CLAIMS

1. A control test method, comprising:

obtaining an experimental scheme, and performing quantization processing on experimental variables in the experimental scheme to obtain a quantization index corresponding to each of the experimental variables, wherein the experimental variables comprise a causal variable and an outcome variable;

determining an evaluation index corresponding to the quantization index of the outcome variable, and determining, based on the evaluation index, a sample size of experimental samples in the experimental scheme, the evaluation index being used for evaluating a difference value between two outcome variables obtained respectively for an experimental group and a control group in the experimental scheme under different causal variables; and

obtaining, based on the determined sample size of experimental samples, experimental samples in the experimental scheme such that the obtained experimental samples are equal in number to the determined sample size of experimental samples, and dividing the obtained experimental samples into the experimental group and the control group based on a control grouping condition of the experimental scheme, for completing the experimental scheme by using the experimental group and the control group, wherein the quantization index of the causal variable corresponding to the experimental group is different from the quantization index of the causal variable corresponding to the control group, the experimental scheme comprising an experimental scheme in the field of education, and the experimental samples in the experimental scheme comprise students,

wherein said determining, based on the evaluation index, the sample size of experimental samples in the experimental scheme comprises:

determining, by using an independent-samples test method, the sample size of experimental samples under the evaluation index; or determining, by using a paired-samples test method, the sample size of experimental samples under the evaluation index,

wherein said determining, by using the independent-samples test method, the sample size of experimental samples under the evaluation index comprises:

determining, based on a testing error under the experimental scheme and a pre-test standard deviation of each of the experimental samples under the outcome variable in the independent-samples test method, the sample size of experimental samples under the evaluation index, wherein the testing error comprises a probability of true-rejecting error and a probability of false-accepting error in the experimental scheme; or

wherein said determining, by using the paired-samples test method, the sample size of experimental samples under the evaluation index comprises:

obtaining a correlation coefficient between the experimental group and the control group that consist of the experimental samples, the correlation coefficient indicating a correlation between outcome variables of respective experimental samples in the experimental group and outcome variables of respective experimental samples in the control group; and

determining, based on the testing error, a differential standard deviation of each of the experimental samples under the outcome variable in the paired-samples test method and the correlation coefficient, the sample size of experimental samples under the evaluation index.

2. The method according to claim 1, further comprising, prior to said determining, based on the evaluation index, the sample size of experimental samples in the experimental scheme:

determining the testing error, the pre-test standard deviation and the differential standard deviation.

3. The method according to claim 1, wherein said obtaining the correlation coefficient between the experimental group and the control group that consist of the experimental samples comprises:

performing pre-grouping processing on each of the experimental samples prior to obtaining the experimental scheme, and obtaining a simulation correlation coefficient between two simulated groups that are obtained subsequent to the pre-grouping processing as the correlation coefficient between the experimental group and the control group.

4. The method according to claim 1, further comprising, subsequent to said determining, based on the evaluation index, the sample size of experimental samples in the experimental scheme:

determining a sample loss rate, the sample loss rate representing a ratio of a number of reduced experimental samples to the sample size of experimental samples; and

determining, based on the sample loss rate, a sample supplement quantity in the experimental scheme, and updating the sample size of experimental samples based on the sample supplement quantity.

5. The method according to claim 1, wherein the experimental variables further comprise a control variable, the control variable comprising a variable other than the causal variable and affecting the outcome variable; and wherein a variation caused by the experimental samples on the outcome variable under the control variable does not exceed a predetermined variation.

6. The method according to claim 5, wherein:

the control variable in the experimental variables comprises at least one of a grade, a class, a score variation trend, and a current score level of the students in the experimental scheme.

7. A control test apparatus, comprising:

an obtaining module configured to obtain an experimental scheme, and perform quantization processing on experimental variables in the experimental scheme to obtain a quantization index corresponding to each of the experimental variable, wherein the experimental variables comprise a causal variable and an outcome variable;

a determining module configured to determine an evaluation index corresponding to the quantization index of the outcome variable, and determine, based on the evaluation index, a sample size of experimental samples in the experimental scheme, the evaluation index being used for evaluating a difference value between two outcome variables of an experimental group and a control group that are obtained under different causal variables in the experimental scheme; and

an experimental module configured to obtain, based on the determined sample size of experimental samples, experimental samples in the experimental scheme such that the obtained experimental samples are equal in number to the determined sample size of experimental samples, and divide the obtained experimental samples into the experimental group and the control group based on a control grouping condition of the experimental scheme, for completing the experimental scheme by using the experimental group and the control group, wherein the quantization index of the causal variable corresponding to the experimental group is different from the quantization index of the causal variable corresponding to the control group, the experimental scheme comprising an experimental scheme in the field of education, and the

experimental samples in the experimental scheme comprise students,

wherein the determining module is further configured to: determine, by using an independent-samples test method, the sample size of experimental samples under the evaluation index; or determining, by using a paired-samples test method, the sample size of experimental samples under the evaluation index,

wherein the determining module is further configured to:

determine, based on a testing error under the experimental scheme and a pre-test standard deviation of each of the experimental samples under the outcome variable in the independent-samples test method, the sample size of experimental samples under the evaluation index, wherein the testing error comprises a probability of true-rejecting error and a probability of false-accepting error in the experimental scheme; or

obtain a correlation coefficient between the experimental group and the control group that consist of the experimental samples, the correlation coefficient indicating a correlation between outcome variables of respective experimental samples in the experimental group and outcome variables of respective experimental samples in the control group; and determine, based on the testing error, a differential standard deviation of each of the experimental samples under the outcome variable in the paired-samples test method and the correlation coefficient, the sample size of experimental samples under the evaluation index.

8. A computer device, comprising:

a memory; and

a processor, wherein:

the memory has a machine-readable instruction stored thereon, the machine-readable instruction being executable by the processor; and

the processor is configured to execute the machine-readable instruction stored in the memory to implement steps of the control test method according to any one of claims 1 to 6.

9. A computer-readable storage medium, having a computer program stored thereon, wherein the computer program, when executed by a computer device, implements steps of the control test method according to any one of claims 1 to 6.