hours. It is worthy of notice that no pupil says it takes more than two hours to perform the set homework. It is interesting to compare these data with those of teachers, once the vast majority believes that students should only spend 30 minutes to 1 hour doing homework; however, in practice, the time spent by some of the pupils is relatively higher.

Nevertheless, most pupils (88.3%) admit that, once they have finished doing their homework in general, they still have time to do other activities. Only fifteen students (11.7%) admit they do not have time left over. Among the activities that pupils normally perform, there is TV viewing (48.7%) and playing (45.1%), followed by games (31.9%).

It is therefore important that children have time for other activities because, as Meirieu (1998, p. 11) refers, "it is not good for pupils, often since the fourth grade, to be forced to abandon sporting or cultural activities to devote their free time to school work". In addition, as advocated by Araújo (2006, p.11), homework represents, to children "an irreparable loss of childhood time, time that should be for playing".

Faced with the possibility of deciding if, given the chance, they would or would not do homework, pupils replied in their majority that they would (89.9%), thirteen students (10.2%) having said they would not. Pupils who responded that they would state that homework makes them learn more, that it helps them to review and consolidate contents and that they enjoy doing homework. Pupils who would choose not to do homework claim that it is boring and tiring, that they do not have free time after doing homework and that it is unnecessary.

3.3. Hypotheses verification data

Aiming to verify the hypotheses defined within the research study, the chi-square test (χ^2) was used, a nonparametric test, applied when comparing the categories of a variable (Maroco, 2007). The hypotheses were tested with a probability of 95%, which results in a level of significance of 5% ($p=0.005$). The decision criteria for hypotheses testing are based on the study of probabilities, the hypothesis is being confirmed if the probability is less than 0.05, and not confirmed, if exceeding this value (Howell, 2002).

Hypothesis 1 - There are significant differences between the decision to carry out homework and the enjoyment in doing it.

To investigate the relationship between the decision to carry out homework and the enjoyment in doing it, we used the chi-square test. The results shown on the Table 2 reveal that 78.1% of the surveyed pupils like doing homework or like doing it very much and 21.9% dislike it or don't like it much.

Among those who say they would choose to do homework assignments, 82.6% like doing them or like it very much and 17.4% dislike or don't like doing homework much. Among the students who, if given the chance, would choose not to do homework, 61.5% do not like or don't like much to perform homework and 38.5% like doing so or like it very much.

The chi-square test with Yates' continuity correction, indicates that there are statistically significant differences ($\chi^2=10.862$, $p=0.01$) between the decision to do homework assignments and the enjoyment in carrying them out, confirming the hypothesis of the research study.

Table 2. Chi-square test for the study of the relationship between the decision to do homework and the enjoyment in doing it

	Would you do homework?				Total		Residue	
	Yes		No		N	%	Yes	No
	N	%	N	%				
I don't like it or I don't like it much	20	17.4	8	61.5	28	21.9	-3.6	3.6
I like it or I like it a lot	95	82.6	5	38.5	100	78.1	3.6	-3.6
Total	115	100.0	13	100.0	128	100.0		

$\chi^2=10.862$; $p=0.01$

Through the analysis of the adjusted residue we find that these differences involve pupils who, if they could, would not do homework and who dislike or don't like to fulfill set homework much, and the pupils who would do homework and who like or like it very much to accomplish homework tasks, since the adjusted residue are positive and higher than two.

Hypothesis 2 - There are significant differences between the decision to do homework and amount of time spent on it.

To analyse the relationship between the decision to do homework and the time spent on it, we also used the chi-square test. The results in the Table 3 show that 47.7% of the pupils spend up to 30 minutes per day doing homework, for 41.4% it takes them between 30 minutes to 1 hour to do so and for 10.9% it takes them from 1 to 2 hours to accomplish.

Among the students who claim that they would choose to do homework, almost half spend up to 30 minutes, 41.7% spend between 30 minutes to 1 hour doing it and for 8.7% it takes between 1 to 2 hours to perform homework. Among the students who, if they could, would choose not to do homework, 38.5% spend between 30 minutes to one hour on homework tasks, and, within the same percentage (30.8%), we have those who spend 30 minutes doing homework and others for whom fulfillment of set homework takes between 1 to 2 hours per day.

The chi-square test reveals that there are statistically significant differences ($\chi^2=6.099$; $p=0.047$) between the decision to do homework and the time pupils take to accomplish set homework tasks, confirming the research hypothesis.

Through the analysis of adjusted residue, it is shown that this difference involves students who would choose not to do homework and who spend between 1 to 2 hours to accomplish set homework, since the value of the adjusted residue is positive and higher than two.

Table 3. Chi-square test for the study of the relationship between the decision to do the homework and the amount of time spent on it

	Would you do homework?				Total		Residue	
	Yes		No		N	%	Yes	No
	N	%	N	%				
Up to 30 minutes	57	49.6	4	30.8	61	47.7	1.3	-1.3
From 30m to 1 hour	48	41.7	5	38.5	53	41.4	0.2	-0.2
From 1 to 2 hours	10	8.7	4	30.8	14	10.9	-2.4	2.4
Total	115	100.0	13	100.0	128	100.0		

$\chi^2=6.099$; $p=0.047$

Hypothesis 3 - There are significant differences between the decision to do homework and the time left over for other activities.

With regard to the relationship between the decision to do homework and the time left over for other activities, the results of the chi-square test show that 88.3% of the pupils have time to carry out other activities and only 11.7% claim they do not have time (cf. Table 4).

Among those who would choose to do homework, 90.4% have time for other activities and only 9.6% don't. Among the ones who, if they could, would decide not to do homework, 69.2% have time for other activities and 30.8% do not have time.

Table 4. Chi-square test for the study of the differences between the decision to do homework and the time left over for other activities

	Would you do homework?				Total	
	Yes		No		N	%
	N	%	N	%		
I have time	104	90.4	9	69.2	113	88.3
I don't have time	11	9.6	4	30.8	15	11.7
Total	115	100.0	13	100.0	128	100.0

$\chi^2=3.233$; $p=0.072$

The chi-square test, with Yates' continuity correction, shows no statistically significant differences ($\chi^2=3.233$; $p=0.072$) between the decision to carry out homework and the time for other activities, which means these variables are independent (cf. Table 4). The hypothesis formulated is therefore not confirmed.

4. Conclusion

The analysis of teachers and fourth grade pupils' perceptions regarding homework shows that it is a daily routine, being the most requested curriculum areas Portuguese and Mathematics and exercises from textbooks and numerical operations the most frequent type of homework, followed by worksheets and written compositions. It also reveals that both teachers and pupils agree that homework brings benefits for learning: teachers emphasize its importance for the consolidation of contents, as well as the creation of study habits, and pupils admit that they find it easier to learn when they do homework. This result corroborates the findings of the meta-analysis performed by Cooper et al. (2006).

The given answers differ regarding to the regularity with which homework is corrected. According to pupils, teachers do not always carry out the correction of assigned homework. Answers differ also with relation to the average time spent on the fulfillment of homework tasks: teachers claim that pupils should not spend too much time doing homework, a maximum between 30 minutes to 1 hour, but in practice homework takes up more time for some pupils.

In general, pupils reveal a positive feeling towards homework as the majority says they like doing homework or like it very much. However, there is still about a quarter of pupils who don't like it much or who dislike doing homework. In addition to this, when asked if, given the choice, they would do homework, some students say no, even though the vast majority admits they would.

There are several reasons that may contribute to explain pupils' decision to do or not do homework. So, we tried to find out through inferential statistical analysis if the decision to do homework could be related to some variables, like the enjoyment of performing set homework tasks, the time spent on fulfilling homework and the remaining time left over for other activities, and for that purpose, we used the chi-square test. It was found that the decision to do homework is related to the enjoyment in fulfilling homework tasks, the time pupils take to complete them, but not with the time they have left for other activities.

The data obtained allow us to draw some practical implications for schools and teachers.

Firstly, the link between schools and families should be strengthened, because parents are essential to encourage their children and support them in the organization of their homework.

Secondly, teachers should assign homework sparingly, so as not to exceed the frequency and the recommended time for this school level, i.e., "two to four assignments a week, each lasting 15 to 45 minutes" (Cooper, 1989b, p. 90). They should also always correct homework, as this reinforces the importance and perceived usefulness of homework by pupils.

Teachers should seek to diversify the type of homework, so as to meet the needs and interests of pupils, setting tasks that will make sense and not demotivate them. In addition to compulsory homework, optional assignments can also be requested, for example, Internet research or group work. These are, indeed, the type of tasks pupils would most enjoy teachers to require from them.

Teachers should also seek to individualize homework with a view to a more effective pedagogical action, particularly in relation to students who display more learning difficulties.

In short, we can conclude that in this study, teachers and pupils agree that homework is important and reinforces learning. However, the data also show that there is still a group of pupils who don't like doing homework much and who have difficulty fulfilling homework assignments. It is therefore necessary to develop strategies likely to address these lacunae, so that homework can truly be an opportunity for the academic success of all students.

Acknowledgements

The Portuguese Foundation for Science and Technology (FCT), and the Center for Studies in Education, Technologies and Health (CI&DETS) of the Polytechnic Institute of Viseu.

References

- Araújo, M. (2006). *Crianças sentadas!* Os trabalhos de casa no ATL. Porto: Livpsic.
- Araújo, M. (2009). *Crianças ocupadas*. Porto: Primebooks.
- Bardin, L. (2004). *Análise de conteúdo* (3.ª ed.). Lisboa: Edições 70.
- Bloom, B. (1982). *All our children learning: A primer for parents, teachers and other educators*. N.Y.: McGraw-Hill.
- Cooper, H. (1989a). *Homework*. While Plains, N.Y.: Longman.
- Cooper, H. (1989b). Synthesis of research on homework. *Educational Leadership*, 47(3), 85-91.
- Cooper, H. (2001). *The battle over homework: Common Ground for Administrators, Teachers, and Parents*. California: Corwin Press.
- Cooper, H., Robinson, J. C., Patall, E. A. (2006). Does homework improve academic achievement? A synthesis of research, 1987-2003. *Review of Educational Research*, 76(1), 1-62.
- Corno, L., & Xu, J. (2004). Homework as the job of childhood. *Theory into Practice*, 43, 227-233.
- Epstein, J. L. (2001). *School, family, and community partnerships: Preparing educators and improving schools*. Boulder, CO: Westview Press.
- Epstein, J. L., & Van Voorhis, F. L. (2001). More than minutes: Teachers' roles in designing homework. *Educational Psychologist*, 36(3), 181-193.
- Fortin, M. F. (2000). *O processo de investigação: Da concepção à realização* (2.ª ed.). Loures: Lusociência.
- Ghiglione, R., & Matalon, B. (2005). *O inquérito: Teoria e prática* (4.ª ed). Oeiras: Celta Editora.
- Hill, M. & Hill, A. (2000). *Investigação por questionário*. Lisboa: Edições Sílabo.
- Howell, D. (2002). *Statistical methods for Psychology*. Duxbury: Pacific Grove.
- Lopes, J., & Silva, H. (2009). *A aprendizagem cooperativa na sala de aula: Um guia prático para o professor*. Lisboa: Lidel.
- Maroco, J. (2007). *Análise estatística: Uma utilização do SPSS* (3ª ed.). Lisboa: Edições Sílabo.
- Marques, R. (2001). *Educar com os pais*. Lisboa: Editorial Presença.
- Marujo, H., Neto, L., & Perloiro, M. (2002). *A família e o sucesso escolar*. Lisboa: Editorial Presença.
- Meirieu, P. (1998). *Os trabalhos de casa*. Lisboa: Editorial Presença.
- Perrenoud, F. (1995). *Ofício de aluno e o sentido do trabalho escolar*. Porto: Porto Editora.
- Pestana, M. H., & Gageiro, J. N. (2000). *Análise de dados para Ciências Sociais: A complementaridade do SPSS*. Lisboa: Edições Sílabo.
- Pires, S. I. (2012). *Os trabalhos para casa no 1.º Ciclo do Ensino Básico: A visão das crianças e dos pais* (Relatório Final de Estágio em Educação Pré-escolar e Ensino do 1.º Ciclo do Ensino Básico). Instituto Politécnico de Castelo Branco, Castelo Branco.
- Rønning, M. (2011). Who benefits from homework assignments? *Economics of Education Review*, 30(1), 55-64.
- Rosário, P., Mourão, R., Soares, S., Chaleta, E., Grácio, L., et al. (2005). Trabalho de casa, tarefas escolares, auto-regulação e envolvimento parental. *Psicologia em Estudo*, 10(3), 343-351.
- Silva, R. M. (2004). *TPC's Quês e Porquês. Uma rota de leitura do trabalho de casa, em Língua Inglesa, através do olhar de alunos do 2.º e 3.º Ciclos do Ensino Básico* (Dissertação de Mestrado em Formação Psicológica de Professores). Universidade do Minho, Instituto de Educação e Psicologia, Braga.
- Sprinthall, N., & Sprinthall, R. (1993). *Psicologia Educacional: Uma abordagem desenvolvimentista*. Lisboa: McGraw Hill.
- Villas-Boas, M. (2000a). *A parceria entre a escola, a família e a comunidade: Trabalho de casa para o desenvolvimento da literacia*. Lisboa: Ministério da Educação, Departamento da Avaliação Prospectiva e Planeamento, PRODEP 2000.
- Villas-Boas, M. (2000b). *A parceria entre a escola, a família e a comunidade: Reunião de pais*. Lisboa: Ministério da Educação, Departamento da Avaliação Prospectiva e Planeamento, PRODEP 2000.