

Highly Cited Psychometrika Articles: 1936–2001¹

¹List compiled by Willem Heiser and Larry Hubert. Citation counts are from Google Scholar as of April, 2016

Greater than 3000 citations:

Akaike, H. (1987). Factor analysis and AIC. *Psychometrika*, *52*, 317–332. (3852 citations as of 4/1/2106)

Carroll, J. D., & Chang, J. J. (1970). Analysis of individual differences in multidimensional scaling via an N -way generalization of “Eckart-Young” decomposition. *Psychometrika*, *35*, 283–319. (3320 citations as of 4/1/2016)

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, *16*, 297–334. (28,307 citations as of 4/1/2016)

Greenhouse, S. W., & Geisser, S. (1959). On methods in the analysis of profile data. *Psychometrika*, *24*, 95–112. (3622 citations as of 4/1/2016)

Horn, J. L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometrika*, *30*, 179–185. (3362 citations as of 4/1/2016)

Johnson, S. C. (1967). Hierarchical clustering schemes. *Psychometrika*, *32*, 241–254. (3755 citations as of 4/1/2016)

Kaiser, H. F. (1958). The varimax criterion for analytic rotation in factor analysis. *Psychometrika*, *23*, 187–200. (5237 citations as of 4/1/2016)

Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, *39*, 31–36. (6043 citations as of 4/1/2016)

Kruskal, J. B. (1964). Multidimensional scaling by optimizing goodness of fit to a nonmetric hypothesis. *Psychometrika*, *29*, 1–27; Nonmetric multidimensional scaling: A numerical method. *29*, 115–129. (5773 citations as of 4/1/2016)

Tucker, L. R, & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika*, *38*, 1–10. (4094 citations as of 4/1/2016)

Greater than 2000 citations (as of 4/1/2016):

Andrich, D. (1978). Rating formulation for ordered response categories. *Psychometrika*, *43*, 561–573. (2214 cites)

Bozdogan, H. (1987). Model selection and Akaike information criterion (AIC): The general theory and its analytical extensions. *Psychometrika*, *52*, 345–370. (2375 cites)

Eckart, C., & Young, G. (1936). The approximation of one matrix by another of lower rank. *Psychometrika*, *1*, 211–218. (2071 cites)

Kaiser, H. F. (1970). A second generation Little Jiffy. *Psychometrika*, *35*, 401–415. (2382 cites)

Masters, G. N. (1982). A Rasch model for partial credit scoring. *Psychometrika*, *47*, 149–174. (2462 cites)

McNemar, Q. (1947). Note on the sampling error of the difference between correlated proportions or percentages. *Psychometrika*, *12*, 153–157. (2027 cites)

Meredith, W. (1993). Measurement invariance, factor analysis and factorial invariance. *Psychometrika*, *58*, 525–543. (2103 cites)

Milligan, G. W., & Cooper, M. C. (1985). An examination of procedures for determining the number of clusters in a data set. *Psychometrika*, *50*, 159–179. (2931 cites)

Samejima, F. (1969). Estimation of latent ability using a response pattern of graded scores (*Psychometrika Monograph No. 17*) (2380 cites)

Satorra, A., & Bentler, P. M. (2001). A scaled difference chi-square test statistic for moment structure analysis. *Psychometrika*, *66*, 507–514. (2168 cites)

Shepard, R. N. (1962). The analysis of proximities: Multidimensional scaling with an unknown distance function. I. II. *Psychometrika*, *27*, 125–140; 219–246. (2309 cites)

Greater than 1000 citations (as of 4/1/2016):

Anderson, J. C., & Gerbing, D. W. (1984). The effect of sampling error on convergence, improper solutions, and goodness-of-fit indices for maximum likelihood confirmatory factor analysis. *Psychometrika*, *49*, 155-173. (1273 cites)

Bock, R. D. (1972). Estimating item parameters and latent ability when responses are scored in two or more nominal categories. *Psychometrika*, *37*, 29-51. (1069 cites)

Bock, R. D., & Aitkin, M. (1981). Marginal maximum likelihood estimation of item parameters: Application of an EM algorithm. *Psychometrika*, *46*, 443-459. (1907 cites)

Ebel, R. L. (1951). Estimation of the reliability of ratings. *Psychometrika*, *16*, 407-424. (1169 cites)

Gower, J. C. (1975). Generalized Procrustes analysis. *Psychometrika*, *40*, 33-51. (1789 cites)

Guttman, L. (1954). Some necessary conditions for common-factor analysis. *Psychometrika*, *19*, 149-161. (1117 cites)

Guttman, L. (1968). A general nonmetric technique for finding smallest coordinate space for a configuration of points. *Psychometrika*, *33*, 469-506. (1582 cites)

Jöreskog, K. G. (1969). A general approach to confirmatory maximum likelihood factor analysis. *Psychometrika*, *34*, 183-202. (1966 cites)

Jöreskog, K. G. (1971). Statistical analysis of sets of congeneric tests. *Psychometrika*, *36*, 109-133. (1529 cites)

Jöreskog, K. G. (1971). Simultaneous factor analysis in several populations. *Psychometrika*, *36*, 409-426. (1451 cites)

Katz, L. (1953). A new status index derived from sociometric analysis. *Psychometrika*, *18*, 39-43. (1576 cites)

Kuder, G. F., & Richardson, M. W. (1937). The theory of the estimation of test reliability. *Psychometrika*, *2*, 151–160. (1445 cites)

Meredith, W., & Tisak, J. (1990). Latent curve analysis. *Psychometrika*, *55*, 107–122. (1191 cites)

Milligan, G. W. (1980). An examination of the effect of six types of error perturbation on fifteen clustering algorithms. *Psychometrika*, *45*, 325–342. (1049 cites)

Muthén, B. (1984). A general structural equation model with dichotomous, ordered categorical, and continuous latent variable indications. *Psychometrika*, *49*, 115–132. (1446 cites)

Sabidussi, G. (1966). The centrality index of a graph. *Psychometrika*, *31*, 581–603. (1131 cites)

Torgerson, W. S. (1952). Multidimensional scaling: I. Theory and method. *Psychometrika*, *17*, 401–419. (1598 cites)

Tucker, L. R. (1966). Some mathematical notes on 3-mode factor analysis. *Psychometrika*, *31*, 279–311. (1808 cites)

Velicer, W. F. (1976). Determining the number of components from the matrix of partial correlations. *Psychometrika*, *41*, 321–327. (1111 cites)

Greater than 500 citations as of 4/1/2016 (well, greater than 450 to allow a little latitude for later citations):

Andersen, E. B. (1973). A goodness of fit test for the Rasch model. *Psychometrika*, *38*, 123–140. (590 cites)

Bentler, P. M. (1983). Some contributions to efficient statistics in structural models: Specification and estimation of moment structures. *Psychometrika*, *48*, 493–517.

Bentler, P. M., & Weeks, D. G. (1980), Linear structural equations with latent variables. *Psychometrika*, *45*, 289–308 (605 cites)

Bock, R. D., & Lieberman, M. (1970). Fitting a response model for n dichotomously scored items. *Psychometrika*, *35*, 179–197. (736 cites)

Christoffersson, A. (1975). Factor analysis of dichotomized variables. *Psychometrika*, *40*, 5–32. (476 cites)

Cliff, N. (1966). Orthogonal rotation to congruence. *Psychometrika*, *31*, 33–42. (464 cites)

Davis, F. B. (1944). Fundamental factors of comprehension in reading. *Psychometrika*, *9*, 185–197. (515 cites)

De Soete, G. (1983). A least squares algorithm for fitting additive trees to proximity data. *Psychometrika*, *48*, 621–626. (497 cites)

Fleishman, A. J. (1978). A method for simulating non-normal distributions. *Psychometrika*, *43*, 521–532. (553 cites)

Guttman, L. (1945). A basis for analyzing test-retest reliability. *Psychometrika*, *10*, 255–282. (659 cites)

Hoyt, C. (1941). Test reliability estimated by analysis of variance. *Psychometrika*, *6*, 153–160. (656 cites)

Jöreskog, K. G. (1967). Some contributions of maximum likelihood factor analysis. *Psychometrika*, *34*, 443–482. (799 cites)

Jöreskog, K. G. (1978). Structural analysis of covariance and correlation matrices. *Psychometrika*, *43*, 443–477. (807 cites)

Kaiser, H. F., & Caffrey, J. (1965). Alpha factor analysis. *Psychometrika*, *30*, 1–14. (465 cites)

Klein, A. & Moosbugger, H. (2000). Maximum likelihood estimation of latent interaction effects with the LMS method. *Psychometrika*, *65*, 457–474. (480 cites)

Kroonenberg, P. M., & De Leeuw, J. (1980). Principal component analysis of three-mode data by means of alternating least squares algorithms. *Psychometrika*, *45*, 69–97. (574 cites)

Luce, R. D., & Perry, A. D. (1949). A method of matrix analysis of group structure. *Psychometrika*, *14*, 95–116. (646 cites)

McGill, W. J. (1954). Multivariate information transmission. *Psychometrika*, *19*, 97–116. (605 cites)

Muthén, B. (1978). Contributions to factor analysis of dichotomous variables. *Psychometrika*, *43*, 551–560. (502 cites)

Muthén, B., Kaplan, D., & Hollis, M. (1987). On structural equation modeling with data that are not missing completely at random. *Psychometrika*, *52*, 431–462. (650 cites)

Muthén, B. (1989). Latent variable modeling in heterogeneous populations. *Psychometrika*, *54*, 557–585. (831 cites)

Novick, M. R., & Lewis, C. (1967). Coefficient alpha and the reliability of composite measurements. *Psychometrika*, *32*, 1–13. (484 cites)

Rogosa, D. R., & Willett, J. B. (1985). Understanding correlates of change by modeling individual differences in growth. *Psychometrika*, *50*, 203–228. (596 cites)

Rubin, D. B., & Thayer, D. T. (1982). EM algorithms for ML factor analysis. *Psychometrika*, *47*, 69–76. (513 cites)

Olsson, U. (1979). Maximum likelihood estimation of the polychoric correlation coefficient. *Psychometrika*, *44*, 443–460. (787 cites)

Sattath, S., & Tversky, A. (1977). Additive similarity trees. *Psychometrika*, *42*, 319–345. (712 cites)

Satterthwaite, F. E. (1941). Synthesis of variance. *Psychometrika*, *6*, 309–316. (580 cites)

Schmid, J., & Leiman, J. M. (1957). The development of hierarchical factor solutions. *Psychometrika*, *22*, 53–61. (729 cites)

Schöneman, P. (1966). A generalized solution of the orthogonal Procrustes problem. *Psychometrika*, *31*, 1–10. (951 cites)

Sclove, S. L. (1987). Application of model-selection criteria to some problems in multivariate analysis. *Psychometrika*, *52*, 333–343. (769 cites)

Shealy, R., & Stout, W. (1993). A model-based standardization approach that separates true bias/dif from group ability differences and detects test bias/dif as well as item bias/dif. *Psychometrika*, *58*, 159–194. (552 cites)

Shepard, R. N. (1974). Representation of structure in similarity data: Problems and prospects. *Psychometrika*, *39*, 373–421. (537 cites)

Srinivasan, V., & Shocker, A. D. (1973). Linear programming techniques for multidimensional analysis of preferences. *Psychometrika*, *38*, 337–369. (580 cites)

Stout, W. (1987). A nonparametric approach for assessing latent trait unidimensionality. *Psychometrika*, *52*, 589–617. (542 cites)

Takane, Y., & De Leeuw, J. (1987). On the relationship between item response theory and factor analysis of discretized variables. *Psychometrika*, *52*, 393–408. (492 cites)

Takane, Y., Young, F. W., & De Leeuw, J. (1977). Nonmetric individual differences multidimensional scaling: An alternating least-squares method with optimal scaling features. *Psychometrika*, *42*, 7–67. (985 cites)

Van Den Wollenberg, A. L. (1977). Redundancy analysis as an alternative for canonical correlation analysis. *Psychometrika*, *42*, 207–219. (469 cites)

Warm, T. A. (1989). Weighted likelihood estimation of ability in item response theory. *Psychometrika*, *54*, 427–450. (576 cites)

Wasserman, S., & Pattison, P. (1996). Logit models and logistic regressions for social networks: I. An introduction to Markov graphs and p^* . *Psychometrika*, *61*, 401–425. (979 cites)

Young, G., & Householder, A. S. (1938). Discussion of a set of points in terms of their mutual distances. *Psychometrika*, *3*, 19–22. (661 cites)

Not many citations but probably should have:

Guttman, L. (1944). General theory and methods for matrix factoring. *Psychometrika*, *9*, 1–16. (96 cites)

Hotelling, H. (1936). Simplified calculation of principal components. *Psychometrika*, *1*, 27–35. (202 cites for this particular paper; but 6034 for the 1933 *Journal of Educational Psychology* paper, which would have been in *Psychometrika* if it had been around.)

Jennrich, R. I., & Sampson, P. F. (1966). Rotation for simple loadings. *Psychometrika*, *31*, 313–323. (404 cites)

Jennrich, R. I., & Robinson, S. M. (1969). A Newton-Raphson algorithm for maximum likelihood factor analysis. *Psychometrika*, *34*, 111–123. (82 cites)

Most citations after 2001:

Sijtsma, K. (2009). On the use, the misuse, and the very limited usefulness of Cronbach's alpha. *Psychometrika*, *74*, 107–120. (726 cites)