# Comment on
# Choice-Agreement Index and Its Application to Item Analysis

Suchada Bowarnkitiwong

Reliability

✓ Stability

✓ Equivalence

✓ Internal Consistency

    ✓ Cronbach Alpha

    ✓ Spearman Brown

    ✓ Kuder-Richardson or KR20, KR21

    ✓ Hoyt

✓ Interrater Reliability

✓ Generalizability Theory (G-theory)

    ✓ Each examinee is rated by one rater; this rater rates all examinees

    ✓ Each examinee is rated by several raters; all raters rate each examinee.

    ✓ Each examinee is rated by a different rater; there is only one rater for each examinee.

    ✓ Each examinee is rated by several raters; there are different raters for each examinee.

✓ Intraclass Correlation

✓ Concordance

**Strenghts**

1. Originality

   ✓ propose new formula called choice-agreement index with full proof.

   ✓ show how to use the formula in details

   ✓ show how to use its application (collective distractibility index)

   ✓ show the relationship between collective distractibility index and difficulty index

2. Hard Evidents

   ✓ strong proff – use mathematical and statistical methods.

   ✓ simplify the formula.

**Weaknesses**

1. During proff, can find some conflicts between the lines, for example, the way to normalize (page 7), the way to bring up the square root (page 9).

2. Can find some conflicts in definition itself such that at the beginning the author said that the value of the choice-agreement index is in the range of zero and one but the final formula we have is $I_{CA} = \sqrt{Ks^2}$ may be greater than 1.

3. On page 12, which chi-square? There are two applications of using the chi-square test. One is to use it as parametric statistic to test the population variance and the other is to use it as non-parametric statistic to test the independence, homogeneity, etc.

   Lastly, my personal experience.
   - good estimator
   - power of the test, Type I error rate control
   - better than what we already have
   - not in the computer