

Homework: Fundamental or Redundant?

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Introduction

Is physics homework considered an essential part of the learning process and does it really help students improve? These were questions that often came to mind whilst listening to debates about homework. Reading through different articles, I found that many educators disagreed about the importance that should be given to homework and that homework has always been somewhat of a controversial issue. I thus decided to carry out a research study to investigate ideas about homework amongst Maltese teachers and students. Results from this research study have shown that even in Malta there are conflicting ideas about the importance of homework. Many of the interviewed teachers assigned some form of physics homework and corrected it regularly while others believed that homework was useless. On the other hand, most students believed that they should be assigned physics homework and that homework was important in order for them to learn more.

Methodology

Quantitative methods were chosen as these would help to “emphasize the production of precise and generalizable statistical findings” (Rubin and Babbie, 2001, p. 44). For this purpose a questionnaire was used with three hundred and twenty Form 4 students from Malta’s girls’ Junior Lyceums. Questionnaires were administered with at least three classes from each school and results were then analysed quantitatively. Qualitative research methods were also used to get a deeper insight into the data that would be gathered from the questionnaires. Interviews were used with at least three teachers from each school and a total of seventeen interviews were carried out to elicit detailed information and help explain certain findings which would emerge from the quantitative analysis.

Homework: A controversial issue

A review of some of the literature about homework has shown that the issue of homework is a very controversial one and while some researchers claim that homework has positive effects on students, others argue that the effects of homework are negative. Claims supporting the idea that homework has positive effects include that homework “encourages student initiative, develops independent learning, and allows time for practice and application of what has been learned in school” (Coulter in Dunkin, 1987, p. 272). Two of the negative claims about homework are that homework does not leave any leisure time for students and that “it interferes with important family and community participation” (Kravolec and Buell, 2000, p.22).

Results from this study have shown that although only 50.7% of students stated that they liked physics, 86.4% believed that physics homework helps them in their study and comprehension of the subject. The study was also aimed at finding out how often physics homework was being assigned and results have shown that the majority of students (54.9%) were being assigned physics homework at least once a week. However, there were 12.6% of students who stated that they were rarely given physics homework while 4.1% stated that they were never given any at all. However the results indicated that students who were rarely or never assigned physics homework felt that they should get more homework. The teachers interviewed gave differing views about the importance of homework. It was found that in three of the five

schools visited all the participating teachers assigned some kind of homework to their students. In the remaining two schools, there were conflicting ideas amongst the teachers regarding the importance of homework. In general, results from this study agreed with those presented by Bourke and Fairbairn (1993) who found that teachers considered homework to be important up to a certain extent and the focus was on the outcomes of homework. It was interesting to find that although the majority of teachers thought that homework was important, only few believed that it was essential.

Three of these teachers stated that homework was not important to help students learn. They believe that if they managed to capture the students' interest, the students in turn would understand the lesson better and this would be enough for students to succeed. Some of the students' comments such as: "If you learn from the lesson homework is not needed" reflected their teachers' thoughts about this matter. This shows that messages conveyed by the teacher will, to some extent, influence what students believe. Different aims were mentioned by teachers for assigning homework but in general, the aims of homework could be grouped into two main categories: one in which homework was aimed at helping the students improve and the second was to give the necessary feedback to the teacher.

Black and Harrison (2001), state that comments are more effective than marks as feedback and help students realize that assessment is there to help them learn more. Surprisingly, the majority of students in this study believed that homework helped them learn more irrespective of whether they received marks or comments and irrespective of whether the homework was corrected or not. This finding shows that the students are not only doing their homework to get feedback about what they know but they also give importance to the process of doing their homework.

Positive and Negative Effects of Homework

Most teachers believed that homework can have positive effects on students. Some of these benefits are evident in the following statements made by teachers:

- "Students who take homework seriously will delve deeper into the subject and understand it better".
- "If homework is planned well it gives students confidence".
- "Misconceptions are checked by homework and it helps students to keep studying".
- "It will help students be prepared for the types of questions that they will find in their exams".

As positive effects of homework Milbourne and Haury (1999) mention that homework helps students become more self-disciplined and helps them acquire time management skills. They add that it helps students learn how to work independently and become more responsible for their learning. Although these positive effects were not mentioned by any of the teachers interviewed, they were mentioned by the students themselves. This shows that at times the positive effects of homework may be felt by students but underestimated by teachers.

Out of the seventeen teachers interviewed, fourteen believed that homework could also have negative effects when it was given in large amounts because it over-burdens students, makes them bored of it and does not leave time for extra-curricular activities. Moreover, they also believe that homework which was copied had negative effects since this meant that the teacher was unknowingly giving the wrong feedback to the students.

Some teachers also pointed out that homework had negative effects if it was either too easy or too

difficult and an association was also found between finding physics homework too difficult and disliking the subject. This shows that difficult homework may discourage certain students to such a degree that they cease to like the subject. Zammit Marmara (2007) claims that homework does not leave time for students to enjoy their childhood but surprisingly, results from this study show that very few of the students felt that homework did not leave them with free time. A possible reason to explain this is that students may be rushing through their homework. A possible explanation for this is the fact that teachers are careful not to give too much homework. Alternatively, when answering this question the students considered physics homework only and did not take into consideration other subjects.

Getting help with physics homework

The majority of students (75.1%) felt that at least some of the time they needed help with their physics homework and they usually turned to their friends for help. A possible reason for this is that parents may not be familiar with the subject and thus they cannot help. Nevertheless, parents can still help their children indirectly by for example, ensuring that their children complete their homework in the right environment with the least amount of distractions. Another way for parents to support their children would be to provide them with the resources they might need. Another possible reason why students start relying more on their friends is that at this age they might feel that they are getting older and wish to be less dependent on their parents. Therefore, the negative effect indicated by Kravolec and Buell (2000) that parents confuse their children when explaining homework would not have a large influence on results for this study since few students are seeking help from their parents.

Results have also shown that very few students ask for their teachers' help when they have homework difficulties. A possible reason is that students do not want to show their teacher that they haven't understood. It was also interesting to find that some students get help for their homework from their private lessons teacher. A possible solution for this would be that school teachers set certain times during the week during which it would be possible for students to ask their homework problems either individually or in small groups.

Time spent on physics homework

Studies by Postlethwaite and Wiley (1992) and Keeves (1992) have found that time spent on science homework has a positive effect on students' achievement. Results have shown that the majority of teachers interviewed believe that the above finding is true. The explanation given by most teachers for this belief was that in most cases, the teachers found that the marks students obtained in their homework gave a clear indication of the marks they would obtain in future tests and exams. It was therefore surprising to find that some teachers did not give any homework at all. These teachers found that the marks the students obtained were not giving a clear indication of how students would perform in tests. A possible reason for this was that the homework was being copied. Therefore, these teachers felt that it was better not to give any homework and use tests instead to ensure that students were not copying the work.

Conclusion

In conclusion, results have also shown that the majority of teachers were aware of the school homework policy and what it stated, but in general they did not follow it closely. If these policies are made more subject-specific it may lead teachers to follow the policy more closely and may also help to ensure that all students will be assigned similar amounts and types of physics homework. The study has

shown that although homework is not necessarily fundamental, it is definitely not redundant since it helps students study, practice and revise what they have learnt at school. These were only some of the benefits that students and teachers felt homework had. Homework is also one effective way of assessing students and it gives an indication of how students will perform in future tests. Although homework was seen to have some negative effects, students' belief that homework is important and that it helps them learn more shows that homework is not redundant. Therefore when meaningful homework is given in appropriate amounts, it can help students improve and become more successful.

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