Development and Validation Peaceful Classroom Scale: Rasch Model Analysis

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Year after year, the rate of violence among students rises. This is a conundrum because the phenomenon has already began to appear in high school. It is uncommon since a violent culture has a direct influence on students' academic success as well as several non-academic psychological characteristics. The study aimed to validate and develop a peaceful classroom scale. This study took place in Indonesia between 2020 and 2021, with 406 junior high school students (176 men and 230 females) participating by simple random sampling. A quantitative research methodology was used to analyze a survey design that distributes 25 items on a 5-point Likert scale. The data analysis used the common factor analysis technique and Rasch model, "i.e.," Winsteps software version 3.73. Study results show 24 valid items, and the answer choices can be 4 or 7 points. As the representation of interaction between the person and the items as a whole, the Cronbach Alpha value is 0.94, which is in the excellent category. Furthermore, the person dependability rating is 0.82, which falls into the very good category as a reflection of the consistency of the participant's responses. This scale meets the criteria because it already has good psychometric properties so that it can be used to investigate peaceful classrooms at the junior high school level.

Keywords: reliability, validity, junior high school students, peaceful classroom, rasch models

INTRODUCTION

School is a social institution, and every student has the right to have a safe and free environment from violence (Ross, 2015). Violence in schools has led to criminal acts and is no longer just a spontaneous reaction but a lifestyle and even culture (Nugroho,

2012). According to the International Center for Research on Women, 84 percent of Indonesian students acknowledged to experiencing abuse in the classroom in 2015. Students reported being victimized to violence by teachers and school officials in 22% of cases, and perpetrating violence themselves in 75% of cases (Hartik, 2016). Exposure to violence in schools has a serious impact on various aspects of student development. In terms of academic functioning, students who experience high levels of violence at school tend to have low abilities in reading, mathematics, English, chemistry, and general knowledge (Silverstein, Augustyn, Cabral, & Zuckerman, 2016), reducing academic ability and achievement (Champion, 2019).

Violence is a factor that hinders a positive school climate (Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013). In general, parents and teachers cannot protect children from the phenomenon of violence, and schools cannot solve all forms of violence (Levin, 2012). Punishment approaches by blaming individuals or institutions increasingly do not solve the root causes of violence (Bickmore, 2011), and existing intervention models for violence have very low success rates (Roberge, 2011). To restore the school's function as an ecosystem of student development, the task of education is to change a culture of violence into a culture of peace (Kartadinata, Riswanda, & Ilfiandra, 2014; Nadhirah & Ilfiandra, 2020). The most effective strategy for promoting a culture of peace is through peace education (Chowdhury, 2008). Peace education and global education are promoted in Indonesia's long-term national education policy; however, peace education does not yet have a stable base. (Kartadinata, 2015). Peace education is a critical issue in Indonesia because there is no explicit peace education program from primary to university levels (Kartadinata et al., 2017). It is understandable because, in many countries, government support for peace education is very limited. Even in the case of Indonesia, the government tends to judge it as unimportant and not urgent (Wahyudin, 2018).

Peace education avoids universalization and rigid standards (Bajaj & Brantmeier, 2011). Peace education requires a clear vision and concrete evidence, but it does not lose creativity to maintain the context (Galtung, 2004). The ineffectiveness of peace education stems from formal rhetoric with a positivist tradition in its implementation and measurement (Zembylas & Bekerman, 2013). When Sunaryo Kartadinata began studying topics around peace education and peace education pedagogy in 2012, awareness of the necessity of a culture of peace gained traction in Indonesia (Ilfiandra, Kartadinata, & Saripah, 2015). Sunaryo Kartadinata strived to contextualize peace education by researching peaceful and safe schools as the major indication of the impact of implementing peace pedagogy in Indonesia (Ilfiandra et al., 2015; Kartadinata et al., 2014a, 2014b, 2017). Peace is not only a goal but exists as a climate in a learning atmosphere (Kartadinata, 2018). Peaceful schools are places for the growth and development of peaceful individuals, peaceful relations, and peaceful communities (Calp, 2020). Teachers are the most important figures in translating peaceful values into the learning process (Buchori et al., 2021).

Peace education requires explicit but flexible standards (Carter, 2008), and its impact needs to be measured the same as other educational outcomes (Harris, 2003). A peaceful

classroom as a parameter for the success of peace education needs to be reconstructed so that it has contextual coherence, both from a cultural perspective, religion, needs, and aspirations of the state. It is important because the literature lacks clarity on the goals and parameters of peace education (Brooks & Hajir, 2020). The peaceful class's core value, which is the reference for this research developed by UNESCO-APNIEVE (2000), needs to be reconstructed to suit current conditions because peace is dynamic. The research problem is whether the core values of peace culture as a peaceful classroom construct are still relevant to the Indonesian context and how the peaceful classroom scale that meets the requirements on psychometric and administrative property aspects can be used to measure a peaceful classroom.

METHOD

Participants

This study took place in Cimahi, West Java, Indonesia, between 2020 and 2021, and included 406 kids from junior high school, 176 men and 203 females, aged 12-14 years. The study technique was quantitative, and there are 25 surveys on a 5-point Likert scale (Strongly disagree to strongly agree). Using statistical and mathematical models, the quantitative method sought to optimize the result (Creswell, 2012, 2013). The table below is the data of the participants.

Table 1
Participants

	Male	Female	Total
Junior High School 1 Cimahi (West Java)	68	84	152
Junior High School 8 Cimahi (West Java)	52	72	124
Junior High School 10 Cimahi (West Java)	56	74	130
Total	176	203	406

Data were taken in 2021 by passing out questionnaires to respondents. The students are aware of the study's overall goal and are confident that their personal information will be handled in a secure manner. Without any incentives or reward from the researcher, all individuals willingly participate in this research.

Peace Classroom Scale

The leading theory that underlies the development of the peaceful classroom scale refers to the UNESCO-APNIEVE framework (2000) about the core values of peace. The questionnaire was developed in the Likert scale model (five answer choices) that measured six dimensions of the peaceful classroom, namely: 1) the values of peace; 2) positive reinforcement; 3) express emotions; 4) respect and acceptance; 5) cooperative activities; 6) peaceful and constructive resolution of conflicts. The achievement of the six dimensions was seen from 13 indicators that were lowered to 25 questionnaire items.

The Winstep application is used to perform statistical processes to determine psychometric qualities using the common factor analysis approach and Rasch modeling. Item response theory (IRT)'s basic idea is trait latency, and it has features of trait latency. An empirical indication, which can be measured or observed, will result from

the manifestation, nature, and interactions with the environment (Fisher, 2007; Nurhudaya, Taufik, Yudha, & Suryana, 2019).

Data Analysis Procedure

The technique for analysis involves the following steps: (1) UNESCO-APNIEVE (Asia-Pacific Network of International Education and Values Education) established a framework that may be used to establish the research's construct, (2) configuring the grid of the instrument; (3) developing items; (4) assessing the validity; (5) trial preparation; (6) psychometric qualities are being estimated; (7) instrument and manual publication; (8) submission of IPR (Sinclair, Davies, Obura, & Tibbitts, 2008; UNESCO, 1996). The Winstep program will be used to perform statistical processes to assess psychometric qualities using the common factor analysis approach and the Rasch modeling tool. The first step in creating a tranquil classroom questionnaire is to confirm the unidimensionality assumptions. In this study, the value of Raw Variance Explained by Measures and Unexplained Variance in the 1st to 4th contrast is taken from Output Table 23 in Winstep.

Second, the Map of the peaceful classroom scale is reported to spread between -1 and 5 logit. Third, Item Measure may be used to determine the difficulty level of an item (Table 13 in Winstep). Analyze the Rating Scale Diagnostic Data to see if participants grasp the distinctions between the response options on a scale of 1 to 5 on a scale of 1 to 5. If the Model Fits the Item (It must Fit the Model), then The Item measures normally, therefore no misunderstandings about the Item can be inferred from the data in the Rating Scale Diagnostic, which determines if participants understand the distinctions in response options on a scale of 1, 2, 3, 4, and 5 (Ramdani, Hanurawan, Ramli, Lasan, & Afdal, 2020), Fourth, Junior High School Student Ability Analysis, This examination focused on the levels of individual ability (person measure) and individual suitability (person measure). Fifth, items analysis used the information presented in Summary Statistics (Table 3.1 in Winstep).

FINDINGS

Unidimensionality

The unidimensionality analysis shows how it evaluates many traits or dimensions (Fisher, 2007; Nurhudaya et al., 2019; Rahayu, Putra, Rahmawati, Hayat, & Koul, 2021). This analysis uses Table 23 in Winstep by taking the value of Raw Variance explained by measures and Unexplained Variance in 1st to 4th contrast (Boone, Yale, & Staver, 2014; Sumintono & Widhiarso, 2014). If Raw Variance is explained by measures 20 percent, with a reminder that the basic interpretation requirements are: 1) sufficient if 20-40 percent, 2) good if 40-60 percent, and 3) very good if above 60 percent, and if Unexplained Variance in the first to fourth contrast of residuals is each 15 percent, the measurements are unidimensional (Boone et al., 2014).

Table 2
Unidimensionality

			-- Empirical --		Modeled
Total raw Variance in observations	=	38.2	100.0%		100.0%
Raw Variance explained by measures	=	13.2	34.5%		38.5%
Raw Variance explained by persons	=	5.8	15.1%		16.9%
Raw Variance explained by items	=	7.4	19.4%		21.6%
Raw unexplained Variance (total)	=	25.0	65.5%	100.0%	61.5%
Unexplned Variance in 1st contrast	=	2.5	6.4%	9.8%	
Unexplned Variance in 2nd contrast	=	1.7	4.6%	7.0%	
Unexplned Variance in 3rd contrast	=	1.5	4.0%	6.1%	
Unexplned Variance in 4th contrast	=	1.3	3.5%	5.4%	

According to the data analysis, the Raw Variance explained by measures was 38.2 percent, including the sufficient category. Moreover, the Unexplained Variance in the first to fourth residual contrasts is 6.4 percent, 4.6 percent, 4.0 percent, and 3.5 percent, respectively. Each seems to be less than 15%. As a result, the instrument design accurately assesses one variable: the peaceful classroom.

Wright Map Analysis (Person-Item Map)

They referred to the Output Variable Map (Table 1. in Winstep). The item difficulty map is reported to range from -1 to 5 logit. The peaceful classroom scale ranges from -1SD to +2SD. However, there are two extremes on the peaceful classroom scale: extreme high and extreme low. For a peaceful classroom scale, the average logit is +1.36, which is higher than the average logit item of 0.00. The average peaceful class scale was higher than the Item's average standard difficulty.

The item difficulty map ranges from -1 to 2. The difficulty level of 24 items ranges from -2SD to +2SD, with the exception of item #1, which is over +2SD. As a result, item number one has a difficulty level that is unusual. The item's average standard difficulty was lower than that of the peaceful classroom questionnaire. As a result, junior high school students readily endorse this peaceful classroom scale.

Item Analysis

This item analysis considers the level of difficulty (item measure), the level of item fit, and item detection bias.

Item Level of Difficulty

Item level of difficulty can be studied from Item Measure (Table 13 in Winstep) (Nur, Nurani, Suryana, & Ahmad, 2020; Rusmana, Suryana, Kurniasih, & Almigo, 2020). From the table, it is known that the S.D. value is 0.51. When this SD value is paired with the logit average value, the difficulty level of the items may be divided into four categories: very difficult (more than +1 S.D.), difficult (0.0 logit + 1 S.D.), easy (0.0 logit - 1 S.D.), and very easy (less than -1 S.D.). The very difficult category has a score limit of more than 0.51, the difficult category has a score limit of 0.00 to 0.51, the easy category has a score limit of -0.51 to less than 0.00, and the very easy category has a score limit of less than -0,51.

Table 3
Difficulty category

entry number	total score	total count	measure	model s.e.	infit mnsq	infit zstd	outfit mnsq	outfit zstd	pt-measure corr.	pt-measure exp.	exact obs %	match exp %	
1	1235	406	1.36	0.05	2.05	9.9	2.44	9.9	0.25	0.59	24.5	34.5	1
20	1468	406	0.79	0.05	0.98	-0.3	1.17	2.2	0.46	0.54	39.3	40	20
13	1511	406	0.68	0.05	1.46	5.7	1.61	6.6	0.4	0.53	41.5	41.4	13
16	1525	406	0.64	0.05	1.19	2.5	1.25	3	0.45	0.53	45	42.5	16
15	1579	406	0.47	0.06	0.93	-0.9	0.98	-0.2	0.5	0.51	50.5	44.4	15
24	1617	406	0.35	0.06	0.84	-2.1	0.85	-1.8	0.54	0.5	47.8	45.9	24
4	1637	406	0.28	0.06	1.11	1.4	1.26	2.8	0.44	0.49	47	46.3	4
8	1652	406	0.23	0.06	0.92	-1	0.93	-0.8	0.48	0.49	47.3	47.5	8
6	1665	406	0.18	0.06	1.17	1.9	1.28	3	0.43	0.48	50.3	47.8	6
2	1680	406	0.13	0.06	1.14	1.6	1.25	2.7	0.47	0.48	51.8	48.4	2
3	1694	406	0.07	0.06	1.01	0.2	1.17	1.8	0.46	0.47	48	48.8	3
18	1717	406	-0.02	0.07	1.09	1	1.02	0.2	0.5	0.46	50.8	50.3	18
10	1739	406	-0.12	0.07	0.83	-2.1	0.77	-2.7	0.56	0.45	59.5	51.4	10
7	1740	406	-0.12	0.07	1.06	0.8	1.02	0.2	0.49	0.45	57.3	52.2	7
22	1746	406	-0.15	0.07	0.73	-3.4	0.71	-3.5	0.56	0.45	61.5	52.4	22
11	1766	406	-0.25	0.07	0.93	-0.7	0.9	-1	0.49	0.44	56	53.8	11
14	1779	406	-0.31	0.07	0.89	-1.2	0.91	-0.9	0.5	0.43	61.3	55	14
21	1784	406	-0.34	0.07	0.99	-0.1	0.93	-0.7	0.47	0.43	57.3	55.1	21
25	1789	406	-0.37	0.07	0.89	-1.2	0.84	-1.7	0.52	0.43	62.5	56	25
5	1795	406	-0.4	0.07	0.87	-1.5	0.85	-1.6	0.49	0.43	61.5	56.2	5
17	1798	406	-0.42	0.07	0.92	-0.9	0.84	-1.6	0.49	0.43	61	56.3	17
9	1809	406	-0.48	0.08	0.75	-2.9	0.74	-2.8	0.52	0.42	64	57.6	9
12	1831	406	-0.61	0.08	0.76	-2.7	0.71	-3.1	0.51	0.41	67.8	60.7	12
19	1847	406	-0.72	0.08	0.95	-0.5	0.84	-1.6	0.49	0.4	69.8	62.4	19
23	1870	406	-0.88	0.09	0.67	-3.7	0.57	-4.5	0.56	0.38	76.3	65.7	23
mean	1690.9	406	0	0.07	1	0	1.03	0.2			54.4	50.9	
s.d.	140.4	0	0.51	0.01	0.27	2.9	0.37	3.2			10.8	7.2	

Considering at the logit value of each Item in Table 3 sequentially depending on the level of difficulty (from the most difficult Item to the easiest Item), four items are known to be very difficult: 1, 20, 13, and 16. Numbers 15, 24, 4, 8, 6, 2, and 3 are included in the difficult category. There seem to be 11 items throughout the easy category, which are 18, 10, 7, 22, 11, 14, 21, 25, 5, 17, and 9. Numbers 12, 19, and 23 make up the very easy category, which contains 5 items.

Item Conformity Level

Item fit describes if the things work properly in obtaining measurements so that students don't have any misconceptions about the items (Boone et al., 2014; Perdana, 2018; Sumintono & Widhiarso, 2014). The data in Item Fit Order (Table 10 in Winstep), specifically the OUTFIT mean square (MNSQ) column, OUTFIT Z-standard (ZSTD), and point measure correlation, can be used to examine it (PT MEASURE CORR). According to Booner et al. (2014), the criteria for verifying item fit (item fit) or item mismatch (outlier or misfit) are as follows: (1) MNSQ OUTFIT value is larger than 0.5

and less than 1.5, with the closer to 1 the better; (2) ZSTD OUTFIT value is greater than -2.0 and less than +2.0, with the closer to 0 the better; (3) PT MEASURE CORR value is greater than 0.4 and less than 0.85. If an object fits at least one of the three requirements, it is considered fit.

Table 4
The level of suitability item

entry number	total score	total count	measure	model s.e.	infit		outfit		pt-measure		exact	match	item
					mnsq	zstd	mnsq	zstd	corr.	exp.	obs %	exp %	
1	1235	406	1.36	0.05	2.05	9.9	2.44	9.9	a .25	0.59	24.5	34.5	1
13	1511	406	0.68	0.05	1.46	5.7	1.61	6.6	b .40	0.53	41.5	41.4	13
6	1665	406	0.18	0.06	1.17	1.9	1.28	3	c .43	0.48	50.3	47.8	6
4	1637	406	0.28	0.06	1.11	1.4	1.26	2.8	d .44	0.49	47	46.3	4
16	1525	406	0.64	0.05	1.19	2.5	1.25	3	e .45	0.53	45	42.5	16
2	1680	406	0.13	0.06	1.14	1.6	1.25	2.7	f .47	0.48	51.8	48.4	2
20	1468	406	0.79	0.05	0.98	-0.3	1.17	2.2	g .46	0.54	39.3	40	20
3	1694	406	0.07	0.06	1.01	0.2	1.17	1.8	h .46	0.47	48	48.8	3
18	1717	406	-0.02	0.07	1.09	1	1.02	0.2	i .50	0.46	50.8	50.3	18
7	1740	406	-0.12	0.07	1.06	0.8	1.02	0.2	j .49	0.45	57.3	52.2	7
21	1784	406	-0.34	0.07	0.99	-0.1	0.93	-0.7	k .47	0.43	57.3	55.1	21
15	1579	406	0.47	0.06	0.93	-0.9	0.98	-0.2	l .50	0.51	50.5	44.4	15
19	1847	406	-0.72	0.08	0.95	-0.5	0.84	-1.6	m .49	0.4	69.8	62.4	19
11	1766	406	-0.25	0.07	0.93	-0.7	0.9	-1	l .49	0.44	56	53.8	11
8	1652	406	0.23	0.06	0.92	-1	0.93	-0.8	k .48	0.49	47.3	47.5	8
17	1798	406	-0.42	0.07	0.92	-0.9	0.84	-1.6	j .49	0.43	61	56.3	17
14	1779	406	-0.31	0.07	0.89	-1.2	0.91	-0.9	i .50	0.43	61.3	55	14
25	1789	406	-0.37	0.07	0.89	-1.2	0.84	-1.7	h .52	0.43	62.5	56	25
5	1795	406	-0.4	0.07	0.87	-1.5	0.85	-1.6	g .49	0.43	61.5	56.2	5
24	1617	406	0.35	0.06	0.84	-2.1	0.85	-1.8	f .54	0.5	47.8	45.9	24
10	1739	406	-0.12	0.07	0.83	-2.1	0.77	-2.7	e .56	0.45	59.5	51.4	10
12	1831	406	-0.61	0.08	0.76	-2.7	0.71	-3.1	d .51	0.41	67.8	60.7	12
9	1809	406	-0.48	0.08	0.75	-2.9	0.74	-2.8	c .52	0.42	64	57.6	9
22	1746	406	-0.15	0.07	0.73	-3.4	0.71	-3.5	b .56	0.45	61.5	52.4	22
23	1870	406	-0.88	0.09	0.67	-3.7	0.57	-4.5	a .56	0.38	76.3	65.7	23
mean	1690.9	406	0	0.07	1	0	1.03	0.2			54.4	50.9	
s.d.	140.4	0	0.51	0.01	0.27	2.9	0.37	3.2			10.8	7.2	

Two items, 1 and 13, are known to be misfits based on the first criteria, with MNSQ OUTFIT ratings of 2.44 and 1.61, respectively. Numbers 10, 12, 9, 22, 23, 4, 16, 2, 20, 3, 18, and 7 are recognized as misfits in the second standard. The PT MEASURE CORR score is more than 0.4 but less than 0.85. Only one item, number 1, has a PT MEASURE CORR value smaller than 0.4, suggesting that it is an outfit item.

Rating Scale Diagnostic

This diagnostic is used to see if the participants grasp the distinctions in response options on a scale of 1, 2, 3, 4, and 5. The responder is aware of the differences in responses if the observed average is used. The Andrich threshold values are shown in Table 5.

Table 5
Rating scale diagnostic

category label	observed count	%	obsvd avrge	sample expect	infit mnsq	outfit mnsq	andrich threshold	category measure
1	311	3	0.04	-0.47	1.6	2.05	none	(-2.04)
2	407	4	0.1	0.19	0.95	1.01	-0.39	-0.91
3	1246	12	0.53	0.67	0.86	0.78	-0.69	-0.15
4	3520	35	1.12	1.16	0.98	0.85	-0.13	0.79
5	4666	46	1.83	1.79	0.98	0.98	1.21	-2.48

Table 5 demonstrates that the suitability of the alternative responses 1, 2, 4, and 5 has grown evenly, but the alternative answer 3 has confused the respondents. The increase in these two items, as well as the growth in the rating scale, demonstrate a lack of consistency in the analysis results. As a result, participants can grasp the differences between response choices 1, 2, 4, and 5, however answer option 3 is more difficult to comprehend.

Item Bias Detection

Another criterion for validity is that the items are free of prejudice. It is more advantageous to those who have certain qualities than to others. If the probability value of a statement item is less than 0.05, it is considered to have bias. Bias is only apparent from the perspective of gender in this study. The findings of the gender-based bias study indicated that just one item was biased, namely item number 2 (p = 0.0317). The following figure depicts an overall view of the logit position for each Item by gender.
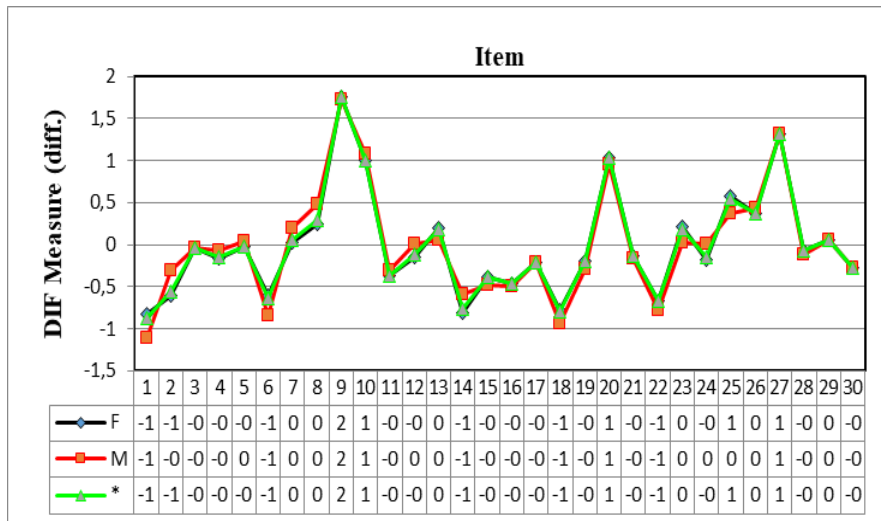

Figure 1
Item logit position based on gender

According to the figure, item number 2 looks to be simpler for male students to complete, which is why it favors male students despite harming female students.

Instrument Analysis

Table 6
Instrument Analysis

	Mean	SD	Separation	Reliability	Cronbach Alpha
Person	0,04	0,75	2,13	0,82	0,94
Item	0,1	0,51	7,37	0,98	

According to Table 6, the average score of all participants working on the instrument questions for the peace classroom questionnaire is 0.04 logit. The average person value is larger than the average Item value (where the average Item is 0.00 logit), indicating that the participants' abilities are typically greater than the instrument items' difficulty.

The Cronbach Alpha value is 0.94, representing how the person interacts with the items as a whole. Additionally, the Person Reliability value is 0.82, suggesting that respondents' responses, specifically those from the very excellent category, generally consistent. Item Reliability achieved a score of 0.98, positioning it in the excellent category.

Table 7
Summary of person statistic

	total score	count	measure	model error	infit mnsq	zstd	outfit mnsq	zstd
mean	103.8	25	1.29	0.28	1.14	0.1	1.03	-0.1
s.d.	12.2	0	0.83	0.1	0.67	1.7	0.54	1.5
max.	124	25	4.55	1.02	3.57	5.3	3.34	5.4
min.	29	25	-2.57	0.18	0.16	-4.6	0.15	-4.5
real rmse	.35	true sd	.75	separation	2.13	person reliability	.82	
model rmse	.30	true sd	.77	separation	2.56	person reliability	.87	
s.e. of person mean = .04								

Table 8
Summary of item statistic

	total score	count	measure	model error	infit mnsq	zstd	outfit mnsq	zstd
mean	1690.9	406	0	0.07	1	0	1.03	0.2
s.d.	140.4	0	0.51	0.01	0.27	2.9	0.37	3.2
max.	1870	406	1.36	0.09	2.05	9.9	2.44	9.9
min.	1235	406	-0.88	0.05	0.67	-3.7	0.57	-4.5
real rmse	.07	true sd	.51	separation	7.37	item reliability	.98	
model rmse	.07	true sd	.51	separation	7.59	item reliability	.98	
s.e. of person mean = .04								

INFIT MNSQ and OUTFIT MNSQ, both in the Person and Item tables, are other data in Tables 7 and 8 that can be used. The average values of INFIT MNSQ and OUTFIT MNSQ are 1.14 and 1.03, respectively, according to the Person table. Meanwhile, the

average values of INFIT MNSQ and OUTFIT MNSQ, according to the Item table, are 1.00 and 1.03. The criterion should be as near to 1 as possible because 1 is the optimal value. As a result, the average person and Item come close to meeting the ideal requirements. The average value for the individual is 0.10 and -0.10, respectively, while it is connected to INFIT ZSTD and OUTFIT ZSTD. The INFIT ZSTD and OUTFIT ZSTD values for the items, on the other hand, are 0.00 and 0.2, respectively. The optimum ZSTD value is zero, or as near to it as possible. As a result, the person's and item's quality might be stated to be good.

The last is related to the separation or grouping of persons and items. The individual separation indicates how well the set of items in the peaceful classroom questionnaire spreads over the logit ability range. The better the instrument is constructed, the larger the individual separation, because the objects may reach people with a wide range of talents. Item separation, from the other side, indicates how widely distributed the sample being assessed is over a linear interval scale. If the grain separation is bigger, the measurement will be better. This index may also be used to determine the importance of the concept being analyzed.

Tables 7 and 8 show that persons' separation is 2.13 and for items is 7.37. The higher the value of separation, the higher the quality of the individual and the instrument as a whole. The separation value is calculated more accurately through the formula: H={(4 x separation) + 1}/3 (Boone et al., 2014; Sumintono & Widhiarso, 2015). Thus the separation value for persons is 3.17 rounded up to 3, while the separation for items is 10.16 rounded up to 10. It indicates that participants in the study have a range of talents that may be divided into three categories. Meanwhile, the item difficulty is divided into 10 categories, ranging from easy to challenging. As illustrated in the picture below, an image is obtained in relation to the measurement result.
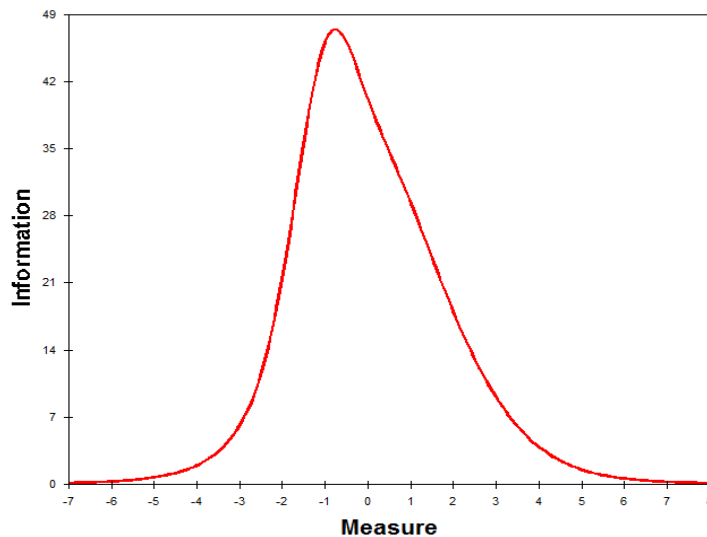
Figure 2
Data distribution maps

According to the figure, peaceful classroom items produce a lot of information about people with moderate to low competencies.

DISCUSSION

The Raw Variance explained by measures was 38.2%, including the sufficient category, according to the data analysis, while the Unexplained Variance in the first to fourth contrast of residuals was less than 15%. The outcomes of the study describe the instrument's construct for measuring only one variable, the peaceful classroom. Historically, William Kreidler came up with the term "peaceful class" in 1970, after being influenced by Edward Hicks' artwork "The Peaceable Kingdom" (Lantieri & Patti, 1996). Some experts use different terms to describe school climate, such as positive school climate (Virtanen et al., 2009), peaceful and happy school (Calp, 2020), safe learning environment (UNESCO-IICBA, 2017), positive and sustained school climate (Thapa, Cohen, Higgins-D'Alessandro, & Guffey, 2012) calm classroom climate (Frank & Rosen, 2010). If analyzed, the six indicators of peace class on this scale have parallels with the opinions of several experts, although they are not the same. For example, Castro & Galace (2008) use the term class as a zone of peace; waging peace in school (Lantieri & Patti (1996), and peaceful and happy school (Calp, 2020).

The participants of this study were junior high school students in West Java Province. The total population is 48.274.162 as of the province with the largest population in Indonesia and Sunda as the majority ethnic group as "Urang Sunda". Kartadinata et al. (2015) identified the configuration and characteristics of the "Urang Sunda." as follows: Relationships with others are neither exploitative or oppressive because they recognize

other people as equals to themselves "*ngahargaan batur sarupa jeung ngahargaan diri sorangan*," Life must constantly care and supervise each other, preserve a sense of belonging and teamwork, and love and believe each other "*ngajaga ngariksa, sapapait samamanis, sabagja sacilaka, hirup silih tittipkeun nya diri*," When there is a problem, meet it with a diplomatic approach, but do not disregard the ideals that have been founded "*tiis ceuli herang panon atau aman tentram" dan "leules jeujeur liat tali.* Harber (2019) and Lombardo & Polonko's (2015) views that the cultural value system and enculturation contribute to developing a peaceful classroom.

The analysis results reveal that response options 1, 2, 4, and 5 are acceptable to participants, however answer choice 3 is less comprehensible. Students cannot understand the difference in answer choice three, along with the increase in the rating scale can be analyzed from the influence of cultural factors (Dolnicar, 2011). Indonesian students who fall into the category of high context culture are not used to responding to a scale with many alternative answers because of the complexity of the heart-mind relationship. Although this scale reveals students' perceptions as part of the cognitive domain, non-cognitive considerations will also affect student responses. Thus, the distortions made by students affect the precision and accuracy of the answers. Referring to Vagias's (2006) opinion, the suggested alternative answer is 4 or 7. However, Matell and Jacoby's (Taherdoost, 2019) view states that the number of alternative answers does not affect the validity and reliability.

The research findings regarding the difficulty of the items showed items number 2 was declared to be a misfit. and in general all items can measure what should be measured. These finding can be explained trought the development of student's conceptualization of peace. Even though the average after the participants of this study entered the early adolescence period, the tendency of students' answers could be explained by referring to the pattern of development in the previous period. Developing a child's peaceful conceptualization follows a universal process such as abstract and complex thinking skills (Hakvoort & Hagglund, 2001). The results show that six-year-old children have developed a clear concept of peace and war, even from 4 years (Hakvoort & Oppenheimer, 1993). Research by Hakvoort & Oppenheimer (1998) shows that children aged 7-8 years' view peace as a condition of the absence of war and peace. At the age of 10 years, the child's conception of peace tends to be positive, referring to the attributes of respect and respect for others, integration, cooperation, equality, democracy, and reconciliation.

There is 1 item that is gender-biased because it is easier for men to agree than women. Studies on the influence of gender factors in the construction of peace have been carried out for a long time, thus explaining this trend (Hakvoort, 1996). Girls understand peace in the context of interpersonal relationships in the closest social environment, while boys understand it in disarmament. In terms of constructing the meaning of war, girls tend to use negative emotional terminology, while boys identify with aspects of war (Falk & Selg, 1982). Girls view war as connoting quarrels with friends (Hakvoort & Oppenheimer, 1993). Differences in conceptualizations of war and peace across cultures

are more related to cultural factors and context than to the level of reasoning about peace and war (Hakvoort, 1996).

CONCLUSION

This article presents the development and validation of the peaceful class scale. The analysis results show that the theoretical construct measures one peaceful class variable. There is 1 item that does not meet the criteria because it is too difficult for the participants to agree with; thus, there are 24 adequate items with varying degrees of difficulty ranging from very easy to very difficult. Since response option 3 is really not comprehended by the respondent, the range of advised answer alternatives is 4 of the original answer choices on a scale of 5. The Cronbach Alpha score represents the overall interaction between the person and the Item, and the person reliability is very good while the item reliability is excellent. Because the psychometric property aspect is adequate, the peace class climate scale can be used, both for accountability for implementing peace education at the junior high school level and the diagnosis of class climate in the context of school climate discourse.

Although the peaceful class climate scale has met the requirements in terms of psychometric properties and can be used as a tool to measure class climate, there are still some weaknesses. The research sample size is still small, which impacts the stability of the data. Future research should use a larger participant-item ratio to make the resulting data more stable. A single study is insufficient to develop and validate a scale capable of producing good psychometric properties. The solution for further research is to use longitudinal research supported by qualitative data to know the dynamics of peaceful class between school levels. This peaceful class scale is in the form of a self-report to reveal the perception of the class climate. It has the disadvantage of not being able to explain the psychological processes of each student. Future researchers are expected to explore the protective factors of the peaceful class so that its configuration and determinants become clearer. The context of the situation in each statement item on this scale is still general. Further research is expected to mention the specific context of the situation that becomes the object of students' perceptions of the classroom climate so that research on classroom climate becomes more varied.

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APPENDIX
PEACE CLASS ATMOSPHERE INSTRUMENT

NO	ITEM
1.	Pay attention to each other when the teacher or classmate is talking
2.	Not interrupt when classmate is talking
3.	Feel like part of the class.
4.	Establish strong friendship between students.
5.	Appreciate the teacher's/classmate's presence in the class
6.	Have a dialogue with classmate when there is a misunderstanding.
7.	Express feelings calmly and gently.
8.	Accept class agreements openly.
9.	Work together to achieve goals.
10.	Express admiration for each other.
11.	Provide mutual support for achievement.
12.	Resolve conflicts with classmates peacefully.
13.	Continue to respect each other even though there are differences.
14.	Recognize the interdependence between classmates.
15.	Be honest when feeling uncomfortable.
16.	Treat all classmates equally.
17.	Not distinguish classmates based on background.
18.	The teacher's presence reassures the class atmosphere.
19.	Treated by teachers on a par with other classmates.
20.	The teacher's words and actions are heart-reassuring.
21.	Noticed by the teacher when expressing opinions.
22.	The teacher welcomes students enthusiastically.
23.	Easy to blend in when forming class groups.
24.	Embrace classmates who want to withdraw in class.
25.	The competitive atmosphere in the class does not spoil friendship.