



## Study conducted by Bielefeld University: Klasse2000 has a positive impact on children's nutrition and exercise behavior

From 2013 to 2015, Bielefeld University conducted a study to assess the impact of the Klasse2000 program on children in the state of Northrhine-Westphalia. Directed by Prof. Dr. Petra Kolip of the Department of Health Sciences, the study was financed by Mondelēz International Foundation.

Focus of the study was on the impact of the Klasse2000 program on children's nutrition and exercise behavior, topics covered mainly during the first two years of the program. The study included interviews with teachers, parents, and children about their thoughts on the program.

The study complied with the high standards of scientific studies: Participants included 128 classes at 62 schools in Northrhine-Westphalia which had not been involved in Klasse2000 previously. The classes were divided randomly into two groups, one that participated in Klasse2000 (intervention group) and one that did not (control group). The interviews with participating children, parents, and teachers were based on questionnaires and were conducted between January 2013 and the summer of 2015. The first round of interviews took place prior to the start of the program. Other rounds followed at the end of the first and in the middle of the second year and as well as at the end of the third year (when the children completed third grade) in the summer of 2015.

Questionnaires were completed at all interview stages by a total of **828 parents and 1,177 children**. The development of the children between grades one and three was compared to assess how many children exhibited stable levels of knowledge, attitudes, and behavior, and how many **showed improvement or deterioration in these areas**.

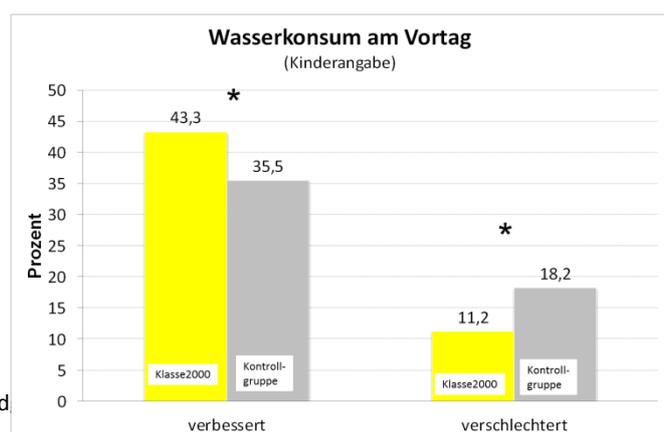
The results showed that the Klasse2000 program had a **positive impact** in many areas even though at the time the schools in the control group were conducting diverse measures aimed at promoting health.

The responses given by the **parents** lead to the conclusion that the children in the intervention group exhibited more positive development regarding **nutrition behavior** than the children in the control group:

- The intake of fast food, sweets, and soft drinks increased to a greater extent in the control group than in the intervention group.
- Regarding *five servings of fruit and vegetables per day* and *maximum one serving of sweets per day*, over the course of the study the results deteriorated more in the control group than in the intervention group.

The responses given by the **children** were positive as well:

- In the intervention group, a larger percentage of the children increased their water intake (three or more glasses of water per day).
- In the control group, a larger percentage of children decreased



their intake of water per day over the course of the study.

- In addition, knowledge regarding the recommended number of servings of sweets per day decreased in a larger percentage of the children in the control group.

As opposed to the interviews with the parents, the children's responses regarding the consumption of soft drinks were surprising: The percentage of children consuming more soft drinks at the end of the study than they did at the beginning of the study increased more in the intervention group. As a result, the Klasse2000 program will be revised in this regard.

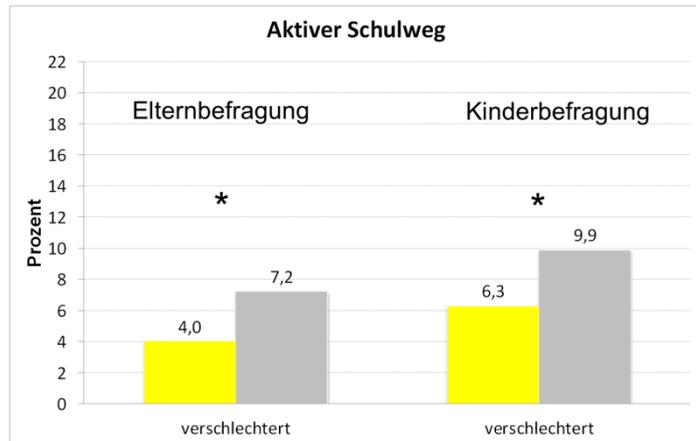
Where **exercising behavior** is concerned, the interviews with the parents as well as those with the children showed positive results: Significantly more children in the control group chose a passive way to get to and from school (e.g., by car) than did children in the intervention group.

When asked about their children's **experience with violence**, more parents of children in the control group stated that their children had become victims of violence over the course of the study than parents of children in the intervention group.

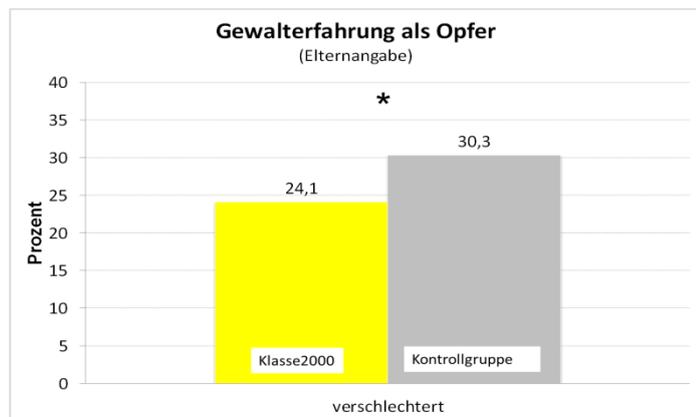
Another satisfying factor is that the **teachers** also evaluated the program as positive and appreciated the opportunity to cooperate with the Klasse2000 health promoters. Eighty percent of the teachers interviewed stated they noted changes in the children's behavior which they could attribute to Klasse2000. These changes could be seen in the way the children deal with each other, in the way they solve conflicts constructively, and in their healthier eating habits.

Of the **parents**, 80% said their children talked about the program at home, mainly about the aspects of nutrition but also about exercising, solving disputes and problems, and relaxation. In addition, 20% of the parents reported that Klasse2000 had changed their family's daily life.

**In summary**, the study has confirmed the solidity of the Klasse2000 concept, that is, the added value of Klasse2000 compared to other short-lived programs and offerings that cover fewer topics. Klasse2000 achieves this added value by anchoring the topics over the entire course of grade school, dealing with the topics from a holistic perspective, providing well-structured materials that match the requirements of grade school students, and ensuring cooperation with health promoters.



\* The differences are significant.



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Bielefeld University's detailed final report will be published online at [www.klasse2000.de](http://www.klasse2000.de).