

Can a School Counseling Program Reduce Junior High Dropouts in Rural China?

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on behalf of REAP



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From our earlier presentations, we know that...

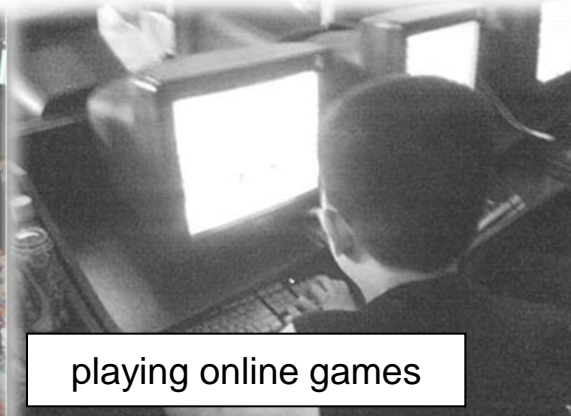
- With higher wages, China will have to move itself up the productivity ladder.
- Only 50%-60% of junior high school students go to high school... the rest are not getting the skills they will need for China's future workforce.
- Accumulated dropout rate for 3 years of junior high school ranges between 17-31% in rural China.

Life after dropping out

I hope these pictures tell you enough...



working in a toy factory



playing online games



polishing shoes on the street



doing farm work in their villages

Can dropouts transit from manufacturing to high value-added jobs?



knowledge
+ ability



Without knowledge and abilities, obviously it is very difficult for the dropouts to get a high value-added job in the future.

It is unlikely dropouts will be ready for China's future labor force

- As China develops across the next ten years, youth who dropped out will likely have great difficulty integrating into the work force: their lack of appropriate knowledge and abilities will make it difficult for them to find good jobs.
- There are 700,000 students per year in western China's poor rural areas that will be unable to finish their 9 years of compulsory education because they dropped out of junior high school.
- Pervasive dropout may hinder China's long-term sustainable economic and social development.

Why do these rural kids drop out of junior high school?

Economic factors are part of the problem.

- Dropout is significantly correlated with low family socioeconomic status. Poor kids drop out more.
- Rising unskilled wages in China increase the opportunity cost of staying in school for poor rural students.



Any other factors that contribute to dropout?

Our field observations indicate that psychological factors might have a role to play!

- In fact, we conducted one-on-one interviews with 52 poor rural students in Shaanxi Province, trying to understand why they or their classmates decided to drop out of school.



We heard about many psychological dimensions in the field...

- Depression
- bad teacher-student relationships
- bad peer relationships

.....

- **But what we heard the most is learning anxiety.**
 - *"I don't like study. I usually suffer from insomnia before the final exams. I hope I can get away from school as soon as possible."*

So it seems that addressing psychological issues in junior high is an important task that may help reduce dropout.

Government is also concerned about the mental health of junior high school students.

- Since 2002, **four** government documents have been released requesting the Ministry of Education to improve the mental health of junior high students!



This is a good news.

The bad news is that the mental health education has not been well implemented in poor rural junior high schools

- Why is it like this?
 - no mental health teachers in rural junior high schools
 - no mental health curriculums for rural junior high students

What can be done? How to do it?

- Shaanxi Government approached REAP asking us
 - to develop a School Counseling program aimed to improve students' mental health and to reduce dropout rate.
 - to evaluate whether such a school counseling program can improve students' mental health and reduce dropout rate.

These are exactly the objectives of this project.

Approach

- Develop school counseling curriculums
- Conduct an RCT to evaluate the impact of School Counseling program
 - sampling
 - baseline survey (Oct. 2012)
 - intervention (Mar. 2013-Feb. 2014)
 - evaluation survey
 - the first follow-up (Oct. 2013)
 - the second follow-up (Feb. 2014)

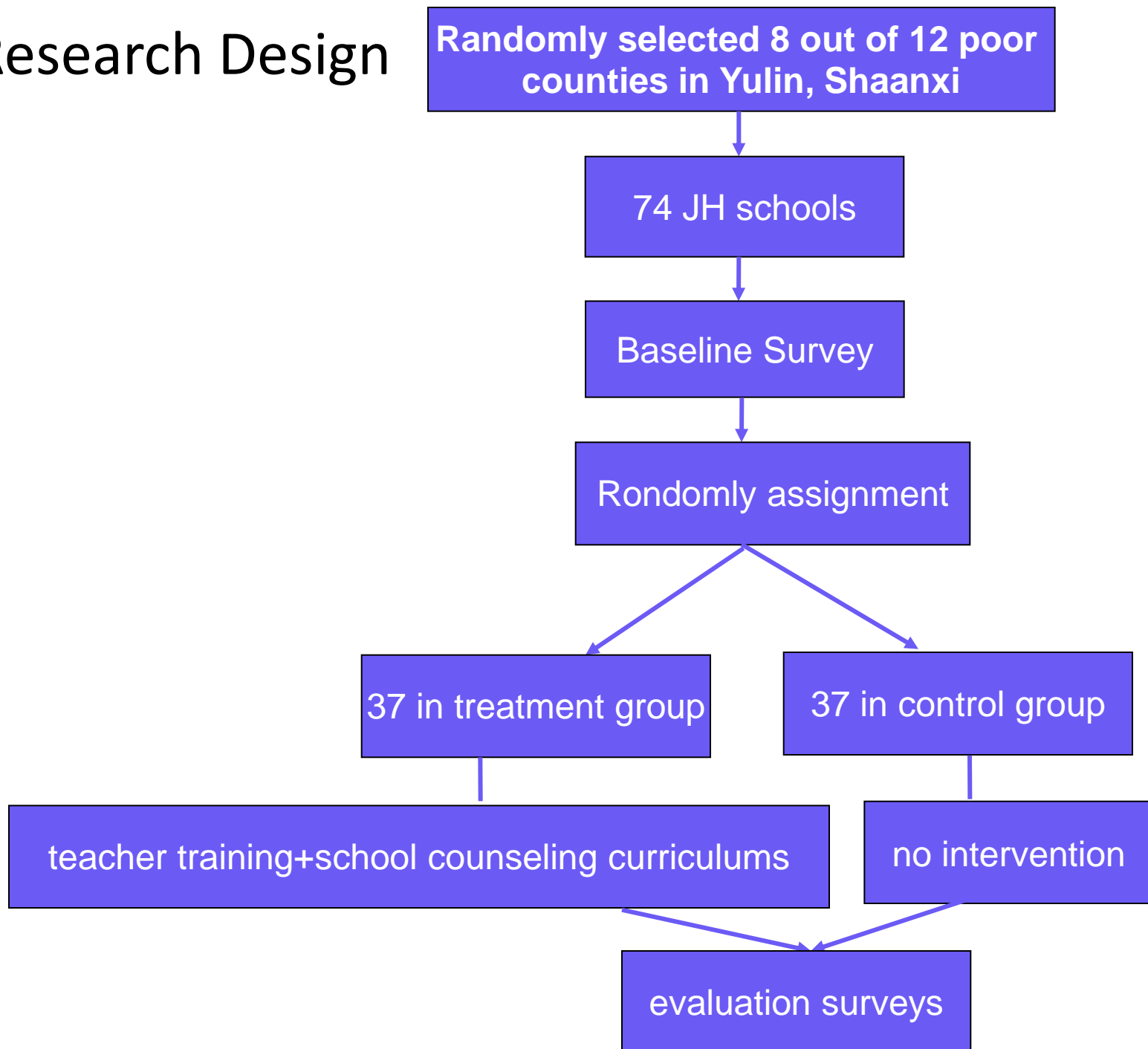
School counseling curriculums

- The curriculum was designed to meet international and local standards for school counseling.
 - 32 lessons distributed across 6 units per semester or 12 units in total
 - Engaging and participatory activities in the curriculum
 - Help students deal with learning anxiety in general, and with stressful relationships with teachers and fellow students in particular.

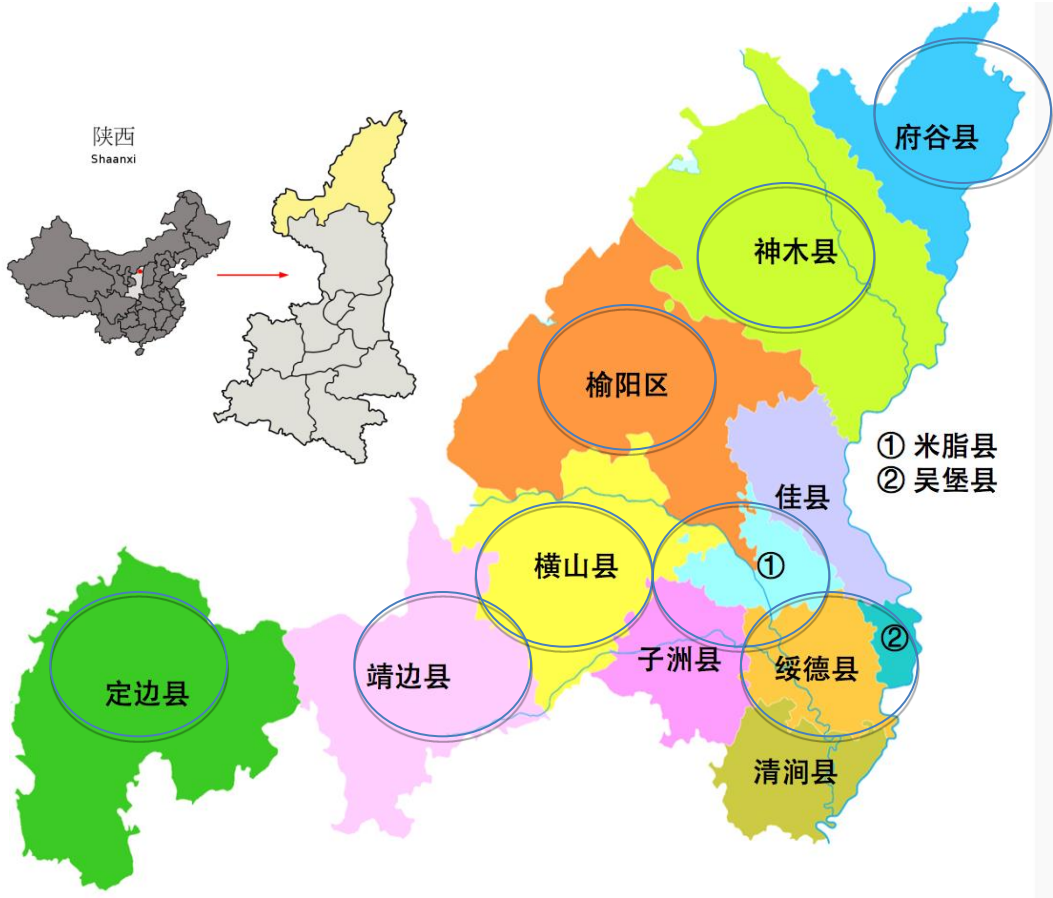


With the school counseling curriculum, we are ready to conduct the RCT.

Research Design



Location of sample counties in Yulin prefecture, Shaanxi Province



Research Design

Randomly selected 8 out of 12 poor counties in Yulin, Shaanxi

- Got a list of all junior high schools in the sample counties.
- Excluded 2 types of schools:
 - those had mostly urban students
 - those with <90 seventh and eighth graders

74 JH schools

Baseline Survey

Random assignment

37 in treatment group

37 in control group

teacher training+school counseling curriculums

no intervention

evaluation surveys

Research Design

Randomly selected 8 out of 12 poor counties in Yulin, Shaanxi

74 JH schools

Baseline Survey

Random assignment

37 in treatment group

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evaluation surveys

Conducted a baseline survey in all seventh and eighth grade students in these schools before allocating the schools to treatment or control group.

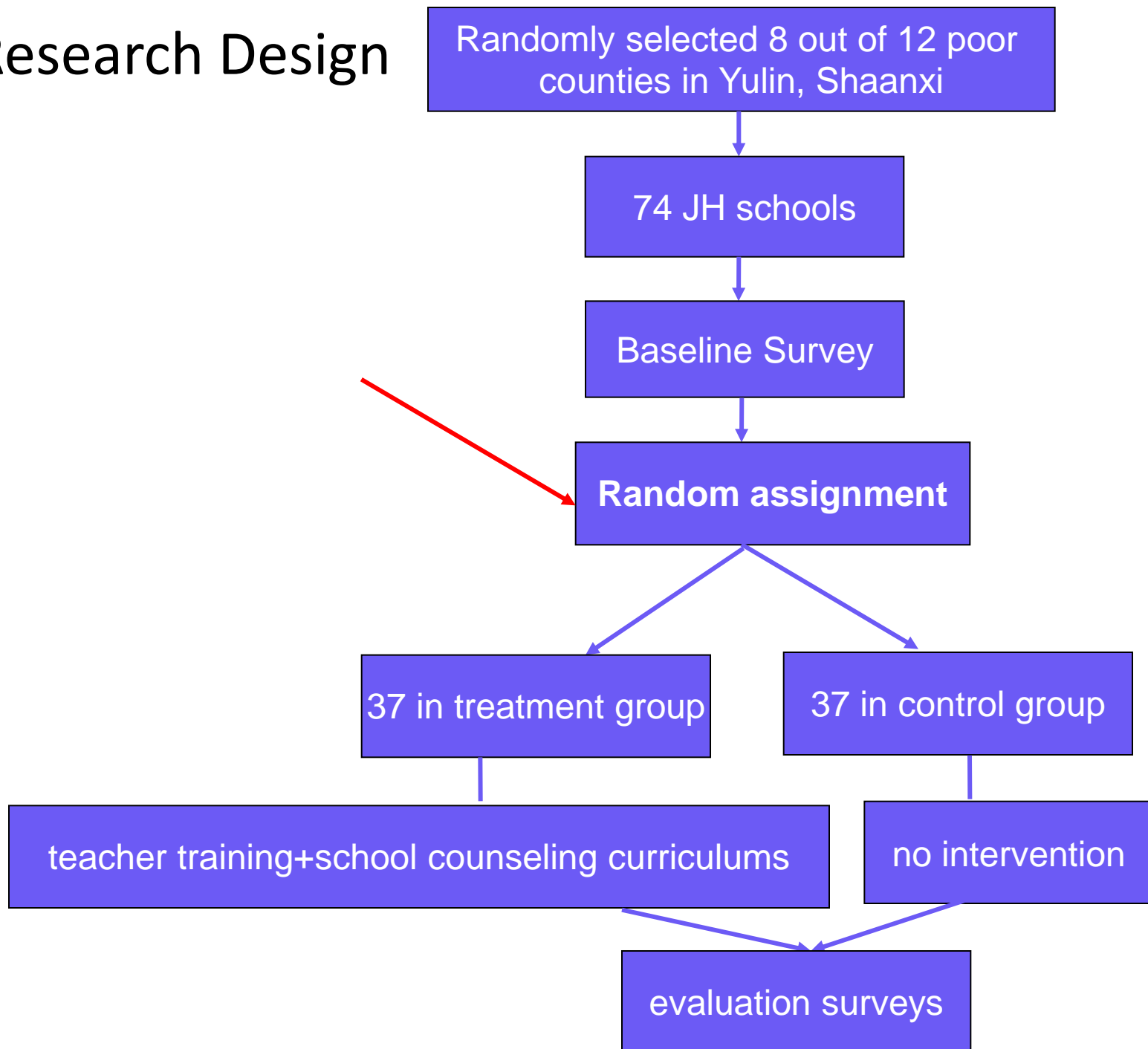
Coverage of the Evaluation Work: Baseline and Evaluation Surveys

- Students
- Homeroom teacher
- Principal

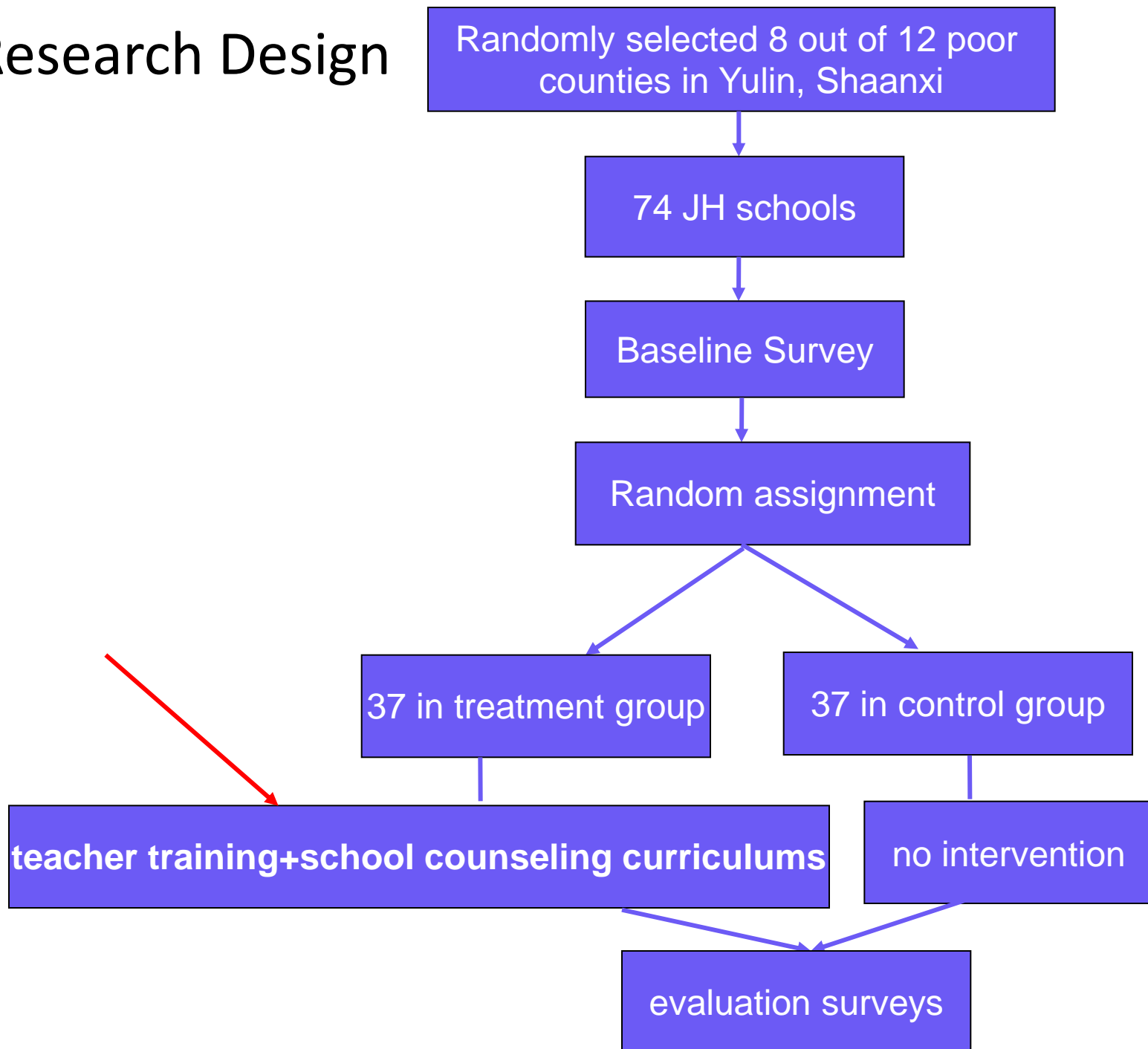
Contents of the Survey: 2 modules

- Outcome module: psychological health, dropout
- Social economic module

Research Design



Research Design



The intervention is composed of 2 parts

- short-term teacher training
- school counseling curriculums to students

Short-term professional training to rural teachers

- The training was fully scripted, and a professional trainer from Beijing Normal University conducted a five-day training for the teachers and a half-day training for the principals.
- The school counselor/teachers were instructed on how to execute each of the 32 fully-scripted, 45-minute sessions per week to their seventh and eighth grade students.



School counseling curriculums to students



Research Design

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Baseline Survey

Randomly assignment

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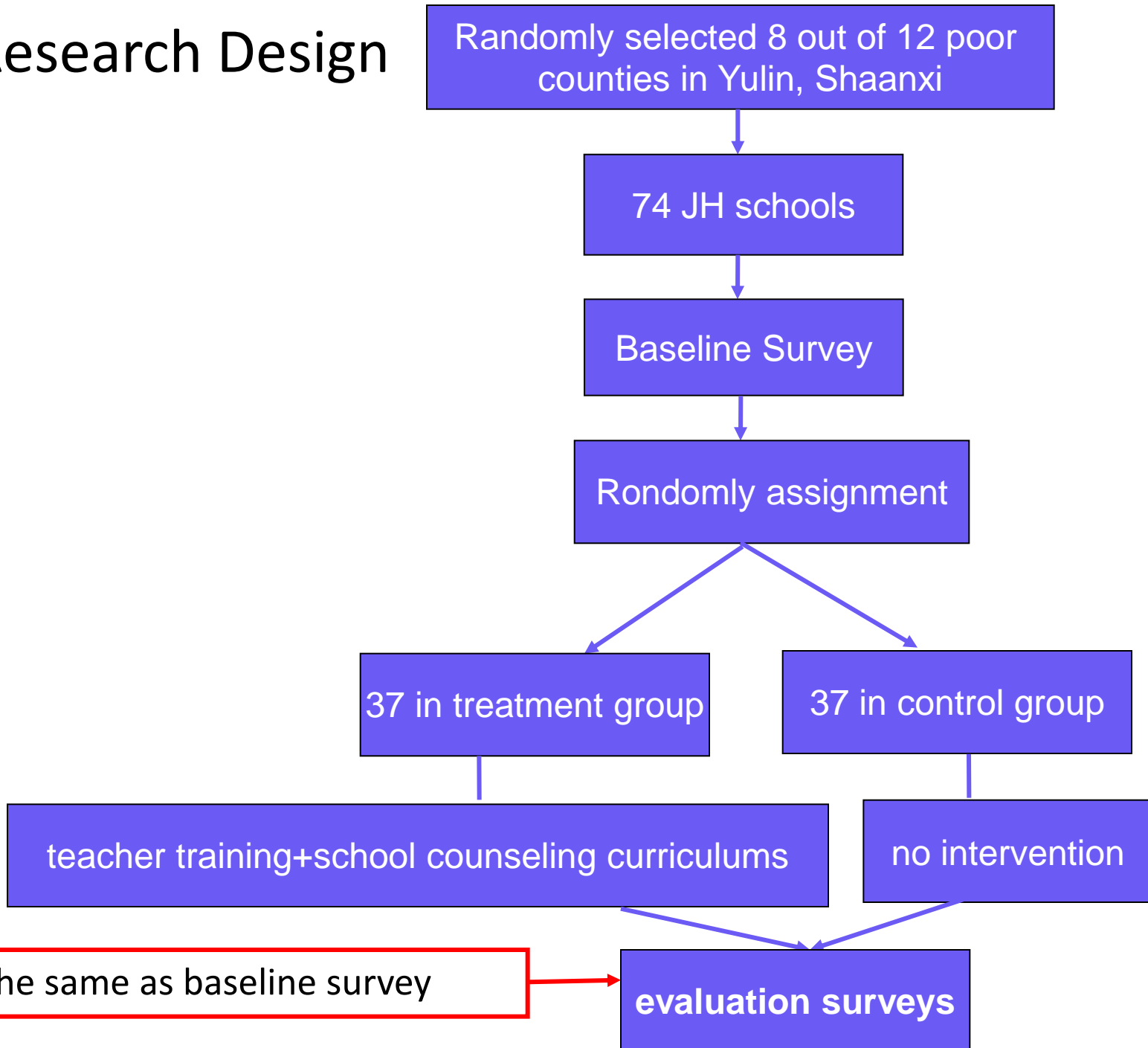
37 in control group

teacher training+school counseling curriculums

no intervention

The same as baseline survey

evaluation surveys



What do we learn from the data?

- Is there any impact of the school counseling program on student dropout?

After the first semester dropout reduced from 7% to 5% (decreased by 28%)

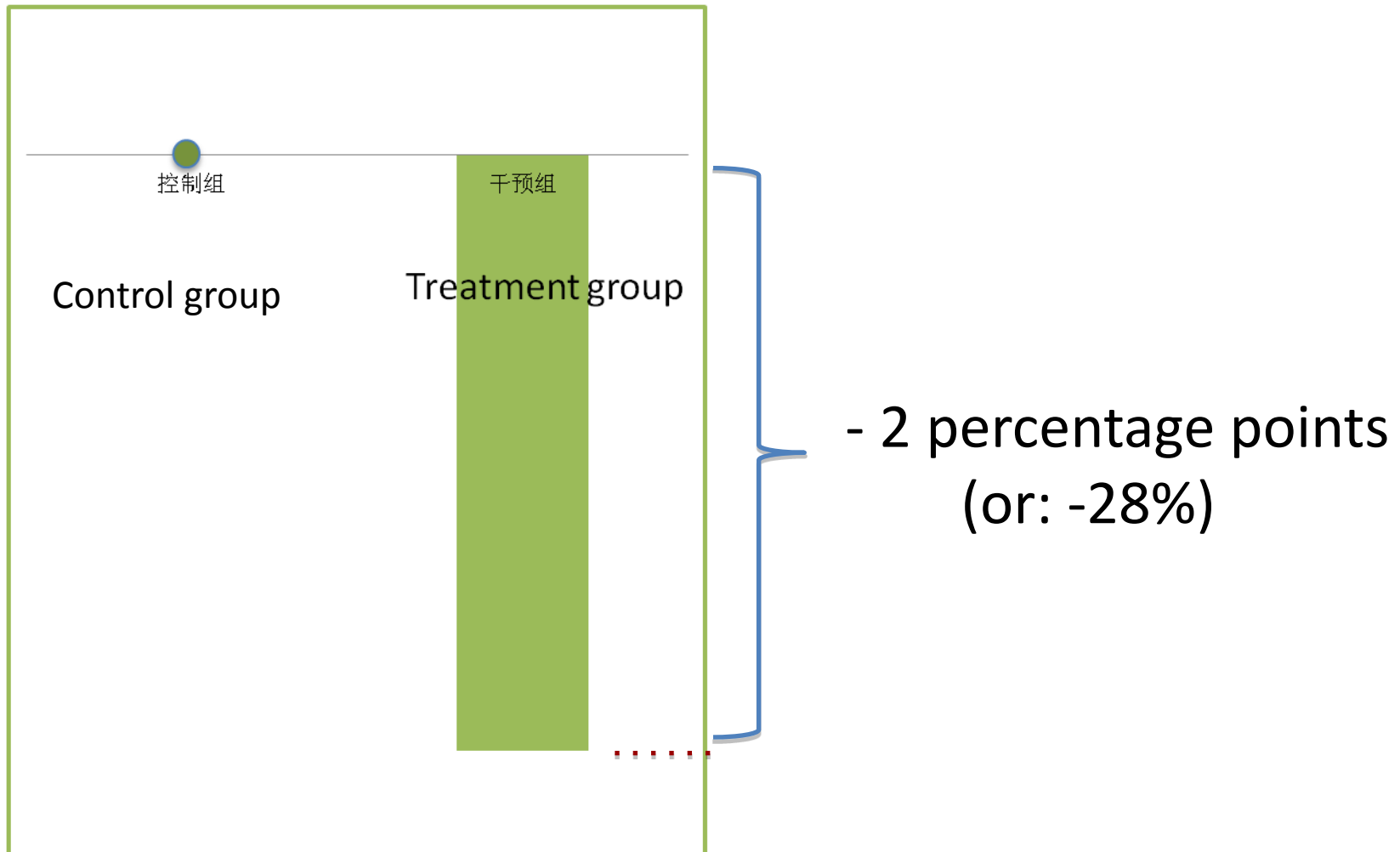


Table 1. Impact of School Counseling Intervention on Main Student Outcomes

| | Dropout_2013 | | At risk facing learning anxiety _2013 | |
|---|------------------|-------------------|---------------------------------------|--------------------|
| | (1) | (2) | (3) | (4) |
| | Unadj. | Fixed | Unadj. | Fixed |
| <i>Treatment Variable</i> | | | | |
| Treatment school, 1=yes | -0.02 (0.013) | -0.02* (0.009) | -0.03* (0.019) | -0.03** (0.012) |
| <i>Student characteristics controlled</i> | | YES | | YES |
| <i>Family characteristics controlled</i> | | YES | | YES |
| <i>Block fixed effect</i> | | YES | | YES |
| Constant | 0.07*** | -0.54*** | 0.65*** | 0.43*** |

After controlling other family and student factors, school counseling significantly reduces dropout and specifically learning anxiety in the short-term

Cluster robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

This is great, right?

- With Counseling we can reduce dropout by 28%

- But those working in education are worried about LONG RUN impacts of the school counseling program
- We continued the program the following semester ...
- What did we find?

After two semesters, the IMPACT disappeared!

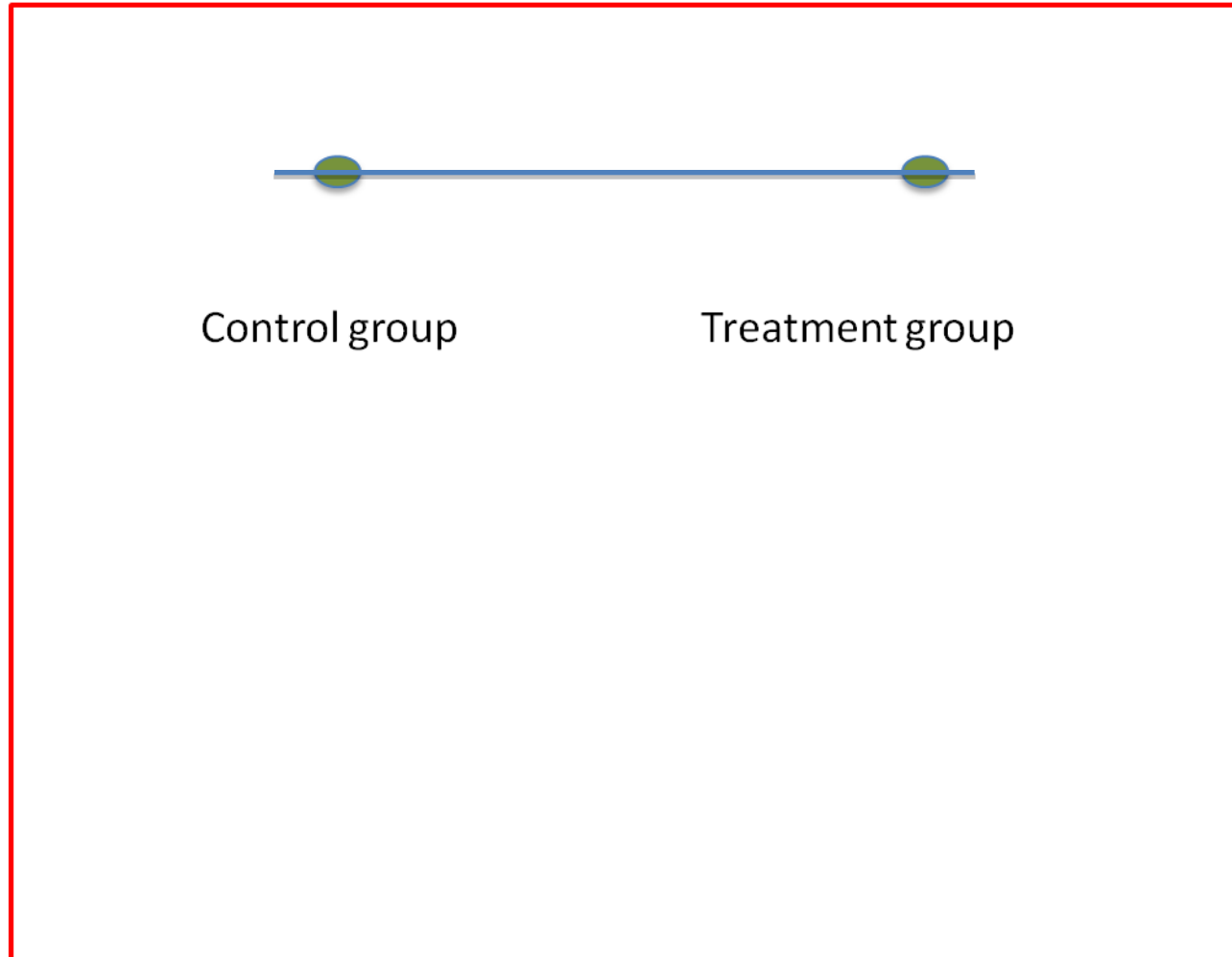


Table 2. Impact of School Counseling Intervention on Main Student Outcomes

| | Dropout_2013 | | At risk facing learning anxiety_2013 | | Dropout_2014 | | At risk facing learning anxiety_2014 | |
|---|------------------|-------------------|--------------------------------------|--------------------|------------------|------------------|--------------------------------------|------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| | Unadj. | Fixed | Unadj. | Fixed | Unadj. | Fixed | Unadj. | Fixed |
| <i>Treatment Variable</i> | | | | | | | | |
| Treatment school, 1=yes | -0.02 (0.013) | -0.02* (0.009) | -0.03* (0.019) | -0.03** (0.012) | -0.02 (0.017) | -0.01 (0.008) | 0 (0.018) | -0.01 (0.011) |
| <i>Student characteristics controlled</i> | | YES | | YES | | YES | | YES |
| <i>Family characteristics controlled</i> | | YES | | YES | | YES | | YES |
| <i>Block fixed effect</i> | | YES | | YES | | YES | | YES |
| Constant | 0.07*** | -0.54*** | 0.65*** | 0.43*** | 0.10*** | -0.70*** | 0.61*** | 0.11 |

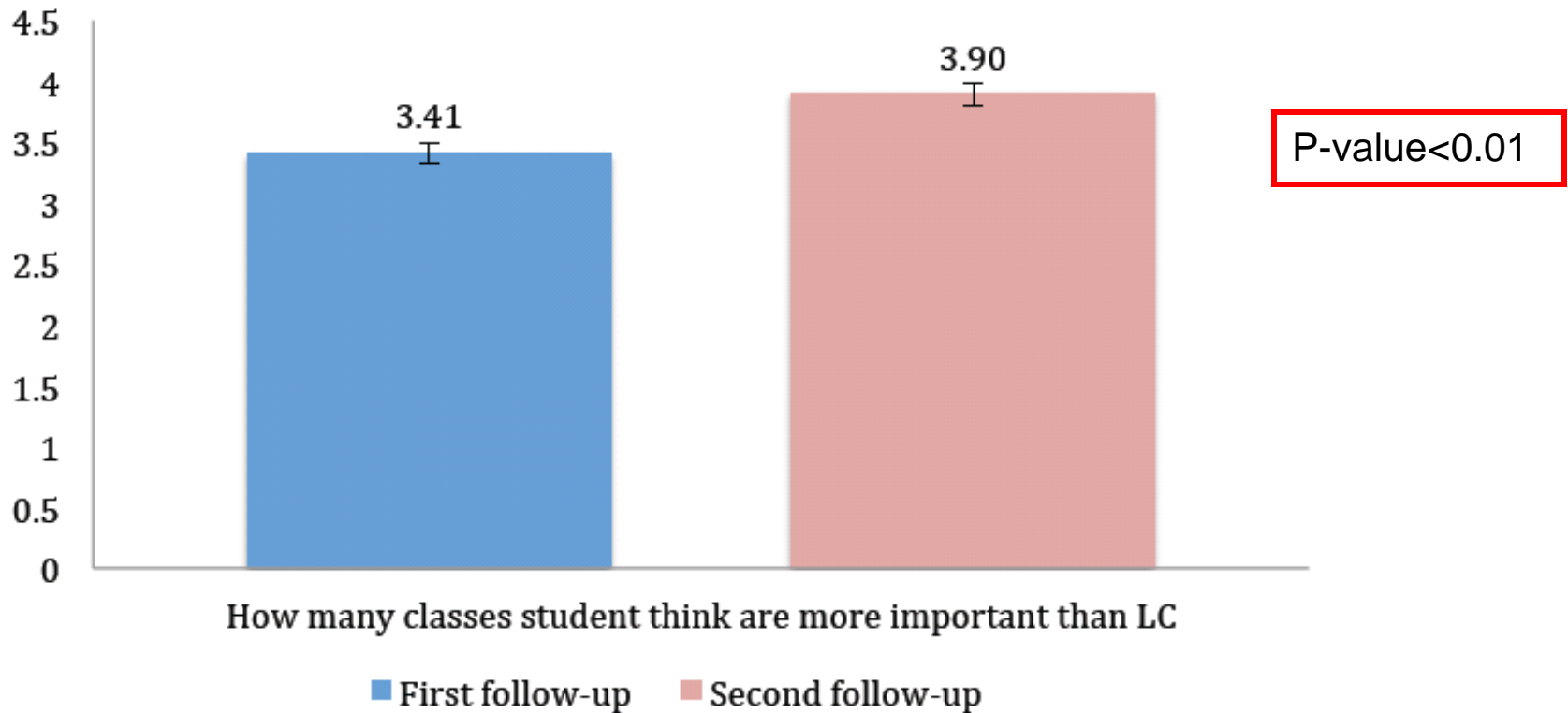
After controlling other family and student factors, school counseling has no significant impact in the long-run! Neither on dropout nor on learning anxiety.

Cluster robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

What happened in the second semester?

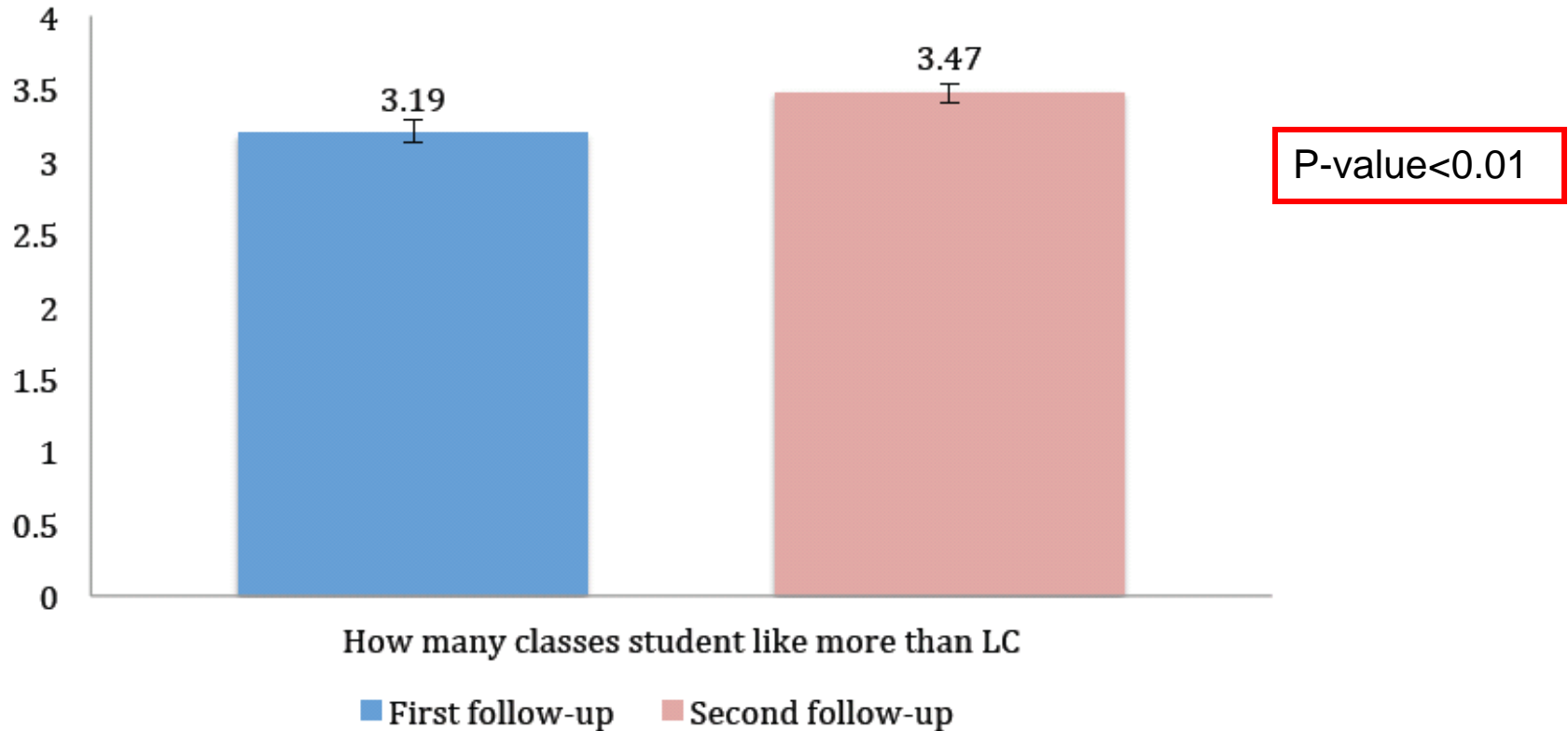
- Have the students may lost interest in the counseling program in the second semester?
- We further explore whether the decline in treatment effect might be due to novelty effects by comparing student interest and engagement in the program across the time of the first and second follow-up surveys.

The self-rated importance of the school counseling class declined from the first follow-up survey to the second one as compared to other subjects



There is a novelty effect in the first follow-up survey!

Students reported enjoying the school counseling class more at the first follow-up survey than the second follow-up survey (as compared to other subjects).



Additional evidence of novelty effect in the first follow-up survey!

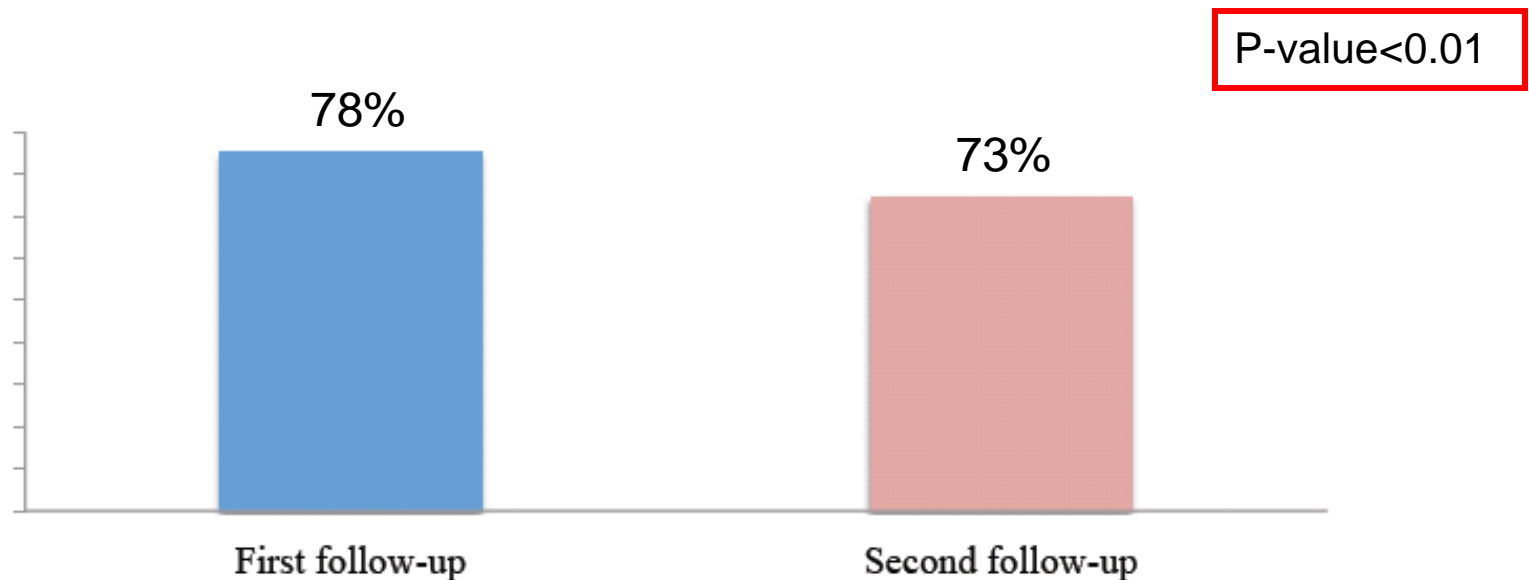
On average students attended the counseling classes more frequently in the first semester than in the second semester



How many units students took in the first and second semester, reported by the students.

Further evidence of novelty effect in the first follow-up survey!

More students participated in activities during school counseling class in the first semester than in the second one.



Further evidence of novelty effect in the first follow-up survey!

In Summary

- The School Counseling Program reduces dropout by 28% in the short run. The possible channel is school counseling decreases learning anxiety, then reduces dropout.
- However, we do not find measurable long run impact of the School Counseling Program on learning anxiety or dropout rate, possibly because of the novelty effect.

Thank you!



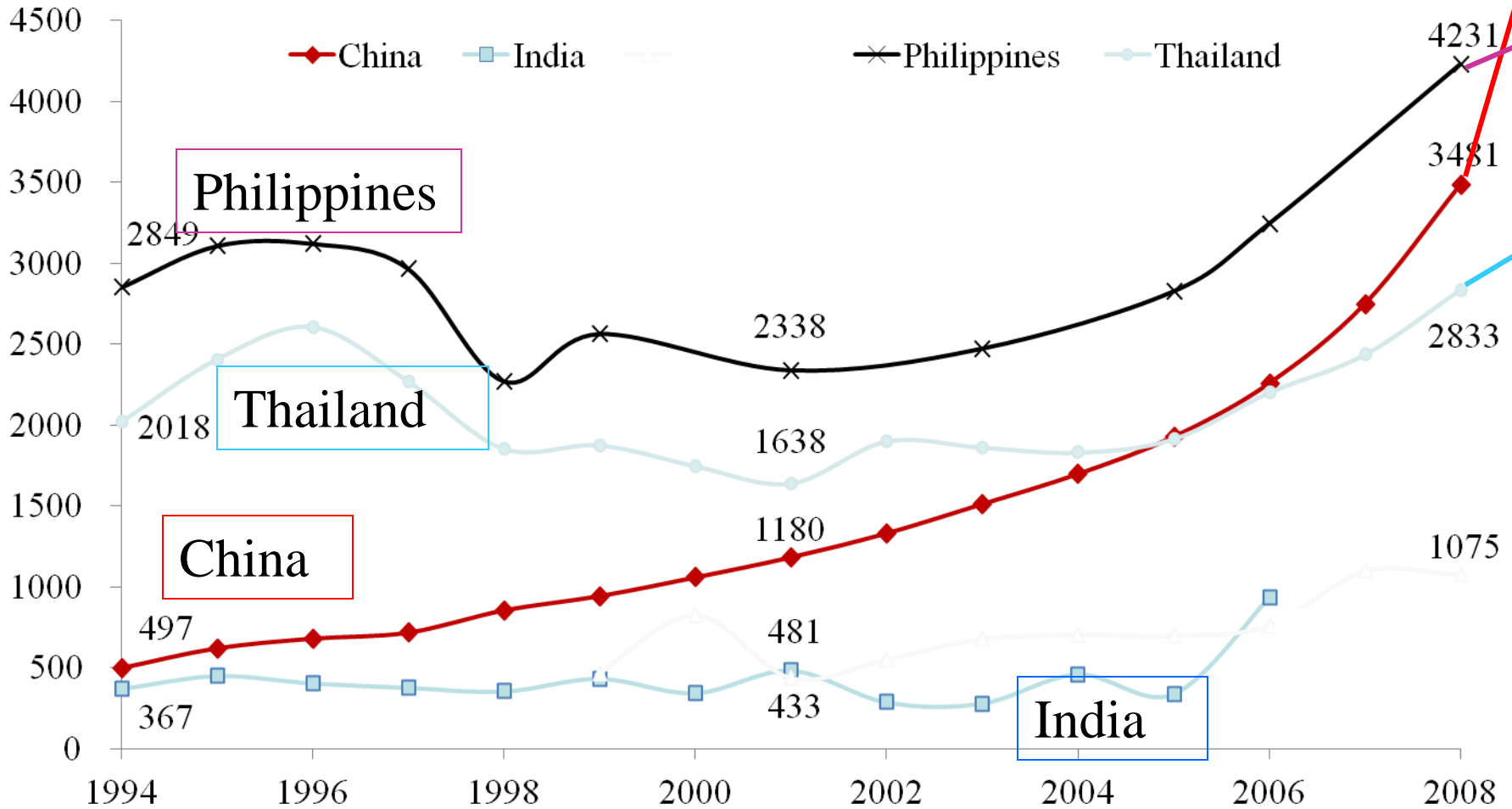
reap.fsi.stanford.edu

Outlines

- Problem
- Reasons for dropout
- goal and objective
- Approaches
- Results

How Expensive are Chinese Workers?

Manufacturing Wages 1994-2008 (USD/year)



How Expensive are Chinese Workers?

Manufacturing Wages 1994-2008 (USD/year)



Implications

- For the RISING DEMAND China continues to grow
 - Due to demographics the size of labor force falls
 - industrial structure is changing
 - wages continue to raise
-
- By 2025 to 2030
→ around
\$8/hour





But, with higher wages, China will have to
move itself up the productivity ladder

Can it?

Objective Result 1--Teacher-Student Relationship

What percentage of students think...

My teachers like me

My teachers respect me

My teachers can't understand my feelings.....

When my teacher misunderstands me, I'm so upset that I want to drop out.....

Students who have bad relationships with their teachers are.....as likely to dropout

Objective Result 1--Teacher-Student Relationship

What percentage of students think...

- My teachers like me.....8%
- My teachers respect me40%
- My teachers can't understand my feelings.....61%
- When my teacher misunderstands me, I'm so upset that I want to drop out.....62%

Students who have bad relationships with their teachers are **twice as likely to dropout!**

Objective Result 2--Peer Relationship

What percentage of students think...

- If I apologized to a classmate I would lose face.....65%
- I have been bullied by classmates this semester.....37%
- I have quarreled with classmates this semester.....66%
- I have a friend or relative who has dropped out junior high school.....54%

If a student stays in frequent contact with a dropout, he or she is **2.5 times more likely** to drop out.

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Subjective Result 1-- We like this programme

- Feedback from teachers
 - Both students and I enjoy the curriculum so much. I feel relaxed when I was in the preparation for the course.
- Feedback from students
 - I like my mental health lessons, I hope we could have this lesson everyday.
 - Every week I look forward to my mental health course.

Subjective Result 2--Better Teacher- Student Relationship

- Feedback from teachers
 - It is helpful for both students and me. We can understand each other better now.
- Feedback from students
 - The school counselor is my favorite teacher. I like going to mental health class to play games, collaboratively overcome challenges and discuss issues with all my classmates together.
 - I feel like now the school has a teacher that cares about me. When I have a problem I know I can seek help from counselor.

Subjective Result 3--Better Peer Relationship

- Feedback from teachers
 - Now students have the collective consciousness, they know how to care about others. They fight between each other less but help more.
- Feedback from students
 - Everyone in my class is like a big family. When someone has a problem we all help each other. There is no need to be embarrassed to ask for help.

Subjective Result 4--Poor students feel belonging to the class

- Feedback from teachers
 - The classes give students that were nervous about speaking in class more opportunities to speak and to gradually build their confidence. At the beginning, many of the poorly performing students wouldn't answer my questions, but once one of these kids was willing to speak up, the experience brought a life changing power to them.
- Feedback from students
 - Now I dared to speak in class, also would like to speak to more classmates. I think I have a reason to stay at school.

心理健康课程是国外学校改善学生心理问题的有效方法
Mental health courses have been shown to be an effective way of reducing students' mental health issues in many countries

国外已经有多种适合青少年的心理健康教材，如：
Mental health course curricula for adolescents have been used in many developed countries, such as:

- 多向思维的策略课程（Channing Bete公司出版） **Do we want these in English too?-NSJ**
- Botvin life skill生活技能课程
- 激励访谈模型（McNaar）
- 青少年认知治疗（Friedberg）

心理健康教材的开发

Developing the mental health curriculum

- 国内外教材开发专家合作，利用一年时间完成。
- 借鉴国外生活技能课程，结合农村情况本土化。

Curriculum experts from China and abroad worked collaboratively for a full year to develop a curriculum that incorporates international experience and the particular needs of rural Chinese students.

- 核心理念 Core Concepts:
- “行动改变思想” --- 体验式课程
- “积极关注学困生” --- 鼓励式课程
- Learning from experience
- Unconditional encouragement for poorly performing students

课程内容

第一学期 1st semester

- Unit 1 课程介绍
Introduction
- Unit 2 理解老师的关心
Understanding teacher's care
- Unit 3 主动寻求帮助
Seeking help
- Unit 4 发现关心
Realizing people care
- Unit 5 情绪管理
Emotion control
- Unit 6 学期回顾
Semester review

第二学期 2nd semester

- Unit 1 归属感
Sense of belonging
- Unit 2 积极融入集体
Joining the campus family
- Unit 3 处理校园暴力
Dealing with bullying
- Unit 4 解决冲突
Resolving conflicts
- Unit 5 处理同伴压力
Peer pressure
- Unit 6 学期回顾
Semester review

5.2 消极情绪，停下来

一、上完这一课，我会学到……

- ✚ 体察消极情绪，懂得及时控制消极情绪。
- ✚ 用深呼吸的方法控制情绪。



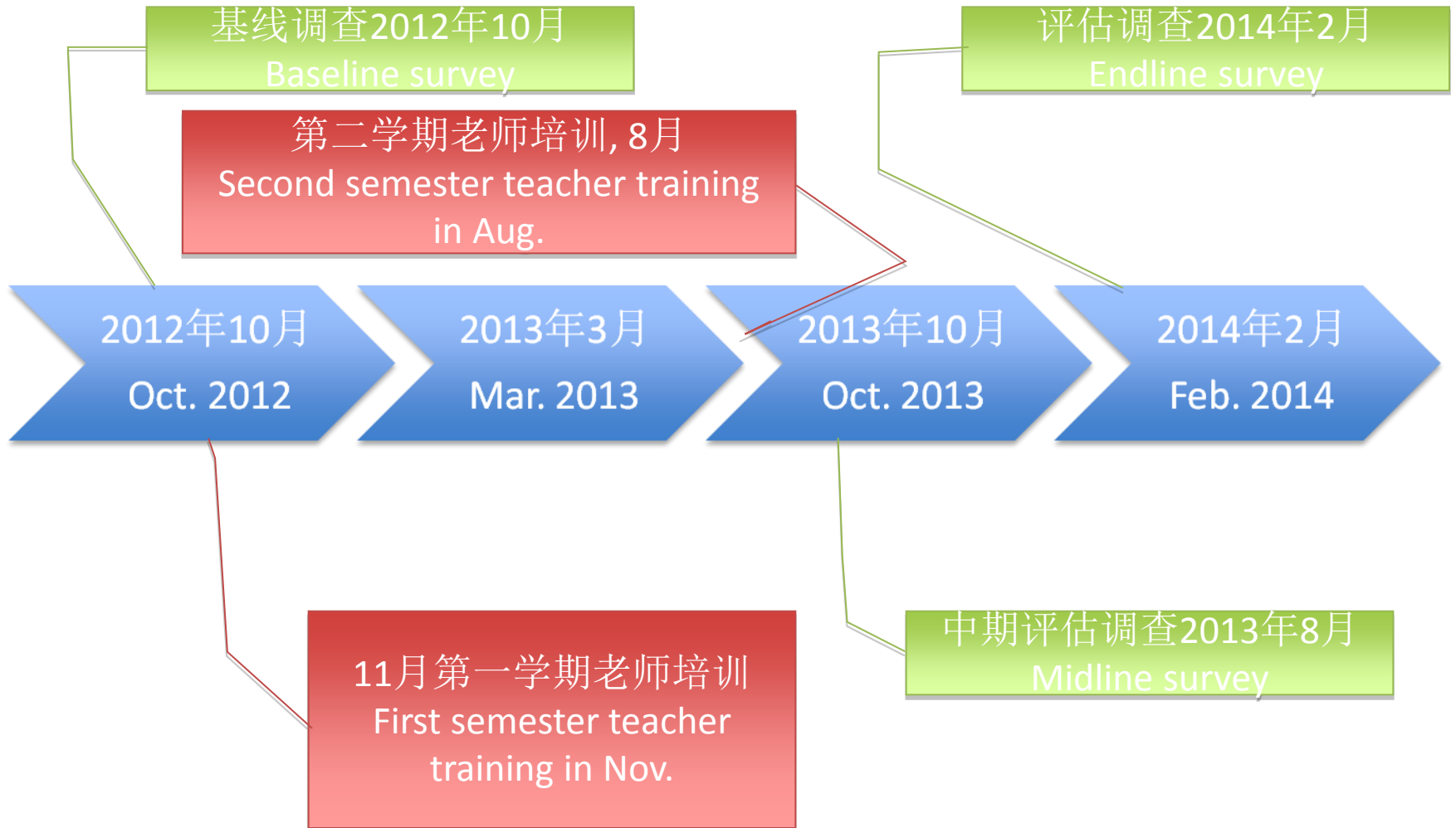
二、情绪红绿灯

任务十五：情绪红绿灯

任务说明：这个任务要在操场上进行，整个任务的规则类似于“1、2、3 木头人”。每组选派两名代表参加任务，所有选手站在同一出发线上，老师站在距离出发线 5 米的地方。老师面对所有选手，老师说“绿灯”的时候所有选手出发，说“红灯”的时候所有选手站定不动，动了的选手要回到起点重新出发，等到老师再说“绿灯”的时候所有选手才能继续前进。看看哪组的 2 名选手能够最快的到达终点，打到老师的肩膀为终点，时间以每组第 2 名到达终点的选手用时为准。

项目的时间安排

Timeline



课程材料开发—宁陕预实验

Pilot programme in Ningshan county

- 在榆林的干预项目开始之前，我们的教材在宁陕县的农村初中进行了预实验。
- 根据宁陕县教师和学生的反馈，进一步将教材和一对一面谈手册结合农村学生实际情况进一步修改。
- We conducted a pilot programme to test the curriculum in all the rural junior high schools in Ningshan before the Yulin intervention.
- With the feedback from teachers and students in Ningshan we further revised the materials.

心理健康教材的开发

Developing the mental health curriculum

- 国内外教材开发专家合作，利用一年时间完成。
- 借鉴国外生活技能课程，结合农村情况本土化。

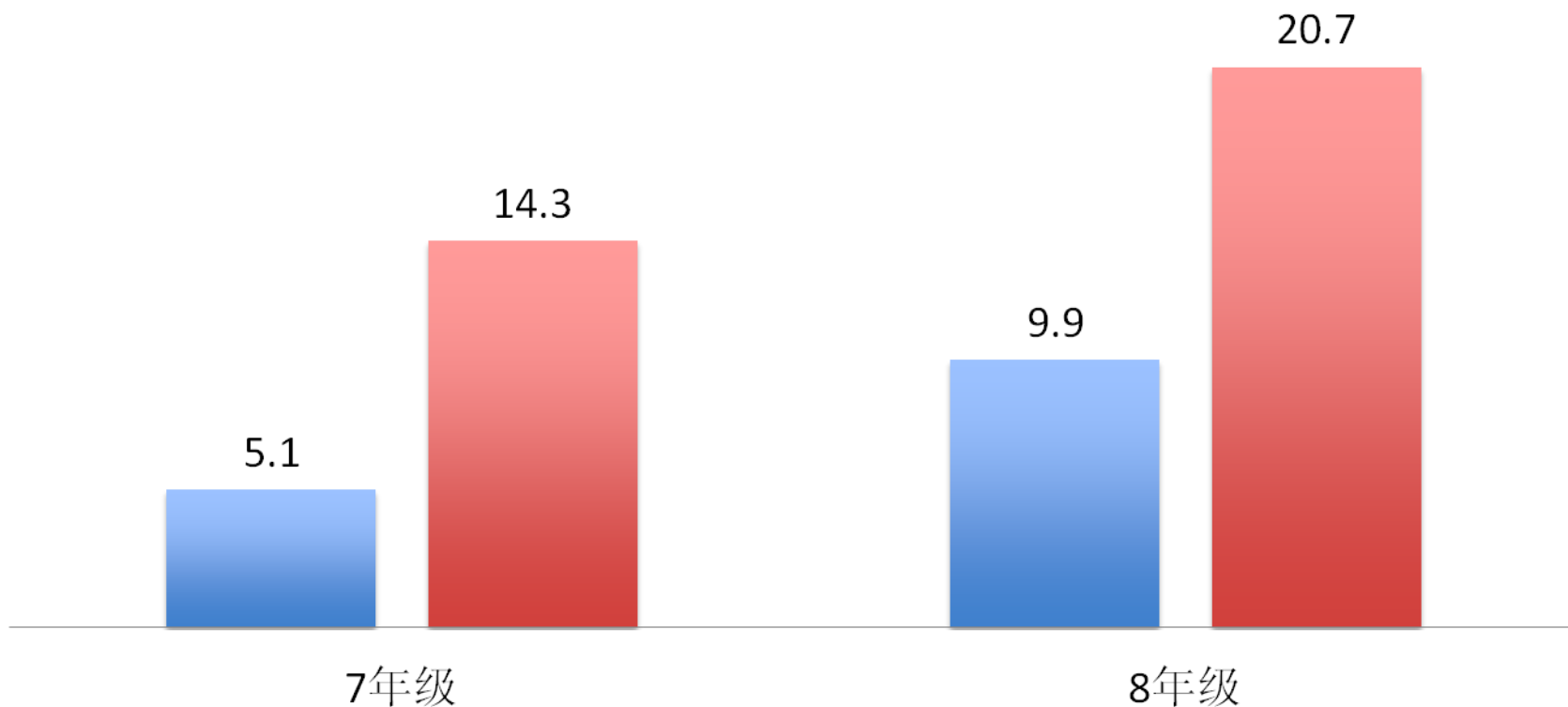
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经常联系辍学同伴的学生会更容易辍学

Students that stay in frequent contact with dropped out peers are more likely to drop out.

■ 没有联系辍学朋友 ■ 经常联系辍学朋友

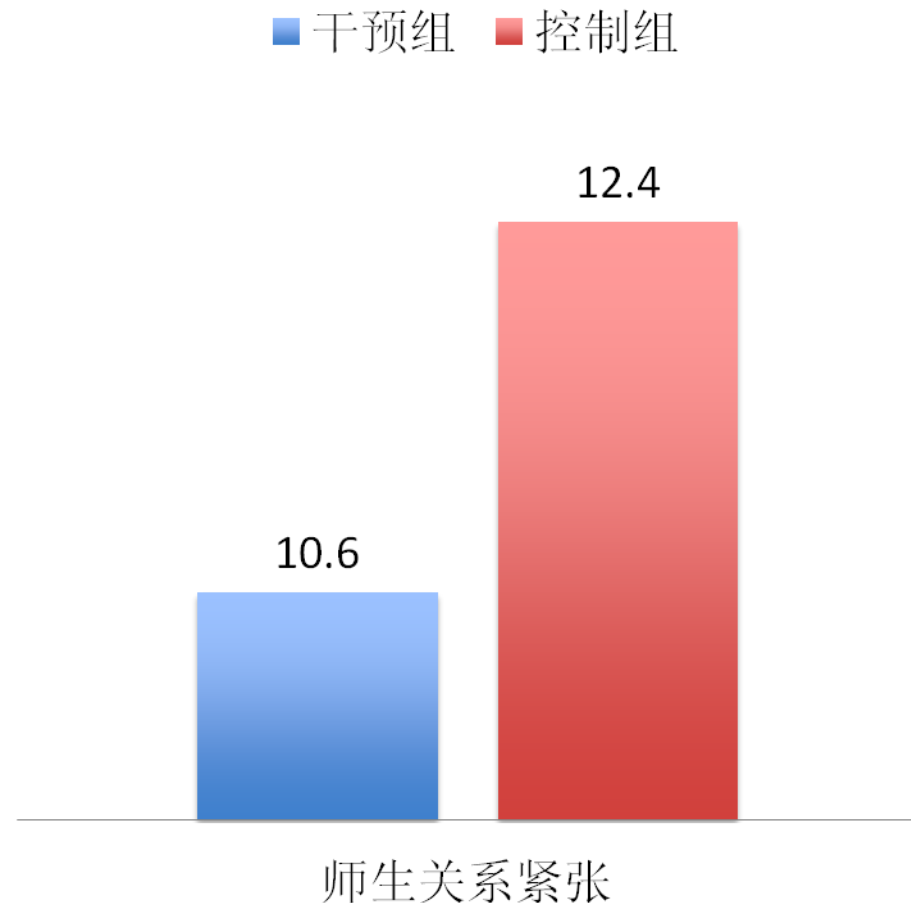


问卷问题:

在你周围有没有和你年龄差不多的朋友没读完初中就不上学了, 你和他们经常联系吗?

项目将师生关系紧张的学生辍学率减少了20%

The intervention reduces dropout by 20% among students who have bad relationships with their teachers



项目将联系辍学朋友的学生辍学率减少了30%

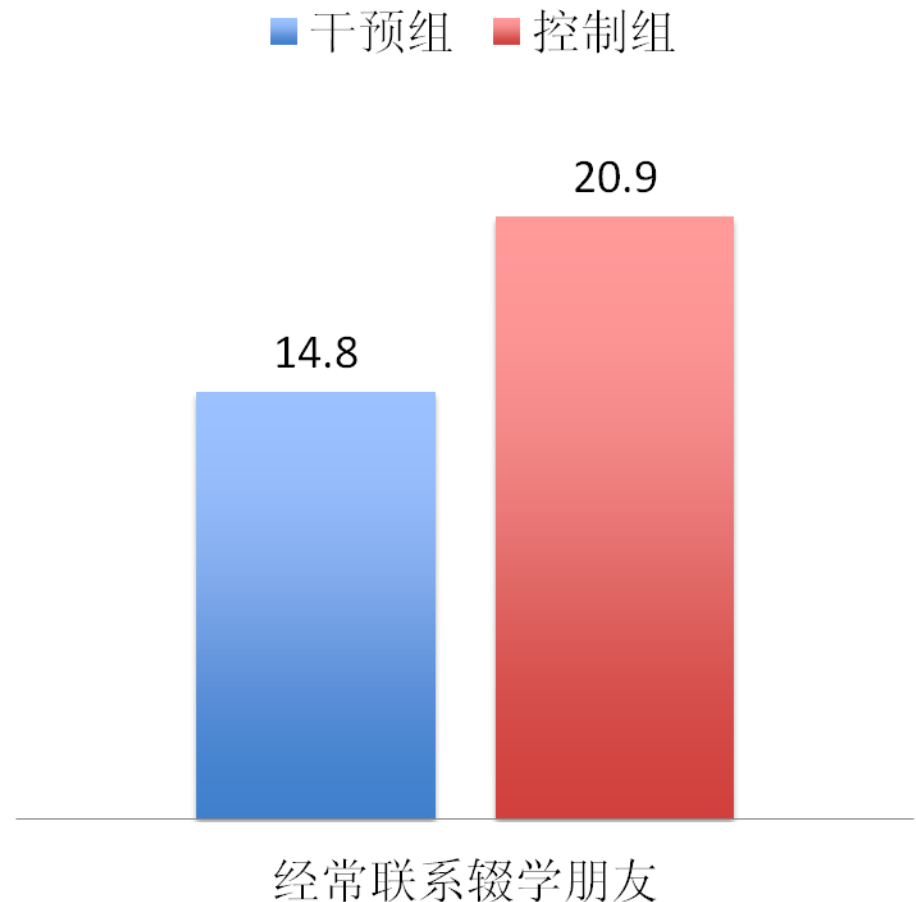
The intervention reduces dropout by 30% among the students who stay in frequent contact with dropout

控制组中经常联系辍学朋友的学生辍学率高达20.9%。

The dropout rate is as high as 20.9% in control group among the students who stay in frequent contact with dropout.

心理健康项目减少了这类学生30%的辍学率。

Intervention reduces 30% dropout in these students.



We have to worry ALSO about SUSTAINABILITY of the programme--
Does the programme work over the long run?

We were a bit disappointed by this ... but in fact, it is important to know this ... if a programme does not work in the long run, we probably need to figure out the reason ... but not promote it all ...

In fact, our Counseling programme is even more complicated than that ...

And, this complication (in this case) means Good News for Counseling: Although the School Counseling did not work for the average student in the long run, it did work for certain subsets of students →

Table 3. Heterogeneous effects

| | (1) | (2) | (3) | (4) |
|---|------------|----------|-----------|----------|
| | Dropout_20 | Learning | Dropout_2 | Learning |
| <i>Panel A: Heterogeneous effects of treatment by age (age16=student older than 16 years)</i> | | | | |
| treatment*age16 | -0.09*** | 0.05 | -0.07** | 0.07* |
| | (0.03) | (0.03) | (0.03) | (0.04) |
| <i>Panel B: Heterogeneous effects of treatment by dropout peers (dropout peer=student keeps in touch with the peer who already dropped out of school)</i> | | | | |
| treatment*dropout peer | -0.06*** | 0.01 | -0.06** | -0.02 |
| | (0.02) | (0.03) | (0.03) | (0.03) |

school counseling reduces dropout and learning anxiety level on students at high-risk of dropping out (older students and students with friends who have already dropped out) in both the short and long term.

Cluster robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1