数蚂蚁的表格，我在上课前就做过

初二下学期，物理老师讲实验，头一个强调的词叫控制变量。我听到这四个字，脑子里冒出来的不是课本，而是前年十月我自己做的一张表。

前年十月，我在花坛边看蚂蚁搬吃的。我盯的是它们搬东西有多快。我把一粒米放在蚁洞边上，第一只蚂蚁找到之后，我就数一分钟里有多少只蚂蚁经过花坛沿上的一个点。第一次数出来是14只。我觉得光一个数说明不了什么，就把米挪远两步，再数，这回是9只。再挪远两步，是6只。

回家我在作业纸反面画了张表：三行，记下距离和每分钟经过的只数。盯着这张表，我发现一件事：三次我都用的同一种米，都是同一个钟点，都在同一段花坛沿，变的只有距离那一个东西。那时候我不知道这种做法叫什么名字，只觉得不这样弄，数出来的数就对不上，就不可信。

物理课上，老师讲：研究两个量之间的关系，别的条件都要保持一样，只改变一个条件。我举手说我做过这个，我把米和只数的事讲了一遍。老师让我把那张表投出来给全班看，讲完他说：这就是控制变量，你们比课本早用了一年。

我的物理成绩那天以后并没有一下子变好，但我开始喜欢物理课了。因为那些规律不再是黑板上的字，是我手上已经干过的事。后来做斜面小车的实验，我们组是最快想明白哪些条件不能动的。

我的学习心得是：课本教的方法，是借来的；自己手上摸出来的方法，才是自己的。数蚂蚁的表很小，可做表的那一下，控制变量这四个字就不抽象了。我懂得观察不只是看，看了记下来，改一个条件再数一遍，这已经是学习的开头。

那张画着表的作业纸还夹在物理课本里。每次翻到实验那一页，都能看见14、9、6这三个数。它们提醒我：一个方法可以先用后学，用过了，才真的学会。

The Ant Counting Table I Made Before the Lesson

In the second term of my second year of middle school, the physics teacher began teaching experiments, and the first term he stressed was keeping other conditions the same. When I heard that phrase, what came to mind was not the textbook but a table I had made in October of the year before.

In October of that year, I watched the ants by the flower bed. What I watched was how fast they carried food. I placed a grain of rice near the hole, and after the first ant found it, I counted how many ants passed a point on the curb within one minute. The first count gave 14. I thought one number proved nothing, so I moved the rice two steps farther and counted again. This time it was 9. I moved it two more steps, and it was 6.

At home I drew a table on the back of a test paper: three rows, with the distance

and the number passing per minute. Staring at the table, I noticed something. All three times I had used the same kind of rice, at the same hour, by the same curb. Only one thing had changed, the distance. I did not know the name of this method then. I only felt that if I did not do it this way, the numbers would not be trustworthy.

In physics class the teacher explained the method: when studying the relation between two quantities, keep every other condition unchanged and change only one. I raised my hand and said I had done this. I told him about the rice and the counts. He asked me to show my table to the class. When I finished, he said: this is exactly the method, and you had used it a year before the textbook.

My physics grades did not jump after that day, but I began to like physics class. The rules were no longer words on the blackboard; they were things my hands had already done. Later, in the experiment about a cart on a sloped board, my group was the first to work out which conditions must stay the same.

Here is my reflection as a learner: a method borrowed from the textbook belongs to the textbook, and a method your hands have found belongs to you. The ant table was small, but the moment I made it, the phrase about keeping conditions the same stopped being abstract. Observation is not just looking. To look, to write it down, to change one condition, to count again, that is where real learning begins.

The test paper with my table is still inside my physics textbook. Every time I reach the experiment pages, I see the three numbers: 14, 9, 6. They remind me that you can use a method before you learn its name, and using it is how you come to truly know it.