

# Thai Picture Word Recognition Test

## Background

There are very few language tests in Thai available for research purposes, for example in psychology. There are several verbal fluency tasks that have been developed / adapted for use in Thailand (e.g., Muangpaisan et al., 2010; Kantithammakorn et al., 2022), Munthuli et al., 2021). Those assessments focus on the crossover between executive function and language knowledge. There are also some picture-description tasks, used to elicit expressive oral language (e.g., Gandour, 1982; Sangchocanonta et al., 2021). Those tests are focused mainly on detecting expressive aphasia.

For lexical knowledge of Thai there are very few options. This is unfortunate, as the extent of a person's lexicon can be very useful to measure. Such measurements tend to correlate very highly with other cognitive assessments, but in contrast to most assessments, also tend to be robust even in the presence of cognitive impairment (Pluck & Ruales-Chieruzzi, 2021). They also act as a simple measure for general intelligence, loading very highly on a general cognition factor (Pluck & Cerone, 2021).

## Test Details

The test described here, the Thai Picture Word Recognition Test, was designed to measure simple recognition of words forms in Thai. It works by asking participants to make decision whether a picture and a word shown together match. In half of the trials (i.e., 9 trials) the picture shown does match, and in the other half, a picture and a pseudoword are shown. On each trial, the participant is asked (in Thai) *'Is this a word that a Thai speaker might use for the object shown?'.* The images were all taken from a published set of object photos for psychological and linguistic research (Brodeur et al., 2010), which has been assessed for use with Thai speakers (Clarke & Ludington, 2018). Details of how the Thai Picture Word Recognition Test was constructed are given in greater detail in Tiraronnakul and Pluck (2025).

Although a total of 18 trials is completed, the trials in which the word and picture match are not of interest in measuring lexical knowledge. These are generally too easy. However, the whole test should be administered, so that the participant cannot use a simple strategy of saying 'no'. Of more interest are the trails in which a pseudoword is paired with a picture, in those trials the correct response from the participant is 'no'. If they make mistakes on such trials, it indicates that they are not sure what the correct Thai word for the object is. For this reason, the test can be considered as a test of object recognition, at least the associative aspects, in which an image is linked to a lexical entry. Two of the pseudoword paired trials do not contribute to the total score, these are trials with pictures of 1) asparagus, and 2) a tambourine. Therefore, the suggested score range on the Thai Picture Word Recognition Test is 0-7. Thus, the whole test should be administered, but only the scores from the 7 trials indicated in grey in the scoring sheet contribute to the total

score. That is the recommendation, of course, users are free to score the test in different ways as needed.

The test has acceptable psychometric properties. The KR-20 value (equivalent to Cronbach's  $\alpha$ ) = .61, which can be considered sufficient for a cognitive test with a low number of items. The intraclass correlation used to estimate test-retest reliability was .70 for all 18 items, and .58 for the 7 recommended trials/items. The test has face validity, but concurrent validity has been demonstrated by correlations with the Thai Short Boston Naming Test (Aniwattanapong et al., 2019). Further details of the psychometric properties of the Thai Picture Word Recognition Test are provided in (Tiraronnakul & Pluck, 2025).

### **Application**

The test can be used by any sufficiently qualified person, such as psychologists, behavioural neurologists, or students under their supervision. There is no charge or need to request permission. However, in any publications that use data from the test, please cite Tiraronnakul and Pluck (2025).

The test is designed to be administered in a face-to-face interview environment, and only takes about 3 minutes to administer. However, it could easily be adapted for online use. The typical presentation method is to show the stimuli materials (i.e., the picture-word combinations) one at a time, in PowerPoint. The participant responds orally 'yes' or 'no'. These responses are recoded on the Scoring / Record Form (page 4 of this document).

The test is appropriate and has been validated for use with Thai adults. However, it could be applied on an experimental basis to people learning the Thai language, or to Thai adolescents. One caveat, is that the test has a low ceiling with well-educated Thai adults. This may be useful, if the aim is to detect low ability individuals. However, if the aim is a range of scores within a sample, the test will function best samples comprised of Thai people with low to average levels of education.

### **Contact**

For further information on this test see <https://gpluck.co.uk/>, or email Dr Graham Pluck at [g.c.pluck@gmail.com](mailto:g.c.pluck@gmail.com)

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Notes written by Dr Graham Pluck, 7<sup>th</sup> July, 2025, Bangkok.

Thai Picture Word Recognition Test  
Scoring / Record Form

Image	Picture	Thai word (according to the pic)	Thai word (according to the word)	Yes-Correct/ No Correct	Response	Score 0/1
1	Baseball	ลูกเบสบอล	ลูกเบสบอล	Y-C	<b>Yes-No</b>	
2	Sponge	ฟองน้ำ	เปรี๊ยน	N-C	<b>Yes-No</b>	
3	Chain	โซ่	โซ่	Y-C	<b>Yes-No</b>	
4	Cherries	เชอร์รี่	เชอร์รี่	Y-C	<b>Yes-No</b>	
5	Cutting Board	เขียง	เขียง	Y-C	<b>Yes-No</b>	
6	Clamp	ที่หนีบ	ปรراف	N-C	<b>Yes-No</b>	
7	Tambourine	แทมโบรีน	เดียนเทน	N-C	<b>Yes-No</b>	
8	Lime	มะนาว	มะนาว	Y-C	<b>Yes-No</b>	
9	Asparagus	หน่อไม้ฝรั่ง	โร	N-C	<b>Yes-No</b>	
10	Red Pepper	พริกหยวก	พริกหยวก	Y-C	<b>Yes-No</b>	
11	Hinge	บานพับ	เพรทเด	N-C	<b>Yes-No</b>	
12	Pliers	คีม	โมต	N-C	<b>Yes-No</b>	
13	Spatula	ตะหลิว	ตะหลิว	Y-C	<b>Yes-No</b>	
14	Statue	รูปปั้น	กราป	N-C	<b>Yes-No</b>	
15	Drill	สว่าน	เฟลี่ยน	N-C	<b>Yes-No</b>	
16	Bow	โบว์	โบว์	Y-C	<b>Yes-No</b>	
17	Key Chain	พวงกุญแจ	พวงกุญแจ	Y-C	<b>Yes-No</b>	
18	Pizza	พิซซ่า	เที่ยง	N-C	<b>Yes-No</b>	

In the Response column circle the response given by the participant. If the response is indicated in bold award 1 point, else award 0 points.

**Total score (grey rows) = 17**