

Do you want 1 cookie now or 2 cookies later? How to succeed at school

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What makes human beings distinct from animals, and very successful as a species, is our capacity to voluntarily postpone immediate reward in order to accomplish long term goals. For example, if a man goes fishing, and eats each fish as soon as he catches it, instead of saving all the fish to feed his family for a week, he is not demonstrating the capacity to delay gratification.

Indeed, success in life generally, and at school in particular, is related to what is labelled: “delay of gratification”. Formally, delay of gratification is described as: *“To function effectively, individuals must be able voluntarily to postpone immediate gratification and persist in self-directed behaviour for the sake of their preferred but delayed goals, while resisting the frustration created by competing temptations at the moment.”* (Mischel, 2004).

The definition points to *five* essential elements that comprise effective delay of gratification. First, to delay gratification, one has to make a voluntary decision. Even if the fisherman is hungry now, he must decide to continue fishing until he has 10 fish for his family. Second, to successfully delay gratification, one has to wait to satisfy one’s immediate needs, so that the immediate gratification, eating the fish right now, is postponed. Third, delay gratification requires that one persist in order to achieve long term goals. The fisherman must continue fishing until he has attained his long term goal of feeding his family for the week. Finally, one has to be able to cope with frustration, such as hunger, and be able to suppress the temptation to eat the one fish right away.

To be able to develop the skills involved in delaying immediate gratification, it is essential to have a clearly defined long term goal. For example, it is essential that our fisherman know that his main goal is to provide food so that his family survives and remains healthy. Similarly, it is important for a child to know that going to school is part of her long-term goal in life; that one of the important parts of her identity is going to school everyday so she can be successful in the long term. Also, it must be clear for the child that if she does her math homework, instead of playing with friends, she will get a better grade in next week’s exam and that in the long term, she will be able to successfully graduate from high school.

There is a long tradition of research that has focussed on the importance of delay of gratification for long term success. For example, research has found that if a 4 year-old child chooses to have 2 cookies after doing a task, she/he will have more success at school and greater well-being than a child who chooses to have 1 cookie before the task. Indeed, research has shown that this ability to delay gratification and wait for two cookies at age 4 predicts success and happiness, even as long as 12 years later. Thus, the simple decision to wait for a larger reward--choosing to wait for 2 cookies after a test--is highly associated with positive well-being and academic success.

We now raise the question, what about our children? Are they able to delay gratification? And is their ability to delay gratification related to their success? Answering these questions are fundamental. If we find out that delay of gratification is related to success at school, we may want

to devote more time and energy to help children clarify their long term goals, which will help them to delay gratification.

Method

Participants

A sample of 27 Inuit children were involved in the present research. Participants were aged from 11 to 14 years old ($M= 12.58$, $SD= .77$). In all, 52% were boys and 48% were girls. All our students were in grade 6, from either the academic year 2005-2006 or 2006-2007. They were all from the same village of about 600 inhabitants.

Procedure

Each Inuit child was met by one of the 3 different testers for about one hour in order to administer a battery of tests designed to assess language development in Inuktitut, French and English. The tester took the child from his/her class and asked him/her to sit on a mat in a calm room. The child was then presented with the choice of two sorts of cookies. After telling the children that the testing would last about an hour, we asked the child if she/he would prefer 1 of her/his favourite cookies now, or 2 of her/his favourite cookies after the testing was completed in one hour. If the child chose 1 cookie immediately we gave it to him/her right away and encouraged him/her to eat it. The cookie test was introduced as part of the English testing session if the child was in the English stream or in French if the child was in the French stream.

After the child made his/her cookie choice, a series of 13 language tests was performed, increasing in difficulty from the easiest (e.g. naming colours) to the hardest (e.g. story comprehension, writing a text). When the testing was completed we thanked the child for his/her participation and give him/her the 2 cookies if this was his/her choice.

Results and discussion

To test the hypothesis that when children delay gratification and choose 2 cookies after the series of 13 tests, they will perform better than children who choose 1 cookie immediately, we focussed on two measures of performance. First, we evaluated their total test score, which included all of the 13 tests. Second, we evaluated their scores on the story comprehension test by itself because it is the most difficult test children are asked to perform.

The results that we obtained confirmed the hypothesis that delay of gratification is a good predictor of academic success for Inuit children. First, in Figure 1 we observe that the students who chose 2 cookies later, have more success on the 13 tests compared to children who chose 1 cookie immediately ($M_{2cookies}=75.03$ vs. $M_{1cookie}=70.32$; $p = .13$, $\eta^2 = .09$). Second, from Figure 2, we conclude that the same pattern of results is observed with the difficult story comprehension test ($M_{2cookies}=2.20$ vs. $M_{1cookie}=5.41$; $p < 0.05$, $\eta^2 = .23$).

Figure 1.

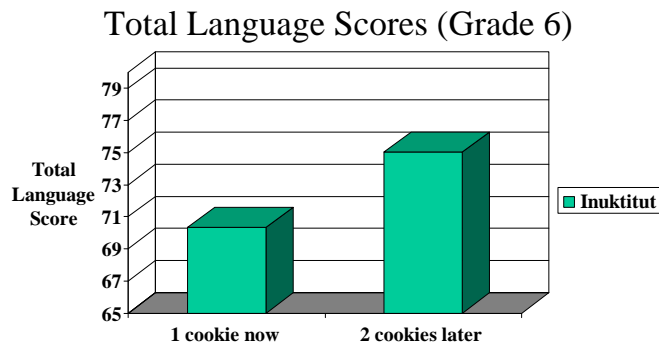
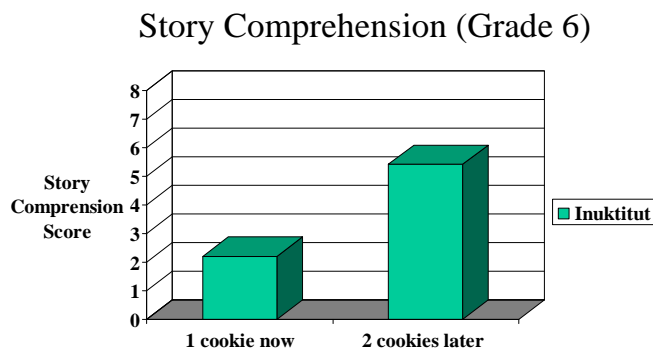


Figure 2.



Conclusion

Delay of gratification has proven to be an important predictor of well-being and academic success. The results from this preliminary study suggest that delay of gratification does have a positive impact on Inuit children. It might be important to develop and reinforce these skills with the children. We argue that many concrete steps can be taken from all members of the community such as parents and teachers. For example, a parent or teacher might encourage a child to complete their homework or household chores *before* playing. This way, without much effort, the child learns to take responsibility and develop her/his own delay of gratification skills. Similarly, the teacher might provide the child with a clear vision of the classroom goals, including the goals for each lesson, the weekly goals, and finally the long term goals for the year. To encourage students to appreciate the accomplishment of a goal the teacher can introduce a simple exercise. Before a lesson have the children demonstrate their ability, for example adding numbers. After the lesson or lessons, have the children repeat the task of adding numbers so they can see, in a concrete manner, their improvement.