

**Personal Wellbeing Index –  
Intellectual Disability  
(Chinese- Cantonese)**

**3<sup>rd</sup> Edition**

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**MANUAL**

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# CONTENTS

<b>1. Introduction .....</b>	<b>4</b>
1.1. Measuring and defining quality of life .....	4
1.2. The Personal Wellbeing Index (PWI) Scale.....	5
1.3. Psychometric Characteristics.....	5
1.4. The PWI-ID Scale .....	5
1.4.1. The test item: Domain on “Feeling Part of the Community” .....	5
<b>2. Scale Administration .....</b>	<b>7</b>
2.1. General Information .....	7
2.2. The Testing Environment .....	7
2.3. The Role of Caregivers.....	7
2.4. Ethics .....	7
2.5. Pre-Testing and Test.....	8
2.5.1. Pre-test Step 1: Initial selection of potential respondents .....	8
2.5.2. Pre-test Step 2: Testing for acquiescent responding .....	8
2.5.3. Pre-test Step 3: Testing for Likert scale competence using 0-10.....	8
2.5.4. Pre-test Step 4: Testing for Likert scale competence using a reduced-choice format .....	10
PHASE I: ORDER OF MAGNITUDE.....	13
PHASE II: MATCHING TO CONCRETE REFERENCE .....	15
PHASE III: USE OF AN ABSTRACT REFERENCE.....	18
Test Step 5A: Happy with Life as A Whole and Personal Wellbeing Index-Intellectual Disability (11-point Scale).....	21
Test Step 5B: Happy with Life as A Whole and Personal Wellbeing Index-Intellectual Disability (Reduced-choice Scale).....	22
<b>3. Analysis of Grouped Data .....</b>	<b>25</b>
3.1. Data Cleaning.....	25
3.2. Data Analysis of “Happiness with Life as a Whole” and Personal Wellbeing Index Items .....	25
3.3. Data Analysis converting raw scores into the standard 0 – 100 scale format .....	25
3.4. Data Interpretation.....	27
<b>4. Obtaining Informed Consent.....</b>	<b>28</b>
<b>5. Reference List .....</b>	<b>29</b>
<b>6. Appendix - Testing Materials .....</b>	<b>32</b>

# 1. Introduction

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## 1.1. Measuring and defining quality of life

The quality of life (QOL) construct has a complex composition, so it is perhaps not surprising that there is neither an agreed definition nor a standard form of measurement. This is not due to a lack of ideas. Cummins' web-site Directory of Instruments (<http://acqol.deakin.edu.au/instruments/instrument.php>) describes some 800 instruments which purport to measure life quality in some form, but each one contains an idiosyncratic mixture of dependent variables.

It is also notable that many QOL instruments have been developed for highly selected groups in the population; particularly in regard to scales devised to monitor medical conditions or disability types. Such scales are unsuitable for use with the general population. On the other hand, most scales devised for use with general population samples cannot be used with all sectors of the population, such as people with cognitive impairment and children. These are important limitations since it means that the QOL experienced by minority groups cannot be norm-referenced back to the general population.

In order to remedy this situation, the Comprehensive Quality of Life Scale (ComQol), and now the Personal Wellbeing Index (PWI) have been developed. Parallel forms are available for any population sub-group. These forms are (see Reference List):

PWI-A: designed for use with the general adult population.

PWI-ID: designed for use with people who have an intellectual disability or other form of cognitive impairment.

PWI- SC: designed for use with children and adolescents who are attending school.

PWI-PS: designed for use with children of pre-school age.

The scale also contains features of construction which reflect contemporary understanding of the QOL construct. The details of ComQol test development have been published (Cummins, 1991; Cummins, McCabe, Romeo & Gullone, 1994). The PWI represents the satisfaction sub-scale of the Com-Qol. The original scales of Importance, and the objective ComQol Scale have been abandoned for reasons described in the document 'Caveats to using the Comprehensive Quality of Life Scale' (<http://acqol.deakin.edu.au/instruments/index.htm>). The PWI differs from the ComQol satisfaction scale in substituting 'Satisfaction with future security' for the original 'satisfaction with own happiness'.

### Definition

The PWI is designed as the first level of deconstruction of the global, abstract question 'How satisfied are you with your life as a whole?'

## **1.2. The Personal Wellbeing Index (PWI) Scale**

There are eight items in the adult PWI scale, each one corresponding to a quality of life domain as: standard of living, health, life achievement, personal relationships, personal safety, community-connectedness, future security and spirituality-religion. Evidence for the adoption of these eight domains has been presented by Cummins 1996, Cummins 1997, and Cummins, McCabe, Romeo, Reid, & Waters 1997, The International Wellbeing Group, 2006).

The PWI scale can be used with any section of the population. Three parallel versions of the adult PWI have been developed. Unlike the original PWI adult version however, these parallel versions contain seven items as spirituality-religion is under investigation for determination of its inclusion. Its current exclusion does not yield psychometrically different data from the PWI-adult version (e.g. Lau, 2006; Lau, Cummins, Chan, McGillivray & Li, 2006; Lau, Cummins, Lam, Li, McGillivray, J., & Chan 2006.) PWI-PS is for use with children and adolescents attending school, PWI-PS is for pre-school age children, while PWI-ID is designed for people who have an intellectual disability or other form of cognitive impairment.

## **1.3. Psychometric Characteristics**

The basic psychometric characteristics of the PWI-A have been described (Cummins, Eckersley, Pallant, Van Vugt & Misajon, 2002) and detailed data concerning scale composition, reliability, validity, and sensitivity are provided in the many Reports on the Australian Unity Wellbeing Index (<http://acqol.deakin.edu.au/index.htm>) and other countries (e.g. Lau, Cummins & McPherson, 2004; Tiliouine, Cummins & Davern, 2004).

The cumulative psychometric characteristics of the adult scale are published in Cummins, R.A., Eckersley, R., Lo, S.K., Okerstrom, E., Hunter, B., & Davern, M. (2003).

## **1.4. The PWI-ID Scale**

The PWI-ID scale differs from the PWI-A in that it incorporates a pre-testing protocol to determine whether, and to what level of complexity, respondents are able to use the scale. Questions on ‘satisfaction’ from the PWI-A are substituted by the term ‘happiness’. While it is recognized that these two terms are not equivalent, they yield very similar data (Cummins, Eckersley, Pallant, Misajon & Davern, 2001a; Cummins, et al., 2001b; Lau, Cummins & McPherson, 2004). The ID version also uses more simple and concrete wordings. An additional question which asks how happy or sad the respondent is with life as a whole is included. A reduced choice format, illustrated as a series of outline faces, from very sad to happy, is provided to enhance comprehension and substitutes for the Likert scale used in the PWI-A version for people who cannot cope with the latter format.

### **1.4.1. The test item: Domain on “Feeling Part of the Community”**

With regards to the above-mentioned section 1.4, a noteworthy item is the sixth question of the PWI which taps subjective wellbeing (subjective QOL) of “community-connectedness”. When compared with the other items of the PWI, this item carries high abstractness and complexity which has required more rigor and trials of many different question formats to

identify the optimal substitute, which will be easily understood by the less cognitively competent groups, while fulfilling still, as an item representing the first (i.e. broadest) level deconstruction of life quality.

In the current PWI-ID scale, the question “How happy do you feel about doing things outside your home?” replaces “How satisfied are you with feeling part of your community?” in the PWI-A version. The aim of this item is to tap the extent to which a person is happy or satisfied with their sense of ‘connectedness’ or ‘belonging’ with their community. The term ‘community’ may take the form of a distinct group (e.g. school) or the larger community (e.g. district-based), which is to be left at the discretion of the respondents’ personal interpretation. This “sense of connectedness” or “belonging” may be derived through either behavioral or non-behavioral acts, with or without other people, outside the home.

The current question format “How happy do you feel about doing things outside your home?”, has been adopted as it is found to be generally inclusive of the above-mentioned considerations. A limitation, however, is that the question does suggest a more dominant behavioral orientation which may not necessarily be the case, as indicated above. Nonetheless, this question is preferred as people who are less cognitively competent e.g. children, intellectual disability are found to relate better to such a context. While the current question may not be an exact substitute for the original question in the PWI-A scale, it will provide as an optimal approximate at this stage, until further empirical evidence suggests an enhanced version.

## 2. Scale Administration

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### 2.1. General Information

The scale must be administered on an individual basis to the person with an intellectual disability. It is NOT to be answered ‘on behalf of the person’ by a caregiver or someone who ‘knows the person well’. Such Proxy Responses are invalid in relation to subjective measurement (see Cummins 2002 for a review).

It should be emphasised that there is no time limit. The pre-testing and the full scale administration take from 10 to 20 minutes to complete, depending on the extent of pre-testing required.

### 2.2. The Testing Environment

When using the scale with people who have a suspected intellectual or cognitive disability it is vital to ensure that the information they supply is valid. This requires great care on the part of the interviewer due to the problem of acquiescent responding.

People with an intellectual or cognitive disability are substantially more likely, than members of the general population, to answer in ways they perceive are desired by the interviewer. This problem is exacerbated by a sense of threat or unease. Such a response bias may be generated through the perception of a power differential or being questioned in an unfamiliar environment.

In an attempt to overcome this problem, the interviewer should take special precautions with the interview process. The interviewer should:

- dress in a manner which does not invoke anxiety;
- they should be prepared to engage in simple social rituals, such as having a cup of tea or meeting other members of the household before testing takes place, and
- should be perceived by the interviewee as friendly, or at least neutral.
- Ideally, the interview should be held on home-ground for the person being interviewed, in a quiet place away from the distractions of other people or television.

### 2.3. The Role of Caregivers

Caregivers MUST NOT be present during testing. The interviewees should be seen alone or, if absolutely necessary, with one supportive friend of their choice.

### 2.4. Ethics

Prior to conducting the test, it is the responsibility of the test administrator to ensure that:

- (a) appropriate ethics approval has been obtained from the relevant authority under which they are operating, and also
- (b) that approval for such testing has been obtained from the interviewee or when necessary, the interviewee’s parent or legal guardian.

Chapter 4 provides a useful protocol for obtaining informed consent from people who are able to process information at a relatively high level.

## **2.5. Pre-Testing and Test**

Without doubt, the most essential aspect of testing people with an intellectual or cognitive disability is to ensure that they understand the nature of the task they are agreeing to perform. Only then can the test administrator have confidence that the responses being provided are valid. Such assurance requires a carefully constructed pre-testing protocol as follows:

### **2.5.1. Pre-test Step 1: Initial selection of potential respondents**

DO NOT attempt to test anyone who has a severe or profound level of intellectual disability on the PWI-ID. It has now been well established that people who have a severe or profound level of intellectual disability cannot respond validly to this, or any other, scale of subjective wellbeing (e.g. Chadsey-Rusch, DeStefano, O'Reilly, Gonzalez, & Coller-Klingenberg 1992). The only known method of measurement for such people is through behavioral observation. Caveats apply. See Cummins (2004) for further discussion on this topic.

### **2.5.2. Pre-test Step 2: Testing for acquiescent responding**

People with intellectual or cognitive disability are particularly prone to acquiescent responding (see Chapter 3 for discussion). Formal testing for acquiescent responding can take place as follows:

1. After checking that the respondent is comfortable and ready to respond, carefully and slowly proceed as follows:
2. Point to the respondent's watch or some item of clothing. Ask them:
  - a) 個隻錶係唔係你架?
  - b) 係唔係你做自己 D 衫同埋鞋架?
  - c) 你見過住係你隔離既人嗎?
  - d) 你有無揀過邊個住係你隔離?

#### **Scoring:**

If a positive response is provided to items b and d, then it is apparent that the respondent is not sufficiently competent to complete the Index. Hence, no further testing should take place.

### **2.5.3. Pre-test Step 3: Testing for Likert scale competence using 0-10**

If the interviewee passed Pre-test Step 2, formal testing for Likert scale competence can take place. This involves two stages, as establishing the respondent's familiarity with a 0 to 10 distribution, and then testing the person's ability to use a 0 to 10 Likert scale.

The optimal response scale for the interviewee to use is the modified version of the normal 0-10 scale employed with PWI-A, which replaces 'satisfaction' with 'happiness'. This allows



maximum discrimination of degrees of happiness and is likely to be within the competence of people with a mild level of intellectual disability.

### Procedure

#### Step 3: Stage 1

Provide the following instructions:

- (a) “你識唔識得由零數到十?”

***If ‘Yes’: Proceed to next item.***

***If ‘No’: Proceed to Step 4***

- (b) “好, 而家請你由零數到十.”

***If successful: Proceed to Stage 2 within this Step.***

***If failed: Proceed to Step 4***

#### Step 3: Stage 2

1. Present the PWI-ID happiness scale in Appendix A.

2. Provide the following instructions.

“好. 呢度有一把尺, 係用來問你, 你有幾開心, 由零至十。”

零代表你覺得好唔開心 [Point to the left side of the scale].

而十就代表你覺得好開心 [Point to the right side of the scale].

五就係中間 [Point], 表示你覺得無嘢, 又唔係開心, 又唔係唔開心”

“得唔得?”

***If ‘Yes’: Proceed to tasks (a) to (c) below.***

***If ‘No’: Repeat the above just once, then add the following:***

“...所以, 由四至零[Point from 4 to 0], 代表唔開心到好唔開心,  
由六至十[Point from 6 to 10]代表開心到好開心.”

***After repeating, if ‘No’ again, proceed to Pre-test Step 4.***

Ask the following questions.

- (a) “如果好開心, 應該指邊度啊?” (*exaggerate好開心*)  
[Respondent must point to 10 for a correct response]
- (b) “如果好唔開心, 應該指邊度啊?” (*exaggerate唔*)  
[Respondent must point to zero]
- (c) “如果少少開心, 應該指邊度啊?” (*say 少少 gently*)  
[Accept any score from 6-8]

*If the person has succeeded in all the above 3 tasks ('a' to 'c'): Proceed to Step 5A to test that person on the 'happiness with life as a whole' question and the PWI-ID scale, using the 0-10 scale.*

*If the person has failed ANY ONE of the above 3 tasks: Repeat that task just once.*

- *If the person succeeded on the re-test of that task and had also succeeded on the other 2 tasks: Proceed to Step 5A, using the 0-10 scale.*
- *If the person failed on the re-test of that task: Proceed to Pre-test Step 4.*

#### **2.5.4. Pre-test Step 4: Testing for Likert scale competence using a reduced-choice format**

When the interviewee cannot use the 0-10 scale, the testing moves through three phases which are designed to determine whether the person can use a reduced-choice format via:

Phase (1): identifying items in order of magnitude (test on size discrimination between blocks),

Phase (2): using a scale with a concrete reference (test on size discrimination and matching between blocks and steps),

Phase (3) using a scale with an abstract reference (test on discrimination between facial expressions).

These Pre-test items are found, beginning from page 11. The testing protocol involves moving responding from a concrete (Phase 2) to an abstract (Phase 3) reference. Each of the three testing phases comprises three tasks (labeled 'a' to 'c'), with each task progressing in complexity from a binary choice (task 'a') to a choice involving five elements (task 'c'). Diagrams, provided in this manual (see Appendix), are used for the tests.

The following should be noted:

1. It is important that the respondent has a minimal experience of failure. If they cannot do a task, minimise negative feedback and return to a level of task at which they can succeed. Motivation can be enhanced through appropriate praise and encouragement.
2. As with the administration of all psychological tests, it is vital that the tester is completely familiar with the instrument prior to administration. Practice sessions on family, friends and/or volunteers are essential.

#### **Equipment**

The diagrams that are provided will need to be printed so that they can be presented to the respondent as single pages.

#### **Procedure**

##### ***1. The respondent***

- a) During testing, the respondent should be seated at a table with the appropriate diagram in front of them.
- b). The person responds by pointing on the diagram.

## **2. Pretesting**

### **2.1 Which item should testing commence on ?**

Testing should start from Phase I and Task a (2 blocks) in that phase.

### **2.2 How should testing proceed within each phase and between phases ?**

- a) In the starting phase, Phase 1 (Order of Magnitude), the respondent will be tested progressively upwards to a more complex task. That is, commence at Task a (2 choices), then Task b (3 choices) and then Task C (5 choices). The aim is to identify the highest level of choice format the respondent succeeds at.
- b) The respondent must be tested progressively on tasks from the simplest phase (Phase 1) to the most complex [Phase 3 (Use of Abstract Reference)]. To be eligible for testing in the next phase, the respondent must have succeeded in the previous phase, at least, on the simplest task [Task a (2 choices)]. E.g. To be tested in Phase 2, the respondent must have succeeded on Task a (2 choices) in Phase 1.
- c) In any phase, if the respondent fails on the simplest task [Task a (2 choices)], terminate testing completely.
- d) For testing in the next phase, this should commence at the task which uses the highest level of choice format the respondent succeeded with in the previous phase. Eg. If the respondent finally succeeded at Task b (3 choices) in Phase 1, commence testing on Task b (3 choices) in Phase 2.

Should the respondent fail at the task their testing commenced on, they must be tested on the next simpler task. E.g. If the respondent failed Task b (3 choices) in Phase 2, test the respondent on Task a (2 choices) in that phase.

The respondent must NOT be tested on a task that is more complex than the one their testing commenced on. E.g. If testing commences at Task b (3 choices) in Phase 2, and they succeed, they will not be tested on Task c (5 choices).

- e) In Phases 2 and 3, regardless of whichever task the testing commenced with, always adopt instructions of Task a (2 choices) to introduce and orientate the respondent to the testing demands of that phase.

### **2.3. What if the respondent failed to respond correctly to a task ?**

If the respondent fails to respond correctly to a task for the first time, retest JUST ONCE on that task.

**2.4. How to determine if the respondent has succeeded on a task ?**

The respondent must respond correctly to ALL items of a task to be considered as having succeeded with that task.

**3. Testing on ‘Happiness with Life as a Whole’ and PWI-ID items using Reduced Choice Response Format (Step 5B)**

- a) To be eligible for testing in Step 5B (questions on “Happiness with life as a whole” and PWI-ID scale items), the person must have successfully completed the preceding final phase of pre-testing [Phase 3: Use of an Abstract Reference)]. Even if the respondent was to fail in Phase 3 but succeeded in the earlier two pretesting phases (1 and 2), the respondent will not be eligible for testing in Step 5B.
- b) For responding to the test contents of Step 5B, the response choice format to be adopted should be the same as the highest level of choice format the respondent demonstrated competence with in the preceding Phase 3 of pre-testing. E.g. If the respondent’s highest level of performance is succeeding on Task b (3 faces), the three-choice-response scale format should be adopted in Step 5B.

PRE-TEST: STEP 4

**PHASE I: ORDER OF MAGNITUDE**

Order of Magnitude Test

**(a) Present the 2-Block Diagram**

Procedure: Present the 2-block diagram of extreme sizes (Appendix B1) to the respondent.

Instruction: “呢度有兩個積木. 當中, 有一個係大個另外一個”

Record Succeeded (√) or Failed (x)

問題: “請指出最大既積木”	<input type="checkbox"/>
問題: “請指出最細既積木”	<input type="checkbox"/>

[ √ in appropriate box] Overall Succeeded   
Overall Failed

Note: If the person Overall SUCCEEDS: Proceed to task (b) (three choices).  
If the person Overall FAILS: Repeat the instruction and Re-test this task just **once**.

On Retesting this task (a):

- If the person Overall SUCCEEDS: Proceed to Phase 2 and attempt just task (a) (binary choice) in that phase.
- If the person Overall FAILS: Do not proceed to Phase 2 and terminate testing completely.

**(b) Present the 3-Block Diagram**

Procedure: Present the 3-block diagram of differing sizes. (Appendix B2)

Instruction: “呢度有三個積木”

問題: “首先, 請指出最大既積木”	<input type="checkbox"/>
問題: “而家, 請指出中等size 既積木”	<input type="checkbox"/>
問題: “請指出最細既積木”	<input type="checkbox"/>

[ √ in appropriate box] Overall Succeeded   
Overall Failed

Note: If the person Overall SUCCEEDS: Proceed to task (c) (five choices).  
If the person Overall FAILS: Repeat the instruction and Re-test this task just **once**.

On Re-testing **this task (b)**:

- If the person Overall SUCCEEDS: Proceed to Phase 2, Task (b).
- If the person Overall FAILS again: Re-test task (a) just **once**.

...On Re-testing task (a)

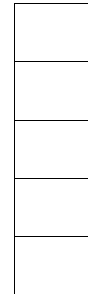
- If the person Overall SUCCEEDS: Proceed to Phase 2 and attempt just task (a) (binary choice) in that phase.
- If the person Overall FAILS: Do not proceed to Phase 2 and terminate testing completely.

**(c) Present the 5-Block Diagram**

Procedure: Present the 5-block diagram of differing sizes. (Appendix B3)

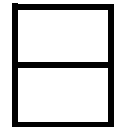
Instruction: “呢度有五個積木。”

- 問題: “請指出最大既積木”  
問題: “請指出最細既積木”  
問題: “請指出中等size 既積木”  
問題: “請指出第二大既積木”  
問題: “請指出第二細既積木”



[ ✓ in appropriate box] Overall Succeeded

Overall Failed



Note: If the person Overall SUCCEEDS: Proceed to Phase 2-Task (c) (five choices).  
If the person Overall FAILS: Repeat the instruction and Re-test just **once** on this task.

On Re-testing **this task (c)**

- If the person Overall SUCCEEDS: Proceed to Phase 2-Task (c) (five choices)
- If the person Overall FAILS again: Re-test task (b) just **once**.

...On Re-testing task (b)

- If the person Overall SUCCEEDS: Proceed to Phase 2-Task (b) (three choices).
- If the person Overall FAILS: Re-test task (a) just **once**.

...On Re-testing task (a)

- If the person Overall SUCCEEDS: Proceed to Phase 2 and attempt just task (a) (binary choice) in that phase.
- If the person Overall FAILS: Do not proceed to Phase 2 and terminate testing completely.

## PRE-TEST: STEP 4

### PHASE II: MATCHING TO CONCRETE REFERENCE

#### Scale with a Concrete Reference

NOTE: For testing which commences at Tasks (b) or (c) in this phase, start by using instruction of Task (a) to introduce the respondent to the testing demands. Then proceed to provide the respective instructions of either Task (b) or (c), prior to testing.

#### (a) Present the 2-Block Diagram and 2-Step Diagram

Procedure: Present the 2-block diagram (兩個積木圖) and the 2-step diagram (兩個木塊圖). (Appendix B1 and B4)

Instruction: “我而家會再俾D積木你睇” [Present the “兩個積木” 圖]。

“同埋一D木塊。” [Present the “兩個木塊” 圖]。

“我想你指出，點樣將D積木擺係木塊上面。規則就係：大既積木擺係大既木塊上面，而細既積木擺係細既木塊上面。”

“依家，當我指住大既積木 [Point]，你就指住大既木塊，得唔得？  
[Repeat if client seems uncertain.]

“當我指住細既積木 [Point]，你就指住細既木塊，得唔得？”

Record Succeeded (√) or Failed (x)

[Point to the big block]

問題: “大既積木應該擺係邊一個木塊上面?”

(person to point to the correct step)

[Point to the small block]

問題: “細既積木應該擺係邊一個木塊上面?”

[ √ in appropriate box] Overall Succeeded

Overall Failed

<input type="checkbox"/>
<input type="checkbox"/>

Note: If the person Overall SUCCEEDS:

- Proceed to Phase 3 and attempt just Task (a) (binary choice) in that phase.

If the person Overall FAILS:

- Repeat the instruction and Re-test this task just **once**.

On Retesting this task (a):

- If the person Overall SUCCEEDS: Proceed to Phase 3 and attempt just Task (a) (binary choice) in that phase.
- If the person Overall FAILS: Do not proceed to Phase 3 and terminate testing completely.

**(b) Present the 3-Block Diagram and 3-Step Diagram**

Procedure: Present the 3-block diagram and the 3-step diagram. (Appendix B2 and B5)

Instruction: “呢度有三個積木同埋木塊。

我想你好似頭先咁樣將D積木擺係啱既木塊個度，得唔得？”

[Point to the big block]

問題: “大既積木應該擺係邊一個木塊上面?”  
(person to point to the correct step)

[Point to the small block]

問題: “細既積木應該擺係邊一個木塊上面?”

[Point to the middle-size block]

問題: 中等size 既積木應該擺係邊一個木塊上面?”

[√ in appropriate box] Overall Succeeded

Overall Failed

<input type="checkbox"/>
<input type="checkbox"/>

Note: If the person Overall SUCCEEDS:

- Proceed to Phase 3 and attempt just Task (b) (three choices) in that phase.

If the person Overall FAILS:

- Repeat the instruction and Re-test this task just **once**.

On Re-testing this task (b):

- If the person Overall SUCCEEDS: Proceed to Phase 3, Task (b) (three choices).
- If the person Overall FAILS again: Re-test Task (a) (binary choice) in this phase just **once**.

...On Re-testing task (a)

- If the person Overall SUCCEEDS: Proceed to Phase 3 and attempt just Task (a) (binary choice) in that phase.



- If the person Overall FAILS: Do not proceed to Phase 2 and terminate testing completely.

**(c) Present the 5-Block Diagram and 5-Step Diagram**

Procedure: Present the 5-block diagram and the 5-step diagram. (Appendix B3 and B6)

Instruction: “呢度有五個積木同埋木塊。

我想你好似頭先咁樣將D積木擺係啱既木塊個度，得唔得？”

[Point to the smallest block]

問題: “呢個最細既積木應該擺係邊一個木塊上面?

[REPEAT for other blocks in the following sequence]

問題: “...最大既積木”

問題: “...中等size 既積木”

問題: “...第二大既積木”

問題: “...第二細既積木”

[ √ in appropriate box] Overall Succeeded

Overall Failed

<input type="checkbox"/>
<input type="checkbox"/>

Note: If the person Overall SUCCEEDS:

- Proceed to Phase 3 and attempt Task (c) (five choices) in that phase.

If the person Overall FAILS:

- Repeat the instruction and Re-test just **once** on this task.

On Re-testing this task (c)

- If the person Overall SUCCEEDS: Proceed to Phase 3, Task (c) (five choices)
- If the person Overall FAILS again: Re-test task (b) just **once**.

...On Re-testing task (b)

- If the person Overall SUCCEEDS: Proceed to Phase 3, Task (b) (three choices).
- If the person Overall FAILS: Re-test Task (a) in this phase just **once**.

...On Re-testing task (a)

- If the person Overall SUCCEEDS: Proceed to Phase 3 and attempt just Task (a) (binary choice) in that phase.
- If the person Overall FAILS: Do not proceed to Phase 3 and terminate testing completely.

## PRE-TEST: STEP 4

### PHASE III: USE OF AN ABSTRACT REFERENCE

#### Scale with a Abstract Reference

NOTE: For testing which commences at Tasks (b) or (c) in this phase, start by using instruction of Task (a) to introduce the respondent to the testing demands. Then proceed to provide the respective instructions of either Task (b) and (c), prior to testing.

#### (a) Present the 2-Face Diagram

Procedure: Present the 2-face diagram. (Appendix C1)

Instruction: “呢度有兩個表情.”

一個係開心既樣 [Point], , 一個係唔開心既樣[Point] 。

話畀我聽一D令你覺得開心既事?

[Respondent's Reply – X (e.g. 食朱古力)]

“如果我問: “你開心既時候, 好似X咁樣, 你會指邊個表情呢?” 你就指住開心既樣, 得唔得?”

“話畀我聽一D令你覺得唔開心既事?”

[Respondent's Reply Y (e.g. 被人取笑)]

“如果我問: “你唔開心既時候, 好似Y咁樣, 你會指邊個表情呢?” 你就指住唔開心既樣, 得唔得?”

“好...而家開始...”

Record Succeeded (√) or Failed (x)

問題: “當你開心既時候, 你會指住邊個樣?”

問題: “當你唔開心既時候, 你會指住邊個樣?”

[√ in appropriate box] Overall Succeeded

Overall Failed

<input type="checkbox"/>
<input type="checkbox"/>

Note: If the person Overall SUCCEEDS:

- Proceed to Step 5B and use the binary choice to respond to the PWI test items

If the person Overall FAILS:

- Repeat the instruction and Re-test this task just **once**.

On Retesting this Task (a):

- If the person Overall SUCCEEDS: Proceed to Step 5B and use the binary choice to respond to the PWI test items
- If the person Overall FAILS: Do not proceed to Step 5B and terminate testing completely.

**(b) Present the 3-Face Diagram**

Procedure : Present the 3-face diagram. (Appendix C2)

Instruction: “呢度有三個表情。”

“佢地分別係[Point to each in turn], 唔開心, 無嘢, 又唔係開心, 又唔係唔開心同埋開心”

問題: “如果你有D事而覺得開心, 你會指邊個表情?”

問題: “如果你有D事而覺得唔開心, 你會指邊個表情?”

問題: “如果你覺得無嘢, 又唔係開心, 又唔係唔開心, 你會指邊個表情?”


[ √ in appropriate box] Overall Succeeded

Overall Failed


Note: If the person Overall SUCCEEDS:

- Proceed to Step 5B and use the 3-choice format to respond to the PWI test items.

If the person Overall FAILS:

- Repeat the instruction and Re-test this task just **once**.

On Re-testing this task (b):

- If the person Overall SUCCEEDS: Proceed to Step 5B and use the 3-choice format to respond to the PWI test items.
- If the person Overall FAILS again: Re-test Task (a) in this phase just **once**.

...On Re-testing task (a)

- If the person Overall SUCCEEDS: Proceed to Step 5B and use the binary choice to respond to the PWI test items
- If the person Overall FAILS: Do not proceed to Step 5B and terminate testing completely.

### (c) Present the 5-Face Diagram

Procedure : Present the 5-face diagram. (Appendix C3)

Instruction: “呢度有五個表情.”

“佢地分別係[Point to each in turn], ‘好唔開心’, ‘少少唔開心’, ‘覺得無嘢, 又唔係開心, 又唔係唔開心’, ‘少少開心’, 同埋‘好開心’, 得唔得?”

問題: “如果你有D事而覺得好唔開心, 你會指邊個表情?”

問題: “如果你有D事而覺得少少開心, 你會指邊個表情?”

問題: “如果你有D事而覺得好開心, 你會指邊個表情?”

問題: “如果你有D事而覺得少少唔開心, 你會指邊個表情?”

問題: “如果你覺得無嘢, 又唔係開心, 又唔係唔開心, 你會指邊個表情?”


[ ✓ in appropriate box] Overall Succeeded

Overall Failed


Note: If the person Overall SUCCEEDS:

- Proceed to Step 5B and use the 5-choice format to respond to the PWI test items.

If the person Overall FAILS:

- Repeat the instruction and Re-test just **once** on this task.

#### On Re-testing this task (c)

- If the person Overall SUCCEEDS: Proceed to Step 5B and use the 5-choice format to respond to the PWI test items.
- If the person Overall FAILS again: Re-test Task (b) in this phase just **once**.

#### ...On Re-testing Task (b)

- If the person Overall SUCCEEDS: Proceed to Step 5B and use the 3-choice format to respond to the PWI test items
- If the person Overall FAILS: Re-test Task (a) just **once**.

#### ...On Re-testing Task (a)

- If the person Overall SUCCEEDS: Proceed to Step 5B and use binary choice to respond to the PWI test items.
- If the person Overall FAILS: Do not proceed to Step 5B and terminate testing completely.

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### Test Step 5A: Happy with Life as A Whole and Personal Wellbeing Index- Intellectual Disability (11-point Scale)

#### **Procedure and Instructions:**

**Procedure:** Continue to show the 0-10 happiness scale, which was shown to the respondent in Pre-test Step 3.

**Instruction:** “好. 我而家會用呢一把尺 [Point] 來問你另一D問題, 係同你覺得有幾開心有關既, 由零至十.”

“頭先講過既, 零代表你覺得**好唔開心** [Point to the left side of the scale].

而十就代表你覺得**好開心** [Point to the right side of the scale].

五就係中間 [Point], 表示你覺得**無嘢, 又唔係開心, 又唔係唔開心**”

“由零至十...” [Proceed to ask each test item below]

**Test Items:** Record the respondent’s ratings in the appropriate boxes below.

Respondent’s Rating  
**11-pt**  
(0-10)

#### **Part I: Happy with Life as a Whole [Optional]**

“你對你整個人生, 覺得有幾開心?”

#### **Part II: Personal Wellbeing Index – Intellectual Disability**

1. “你對你擁有既嘢, 覺得有幾開心, 譬如:錢或者其他屬於你既嘢。”

2. “你對你既健康, 覺得有幾開心?”

3. “你對你所做出嚟既嘢或者學到既嘢, 覺得有幾開心?”

4. “你對於同你認識既人相處, 覺得有幾開心?”

5. “你對你既安全感, 覺得有幾開心?”

6. “你對你係屋企以外做既嘢, 覺得有幾開心?”

7. “你對你人生遲D會發生既嘢, 覺得有幾開心?”

### Test Step 5B: Happy with Life as A Whole and Personal Wellbeing Index- Intellectual Disability (Reduced-choice Scale)

#### **Procedure and Instructions:**

- Procedure:**
1. Select the faces-scale that corresponds to the respondent's maximum level of discriminative competence in Pre-test Step 4 - Phase 3.
  2. Show this scale to the respondent and continue with the corresponding instruction provided below.

**Instruction:** “好. 我而家會用呢D表情問你另一D問題, 係同你覺得有幾開心有關既.”

(i) **If ‘2-face’ diagram**

“你頭先見過既, 呢個表情係代表你覺得開心[Point].

呢個係代表你覺得唔開心[Point].

當我問你同你覺得有幾開心既問題, 你就指畀我 tai 邊一個表情係代表你既答案.”

“得唔得 ?”

***If ‘yes’: Proceed to next item.***

***If ‘no’: Repeat instruction but just once. Then proceed to next statement.***

“而家, 請用呢 D 表情答, ...” [Proceed to ask each test item below]

(ii) **If ‘3-face’ diagram**

“你頭先見過既, 呢個表情係代表你覺得開心[Point].

呢個係代表你覺得唔開心[Point].

中間既個係代表你覺得無嘢, 又唔係開心, 又唔係唔開心 [Point ]

當我問你同你覺得有幾開心既問題, 你就指畀我 tai 邊一個表情係代表你既答應.”

“得唔得 ?”

***If ‘yes’: Proceed to next item.***

***If ‘no’: Repeat instruction but just once. Then proceed to next statement.***

“而家, 請用呢 D 表情答, ...” [Proceed to ask each test item below]

(iii) **If ‘5-face’ diagram**

“你頭先見過既, 呢個表情係代表你覺得**好開心**[Point].

呢個係代表你覺得**少少開心**

呢個係代表你覺得**好唔開心**[Point].

呢個係代表你覺得**少少唔開心**

中間既個係代表你覺得**無嘢, 又唔係開心, 又唔係唔開心** [Point ]

當我問你同你覺得有幾開心既問題, 你就指畀我 tai 邊一個表情係代表你既答應.”

“得唔得 ?”

**If ‘yes’: Proceed to next item.**

**If ‘no’: Repeat instruction but just once. Then proceed to next statement.**

“而家, 請用呢 D 表情答, ...” [Proceed to ask each test item below]

**Test Items:** (Record the respondent’s answers according to the following code, in the appropriate boxes below)

Code:	(a) <u>2-faces</u> (2-pt)	(b) <u>3-faces</u> (3-pt)	(c) <u>5-faces</u> (5-pt)
	Sad = <b>0</b> Happy = <b>1</b>	Sad = <b>0</b> Neither Happy nor Sad = <b>1</b> Happy = <b>2</b>	Very Sad = <b>0</b> A Little Bit Sad = <b>1</b> Neither Happy nor Sad = <b>2</b> A Little Bit Happy = <b>3</b> Very Happy = <b>4</b>

Respondent’s Rating

**2-pt**      **3-pt**      **5-pt**  
(0-1)      (0-2)      (0-4)

**Part I: Happy with Life as a Whole [Optional]**

“你對你整個人生, 覺得有幾開心?”

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**Part 2: Personal Wellbeing Index – Intellectual Disability**

1. “你對你擁有既嘢, 覺得有幾開心, 譬如: 錢或者其他屬於你既嘢”

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2. “你對你既健康, 覺得有幾開心?”

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3. “你對你所做出嚟既嘢或者學到既嘢, 覺得有幾開心?”

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4. “你對於同你認識既人相處, 覺得有幾開心?”

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2. Scale Administration continued

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5. “你對你既安全感, 覺得有幾開心?”

——	——	——
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. “你對你係屋企以外既做既嘢, 覺得有幾開心?”

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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7. “你對你人生遲D會發生既嘢, 覺得有幾開心?”

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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## 3. Analysis of Grouped Data

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### 3.1. Data Cleaning

While acquiescent responding contaminates all survey and interview data to some degree, people with an intellectual or cognitive disability are particularly prone to this form of responding. There are two main reasons. The first is deference to an authority figure (the interviewer) learned as a consequence of institutional living or dependence on caregivers. The second is defence against appearing incompetent when asked questions they do not understand. Agreement with the question, or answering in the affirmative, is the form of response that is least likely to generate a negative consequence for the person being questioned.

In using the original Comprehensive Quality of life Scale with people who have a mild/moderate level of intellectual disability, in the absence of pre-testing we often found up to 25 percent of people consistently answer at the top of the happiness scale. This may be due to the use of low - discrimination scales (2- or 3- point scales), such that the normal negative response-skew forces response consistency. Alternatively, it may represent acquiescent responding. In either case, the data provide no internal variation and should be eliminated prior to analysis to defend the data set from acquiescent responders.

Therefore, it is essential that all data are checked for response sets. These are evident when the respondent scores at the top or the bottom of the scale for all seven Personal Wellbeing Index items. No matter the cause, the lack of variation will distort the data analysis. Hence, data sets from individual respondents showing consistently maximum or minimum scores on all 8 domains should be eliminated prior to data analysis.

### 3.2. Data Analysis of “Happiness with Life as a Whole” and Personal Wellbeing Index Items

Standardize all data into units of a 0 to 100 point distribution. This is achieved by shifting the decimal point one step to the right. E.g. a value of 6.0 becomes 60 points.

### 3.3. Data Analysis converting raw scores into the standard 0 – 100 scale format

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For the purpose of creating results that can be simply compared with one another, we convert all data to a standard form, which makes it look as though they had all been rated on a 0 – 100 point scale. The values derived from this process are called ‘percentage of scale maximum’ (%SM). This conversion does not alter the statistical properties of the data, since the process is a simple linear conversion, but it has the advantage that data from the PWI and other scales can be directly compared in terms of their means and standard deviations.

### 3. Analysis of Grouped Data continued

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The conversion of PWI scores, which have been derived from a 0 – 10 response scale, is simple. The conversion is achieved by simply shifting the decimal point to the right. For example, a score of 7 becomes 70 %SM, or a mean score of 6.56 becomes 65.6%SM.

When comparisons are to be made with other data that have been derived from different response scales, such as ones that use a 1 – 5 rating, then the values derived from the scale can be converted to the standard 0 – 100 %SM through the use of the formula below.

$$\frac{X - k^{\min}}{k^{\max} - k^{\min}} \times 100$$

X = the score or mean to be converted

$k^{\min}$  = the minimum score possible on the scale  
ie If a scale is score from 1 to 5, then  $k^{\min} = 1$   
If a scale is score from -5 to +5, then  $k^{\min} = -5$

$k^{\max}$  = the maximum score possible on the scale  
ie If a scale is score from 1 to 5, then  $k^{\max} = 5$   
If a scale is score from -5 to +5, then  $k^{\max} = +5$

#### Example 1

A mean score of 3.5 on a scale rated from 1 to 5.

$$\frac{3.5 - 1}{5 - 1} \times 100 = 62.5\%SM$$

#### Example 2

A mean score of +3.5 on a scale rated from -5 to +5.

$$\frac{+3.5 - (-5)}{+5 - (-5)} \times 100 = \frac{+8.5}{+10} \times 100 = 85.0\%SM$$

Standardize all Likert scale data on happiness, into units of Percentage of Scale Maximum (%SM) on a 0 to 100 distribution. This is achieved by the following procedures for data derived from different scale formats:

- (a) For 11-point scale
  - Convert data derived from a 0 to 10 point scale by shifting the decimal point one step to the right. E.g. a value of 6.0 becomes 60.
- (b) For Reduced-choice scale

Step 1: Code the likert scale from 0 to X, where ‘0’ represents the lowest response category and ‘X’ represents the highest. E.g. a 1–5 scale would become 0–4.

Step 2: Perform calculation using the following formula,

$$[(\text{Score}/X) \times 100]$$

where 'Score' refers to the reported group mean value and 'X' represents that as previously defined. Eg. A score of 3.0 would become  $[(3.0/4) \times 100] = 75$

### 3.4. Data Interpretation

Data derived on the Personal Wellbeing Index-ID scale items may be used either at the level of individual domains, or the domain scores may be aggregated and averaged to form the Personal Wellbeing Index (PWI).

The item "Happiness with Life as a Whole" **IS NOT** a component of the PWI and hence, should be analysed as a separate variable. This item is used to test the construct validity of the PWI using multiple regression. Each domain should contribute unique variance and the normative data using this technique are shown in Appendix B and C.

The mean of the domain scores derived from the PWI constitutes a measure of Subjective Wellbeing. Such a datum can be referenced to two types of normative data as follows:

- (a) If the datum is the score of an individual person, it can be referenced to the normal distribution of individuals within a population. The Australian normative range for individuals is 50-100 points.
- (b) If the datum is the mean score of a group, it can be referenced to the normal distribution of group means. The normative range for Western means is 70-80 points. The normative range for Australia is 73.4 – 76.4 points.

Note: These values are generally 'around 10 percentage points lower for Asian populations' due to a cultural response bias e.g. Chinese (Lau, Cummins & McPherson, 2005).

## 4. Obtaining Informed Consent

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The first formal interaction should be to inform the person about the nature of the evaluation process. This involves two stages as the provision of information, and then testing the person to ensure that they have understood the information provided.

### Stage 1

The information provided to the person should include a description of the following (IASSID, 2003):

- a) 提出這項研究的目的
- b) 負責進行研究的人
- c) 如何進行研究？以及該項研究包括些甚麼？
- d) 這項研究對人的影響，包括任何潛在的好處、危險以及可能發生的不良後果。
- e) 如何保存個人資料，以及誰人有權得到資料？
- f) 有關人士有權決定參與或拒絕接受測試。即使他們同意參加，也有權在往後任何時間退出研究。
- g) 有關人士拒絕接受測試或日後退出研究，都不會遭受事後追究。

### Stage 2

In order to test whether the interviewee has understood this information, a set of questions should be asked similar to the following, which have been taken from Arscott, Dagnan & Kroes (1998):

- a) 我會同你傾 D 乜？
- b) 我會同你傾幾多次？
- c) 同我傾有 D 咩好處？
- d) 同我傾有 D 咩唔好既地方？
- e) 如果你唔想再同我傾，你可以點做？

Obviously, the precise form of these questions will depend on the content of the information that has been previously provided. Arscott et al., (1998) used an acceptability criterion of three or more appropriate responses.

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Available from Melbourne: Australian Centre on Quality of Life, Deakin University.  
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The 'Chinese versions' are available at:  
[http://www.rs.polyu.edu.hk/IWBG\\_HK.htm](http://www.rs.polyu.edu.hk/IWBG_HK.htm)

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- Chinese - Cantonese : translated by Lau, A.L.D. (2002)
- Mandarin : translated by Zhanjun, X (2003)
- Tibetan : translated by Dave Webb (2005)
- Croatian : translated by Lipovean, L.K. (2003)
- Dutch : translated by Renty, J. (2002)
- Italian : translated by Verri, A. (2002)
- Japanese : translated by Naoi, A (2003)
- Mexican : translated by Rojas, M (2003)
- Slovakia : translated by Dzuka, J. (2002)
- Spanish - Spain : translated by Casa, F. (2002)
- Argentina : translated by Toon, G. (2002)

PWI-ID : Cummins, R.A. and Lau, A.L.D. (2005). *Personal Wellbeing Index – Intellectual Disability*. 3<sup>rd</sup> Edition.

Cummins, R.A. and Lau A.L.D. (2005). *Personal Wellbeing Index – Intellectual Disability*. 3<sup>rd</sup> Edition (Chinese-Cantonese).

PWI-SC : Cummins, R.A. and Lau, A.L.D. (2005). *Personal Wellbeing Index – School Children*. 3<sup>rd</sup> Edition.

Cummins, R.A. and Lau, A.L.D. (2005). *Personal Wellbeing Index – School Children*. 3<sup>rd</sup> Edition (Chinese-Cantonese).

PWI-PS : Cummins, R.A. and Lau, A.L.D. (2005). *Personal Wellbeing Index – Pre-School*. 3<sup>rd</sup> Edition.

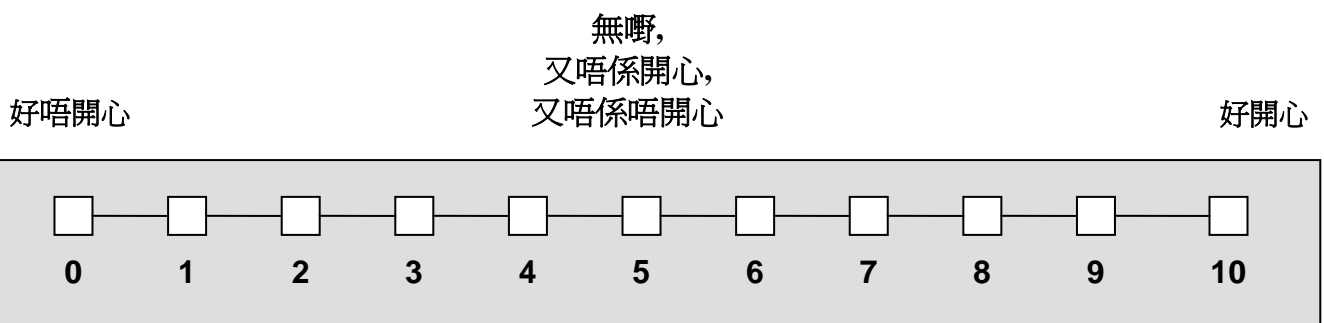
Cummins, R.A. and Lau, A.L.D. (2005). *Personal Wellbeing Index – Pre-School*. 3<sup>rd</sup> Edition (Chinese-Cantonese).

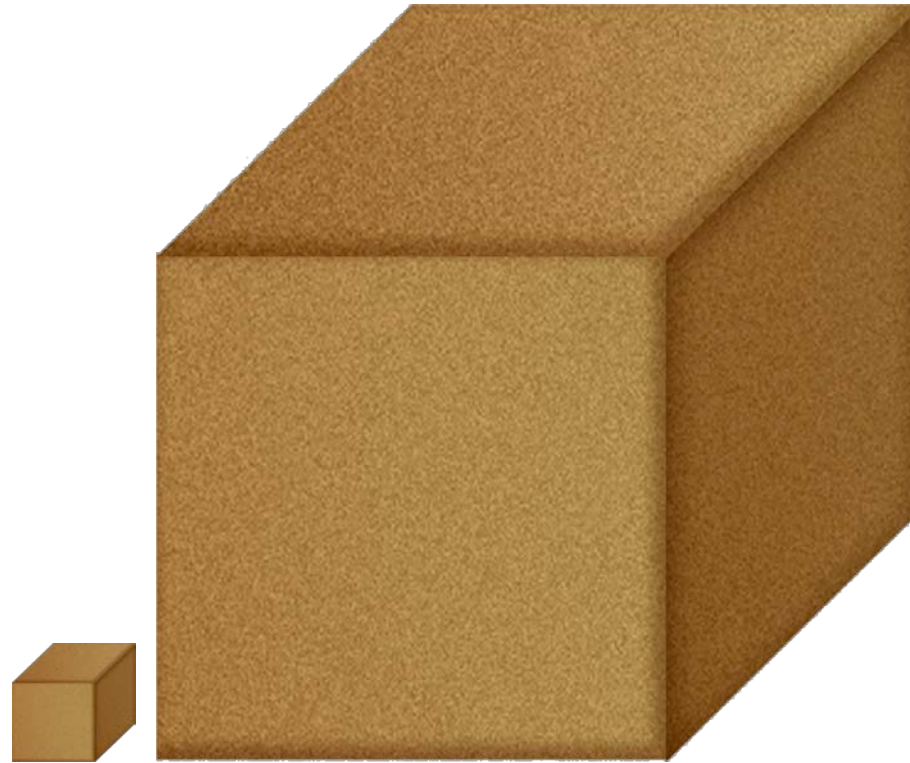
## 6. Appendix - Testing Materials

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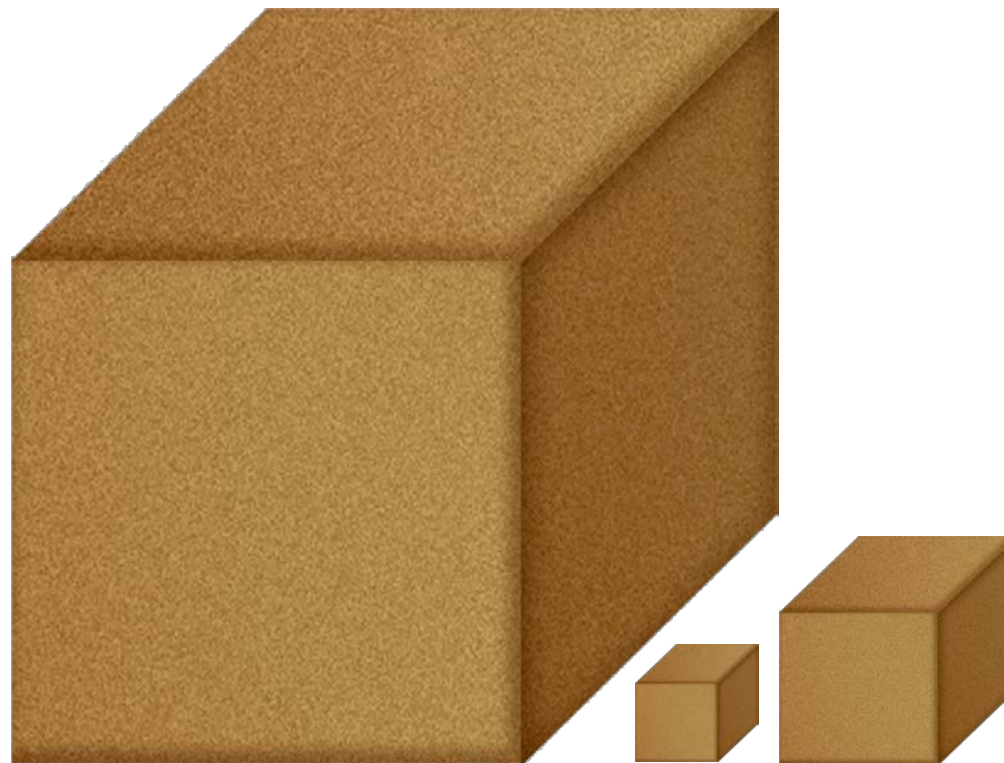
附錄-  
測試資料



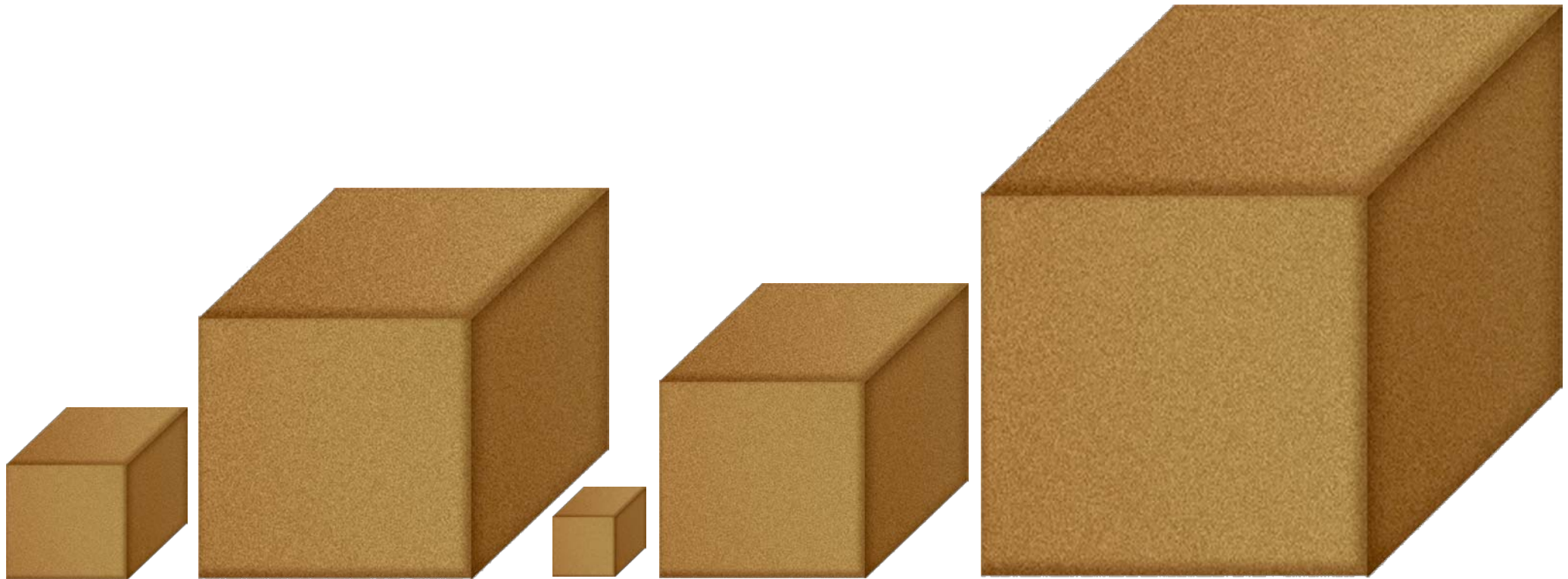




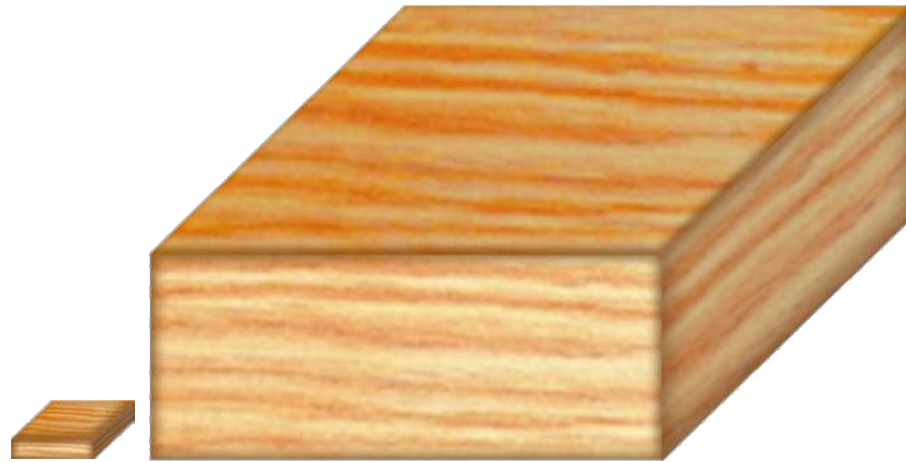
兩個積木



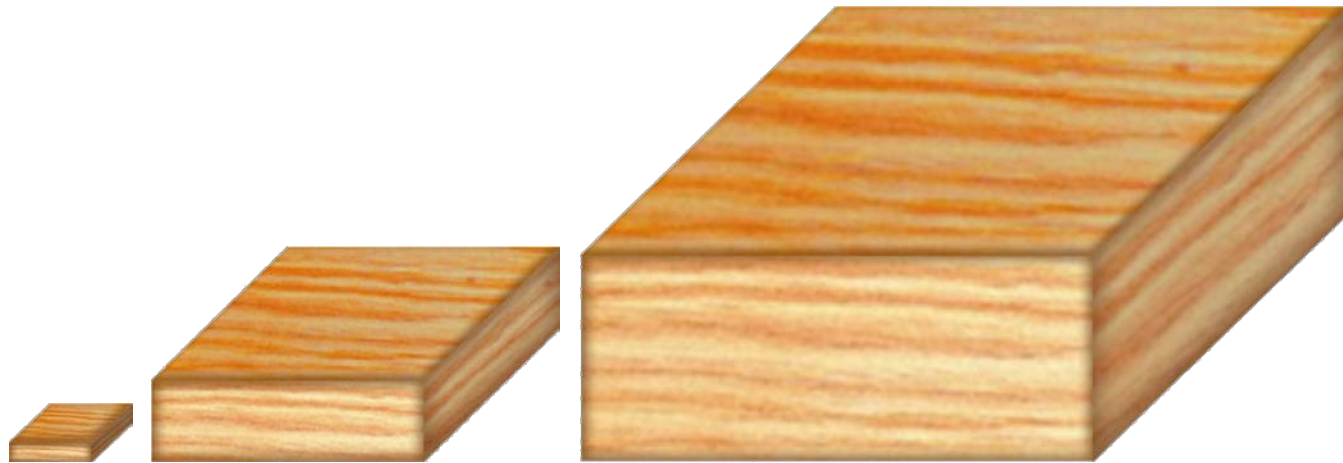
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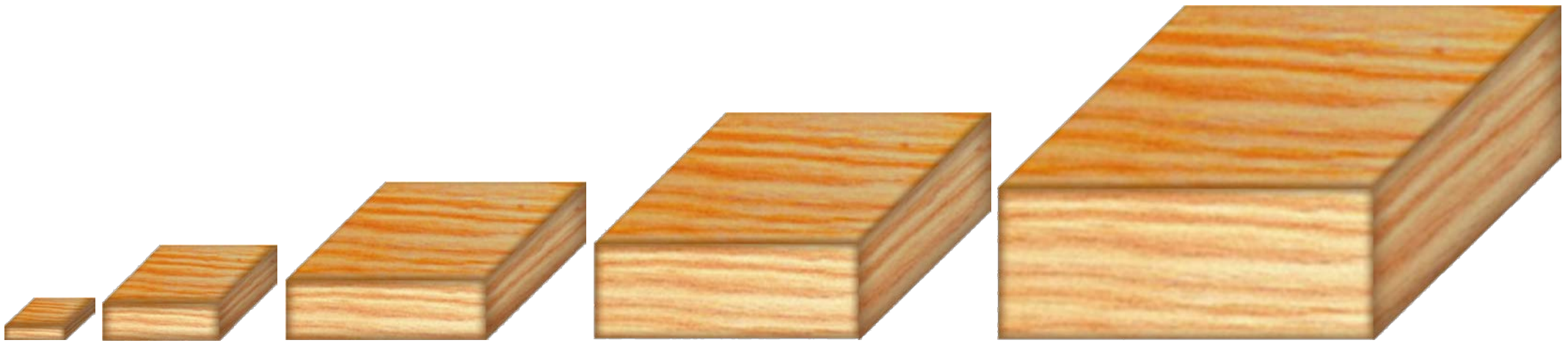
## 五個積木



兩個木塊



三個木塊



五個木塊





