International Journal of Current Educational Research
Homepage : https://www.journal.iel-education.org/index.php/ijocer
Email: ijocer@iel-education.org

IJOCER, Vol. 1, No. 1, June 2022
© 2022 International Journal of Current Educational Research
Page 68-82

Top 100 Cited Research of Confirmatory Factor Analysis (CFA) in Education From 2012 to 2021

Ika Candra Pristianti[1]
[1]Universitas Negeri Surabaya, Surabaya, Indonesia

DOI : https://doi.org/10.53621/ijocer.v1i1.140

Sections Info
Article history:
Submitted: April 07, 2022
Final Revised: May 19, 2022
Accepted: May 31, 2022
Published: June 30, 2022
Keywords:
Bibliometric
Confirmatory Factor Analysis
Education
Trends

ABSTRACT
The aim of this research is to analyze the trends and future research opportunities related to confirmatory factor analysis in education. This research uses a descriptive bibliometric analysis and literature review to determine research trends. The data in this research used the Scopus database during 2012-2021. Data in form .CSV was analyzed using Ms. Excel and data in form .RIS was analyzed using VOSviewer. The conclusion from this research are the trend of research on this topic has increased every year in the last ten years. The most widely used keyword is confirmatory factor analysis. Research related to CFA in education has a wide and good opportunity to be carried out for several reasons including: (1) the trend shows a good graph and continues to increase; (2) the number of citations per paper per year shows a number with a high average; (3) From many studies, it is stated that CFA has a contribution in educational research. For future research, we can focus on discussing CFA in a multidisciplinary manner or discussing CFA trends in education using databases other than Scopus.

INTRODUCTION

In research on education requires a research instrument that is in accordance with the variables used. The instrument itself is intended to measure the achievement of student learning outcomes (Langer et al., 2022; Chekichev et al., 2021; Ruschenpohler & Markic, 2019; Cor, 2018; Artino et al., 2018). In addition, the instrument can also be used to determine the factors that have an influence on student learning outcomes to the success of a learning program given by the teacher (Tokarev et al., 2021). An instrument is said to be really good at measuring symptoms and producing valid data if the instrument has good validity and reliability (Rovigati, 2021). Reliability itself can show whether an instrument is consistent if it is used to measure the same symptoms in various places (Castro-Rodriguez, 2021). So that researchers can determine whether the instrument used several times to measure the same object will produce the same data.

In general, to test the reliability of the instrument using the Cronbach Alpha coefficient. The definition of Cronbach's Alpha is a measure of reliability with values ranging is 0-1 (Alkhadim, 2022; Barbera et al., 2021; Astivia et al., 2020; Emerson, 2019). Besides Cronbach Alpha, another method that can be used is Confirmatory Factor Analysis (CFA) (Taber, 2018). This CFA is used to test the unidimensional, validity and reliability of the construct measurement model which cannot be measured directly (Fauzi et al., 2022). This CFA can also show the operationalization of research variables or constructs into measurable indicators formulated in the form of certain equations and or path diagrams (Effendi et al., 2022). The main purpose of the CFA is to confirm or test the model, i.e. a measurement model whose formulation is derived from theory. The CFA has two focuses including: (1) whether the conceptualized indicators are

5._140-Article_Text-818-1-15-20220630.doc

ORIGINALITY REPORT

10%	7%	8%	%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	eprints.unm.ac.id Internet Source	2%
2	mdpi-res.com Internet Source	1%
3	journal.ia-education.com Internet Source	1%
4	Binar Kurnia Prahani, Iqbal Ainur Rizki, Budi Jatmiko, Nadi Suprapto, Amelia Tan. "Artificial Intelligence in Education Research During The Last Ten Years: A Review and Bibliometric Study", International Journal of Emerging Technologies in Learning (iJET), 2022 Publication	1%
5	N Suprapto. "Demographic sources as a local wisdom: Potency of Indonesian physics education researchers in conducting survey research", Journal of Physics: Conference Series, 2019 Publication	1%
6	vetnetsite.files.wordpress.com Internet Source	1%