Supplementary Online Content


eFigure. Distribution of students with normal visual acuity (uncorrected visual acuity in the right eye > 20/25) from Grade 1 to Grade 6 in 2008

eMethods 1. Examination Forms

eMethods 2. Questionnaire

eTable 1. Reasons for non-cycloplegia at each visit

eTable 2. Comparison of baseline characteristics between cycloplegia and non-cycloplegia students

eTable 3. Compliance on outdoor class in unannounced supervisory school visits

eTable 4. Cumulative 3-year incident myopia when spherical equivalent refraction -0.75D and -1.00D were chosen as definition of myopia

This supplementary material has been provided by the authors to give readers additional information about their work.
**eFigure.** Distribution of students with normal visual acuity (uncorrected visual acuity in the right eye > 20/25) from Grade 1 to Grade 6 in 2008
eMethods 1. Examination Forms

Examination Form 1: Baseline Examination Form
Examination Form 2: Follow-up Examination Form
Examination Form3: Guangzhou Outdoor Activity Trial School Visit Form
Examination Form4: Guangzhou Outdoor Activity Trial Outdoor Activity Form
Guangzhou Outdoor Activity Trial---Baseline Examination Form

School:__________

Examine Date: ____/____/____(YY/MM/DD)

SECTION A: STUDENT REGISTRATION

Name:__________ DOB ____/____/____

ID Grade Class Individual

Age ____ Sex (1:Male; 2: Female) ____

Height ____ (cm) Weight ____ (kg)

WHR ____/____

Arm _____ (cm) Skinfold thickness ______ (cm)

BP ____/____ (kpa) HR ____/____/min

SECTION B: VISION ASSESSMENT

B1. Is the student wearing spectacles? (at the time of the exam)

0: No, go to B3; 1: Yes, continue

B2. Lenses power and Corrected Visual Acuity

<table>
<thead>
<tr>
<th></th>
<th>Sphere</th>
<th>Cylinder</th>
<th>Axis</th>
<th>Corrective VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lenses power cannot be examined (reason): ___

Corrected VA cannot be determined (reason): ___

B3. Uncorrected Visual Acuity

<table>
<thead>
<tr>
<th></th>
<th>Uncorrected VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD</td>
<td></td>
</tr>
<tr>
<td>OS</td>
<td></td>
</tr>
</tbody>
</table>

Uncorrected VA cannot be determined (reason): ___

SECTION C: BINOCULAR VISUAL FUNCTION

C1. Tropia at 0.5 meter fixation

0: None 1: Esotropia 2: Exotropia 3: Vertical 9: Undetermined

If tropia/ heterophoria, specify
1: esophoria 2: exophoria 3: vertical 8:Other

C2. Tropia at 4 meter fixation

0: None 1: Esotropia 2: Exotropia 3: Vertical 9: Undetermined

If tropia/ heterophoria, specify
1: esophoria 2: exophoria 3: vertical 8:Other

C3. Nystagmus?

0: No; 1:Yes 9: Undetermined

C4. Dominated eye

1: OD; 2: OS 9: Undetermined

SECTION D: OCULAR BIOMETRY

D1. Non-cycloplegic autorefration (staple printout and record results)

<table>
<thead>
<tr>
<th></th>
<th>Sphere</th>
<th>Cylinder</th>
<th>Axis</th>
<th>K1</th>
<th>K2</th>
<th>AvgK</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cannot be examined (reason): ____________

D2. Eye drop administration

Examiner ID

First drop __: __ Second drop __: __ Third drop __: __

D3. Ocular Biometry

<table>
<thead>
<tr>
<th></th>
<th>ACD</th>
<th>Axial length</th>
<th>Crystal thickness</th>
<th>VCD</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cannot be examined (reason): ____________
SECTION E: REFRACTION WITH CYCLOPEGIA
E1. Pupil dilated ≥ 6mm AND light reflex absent?
0: NO; 1: YES; 2: Less than 6mm, but no light reflex;
8: Less than 6mm, light reflex; 9: Undetermined
OD If NO, reason
OS If NO, reason
E2. Cycloplegic autorefraction (staple printout and record results)
Examiner ID

<table>
<thead>
<tr>
<th>Sphere</th>
<th>Cylinder</th>
<th>Axis</th>
<th>K1</th>
<th>K2</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cannot be examined (reason)
E3. Is Uncorrected VA ≤ 20/40 in either eye?
0: NO, go to F; 1: YES, continue
9: Undetermined, continue
E4. Subjective refraction
Examiner ID

<table>
<thead>
<tr>
<th>Sphere</th>
<th>Cylinder</th>
<th>Axis</th>
<th>VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cannot be examined (reason)

SECTION F: ANTERIOR SEGMENT EXAMINATION
Examiner ID
0: Normal 1: Abnormal 9: Undetermined
F1. Eyelid
OD If Abnormal specify
OS If Abnormal specify
F2. Conjunctiva
OD If Abnormal specify
OS If Abnormal specify
F3. Cornea
OD If Abnormal specify
OS If Abnormal specify
F4. Pupil
OD If Abnormal specify
OS If Abnormal specify
F5. Other
OD If Abnormal specify
OS If Abnormal specify

SECTION G: Media and fundus
Examiner ID
0: Normal 1: Abnormal 9: Undetermined
G1: Lens
OD If Abnormal specify
OS If Abnormal specify
G2: Vitreous
OD If Abnormal specify
OS If Abnormal specify
G3: Fundus
OD If Abnormal specify
OS If Abnormal specify
Please draw the fundus picture if abnormal:

SECTION H: CAUSE OF IMPAIRMENT
Examiner ID
0: No impairment (UCVA > 20/40)
1: Refractive Error (UCVA ≤ 20/40 & BCVA > 20/40)
2: Amblyopia (only if BCVA ≤ 20/40)
3: Corneal opacity due to trachoma
4: Other corneal opacity
5: Cataract
6: Retinal disorder
7: Other cause
9: Undetermined cause
10: UCVA data or BCVA data (UCVA ≤ 20/40) not available
OD If Other specify
OS If Other specify

SECTION I: CHECKLIST OF COMPLETENESS
Form completed? [ ]
Printouts stapled? [ ]
1. Non-cycloplegic autorefraction [ ]
2. Cycloplegic autorefraction [ ]
Investigator’s signature
Comment
Guangzhou Outdoor Activity Trial---Follow-up Examination Form

School ID

School:
Examine Date: _____/____/____ (YY/MM/DD)

SECTION A: STUDENT REGISTRATION
Name: _______  DOB  ____/____/____

ID

I D

Grade  Class  Individual

Age  Sex (1:Male; 2: Female)  
Height (cm)  Weight (kg)  WHR /  
Arm (cm)  Skinfold thickness (cm)  
BP / (kpa)  HR /min

SECTION B: VISION ASSESSMENT
Examiner ID

B1. Is the student wearing spectacles?  
(at the time of the exam)  
0: No, go to B3;  1: Yes, continue

B2. Lenses power and Corrected Visual Acuity

<table>
<thead>
<tr>
<th></th>
<th>Sphere</th>
<th>Cylinder</th>
<th>Axis</th>
<th>Corrective VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lenses power cannot be examined (reason): __________
Corrected VA cannot be determined (reason): __________

B3. Uncorrected Visual Acuity

<table>
<thead>
<tr>
<th></th>
<th>Uncorrected VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD</td>
<td></td>
</tr>
<tr>
<td>OS</td>
<td></td>
</tr>
</tbody>
</table>

Uncorrected VA cannot be determined (reason): __________

SECTION C: Non-cycloplegic autorefraction
Examiner ID

<table>
<thead>
<tr>
<th></th>
<th>Sphere</th>
<th>Cylinder</th>
<th>Axis</th>
<th>K1</th>
<th>K2</th>
<th>AvgK</th>
</tr>
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<td>OD</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cannot be examined (reason): __________

Eye drop administration

Examiner ID

First drop ___: ___ Second drop ___: ___ Third drop ___: ___

SECTION D. OCULAR BIOMETRY
Examiner ID  IOLMaster  AS-OCT

ACD  Axial length  Crystal thickness  VCD

OD  
OS  

Cannot be examined (reason): __________

SECTION E: REFRACTION WITH CYCLOPEGIA

E1. Pupil dilated≥6mm AND light reflex absent?

Examiner ID

0: NO;  1: YES;  2: Less than 6mm, but no light reflex
8: Less than 6mm, light reflex;  9: Undetermined

OD  If NO, reason
OS  If NO, reason

E2. Cycloplegic autorefraction
(staple printout and record results)

Examiner ID

<table>
<thead>
<tr>
<th></th>
<th>Sphere</th>
<th>Cylinder</th>
<th>Axis</th>
<th>K1</th>
<th>K2</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cannot be examined (reason)

E3. Is Uncorrected VA ≤20/40 in either eye?

0: NO, go to F;  1: YES, continue
9: Undetermined, continue

E4. Subjective refraction

Examiner ID

<table>
<thead>
<tr>
<th></th>
<th>Sphere</th>
<th>Cylinder</th>
<th>Axis</th>
<th>VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Can not be examined (reason)

SECTION F: ANTERIOR SEGMENT EXAMINATION
Examiner ID

0: Normal  1: Abnormal  9: Undetermined

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### F1. Eyelid
- **OD**: If Abnormal specify
- **OS**: If Abnormal specify

### F2. Conjunctiva
- **OD**: If Abnormal specify
- **OS**: If Abnormal specify

### F3. Cornea
- **OD**: If Abnormal specify
- **OS**: If Abnormal specify

### F4. Pupil
- **OD**: If Abnormal specify
- **OS**: If Abnormal specify

### F5. Other
- **OD**: If Abnormal specify
- **OS**: If Abnormal specify

---

**SECTION G: Media and fundus**

**Examiner ID**
- **0**: Normal
- **1**: Abnormal
- **9**: Undetermined

**G1: Lens**
- **OD**: If Abnormal specify
- **OS**: If Abnormal specify

**G2: Vitreous**
- **OD**: If Abnormal specify
- **OS**: If Abnormal specify

**G3: Fundus**
- **OD**: If Abnormal specify

---

**SECTION H: CAUSE OF IMPAIRMENT**

- **Examiner ID**: 
- **0**: No impairment (UCVA>20/40)
- **1**: Refractive Error (UCVA≤20/40 & BCVA>20/40)
- **2**: Amblyopia (only if BCVA≤20/40)
- **3**: Corneal opacity due to trachoma
- **4**: Other corneal opacity
- **5**: Cataract
- **6**: Retinal disorder
- **7**: Other cause
- **9**: Undetermined cause
- **10**: UCVA data or BCVA data (UCVA ≤20/40) not available

- **OD**: If Other specify
- **OS**: If Other specify

---

**SECTION I: CHECKLIST OF COMPLETENESS**

- **Form completed?**
- **Printouts stapled?**
- **Non-cycloplegic autorefraction**
- **Cycloplegic autorefraction**

- **Investigator’s signature**
- **Comment**
Guangzhou Outdoor Activity Trial

School Visit Form (Grade leader completed)

1. School basic information

1) School: ____________  Grade: ____________

2) Main Student’s Source
   □ 1- From the nearest area
   □ 2- Choosing school students
   □ 3- Nearly half-and-half

2. School holidays and examinations

1) In a school year, students go to school for ____ weeks, summer holidays last ____ weeks, and winter holidays last ____ weeks

2) Examinations in a school year

<table>
<thead>
<tr>
<th>Examinations</th>
<th>Frequency (every year)</th>
<th>Organizer</th>
</tr>
</thead>
<tbody>
<tr>
<td>monthly exam</td>
<td></td>
<td>(Grade/School/Education Bureau)</td>
</tr>
<tr>
<td>mid semester exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>final exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>(Specify)</td>
<td>2.</td>
<td></td>
</tr>
</tbody>
</table>

3. School routine

1) In a week, students go to school for _____ days, any extra class in the weekend? __________

2) Schedule

<table>
<thead>
<tr>
<th>School time (on the basis of 24 hours)</th>
<th>Break duration</th>
<th>Break frequency</th>
<th>Break type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1. Indoors 2. Outdoors</td>
</tr>
<tr>
<td></td>
<td>(min)</td>
<td>(times)</td>
<td>3. Half-and-half</td>
</tr>
<tr>
<td>----------------</td>
<td>-------</td>
<td>---------</td>
<td>-----------------</td>
</tr>
<tr>
<td><strong>AM</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PM</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3) Students’ total outdoor activity time per day (Excl. breaks): _____ hours

4) If there is any special schedule for some classes (e.g., Art class or sport class), please specify:
   ① __________________________
   ② __________________________

Signature: ___________ Date: ____/____/_____  

* Please attach the curriculum schedule of each class
Guangzhou Outdoor Activity Trial

Outdoor Activity Form

<table>
<thead>
<tr>
<th>Weather</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outdoor activity site</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outdoor activity duration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>:<strong>:</strong></td>
<td>:<strong>:</strong></td>
<td>:<strong>:</strong>:__</td>
<td>:<strong>:</strong>:__</td>
<td>:<strong>:</strong>:__</td>
</tr>
<tr>
<td>Outdoor activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants No.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonparticipants No.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outdoor activity not implemented, Reason</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other special Situations, please specify</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signature</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
eMethods 2. Questionnaire

Questionnaire1: Children’s daily activity questionnaire
Questionnaire2: Children’s learning activity and family information questionnaire
Guangzhou Outdoor Activity Longitudinal (GOAL) Study
Parent-administered Daily Activity Questionnaire

Name of School:       Grade:       Class:       Name:       Date of birth: (MM/DD/YYYY)       Sex:       

Please refer to the instruction and sample and fill out the questionnaire as best as you can

<table>
<thead>
<tr>
<th>Part 1: On a typical school weekday</th>
<th>Please fill out the time your child spend doing the following activities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Activity</td>
</tr>
<tr>
<td>1. When does your child get up in the morning?</td>
<td></td>
</tr>
<tr>
<td>2. Any outdoor activities (e.g., jogging, reading, or playing) beforehand to school?</td>
<td>□Yes □No</td>
</tr>
<tr>
<td>3. How does your child usually travel to school?</td>
<td></td>
</tr>
<tr>
<td>4. How long does it take to travel to school?</td>
<td>Yes</td>
</tr>
<tr>
<td>(2) At School (please confirm with your child in places where you are not sure)</td>
<td></td>
</tr>
<tr>
<td>5. How long is the break time between classes in a normal weekday?</td>
<td>Yes</td>
</tr>
<tr>
<td>6. Does your child prefer to stay in the classroom or play outside the classroom during the breaks?</td>
<td>□Stay in the classroom □Play outside the classroom (like playground)</td>
</tr>
<tr>
<td>(3) Lunch break (please confirm with your child in places where you are not sure)</td>
<td></td>
</tr>
<tr>
<td>7. Does your child prefer to go home or stay at school?</td>
<td>□Go home □Stay at school</td>
</tr>
<tr>
<td>8. Does your child prefer to stay indoors or outdoors?</td>
<td>□Indoors □Outdoors (e.g., playground, street)</td>
</tr>
<tr>
<td>9. Does your child have a nap?</td>
<td>□Yes □No</td>
</tr>
<tr>
<td>10. Does your child have outdoor activities?</td>
<td>□Yes □No</td>
</tr>
<tr>
<td>(4) After school</td>
<td></td>
</tr>
<tr>
<td>11. How does your child usually travel back home?</td>
<td>□By bus, metro, or train □By sedan □By bike, motor bicycle, or on foot</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>12. Does your child prefer to have outdoor activities (e.g., running, playing, shopping or wandering) after school before night fall?</td>
<td>Yes</td>
</tr>
<tr>
<td>13. Does your child do homework or read books for pleasure?</td>
<td>Yes</td>
</tr>
<tr>
<td>14. Does your child watch TV?</td>
<td>Yes</td>
</tr>
<tr>
<td>15. Does your child play video/computer games?</td>
<td>Yes</td>
</tr>
<tr>
<td>16. When does your child go to bed at night?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Part 2:** On a typical day of school weekend (Saturday or Sunday)
Please fill out the time your child spend doing the following activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Undertake or not</th>
<th>Time/Duration</th>
<th>If yes</th>
<th>When does it start and end?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When does your child get up in the morning?</td>
<td>Yes</td>
<td>At:</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>2. Does your child take part in any indoor extracurricular training classes (e.g., English class, piano class)?</td>
<td>Yes</td>
<td>No</td>
<td>Minutes in total:</td>
<td>From: to:</td>
</tr>
<tr>
<td>3. Does your child take part in any outdoor extracurricular training classes (e.g., soccer class, basketball class)?</td>
<td>Yes</td>
<td>No</td>
<td>Minutes in total:</td>
<td>From: to:</td>
</tr>
<tr>
<td>4. Does your child study or read in addition to the extracurricular training classes and homework?</td>
<td>Yes</td>
<td>No</td>
<td>Minutes in total:</td>
<td>From: to:</td>
</tr>
<tr>
<td>5. Does your child watch TV?</td>
<td>Yes</td>
<td>No</td>
<td>Minutes in total:</td>
<td>From: to:</td>
</tr>
<tr>
<td>6. Does your child play video/computer games?</td>
<td>Yes</td>
<td>No</td>
<td>Minutes in total:</td>
<td>From: to:</td>
</tr>
<tr>
<td>7. In addition to outdoor extracurricular classes, are there any other outdoor activities (e.g., exercise, playing, shopping or wandering)?</td>
<td>Yes</td>
<td>No</td>
<td>Minutes in total:</td>
<td>From: to:</td>
</tr>
<tr>
<td>8. When does your child go to bed?</td>
<td>Yes</td>
<td>At:</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

**Part 3:** Overview of daily activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Undertake or not</th>
<th>Time/Duration</th>
<th>If yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Does your child take part in any indoor extracurricular training classes (e.g., English class, piano class) every week?</td>
<td>Yes</td>
<td>No</td>
<td>Minutes in total</td>
</tr>
<tr>
<td>2. Does your child take part in any outdoor extracurricular training class (e.g., soccer class, basketball class) every week?</td>
<td>Yes</td>
<td>No</td>
<td>Minutes in total</td>
</tr>
<tr>
<td>3. How was your homework load compared to your child, when you were at your child’s age?</td>
<td>Yes</td>
<td>No</td>
<td>Less than my child; mine were times less (e.g., 1/2 or 1/3)</td>
</tr>
<tr>
<td>4. How was your time spent outdoors (e.g., playing,</td>
<td>Yes</td>
<td>No</td>
<td>Less than my child; mine were times less (e.g., 1/2 or 1/3)</td>
</tr>
<tr>
<td>Your name:</td>
<td>Phone:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>----------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relation to the child:</td>
<td>child:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| (MM/DD/YYYY)                            |          |

<table>
<thead>
<tr>
<th>5. Where did you spend your childhood?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Metropolitan (e.g., Guangzhou)</td>
<td></td>
</tr>
<tr>
<td>□ Moderate- to small-sized urban city</td>
<td></td>
</tr>
<tr>
<td>□ Suburbs □ Rural areas</td>
<td></td>
</tr>
</tbody>
</table>

| □ More than my child; mine were times more (e.g., twice or three time) |          |
| □ Almost the same                                                      |          |
| □ I cannot recall                                                      |          |

| wandering) compared to your child, when you were at your child’s age? |          |

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### Questionnaire2 Children’s learning activity and family information questionnaire (completed by parents)

#### Part 1 Child’s learning activity
1. When did your child start recognizing words? (Year/Month)
2. Before primary school, was your child ever enrolled in any formal pre-school education program, EXCEPT childcare (e.g., full time pre-school, tutorial classes)? If yes, when did he/she begin this pre-school education program? (Year/Month)
3. When did your child start primary school? (Year/Month)
4. What is your child’s academic rank in his/her class? (top 1/3; middle 1/3; bottom 1/3; don’t know)
5. How often does your child complete his/her homework on time? (always; sometimes; rarely; don’t know)
6. Compared to other children, what is your child’s personality type? (introvert; extrovert; both)
7. What are your child’s hobbies?

#### Part 2 family information

<table>
<thead>
<tr>
<th>Name</th>
<th>Relationship to the child</th>
<th>Ethnic groups</th>
<th>Date of Birth</th>
<th>Highest Education level</th>
<th>Occupation</th>
<th>Any ocular disorders?</th>
<th>Myopic?</th>
<th>If myopic, How severe is the right eye?</th>
<th>Wearing glasses?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1. No formal education</td>
<td></td>
<td></td>
<td></td>
<td>1. ≥ -3D</td>
<td>0. No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2. Primary school</td>
<td></td>
<td></td>
<td></td>
<td>2. -3D to -6D</td>
<td>0. No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3. Middle school</td>
<td></td>
<td></td>
<td></td>
<td>3. ≤ -6D</td>
<td>0. No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4. University</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0. No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5. Postgraduate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1. Yes</td>
</tr>
</tbody>
</table>

Apart from the people listed in the table above, is there any other family members(e.g., grandparent) who has ocular conditions or inherited conditions? If yes, please specify:

If there is any issue that you think may be related to your child’s eye health, please specify:

#### Part 3: Family information
1. What is your family monthly total income (pre-tax)? (≤ 3000RMB; 3000-6000RMB; 6000-10000RMB; ≥10000 RMB)
2. What is the type of your family’s residential place? (≤ 50 m²; 50-100 m²; ≥ 100 m²; other, please specify)

Your name: Phone: Relation to the child: Date: (MM/DD/YYYY)
**eTable 1. Reasons for non-cycloplegia at each visit**

<table>
<thead>
<tr>
<th></th>
<th>Intervention</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baseline</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participated</td>
<td>919</td>
<td>929</td>
</tr>
<tr>
<td>Cycloplegia</td>
<td>869</td>
<td>740</td>
</tr>
<tr>
<td>Non-cycloplegia</td>
<td>50</td>
<td>189</td>
</tr>
<tr>
<td>Reasons for non-cycloplegia</td>
<td>Parent refused cycloplegia 49</td>
<td>Parent refused cycloplegia 186</td>
</tr>
<tr>
<td></td>
<td>Children refused cycloplegia 1</td>
<td>Children refused cycloplegia 3</td>
</tr>
<tr>
<td><strong>1-year follow-up</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participated</td>
<td>894</td>
<td>900</td>
</tr>
<tr>
<td>Cycloplegia</td>
<td>785</td>
<td>635</td>
</tr>
<tr>
<td>Non-cycloplegia</td>
<td>109</td>
<td>265</td>
</tr>
<tr>
<td>Reasons for non-cycloplegia</td>
<td>Parent refused cycloplegia 108</td>
<td>Parent refused cycloplegia 262</td>
</tr>
<tr>
<td></td>
<td>Children refused cycloplegia 1</td>
<td>Children refused cycloplegia 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Under medical condition can not cycloplegic 1</td>
</tr>
<tr>
<td><strong>2-year follow-up</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participated</td>
<td>897</td>
<td>899</td>
</tr>
<tr>
<td>Cycloplegia</td>
<td>748</td>
<td>618</td>
</tr>
<tr>
<td>Non-cycloplegia</td>
<td>149</td>
<td>281</td>
</tr>
<tr>
<td>Reasons for non-cycloplegia</td>
<td>Parent refused cycloplegia 149</td>
<td>Parent refused cycloplegia 281</td>
</tr>
<tr>
<td><strong>3-year follow up</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participated</td>
<td>873</td>
<td>894</td>
</tr>
<tr>
<td>Cycloplegia</td>
<td>840</td>
<td>755</td>
</tr>
<tr>
<td>Non-cycloplegia</td>
<td>33</td>
<td>139</td>
</tr>
<tr>
<td>Reasons for non-cycloplegia</td>
<td>Parent refused cycloplegia 32</td>
<td>Parent refused cycloplegia</td>
</tr>
<tr>
<td>Intervention</td>
<td>Control</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>----------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Under medical condition cannot undergo cycloplegia 1</td>
<td>138</td>
<td></td>
</tr>
<tr>
<td>Under medical condition cannot undergo cycloplegia 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**eTable 2. Comparison of baseline characteristics between cycloplegia and non-cycloplegia students**

<table>
<thead>
<tr>
<th></th>
<th>Intervention</th>
<th>Control</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cycloplegia(n=869)</td>
<td>Non-cycloplegia(n=50)</td>
<td>P Value</td>
<td>Cycloplegia(n=740)</td>
<td>Non-cycloplegia(n=189)</td>
<td>P Value</td>
</tr>
<tr>
<td>Age(Years)</td>
<td>6.61±0.33</td>
<td>6.56±0.32</td>
<td>0.25</td>
<td>6.56±0.32</td>
<td>6.60±0.31</td>
<td>0.09</td>
</tr>
<tr>
<td>Boys(%)</td>
<td>53.3%</td>
<td>36.0%</td>
<td>0.02</td>
<td>56.68%</td>
<td>51.32%</td>
<td>0.36</td>
</tr>
<tr>
<td>Height</td>
<td>120.3±5.25</td>
<td>120.0±5.15</td>
<td>0.66</td>
<td>120.4±5.08</td>
<td>121.0±4.69</td>
<td>0.06</td>
</tr>
<tr>
<td>Weight</td>
<td>22.55±4.52</td>
<td>22.35±3.71</td>
<td>0.76</td>
<td>22.43±4.16</td>
<td>23.06±4.05</td>
<td>0.07</td>
</tr>
<tr>
<td>Parental myopia, n(%)</td>
<td>None 360(46.57)</td>
<td>16(42.11)</td>
<td>0.47</td>
<td>234(39.39)</td>
<td>39(45.88)</td>
<td>0.41</td>
</tr>
<tr>
<td></td>
<td>One 288(37.26)</td>
<td>18(47.37)</td>
<td>0.39</td>
<td>219(36.87)</td>
<td>26(30.59)</td>
<td>0.45</td>
</tr>
<tr>
<td></td>
<td>Both 125(16.17)</td>
<td>4(10.53)</td>
<td>141(23.74)</td>
<td>20(23.53)</td>
<td>0.41</td>
<td></td>
</tr>
<tr>
<td>Wearing glasses(%)</td>
<td>5.18%</td>
<td>4.00%</td>
<td>&gt;.99</td>
<td>4.05%</td>
<td>5.29%</td>
<td>0.42</td>
</tr>
<tr>
<td>UCVA</td>
<td>0.80(0.80;0.80)</td>
<td>0.80(0.80;0.80)</td>
<td>0.29</td>
<td>0.80(0.80;1.00)</td>
<td>0.80(0.80;0.80)</td>
<td>0.18</td>
</tr>
<tr>
<td>AL&lt;sup&gt;a&lt;/sup&gt;</td>
<td>22.60±0.72</td>
<td>22.48±0.65</td>
<td>0.25</td>
<td>22.67±0.71</td>
<td>22.64±0.68</td>
<td>0.61</td>
</tr>
<tr>
<td>CC&lt;sup&gt;a&lt;/sup&gt;</td>
<td>43.55±1.66</td>
<td>43.37±1.35</td>
<td>0.47</td>
<td>43.44±1.39</td>
<td>43.34±1.43</td>
<td>0.41</td>
</tr>
</tbody>
</table>

a: Data from right eye only.

UCVA = uncorrected visual acuity; AL = axial length; CC = corneal curvature.
### eTable 3. Compliance on outdoor class in unannounced supervisory school visits

<table>
<thead>
<tr>
<th>Terms</th>
<th>Month for outdoor intervention</th>
<th>Number of visit</th>
<th>Number of visit with successful outdoor class</th>
<th>Number of visit with unsuccessful outdoor class due to weather</th>
<th>Rates of successful intervention</th>
<th>Rate of successful intervention (excluding bad weather days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 last term</td>
<td>Dec/Jan</td>
<td>43</td>
<td>32</td>
<td>8</td>
<td>74.42%</td>
<td>91.43%</td>
</tr>
<tr>
<td>2010 first term</td>
<td>Mar/Apr/May/June</td>
<td>173</td>
<td>132</td>
<td>19</td>
<td>76.30%</td>
<td>85.71%</td>
</tr>
<tr>
<td>2010 second term</td>
<td>Sep/Oct/Nov/Dec/Jan</td>
<td>153</td>
<td>134</td>
<td>8</td>
<td>87.58%</td>
<td>92.41%</td>
</tr>
<tr>
<td>2011 first term</td>
<td>Feb/Mar/Apr/May/June</td>
<td>194</td>
<td>172</td>
<td>12</td>
<td>88.66%</td>
<td>94.51%</td>
</tr>
<tr>
<td>2011 second term</td>
<td>Sep/Oct/Nov/Dec</td>
<td>80</td>
<td>74</td>
<td>1</td>
<td>92.50%</td>
<td>93.67%</td>
</tr>
<tr>
<td>2012 first term</td>
<td>Feb/Mar/Apr/May/June</td>
<td>70</td>
<td>53</td>
<td>13</td>
<td>75.71%</td>
<td>92.98%</td>
</tr>
<tr>
<td>2012 second term</td>
<td>Sep</td>
<td>21</td>
<td>16</td>
<td>3</td>
<td>76.19%</td>
<td>88.89%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>734</td>
<td>613</td>
<td>64</td>
<td>83.51%</td>
<td>91.49%</td>
</tr>
</tbody>
</table>

a There are two terms in one school year in China.
eTable 4. Cumulative 3-year incident myopia when spherical equivalent refraction - 0.75D and -1.00D were chosen as definition of myopia

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Intervention Group</th>
<th>Control Group</th>
<th>Difference (Intervention-Control)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incident myopia (SER&lt;=-0.75)</td>
<td>208 /858(24.24%)</td>
<td>227 /731(31.05%)</td>
<td>-6.81%(-11.72,-1.88)</td>
<td>0.0028</td>
</tr>
<tr>
<td>Incident myopia (SER&lt;=-1.0)</td>
<td>175/858(20.40%)</td>
<td>187/733 (25.51%)</td>
<td>-5.12%(-10.03,-0.19)</td>
<td>0.0164</td>
</tr>
</tbody>
</table>

* The students with established myopia at baseline based on the same specific definition of myopia were excluded.