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Validity and Reliability of Child-Friendly School Policy Evaluation Instruments in Primary Schools: Confirmatory Factor Analysis

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Abstract: Evaluation of child-friendly school (CFS) policies is essential to determine the achievements of school efforts in reducing violence cases. This research aims to proving the reliability and validity of CFS policy evaluation instruments in elementary schools with different locations. This investigation uses the Context Input Process Product (CIPP) evaluation model to confirm the factor structure or dimensions of several observed variables (items) to evaluate the reliability and validity of the CFS policy evaluation tool in elementary schools. The validity and reliability of previously created instruments are evaluated quantitatively, but this study utilises different subjects and study sites. There were 320 respondents, with 145 school principals and 175 teachers taken randomly. Confirmatory factors analysis (CFA) results show goodness of fit (GOF), and the model is acceptable. The CFS evaluation instrument can be accepted after eliminating several question items and modifying them. All items of the teal instrument meet the goodness of fit criteria in terms of chi-square and root mean square error of approximation (RMSEA). The instrument for evaluating CFS policies in primary schools using the CIPP model has met a valid and reliable psychometric property test so that it can be applied.

Keywords: *Child-friendly school, confirmatory factor analysis, primary school.*

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Introduction

Violence against children is still prevalent, especially in the educational world. Government efforts to implement protection and prevention of violence against children in the educational environment are stipulated in the Act to Reduce Acts of Violence (Cornell & Limber, 2015; Cosgrove & Nickerson, 2017). Article 28B, paragraph 2 of the Basic Law of the Republic of Indonesia of 1945 states that every child has the right to survival, growth, and development and protection from violence and character discrimination. It is also supported by Law No. 35 of 2014, which amends Article 9 (1) (a) of Law No. 23 on the protection of the child, which states: Every child has the right to be protected in an educational unit from sexual offenses and violence committed by educators, teachers, fellow students, and others. In addition to the Memorandum of Understanding Number 82 of 2015 on the Prevention and Suppression of Violence in the Environment of the Education Unit.

Government efforts to tackle the violence have been extensive, but the results are not optimal. There are still many forms of violence against children. Besides, Indonesia is a country with a high rate of child violence (Nurhayati et al., 2021; Putri, 2022). It means that there are many policies and programs to deal with violence, but the results are ineffective. This is evidenced by the number of violence cases still taking place in schools (Nurhayati et al., 2021). The lack of evaluation studies on the effectiveness of child-friendly school (CFS) policies in reducing violence is one of the reasons for the importance of this study. With a CFS policy evaluation instrument, educational institutions can obtain comprehensive feedback and inform improvements to protect children's school rights and welfare.

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The government's response to violence cases continues to be carried out by every district, but the results are not optimal. This is evidenced by data from the Ministry of Women and Child Protection stating that the findings related to violence cases can be seen from the ratio of child victims of violence throughout Indonesia. However, the rate of child Victims of Violence in each region has fluctuated, but the cases of this violence occur across the territory of Indonesia. (Simfoni PPA, 2022) By 2022, the number of violence cases based on the type of violence victims suffer is sexual violence, exploitation, trafficking, smuggling, physical and psychological. Based on the location of the incident, the violence that occurred in schools is 472 cases, be it in elementary school, junior high school, senior high school, or even colleges. According to the data, there were 91 occurrences of violence in elementary school, 137 cases in junior high, 177 cases in senior high, and 36 cases in college in 2022.

Yogyakarta Special District is a city that has dedicated itself as a City Worth Children; it is included in the child rights fulfillment profile of Yogyakarta Special District in 2019. Districts/Cities Worth Children is a district/city with the commitment and resources of the government integrated, planned, comprehensive, and sustainable in its policies, programs, and activities to ensure a system of development based on the realization of rights and protection of children. Constitutionally, the role of the city government in the concept of a City/City Worth Kids is to guarantee the rights of children, such as health, protection, well-being, education, not being a victim of discrimination, knowledge of the broader environment and culture, participation in the planning of the environment/cities where they live, free to play and pollution-free environment. A CFS can protect kids from abuse, discrimination, and other ill-treatment, uphold kids' rights, and recognise their accomplishments. It also encourages kids to participate in decisions that affect them, like learning processes, planning, and complaints (Cobanoglu & Sevim, 2019; Fauziati, 2016; Fitriani et al., 2021; Utami et al., 2021).

Cases of violence occurring at various levels indicate that the reproduction of violence is relatively increasing based on the level of education, so it is essential to overcome cases of violence at the primary level of primary school (Tilaar, 2012). Primary school, which is the foundation for developing children's potential, especially those related to character education, could ideally provide the expected foundation. However, there are still cases of violence that keep children from growing up in healthy conditions. Schools need to pay more attention to how efforts have been made to deal with violence and bullying (Bickmore, 2011; Hall & Chapman, 2018) because the reproduction of violence in schools is awakened in a community's collective memory and requires comprehensive treatment.

The Child-Friendly School Development Policy Guide (Deputy for Child Development Ministry of Women's Empowerment and Child Protection, 2015; Fauziati, 2016; Wright et al., 2009) states that it is essential that schools that implement CFS policies monitor, evaluate, and report. The monitoring of the ideal CFS is conducted once a month. In contrast, the development of an ideal children's school is evaluated once every three months. Monitoring and evaluation findings as a foundation for decisions on future changes to the CFS policy. Evaluation becomes essential to determine the extent to which a policy or program has been implemented in the past and can also be used as feedback to determine future policies. In order to see the execution of a child-friendly school policy in primary schools that is trustworthy according to the measured construction, it is required to have a valid and reliable instrument (Fitriyanto et al., 2019; Hajaroh et al., 2021; Scholtes et al., 2011). The context, input, process, and product (CIPP) evaluation approach is used in this study to design the instruments. Therefore, using confirmatory factor analysis, it is necessary to conduct analytical tests to see the reliability and validity of CFS policy evaluation instruments in primary schools with different locations. The location chosen is Bantul district, a child-friendly district in the process of achieving the main category.

Methodology

Research Design

This research uses a quantitative approach to the type of survey. The research was carried out using instruments that had been developed before and had previously been conducted EFA analysis. However, this instrument was re-tested to carry out verification of the validity and reliability of instruments of CFS with different locations and samples and analyzed using confirmatory factor analysis (CFA); factor analysis is an essential tool that can be used to perform analysis of the results of development, measurement, or evaluation in the world of education (Williams et al., 2010). A total of 320 respondents with the same criteria have completed the CFS.

Sample and Data Collection

The instrument used in the research is an instrument that has been developed, tested, and tested for validity and reliability before (Hajaroh et al., 2021). This CFS policy evaluation instrument was developed with an instrument development contractive validation process with the CIPP model, which includes the following stages, namely the conceptualization stage of the initial instrument construct, identifying the construct underlying the instrument aspect, developing the initial instrument, testing the preliminary tool, testing the accuracy of the revised instrument, validating the instrument by conducting a quantitative and qualitative analysis of the results of the fixed agency, the last is to

evaluate the process and product evaluation of the instrument construction made. the data results were analyzed with Exploratory Factor Analysis with reliability results of .8 and validity with an average F-value > .50.

Related to ethical research, this research was conducted by cooperating with the Bantul district youth education and sports office. Then, the office helped provide a questionnaire in the form of a Google form to all principals and primary school teachers. The research was carried out in the primary school of Bantul District Instimewa Yogyakarta district, Indonesia, which consists of 7 districts, namely Srandakan, Sanden, Kretek, Pundong, Bambanglipuro, Pandak, Bantul, Imogiri, Jetis, Dlingo, Pleret, Piyungan, Banguntapan, Sewon, Kasihan, Pajangan and Sedayu that implement a CFS policy. The sample suitability must be met to obtain model suitability in the analysis (Herwin & Nurhayati, 2021; Narimawati & Sarwono, 2022). The sample size that can be used should meet a minimum of 100 respondents, or five times the number of items, to obtain valid data when performing factor analysis (Gorsuch, 2014; Kline, 1994; MacCallum et al., 2001). The source of information for this study is 320 respondents, with details of 145 school leaders and 175 teachers. This study guarantees the confidentiality and welfare of both respondents and researchers.

This study's selection and determination of research subjects uses simple random sampling techniques. The data capture technique uses an instrumental CFS questionnaire that is used according to the construction of the research variable consisting of 42 measurement items from the four aspects of the CIPP evaluation. This instrument has four indicators: context, input, process and product. A measuring scale is used to classify the level of response, with a Likert scale with five answer options, i.e., always, often, sometimes, rarely, and never.

These questionnaires are included in Google Forms to make reaching the entire sample location easier. Coordinate with the primary education section head to disseminate to all school principals and teachers in the Bantul district. After all the data is collected, CFA proves the validity and reliability. The variable used in this study is an evaluation tool for CFS policies using the CIPP evaluation model (context, input, process, product), especially for primary schools (Hajaroh et al., 2021). Below is a spread of indicators with each measurement item.

Table 1. Distribution of Indicators and Items

Indicators	Measurement Item	Code
Context	1. The school's vision and mission are agreed with the Indicators of Child-Friendly Schools.	C1
	2. Teachers recognize the background of problems and characteristics of students.	C2
	3. The school has infrastructure in the school that supports the implementation of the school.	C3
	4. There is a logo/slogan associated with the school in school.	C4
	5. The school has financial support for implementing the school at the start of each academic year.	C5
	6. The school sets the policies and programs for the children.	C6
	7. Development policies and programs at the school are focused on meeting the requirements of a child-friendly school.	C7
	8. The school's purpose follows the school's mission to the CFS.	C8
	9. The school communicates with stakeholders (parents) before agreeing on a CFS policy.	C9
	10. Implementing a policy and program for a school for children is being done with good cooperation from parents, the community, and the school.	C10
	11. Schools have always been disciplined in creating a child-friendly school.	C11
Input	1. Teachers/parents/chief schools have their strategies for implementing CFS.	I1
	2. The CFS policy is being implemented according to a well-planned program.	I2
	3. The school encourages parents to contribute to the financial support of CFS programs	I3
	4. Schools have several ways to formulate the policies and programs of the CFS.	I4
	5. Schools have well-defines operational procedures for submitting CFS applications.	I5
	6. Schools carry out human resource development activities for teachers related to a child-friendly school.	I6
	7. Teachers have the same opportunity to develop an understanding of the children's school.	I7
	8. Schools report on using the budget related to implementing the CFS program.	I8
	9. Funding for child-friendly schools comes from foundations, the neighbourhood, and school committees.	I9
	10. Schools have preparations for welcoming children from many backgrounds.	I10
	11. Teachers assist in the development and implementation of Child-Friendly School.	I11
	12. Parents comprehend of the policies and programs of Child-Friendly School.	I12

Table 1. Continued

Indicators	Measurement Item	Code
Process	1. Teachers and students maintain hygiene and preserve the environment.	P1
	2. Every morning and every time classes are over; the teacher must interact with students and other teachers.	P2
	3. Students choose a class officer for each class on a separate basis.	P3
	4. The school provides hygiene by being a smoke-free, garbage-free, and an ointment-free area.	P4
	5. School activities are very supportive of student self-development.	P5
	6. The school identifies physical, artistic, and intellectual abilities based on each student's abilities.	P6
	7. Learning is concerned with student's interests and talents.	P7
	8. The teacher evaluates the students after obtaining approval from the students.	P8
	9. Class arrangements are made and determined by students under the supervision of teachers.	P9
	10. Schools permit parent-teacher meetings to talk about teaching methods that might raise student's potential.	P10
	11. Schools is enjoyable for the students.	P11
Product	1. Parents have become more positive toward their children.	PR1
	2. Parents participate in CFS success.	PR2
	3. The growth of moral principles is highly supported by school culture.	PR3
	4. Teachers never shout and rage students.	PR4
	5. Students feel secure and at ease at school.	PR5
	6. Parents have a greater understanding of their children.	PR6
	7. Moral values are embedded in the child.	PR7
	8. Parents understand how important comfort is for children at home.	PR8

Analyzing of Data

This test aims to confirm several observed variables' factor structure or dimensions (item). Data was analyzed with CFA with the help of computer program LISREL 8.80. CFA is used to test items with latent constructions. Testing of CFS policy evaluation instruments is carried out to demonstrate whether the model fit and the observed variable (item) are valid and reliable in measuring latent constructs. An indicator can measure a latent variable if its loading factor across all items > .50. Another domain of analysis is constructing reliability analysis (*CR*). The equation used for determining the *CR* value is as under.

$$CR = \frac{(\sum_{i=1}^i \lambda_i)^2}{(\sum_{i=1}^i \lambda_i)^2 + (\sum_{i=1}^i \varepsilon)}$$

Where:

λ = Standardized loading

ε = error

A goodness of fit model test is carried out to test and prove the compatibility or identity between empirical data and the theoretical model designed. A goodness of fit model test is used to determine if empirical data and the developed theoretical model are compatible or identical. In order to evaluate the model's compliance, the research used the model compatibility indicator (Tungkunan, 2020) as under:

Table 2. Criteria Goodness of Fit

Criteria	Cutt of Value
Chi-Square	
p-values	p > .05 (Good fit)
CFI	≥ .90 (Good fit), .08 ≤ CFI < .90 (Marginal fit)
GFI	≥ .90 (Good fit), .08 ≤ GFI < .90 (Marginal fit)
RMSEA	≤ .080 (Good fit), < .05 (Close fit)
NFI	≥ .90 (Good fit), .08 ≤ NFI < .90 (Marginal fit)
RMR	RMR < .05 (Good fit)
AGFI	≥ .90 (Good fit), .08 ≤ AGFI < .90 (Marginal fit)

Findings/Results

Results from the previous study's EFA analysis were used to construct an evaluation tool for child-friendly schools in this study. Context, input, process, and product are the four CIPP evaluation model components included in the instrument. The first test was done on the context component. This indicator consists of 11 declaration items.

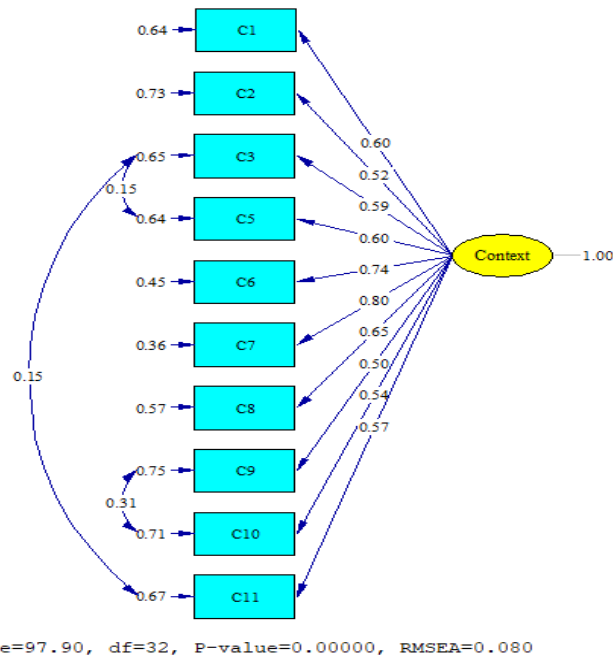


Figure 1. The Standardized Estimate Value of the Context Indicator

Figure 1 shows the results of CFA analysis of the context indicator after it has been modified and selected. Items that do not meet the factor loading criteria are removed. The consideration used in selecting items is if the item meets the significance test at factor loading $> .50$ criteria and the item has a significant contribution in the measurement of the constructs of the context indicator. The item issued is (C4). There is a logo or slogan associated with the CFS in the school. Items from the CFA analysis are selected gradually, resulting in 1 item being reduced and yielding ten valid items with a loading factor $> .50$. Based on the ten items, the information obtained that the item (C7) contributes the greatest to the context indicator is .80.

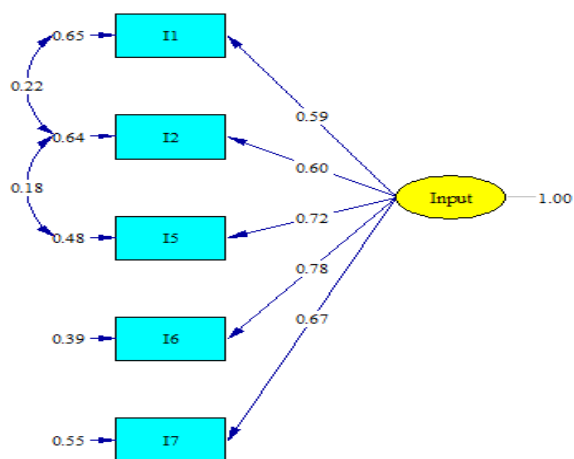
Next, the goodness of fit model (GOF) test results are analyzed. To obtain the GOF test results, items C3-C5, C3-C11, and C9-C10 are modified to constrain the error on the item. Constraint allows it to be performed when the structure still measures the same thing. The analysis results show goodness and fit, and the model is acceptable. Fit Criteria and Conclusions Based on the Model for Context Indicators, namely chi-square of 97.90 and p -values of $< .001$, including the bad fit category, the RMSEA is .08, meaning it is in the good fit category.

The other component tested is construct reliability (CR). Here are the results of the CR test of the context indicator. Based on the analysis, the CR value is .86. If referring to the criterion used is more than .80, then construct the reliability of the contextual indicator has been met and is reliable.

Table 3. Results of Construct Reliability (CR) Context Indicators Analysis

Item	λ	λ^2	ϵ	CR
C1	.60	.36	.64	.86
C2	.52	.27	.73	
C3	.59	.35	.65	
C5	.60	.36	.64	
C6	.74	.55	.45	
C7	.80	.64	.36	
C8	.65	.42	.57	
C9	.50	.25	.75	
C10	.54	.29	.71	
C11	.57	.32	.67	
Σ	6.11		6.17	

The input indicator was subjected to a second test. There are 12 measurement items in this indicator. The results of the CFA are shown in Figure 2 below.



Chi-Square=1.89, df=3, P-value=0.59615, RMSEA=0.000

Figure 2. Value of the Standardized Estimate of the Input Indicator

Figure 2 shows the results of the CFA analysis of the input indicator after it has been modified and selected. Items are eliminated if they do not fulfil the factor loading criterion. The consideration used in selecting items is if the item meets the significance test at the limit of factor loading $> .50$ criteria and if the item significantly contributes to the measurement of the input indicator construct. Items issued are: (I3) School involves parents in supporting the financing of the implementation of the CFS program; (I4) School has several ways to formulate CFS policies and programs; (I8) School reports on the use of budget related to implementing CFS programs; (I9) Schools get funding from foundations, the local community, and school committees for Child-Friendly Schools; (I10) School has plans to accept children from various backgrounds; (I11) Teachers engaged in CFS formulation and implementation; (I12) Parents understand CFS policy and program. Items from the CFA analysis were selected gradually, resulting in reduced seven items and five valid items with a loading factor $> .50$. Based on the five items, the information was obtained that the item (I6) contributed the most significant amount to the input indicator is .78.

Then, the goodness of fit (GOF) test results are analyzed. To obtain the GOF test results, items (I1)-(I2) and (I2)-(I5) are modified to constrain the error on the item. The analysis results showed goodness of fit, and the model is acceptable. The results from conclusions goodness of fit by model for input indicators, namely Chi-Square, p -values (1.89, .59) can be concluded as a good fit, RMSEA ($< .001$) good fit and all other criteria are also classified as good fit.

The other component tested is construct reliability (CR). Here are the results of the CR test of the input indicator. Based on the analysis, the CR value is .81. If the criterion used is more than 0.80 (Nájera Catalán & Gordon, 2020), then the reliability of input indicators has been met and reliable.

Table 4. Results of Analysis Construct Reliability (CR) Input Indicators

Item	λ	λ^2	ϵ	CR
I1	.59	.35	.65	.81
I2	.60	.36	.64	
I5	.72	.52	.48	
I6	.78	.61	.39	
I7	.67	.45	.55	
Σ	3.36		2.28	

The process indicator underwent a third test. There are 11 measurement items in the indicator. The results of the CFA are shown in Figure 3 below.

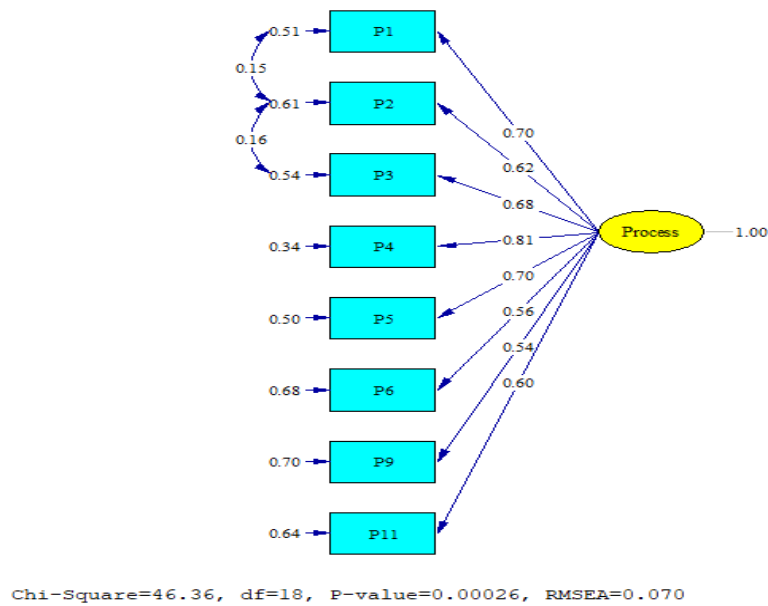


Figure 3. Result of the CFA Analysis on the Process Indicator

Figure 3 displays the outcomes of the process indicator analysis after modifying and selecting items. Items that do not meet the factor loading criteria are removed. The consideration used in selecting items is if the item meets the significance test at the factor loading $> .50$ criterion limit and the item has a significant contribution in the measurement of the contract indicator process. Items issued are: (P7) Learning focuses on students' interests and talents; (P8) Teachers assess students after obtaining confirmation from students; and (P10) Schools permit parent-teacher meetings to talk about teaching methods that might raise student's potential. Items from the CFA analysis were selected gradually, producing three reduced items and eight valid items with a loading factor $> .50$. Based on the eight items, the information obtained that the item (P4) contributed the most to the process indicator was .81.

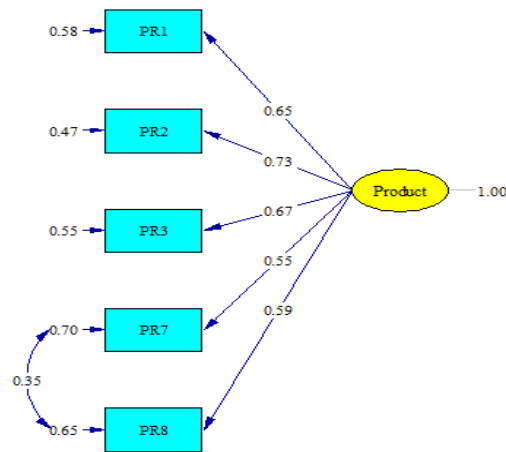
Then, the goodness of fit (GOF) test results are analyzed. To obtain the GOF test results, the items (P1)-(P2) and (P2)-(P3) are modified to constrain the error on the item. Constraint allows it to be performed when the structure still measures the same thing. The analysis results showed goodness of fit, and the model is acceptable. This is evident from the results of criteria and conclusions goodness of fit by model for process indicators, which shows a chi-square of 46.36 with p -values of $< .001$ (bad fit), with an RMSEA of .07 (good fit), followed by all criteria that qualify as good fit.

The other aspect tested is construct reliability (CR). Here are the results of the process indicator CR test. According to the analysis, the CR value is .86. If the used criterion is more than .80 (Nájera Catalán & Gordon, 2020), then the reliability indicator process is accurate and reliable.

Table 5. Results of Analysis Construct Reliability (CR) Process Indicators

Item	λ	λ^2	ϵ	CR
P1	.70	.49	.51	.86
P2	.62	.38	.61	
P3	.68	.46	.54	
P4	.81	.66	.34	
P5	.70	.49	.50	
P6	.56	.31	.68	
P9	.54	.29	.70	
P11	.60	.36	.64	
Σ	5.21		4.52	

The fourth test was done on the product indicator. This indicator has eight measurement items. The results of the CFA are displayed in Figure 4.



Chi-Square=4.97, df=4, P-value=0.29023, RMSEA=0.028

Figure 4. Result of the CFA Analysis on the Product Indicator

Figure 4 shows the results of product indicator analysis after modifying and selecting items. Items that do not meet the factor loading criteria are removed. The consideration used in selecting items is if the item meets the significance test at the factor loading > .50 criterion limit and the item has a significant contribution in the measurement of the contract indicator process. Items issued are: (PR4) Teachers never shout and rage students; (PR5) Students feel safe and comfortable at school; (PR6) Parents understand their children better. Items from the CFA analysis are selected gradually and produce three reduced items and five valid items with a loading factor > .50. Based on the eight items, information was acquired that the item (PR2) contributed the most to the product indicator.

In order to obtain the goodness of fit (GOF) test results, the item (PR7)-(PR8) is modified by constraint to the error of the item. Constraint allows it to be performed when the structure still measures the same thing. The goodness of fit criteria and conclusions by model for product indicators show results that are all a good fit, where the chi-square and *p*-values are 4.97 and .29, meaning good fit, plus the RMSEA result is .02, meaning good fit.

Construct reliability (*CR*) is the other aspect that is examined. Here are the outcomes of the test for the product indication *CR*. The analysis shows that the *CR* value is .81. The reliability indicator procedure is satisfied and is dependable if the used criterion is greater than .80 (Nájera Catalán & Gordon, 2020).

Table 6. Results of Analysis Construct Reliability (*CR*) Product Indicators

Item	λ	λ^2	ϵ	<i>CR</i>
PR1	.65	.42	.58	.81
PR2	.73	.53	.47	
PR3	.67	.45	.55	
PR7	.55	.30	.70	
PR8	.59	.35	.65	
Σ	3.19		2.95	

Based on the analysis of the four indicators processed, all four indicators significantly meet the goodness of fit model with modifications. The total analysis utilising the confirmatory factor analysis second-order technique is shown in the analysis that follows. This is done to assess the overall indicator’s contribution to the CFS instrument.

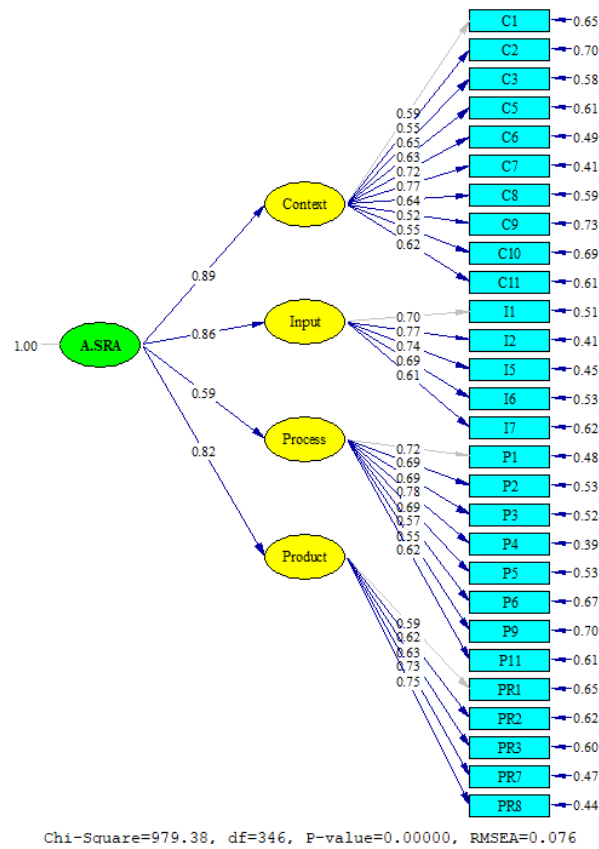


Figure 5. The Results of CFA Second-order Analysis

The findings of the second-order analysis demonstrate the significance of the four indicators to CFS instruments. The factor loading of more than .50 serves as evidence for this. Of the four currenting indicators, it is seen that the context indicator gives the most significant contribution to the CFS instrument with a load factor of .89, and the process indicator is the indicator that gives the minor factor contribution with a loading factor of .59.

Following that is the goodness of fit model (GOF). Measurement results show that the goodness of fit index has been met, and the model is acceptable. Therefore, the whole model’s theoretical measurement methodology is already in accord with empirical data. Criteria and conclusions of goodness of fit by model for second-order can be concluded that the chi-square value is 978.38 with p-values < .001 (bad fit), and the RMSEA value is .07 (good fit).

In order to assess the validity of the CFS evaluation measurement methodology, this is done. The analysis shows that the CR value is .96. According to Nájera Catalán and Gordon (2020), build instrument dependability CFS has been reached and is dependable if the utilised criteria are more than .80. (Nájera Catalán & Gordon, 2020).

Table 7. Results of Analysis Construct Reliability (CR) Product Indicators

Code	λ	λ^2	ϵ	CR
C1	.59	.35	.65	.96
C2	.55	.30	.70	
C3	.65	.42	.58	
C5	.63	.40	.61	
C6	.72	.52	.49	
C7	.77	.59	.41	
C8	.64	.41	.59	
C9	.52	.27	.73	
C10	.55	.30	.69	
C11	.62	.38	.61	
I1	.70	.49	.51	
I2	.77	.59	.41	
I5	.74	.55	.45	
I6	.69	.48	.53	
I7	.61	.37	.62	
P1	.72	.52	.48	
P2	.69	.48	.53	
P3	.78	.61	.52	
P4	.69	.48	.52	
P5	.57	.32	.67	
P6	.55	.30	.67	
P9	.62	.38	.70	
PR1	.63	.40	.61	
PR2	.73	.53	.65	
PR3	.75	.56	.62	
PR7	.65	.42	.60	
PR8	.62	.38	.47	
			.44	

Table 7. Continued

Code	λ	λ^2	ϵ	CR
P1	.72	.52	.48	
P2	.69	.48	.53	
P3	.69	.48	.52	
P4	.78	.61	.39	
P5	.69	.48	.53	
P6	.57	.32	.67	
P9	.55	.30	.70	
P11	.62	.38	.61	
PR1	.59	.35	.65	
PR2	.62	.38	.62	
PR3	.63	.40	.60	
PR7	.73	.53	.47	
PR8	.75	.56	.44	
Σ	18.38		15.79	

Discussion

The study successfully tested and proved four indicators for evaluating CFS policies in primary schools with indicators of context, input, process, and product. The findings on the first indicator in the context found that item C7 significantly contributes to the context indicator. The CFS development policies and programmes relevant to addressing the school's needs are addressed in this item. It means that schools need to identify the needs of each school to meet all the school needs in order to succeed in implementing a CFS policy. To identify the needs of CFSs, schools need to perform needs assessments that will help identify school needs. This is important because each school implementing CFS policies has different conditions, cultures, and needs (Saleem et al., 2020) so that the school can adequately meet the CFS needs.

The second indicator is the input; the most significant contribution from the analysis results is that schools conduct human resource development activities for teachers related to child-friendly schools. This indicates that schools are fully aware that the key to successfully implementing a child-friendly policy is always striving for development, especially for school teachers. According to the CFS guidelines (Deputy for Child Development Ministry of Women's Empowerment and Child Protection, 2015; Deputy for Child Development, 2020), teachers are one of the most critical aspects of a CFS development team, and teachers should be trained in comprehensively understanding the child rights convention. The Convention on the Rights of the Child (MacPherson, 1989) consists of the right to motherhood and citizenship, national rights, equality and non-discrimination, protection, education, play, recreation, food, health, and participation in development. Teachers also play an essential role in formulating, developing and implementing CFS policies. Thus, training, socialization, and other developments are necessary to help teachers understand children's rights and child-friendly schools (Liestyasari et al., 2022; Torro et al., 2019).

The findings on the third indicator are process, school facilitating environmental hygiene as a no-smoking, no-garbage, and no-spice zone is the aspect that has the highest contribution. It means that the school culture to keep the environment clean by conducting environmental management is crucial to support the implementation of the CFS policy. School environment management can consist of physical environment management, social environment administration, academic environment management, and spiritual environment management (Ikbali et al., 2020). Schools must also involve students and other school community members to be able to maintain a clean and comfortable school environment (Attarian, 1996; Siskayanti & Chastanti, 2022).

The fourth indicator is the product; the indicator that contributes the most is the parents involved in child-friendly success. The cooperation between the educational environment, namely schools, parents, and the community, must be considered. Parental involvement in these school activities can positively impact students' learning development, both academically and non-academically. In addition, the role of the school committee in implementing child-friendly schools can create a positive school climate and atmosphere (Fitriani & Istaryatiningtias, 2020). This is followed by the study's findings, which stated that how parents can support the implementation of CFS policies include (Wulandari et al., 2022): (a) keeping kids close to them (at home or work); (b) giving them quality time to listen to and interact with kids for at least 20 minutes each day; (c) giving them time, thoughts, energies, and materials by their capacity to ensure the child's development, interests, talents, and abilities; (d) monitoring the safety, safety, and well-being of children including ensuring healthy use of the Internet and social media friendly to children; and (e) communicating intensively with the school.

Overall, context indicators make the highest contribution. Context is the first indicator to be evaluated, meaning that context is the initial part that determines the success of the overall implementation of the CFS policy. Context evaluation helps schools to pay attention to decision-making in terms of planning, such as what should be met in children-friendly schools and the goals of implementing children's schools according to the school's circumstances, needs, and problems

of students. The context evaluation in the CIPP will also help schools identify the needs, problems, and assets of schools and the opportunities that schools have in implementing a CFS policy (Fitzpatrick et al., 2011).

Another unit of analysis is the validity of the CFS evaluation instrument by looking at the results of the loading factor on each indicator; the contribution of the loading factor on all indicators, both context, input, process, and product, all obtained a value of more than .50 which indicates that all measuring items that build CFS policy evaluation instruments have been able to measure their indicators significantly (Nurhayati et al., 2022). This is by the measurement point of view, which states that construct validity shows the extent to which the instrument can see or measure the aspects to be measured (Herwin & Nurhayati, 2021); this is also following the exposure (Otaya et al., 2020), which states that construct validity is used to prove that the instrument made is proven valid in terms of its construct. Thus, based on this research, the CFS policy evaluation instrument in elementary schools can reflect the conditions for implementing CFS policies. The goodness of fit is to see the fit of the model; this study found that all indicators of the goodness of fit model (p -value, RMSEA, GFI, AGFI) have been met, and the model is acceptable or fit, so overall, it shows that the theoretical model is by the empirical data that has been tested (Herwin & Nurhayati, 2021; Nurhayati et al., 2022). A measuring instrument is declared to have a high-reliability coefficient if it can provide consistent and stable measurement results when measurements are taken; this indicates that the measurement results have a slight error rate (Otaya et al., 2020). A good instrument must be standardized and suitable for use. This study shows that the overall construct reliability coefficient is reliable with a reliability coefficient (CR) value above .8, meaning that the primary school's CFS policy evaluation instrument has been fulfilled and is reliable (Herwin & Nurhayati, 2021).

All indicators of the goodness of the fit model (*Chi-Square*, p -values, CFI, GFI, RMSEA, NFI, RMR, and AGFI) have been met, according to the examination of the fit model's features. The model can be accepted with integrity and fit, which means this instrument is valid and qualifies for validity. The last thing in this study is. Construct reliability (CR). Based on analysis, results have been obtained that the construction reliability instrument evaluation of child-friendly schools has been fulfilled and reliable.

Conclusion

The study successfully tested and proved four indicators for evaluating CFS policies in primary schools with indicators of context, input, process, and product. It may be concluded from the CFA analysis results that the CFS evaluation tool is psychometrically qualified. The CFS instrument can be used as a measurement instrument because it is proven to measure contracts and is reliable when tested on different subjects. In addition, the CFS assessment instrument has met validity and reliability tests. The development of this measuring instrument is in line with Jansen's concept (Jansen et al., 2014). With a CFS policy evaluation instrument, educational institutions can obtain comprehensive feedback and inform improvements to protect children's rights and welfare. This study implies that primary schools that implement child school policies should frequently undertake evaluation activities to determine the effectiveness of such policies so that they expect schools to comply with the child rights convention. These findings provide a standardized measurement model for measuring the implementation of CFS policies in Indonesia.

Recommendations

Further research could re-develop CFS policy evaluation instruments in elementary schools using other evaluation models in both primary and various levels of education, including primary, secondary, and secondary schools in Indonesia. Other recommendations are that practitioners such as principals, teachers, and administrators can use this instrument to evaluate CFS policies in their schools so that the school can determine the effectiveness of implementing CFS policies.

Limitations

This test aims to confirm the factor structure or dimensions of the number of observed variables (item) of CFS instruments in elementary schools with the CIPP model. This research is only done in the whole elementary school in Bantul district. Although the research was carried out in only one district in Yogyakarta Special District, Indonesia, it already represents five districts of Yogyakarta.

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Authorship Contribution Statement

Nurhayati: Contributed to developing main idea, data analysis, interpretation, drafting, and manuscript revision. Aw: Contributed to drafting, technical support, supervision, and final approval. Dwiningrum: Contributed to the concept and design of the data, supervision, and final approval. Hajaroh: Contribution to the concept and design of research instruments, data analysis, and manuscript revision. Herwin: Contributed to data collection, review and finalizing the manuscript.

References

- Attarian, A. (1996). Integrating values clarification into outdoor adventure programs and activities. *Journal of Physical Education, Recreation and Dance*, 67(8), 41-44. <https://doi.org/10.1080/07303084.1996.10604837>
- Bickmore, K. (2011). Policies and programming for safer schools: Are “anti-bullying” approaches impeding education for peacebuilding? *Educational Policy*, 25(4), 648–687. <https://doi.org/10.1177/0895904810374849>
- Cobanoglu, F., & Sevim, S. (2019). Child-friendly schools: An assessment of kindergartens. *International Journal of Educational Methodology*, 5(4), 637–650. <https://doi.org/10.12973/ijem.5.4.637>
- Cornell, D., & Limber, S. P. (2015). Law and policy on the concept of bullying at school. *American Psychologist*, 70(4), 333–343. <https://doi.org/10.1037/a0038558>
- Cosgrove, H. E., & Nickerson, A. B. (2017). Anti-bullying/harassment legislation and educator perceptions of severity, effectiveness, and school climate: A cross-sectional analysis. *Educational Policy*, 31(4), 518–545. <https://doi.org/10.1177/0895904815604217>
- Deputy for Child Development. (2020). *Pedoman sekolah ramah anak* [Child friendly school guidelines]. <https://unyu.id/WbMgQ>
- Deputy for Child Development Ministry of Women’s Empowerment and Child Protection. (2015). *Panduan sekolah ramah anak deputy tumbuh kembang anak* [Child friendly school guide deputy for child development]. <https://unyu.id/QJ9nK>
- Fauziati, E. (2016). Child friendly school: Principles and practices. In *Proceedings of the First International Conference on Child - Friendly Education* (pp. 95–101). UMS Press. <https://unyu.id/OSRyk>
- Fitriani, S., & Istaryatiningtias. (2020). Promoting child-friendly school model through school committee as parents’ participation. *International Journal of Evaluation and Research in Education*, 9(4), 1025–1034. <https://doi.org/10.11591/ijere.v9i4.20615>
- Fitriani, S., Istaryatiningtias, & Qodariah, L. (2021). A child-friendly school: How the school implements the model. *International Journal of Evaluation and Research in Education*, 10(1), 273–284. <https://doi.org/10.11591/IJERE.V10I1.20765>
- Fitriyanto, J. N., Widjanarko, D., & Khumaedi, M. (2019). Validity and reliability test of assessment instrument of the suitability of electric power steering media. *Journal of Vocational and Career Education*, 4(1), 61–69. <https://unyu.id/yss7i>
- Fitzpatrick, J. L., Worthen, B. R., & Sanders, J. R. (2011). *Program evaluation alternative approaches and practical guidelines* (4th ed.). Pearson.
- Gorsuch, R. L. (2014). *Factor analysis* (2nd ed.). Routledge. <https://doi.org/10.4324/9781315735740>
- Hajaroh, M., Rukiyati, Purwastuti, L. A., & Nurhayati, R. (2021). Development of the evaluation instrument of the child-friendly school policy in elementary schools. *International Journal of Instruction*, 14(3), 327–340. <https://doi.org/10.29333/iji.2021.14319a>
- Hall, W. J., & Chapman, M. V. (2018). The role of school context in implementing a statewide anti-bullying policy and protecting students. *Educational Policy*, 32(4), 507–539. <https://doi.org/10.1177/0895904816637689>
- Herwin, & Nurhayati, R. (2021). Measuring students’ curiosity character using confirmatory factor analysis. *European Journal of Educational Research*, 10(2), 773–783. <https://doi.org/10.12973/eu-jer.10.2.773>
- Ikbali, M., Moeins, A., & Pragiwani, M. P. (2020). *Pengelolaan lingkungan dalam mewujudkan sekolah ramah anak di SMA Negeri 45 Jakarta* [Environmental management in realizing child friendly schools at sma negeri 45 Jakarta]. STIE Indonesia. <https://unyu.id/zEkxE>
- Jansen, E., Mallan, K. M., Nicholson, J. M., & Daniels, L. A. (2014). The feeding practices and structure questionnaire: Construction and initial validation in a sample of Australian first-time mothers and their 2-year olds. *International Journal of Behavioral Nutrition and Physical Activity*, 11, Article 72. <https://doi.org/10.1186/1479-5868-11-72>
- Kline, P. (1994). *An easy guide to factor analysis* (1st ed.). Routledge. <https://doi.org/10.4324/9781315788135>
- Liestyasari, S. I., Karsidi, R., Asrowi, & Rahman, A. (2022). Student’s perception of child-friendly school program in Surakarta during the pandemic Covid-19. In Suprpto, M. B. Triyono, A. Rohman, G. K. Kassymova, & Ashadi (Eds.), *Proceedings of the 5th International Conference on Current Issues in Education (ICCIE 2021)* (pp. 52–57). Atlantis Press. <https://doi.org/10.2991/assehr.k.220129.010>
- MacCallum, R. C., Widaman, K. F., Preacher, K. J., & Hong, S. (2001). Sample size in factor analysis: The role of model error. *Multivariate Behavioral Research*, 36(4), 611–637. https://doi.org/10.1207/S15327906MBR3604_06

- MacPherson, S. (1989). The convention on the rights of the child. *Social Policy and Administration*, 23(1), 99-101. <https://doi.org/10.1111/j.1467-9515.1989.tb00500.x>
- Nájera Catalán, H. E., & Gordon, D. (2020). The importance of reliability and construct validity in multidimensional poverty measurement: An illustration using the multidimensional poverty index for Latin America (MPI-LA). *The Journal of Development Studies*, 56(9), 1763–1783. <https://doi.org/10.1080/00220388.2019.1663176>
- Narimawati, U., & Sarwono, J. (2022). Kajian tentang indeks kecocokan model dalam pemodelan persamaan struktural berbasis kovarian dalam lisrel dan amos serta berbasis partial least square dalam pls sem [Study of model fit indices in covariance-based structural equation modeling in lisrel and amos and partial least squares-based in pls sem]. *Majalah Ilmiah UNIKOM*, 20(2), 85–94. <https://uny.id/ZorHz>
- Nurhayati, R., Dwiningrum, S. I. A., & Efaningrum, A. (2021). School policy innovation to reduce bullying effect. *AL-ISHLAH: Jurnal Pendidikan*, 13(3), 2675–2688. <https://doi.org/10.35445/alishlah.v13i3.1235>
- Nurhayati, R., Suranto, S., Dwiningrum, S. I. A., Efaningrum, A., Herwin, H., & Haryanto, H. (2022). Principal component analysis on bullying measurement models in schools. *Cypriot Journal of Educational Sciences*, 17(8), 2771–2781. <https://doi.org/10.18844/cjes.v17i8.7803>
- Otaya, L. G., Kartowagiran, B., & Retnawati, H. (2020). The construct validity and reliability of the lesson plan assessment instrument in primary schools. *Jurnal Prima Edukasia*, 8(2), 126–134. <https://doi.org/10.21831/jpe.v8i2.33275>
- Putri, Q. O. P. (2022). Upaya UNICEF melalui program end violence untuk mengatasi kekerasan anak DK Sekolah Tahun 2018-2020 [UNICEF's efforts through the end violence program to address school violence 2018-2020]. *Syntax Literate: Jurnal Ilmiah Indonesia*, 7(6), 7397–7405. <https://uny.id/B2XYy>
- Saleem, A., Shaheen, I., & Zahid, H. (2020). Assessment of child-friendly environment in public schools. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(9), 9535–9556. <https://uny.id/ZKN8B>
- Scholtes, V. A., Terwee, C. B., & Poolman, R. W. (2011). What makes a measurement instrument valid and reliable? *Injury*, 42(3), 236–240. <https://doi.org/10.1016/j.injury.2010.11.042>
- Simfoni PPA. (2022). *Kasus kekerasan di Indonesia* [Cases of violence in Indonesia]. <https://latihan-simfoni.kemenpppa.go.id/ringkasan>
- Siskayanti, J., & Chastanti, I. (2022). Analisis karakter peduli lingkungan pada siswa sekolah dasar [Character analysis of environmental care in elementary school students]. *Jurnal Basicedu*, 6(2), 1508–1516. <https://doi.org/10.31004/basicedu.v6i2.2151>
- Tilaar, H. A. R. (2012). Manajemen proses peningkatan mutu pendidikan sekolah dasar di pulau terpencil, kasus: Peningkatan mutu sd di Kabupaten Lembata, Nusa Tenggara Timur (NTT) [Process management for improving the quality of primary school education in remote islands, a case: Improving the quality of primary schools in Lembata district, East Nusa Tenggara (ENT)]. In N. Akhmadi (Ed.), *Prosiding: Riset kebijakan pendidikan anak di Indonesia* [Proceedings: Child education policy research in Indonesia] (pp. 237-281). Lembaga Penelitian Smeru/ Smeru Research Institute.
- Torro, S., Sunra, L., & Ahmad, M. (2019). Optimization of teachers' roles in the implementation of child friendly school in the industrial era 4.0. In Sunarto, A. Z. Rahman, & Widiartanto (Eds.), *Proceedings of the International Conference on Social Science 2019 (ICSS 2019)* (pp. 96-99). Atlantis Press. <https://doi.org/10.2991/icss-19.2019.230>
- Tungkunan, P. (2020). Learning model of undergraduate students: Confirmatory factor analysis. *International Journal of Instruction*, 13(3), 665–678. <https://doi.org/10.29333/iji.2020.13345a>
- Utami, T., Kusumawiranti, R., & Mali, M. G. (2021). Implementasi sekolah ramah anak di SD N Lempuyangwangi Kota Yogyakarta [Implementation of child-friendly schools in Lempuyangwangi Elementary School, Yogyakarta City]. *Populika*, 9(2), 1–12. <https://doi.org/10.37631/populika.v9i2.316>
- Williams, B., Onsmann, A., & Brown, T. (2010). Exploratory factor analysis: A five-step guide for novices. *Journal of Emergency Primary Health Care*, 8(3), Article 990399. <https://doi.org/10.33151/ajp.8.3.93>
- Wright, C., Mannathok, C., & Pasic, M. (2009). *Manual: Child friendly schools*. UNICEF. <https://uny.id/UYHWg>
- Wulandari, T., Nirwana, I., & Nurlinda, N. (2022). Partisipasi orang tua terhadap pelaksanaan program sekolah ramah anak (SRA) di sd ramah anak kabupaten Sleman [Parent participation in the implementation of child friendly school program in child friendly school (CFS) Sleman regency]. *Harakat an-Nisa: Jurnal Studi Gender dan Anak*, 7(1), 9–14. <https://doi.org/10.30631/71.9-14>