

CONSORT checklist

Title and Abstract

1a. Title

Study on the Combination of “Online Open Course” and “Cloud Class” in the Embryology Teaching: a randomized controlled trial

1b. Abstract

Page 1, Line 1-28

Introduction

2a. Background

Line 45-154

2b. Objectives

Line 148-154

Methods

3a. Trial Design

2.2 Curriculum arrangement

3b. Changes to trial design

N/A

4a. Participants

2.1 Participants

4b. Study settings

The study took place at the Dalian Medical University from May to July 2018.

5. Interventions

2.3 Lectures evaluation and 2.4 Statistical analysis

6a. Outcomes

3. Results

6b. Changes to outcomes

N/A

7a. Sample size

The participants in this study were around 176 first level medical students enrolled in 2017. The experimental group includes 3 classes, control group 3 classes.

7b. Interim analyses and stopping guidelines

N/A

8a. Randomisation: sequence generation

N/A

8b. Randomisation: type

N/A

9. Randomisation: allocation concealment mechanism

The responsible teacher has 6 classes to teach. We randomly chose 3 as experimental groups, the others were control groups.

10. Randomisation: implementation

The teachers in the research group. The responsible author is in charge.

11a. Blinding

We sent the results to Teacher Zhang Liyuan, who did the analysis. She did not know which group is experimental group or control group.

11b. Similarity of interventions

N/A

12a. Statistical methods

2.4 Statistical analysis

12b. Additional analyses

N/A

Results

13a. Participant Flow

N/A

13b. Losses and exclusions

N/A

14a. Recruitment

N/A

14b. Reason for stopped trial

N/A

15. Baseline Data

Table 1 Participant demographics

16. Numbers analysed

The experimental group includes 3 classes, control group 3 classes. Every class has about 30 students.

17a. Outcomes and estimation

3.1 Results of final exam and 3.2 Results of questionnaire

17b. Binary outcomes

N/A

18. Ancillary analyses

N/A

19. Harms

N/A

Discussion**20. Limitations**

4.3 Limitations

21. Generalisability

4.1 Final exam grade difference and 4.2 Individual opinions about new teaching method

22. Interpretation

N/A

Other information**23. Registration**

N/A

24. Protocol

N/A

25. Funding

This research was supported by Medical Education Branch of Chinese Medical Association and China Association of Higher Education 2018 Medical Education Research Project (2018B-N05023) and Dalian Medical University research project (DYLX16005).