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#24847 Summary

SUMMARY   REVIEW   EDITING

Submission

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Title and Abstract

Title	Development and validation of Indonesian peace of mind scale: The Rasch analysis

Abstract — Every society dreams of true peace. To achieve true peace, humans need to start with inner peace. The importance of peace becomes one of the bases for developing a measure of peace for designing peace-building programs. This research answered the need for these measuring tools by developing and validating a peace measuring instrument called the Indonesian peace of mind scale (IPoMS). This instrument consists of seven items in two aspects: the internal state of peacefulness and harmony. This study used Rasch analysis to test the construct validity of IPoMS. The construct validity test involved 202 vocational high school students in Yogyakarta, Indonesia. Data analysis using Win step software provides information about the quality of respondents and instruments, items that are easy and difficult for respondents to agree on, fit order items, and unidimensionality. The results of the application of Rasch analysis showed that IPoMS is good, precise, and have item conformity with the model. IPoMS is a reliable and valid measuring tool to measure students' level of peace accurately. This research discussed the implications and recommendations for further research for the implementation of guidance and counseling containing the value of peace as a follow-up to the performance of IPoMS.

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1 message

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Development and validation of Indonesian Peace of Mind Scale (IPoMS): The Rasch analysis

Article Info	ABSTRACT
	Every society dreams of true peace. To achieve true peace, humans need to start with inner peace. The importance of peace becomes one of the bases for developing a measure of peace for designing peace-building programs. This research answers the need for these measuring tools by developing and validating a peace measuring instrument called the Indonesian Peace of Mind Scale (IPoMS). This instrument consists of seven items in two aspects: the internal state of peacefulness and harmony. This study used Rasch analysis to test the construct validity of IPoMS. The construct validity test involved 202 vocational high school students in Yogyakarta, Indonesia. Data analysis using Winstep software provides information about the quality of respondents and instruments, items that are easy and difficult for respondents to agree on, fit order items, and unidimensionality. The results of the application of Rasch analysis show that IPoMS is good, precise, and have item conformity with the model. IPoMS is a reliable and valid measuring tool to measure students' level of peace accurately. This paper discusses the implications and recommendations for further research for the implementation of guidance and counseling containing the value of peace as a follow-up to the performance of IPoMS.

1. INTRODUCTION

Peace is a new vision in the 21st century. In Indonesia, a love of peace is also one of the pillars of character in education [1]. The conditions behind the emergence of this vision are the needs of the people of a country that not only requires material prosperity but also requires lasting peace and tranquility [2], [3]. People's need for peace indirectly challenges them to realize peace by living together and side by side in a calm, comfortable, and minimally violent manner [4], [5]. Peace can also be achieved with competitive conditions without contradiction and diversity without conflict [6]. It is also possible to apply it in a school environment where students face various competitions that can nurture and train them to create peace.

People's expectations about living peacefully with the surrounding environment did not work as they should. Several studies have shown that the lack of peace in individuals correlates with violence [7], [8]. Specifically, students' discontentment contributes to high levels of aggressive behavior [9]. Research in Indonesia shows that the level of aggressiveness of students in the very high category is 5.82%, and in the high category is 17.82% [10]. Another study also in Indonesia stated that the aggressive level of students in

the very high category was 5%, and the very high category was 26% [11]. The results of other studies in Indonesia show that the profile of aggressive behavior in Indonesia consists of four aspects namely physical by 29%, verbal by 18%, anger by 24%, and hostility by 29% [12].

The violence that appears as a form of unrest has a negative impact. The violence that occurs continuously encourages the development of cultural violence in a specific environment, including in schools. Cultural violence involves cultural aspects, regional symbols in religion and ideology, language and art, empirical science, and formal science that can justify and legitimize direct or structural violence [13]. In addition, violence that appears can also trigger students' poor perceptions of the school climate [14]. Meanwhile, students' perceptions of school climate contribute to academic performance [15]–[17].

Peace is an essential aspect of human life. Peace in students has benefits for developing non-violent attitudes. The values of non-violence themselves include love and living in harmony [18]. Non-violence as an effective way to deal with conflict requires thought, resources, vision, planning, patience, and commitment [19]. Environmental conditions without violence and peace are not just an idea or idea but are the norm throughout human history and prehistory [20]. The environment as described has become a condition desired by many parties, including schools. It becomes a challenge for humans to realize this non-violent attitude; humans must face the five great enemies of peace: greed, ambition, envy, anger, and arrogance [19].

The urgency of peace in humans triggers the need for a measuring instrument that can measure the level of peace of students. Efforts to measure peace will result in a description of the student's level of peace. Thus, various related parties can follow up in guidance and counseling interventions to develop peace in students [10], [11], [21]. What strengthens this measurement effort is that peace indirectly affects academic achievement through the mediating effect of academic motivation [22]. Based on the explanation of the importance of measuring peace, the Indonesian Peace of Mind Scale (IPoMS) is one of the measuring tools that can measure the level of peace.

There has not been much research to develop and test the usefulness of measuring student peace. Previous research has produced the Peace Attitudes Scale [23] and Peace of Mind scale [24]. However, both of these studies used factor analysis techniques, whereas this study used Rasch analysis. Rasch analysis in testing a data collection instrument has the accuracy and accuracy of data analysis [25]–[27]. Thus, as a product of this research, the Indonesian Peace of Mind Scale (IPoMS) is more precise and accurate in photographing the level of peace of students, especially students in Indonesia.

This article aims to describe the development of the IPoMS instrument. The IPoMS uses two aspects: the internal state of peacefulness and harmony [24]. The internal state of peacefulness means the ability within humans to control aggressive impulses and conflict resolution competencies. In comparison, the internal state of harmony refers to the hope in humans for intrapersonal peace and self-compassion [24], [28]. Thus, the results of this study can provide an opportunity for other experts and practitioners to measure the level of peace of students using IPoMS. Counselors consider the consequences of measuring the student's level of peace in developing a culture of peace in schools.

2. METHOD
2.1. Research design
This study uses a quantitative approach by focusing on the analysis of the instrument for measuring the level of peace (IPoMS). IPoMS validation using the Rasch model. Compared to other methods, the advantage of Rasch analysis is the ability to predict missing data based on individual response patterns [29]. This advantage makes the results of the statistical analysis of the Rasch model more accurate in the research carried out. More importantly, the Rasch model can produce standard error measurement values for the instruments used, increasing the accuracy of calculations. Using the Rasch analysis in instrument validation will have more holistic information about the instrument and better meet the definition of measurement [25].

2.2. Participants

The participants of this study were 202 vocational high school students. The selection of research participants using stratified random sampling technique in four Vocational High Schools in Yogyakarta City. The distribution of participants in the study is in table 1 below.

Table 1. Distribution of participants

No	School name	Number of participants
1	Muhammadiyah Vocational high school 1 Yogyakarta	86
2	Muhammadiyah Vocational high school 2 Yogyakarta	29
3	Muhammadiyah Vocational high school 3 Yogyakarta	59
4	Muhammadiyah Vocational high school 4 Yogyakarta	28

2.3. Data collection tools

This study used an instrument in the form of the Indonesian Peace of Mind Scale (IPoMS). The research instrument measuring the level of peace in students consists of two aspects: the internal state of peacefulness and harmony. Table 2 describes the draft of the tool for measuring the level of peace in the form of IPoMS. Validation of the instrument using Rasch analysis is ready to measure the level of peace in students.

Tabel 2. IPoMS instrument grid

Indicator	Statement	No item
The internal state of peacefulness	- When I face a stressful situation, I think of ways that can help me stay calm (+)	3
	- When I want to feel more positive emotions, I change the way I think about the situation I'm in (+)	4
	- When I want to reduce negative feelings, I change the way I think about the situation at hand (+)	6
	- I keep emotions in my heart (-)	7
The internal state of harmony	- When I want to feel more positive (like happy or happy), I change what I think about (+)	1
	- When I want to reduce negative feelings (such as sadness or anger), I change what I think about (+)	2
	- I control my emotions by changing the way I think about the situation I'm in (+)	5

2.4. Data collection

This research has several procedures for collecting the data. The first stage is research preparation. At this stage, researchers make research plans and prepare research materials. This effort can support the implementation of research step by step. The second stage is the formulation of the research instrument draft. In this second stage, the researcher began to draft the IPoMS instrument grid. The draft instrument underwent an expert assessment process to see the appropriateness of the language on each item of the IPoMS instrument. The third stage is the implementation of the research. At the implementation stage of the study, the researcher made the IPoMS instrument format on google forms. This effort can make it easier for students to fill out the instrument. The fourth stage is conducting data analysis and preparing reports. At this stage, the researcher conducted data analysis using the Rasch analysis to validate the instrument so that the instrument could be ready to measure the level of peace in students.

2.5. Data analysis

Research data analysis using Rasch analysis with the help of Winstep software [30]. The Rasch model can see the interaction between respondents and items at once. In the Rasch analysis, a value is not seen based on the raw score but a logit value that reflects the probability of selecting an item in a group of respondents. This effort is to anticipate the raw score of the Likert rating in the form of an ordinal that does not have the same interval between the scores. Two fundamental theorems that form the basis of Rasch's analysis are the level of individual ability/agreement and the level of difficulty of the item to be approved [30]. The psychometric tools that are the basis for analyzing the research data include summary statistics (quality of respondents, quality of instruments, and interactions between person and item). This study also provides item measure (items that are most difficult to agree on and easiest to agree with by respondents), item fit order (items fit and misfit), and unidimensionality (ability to measure what should be measured).

3. RESULTS AND DISCUSSION

The results of validating the IPoMS instrument are one of the studies and research results. The results of the study will describe a description of (a) the quality of the respondents, the quality of the instrument, and the interaction between the person and the item, (b) the items that are the most difficult to agree on, and the easiest to agree with by the respondents, (c) the items that are fit and misfit, and (d) the ability of the instrument to measure what it is supposed to measure. The four data analysis descriptions result from identifying construct validity using Rasch analysis.

Figure 1 describes the description of summary statistics. The first part of the picture provides comprehensive information about the respondents' quality of the instrument and the interaction between person and item.

```
       SUMMARY OF 202 MEASURED PERSON
-----------------------------------------------------------------
|          TOTAL                    MODEL       INFIT      OUTFIT   |
|          SCORE    COUNT   MEASURE   S.E.    MNSQ  ZSTD   MNSQ  ZSTD |
|-----------------------------------------------------------------|
| MEAN     19.1      7.0       .37    .56    1.01  -.31   1.00  -.32 |
|  SEM      .2       .0        .07    .01     .07   .12    .07   .12 |
| P.SD     2.9       .0        .96    .09     .93  1.71    .95  1.72 |
| S.SD     2.9       .0        .96    .09     .93  1.72    .95  1.73 |
| MAX.    27.0      7.0       3.85   1.07    4.07  4.30   4.76  4.79 |
| MIN.    10.0      7.0      -2.26    .50     .07 -3.92    .06 -3.68 |
|-----------------------------------------------------------------|
| REAL RMSE    .66 TRUE SD    .69  SEPARATION 1.05  PERSON RELIABILITY .53 |
|MODEL RMSE    .57 TRUE SD    .77  SEPARATION 1.36  PERSON RELIABILITY .65 |
| S.E. OF PERSON MEAN = .07                                        |
-----------------------------------------------------------------

PERSON RAW SCORE-TO-MEASURE CORRELATION = .98
CRONBACH ALPHA (KR-20) PERSON RAW SCORE "TEST" RELIABILITY = .65  SEM = 1.97

        SUMMARY OF 7 MEASURED ITEM
-----------------------------------------------------------------
|          TOTAL                    MODEL       INFIT      OUTFIT   |
|          SCORE    COUNT   MEASURE   S.E.    MNSQ  ZSTD   MNSQ  ZSTD |
|-----------------------------------------------------------------|
| MEAN    550.7    202.0       .00    .10     .99  -.31   1.00  -.25 |
|  SEM     16.0      .0        .16    .00     .14  1.38    .15  1.50 |
| P.SD     39.2      .0        .39    .00     .33  3.38    .37  3.67 |
| S.SD     42.4      .0        .42    .00     .36  3.65    .40  3.96 |
| MAX.    580.0    202.0       .88    .10    1.55  4.84   1.59  5.03 |
| MIN.    461.0    202.0      -.30    .10     .65 -4.01    .63 -4.22 |
|-----------------------------------------------------------------|
| REAL RMSE    .11 TRUE SD    .37  SEPARATION 3.41  ITEM  RELIABILITY .92 |
|MODEL RMSE    .10 TRUE SD    .37  SEPARATION 3.66  ITEM  RELIABILITY .93 |
| S.E. OF ITEM MEAN = .16                                          |
-----------------------------------------------------------------

ITEM RAW SCORE-TO-MEASURE CORRELATION = -1.00
Global statistics: please see Table 44.
UMEAN=.0000 USCALE=1.0000
```

Figure 1. Summary Statistics

Based on Figure 1 shows the person measure has a value of 0.37. This value means that respondents tend to agree on statements in various items. The Cronbach's Alpha value which measures the instrument's reliability, is 0.65, which means it is pretty good. Figure 1 also shows the coefficient of person reliability is 0.53, and item reliability is 0.92. This value indicates that the consistency of the respondents' answers is weak, but the quality of the items in the instrument is good. Other data in Figure 1 are INFIT MNSQ and OUTFIT MNSQ. In the person table, the average values are 1.01 and 1.00 (the closer to 1.00, the better). In INFIT ZSTD and OUTFIT ZSTD, the average values in the person table are 0.31 and 0.32 (the closer to 0.0, the better the quality. While in the item table, the INFIT MNSQ and OUTFIT MNSQ values are 0.99 and 1,00 (the closer to 1.00, the better). The INFIT ZSTD and OUTFIT ZSTD values in the item table, are 0.31 and 0.25 (the closer to 0.0, the better the quality.

Figure 2 describes the item measure. The second figure represents the items that are the most difficult to agree with and easy to agree with by the respondents.

```
       ITEM STATISTICS:  MEASURE ORDER
-------------------------------------------------------------------------------
|ENTRY  TOTAL  TOTAL          MODEL|  INFIT  |  OUTFIT  |PTMEASUR-AL|EXACT MATCH|      |
|NUMBER SCORE  COUNT  MEASURE  S.E.|MNSQ ZSTD|MNSQ ZSTD|CORR. EXP.| OBS%  EXP%|ITEM |
|-----------------------------------------------------------------------------|
|   7    461    202    .88    .10|1.39 4.05|1.51 5.03| .25  .54| 54.0  48.2| 7   |
|   1    533    202    .19    .10|1.07  .80|1.06  .68| .61  .52| 52.5  51.1| 1   |
|   5    567    202   -.16    .10|1.55 4.84|1.59 5.01| .32  .50| 46.0  55.2| 5   |
|   2    571    202   -.20    .10| .89 -1.15| .87 -1.34| .58  .50| 60.4  55.8| 2   |
|   6    571    202   -.20    .10| .73 -3.02| .72 -3.00| .59  .50| 68.8  55.8| 6   |
|   4    572    202   -.21    .10| .67 -3.69| .65 -3.89| .62  .50| 69.3  55.9| 4   |
|   3    580    202   -.30    .10| .65 -4.01| .63 -4.22| .66  .50| 72.8  56.2| 3   |
|-----------------------------------------------------------------------------|
| MEAN  550.7  202.0   .00    .10| .99  -.3|1.00  -.2|          | 60.5  54.0|      |
| P.SD   39.2    .0    .39    .00| .33  3.4| .37  3.7|          |  9.4   2.9|      |
-------------------------------------------------------------------------------
```

Figure 2. Item Measure

The way to interpret Figure 2 above is by looking at the logit items numbered 1 to 7. Based on Figure 2, item 7 shows the logit item 0.88, which means that the respondent has the most difficulty agreeing with item number 7. This conclusion is based on the logit value of item 7, which is greater than the other items. While item 3 shows the logit item -0.30, the respondent is the easiest to agree with item number 3. This conclusion is based on the logit value of item 3, which is smaller than the other items.

Figure 3 describes fit order items. The third part of the picture illustrates the fit and misfit items.

```
          ITEM STATISTICS:  MISFIT ORDER

-------------------------------------------------------------------------------
|ENTRY  TOTAL  TOTAL           MODEL|   INFIT  |  OUTFIT  |PTMEASUR-AL|EXACT MATCH|      |
|NUMBER SCORE  COUNT  MEASURE  S.E. |MNSQ  ZSTD|MNSQ  ZSTD|CORR.  EXP.| OBS%  EXP%| ITEM |
|-----------------------------------+----------+----------+-----------+-----------+------|
|    5    567    202    -.16    .10|1.55  4.84|1.59  5.01|A .32   .50| 46.0  55.2| 5    |
|    7    461    202     .88    .10|1.39  4.05|1.51  5.03|B .25   .54| 54.0  48.2| 7    |
|    1    533    202     .19    .10|1.07   .80|1.06   .68|C .61   .52| 52.5  51.1| 1    |
|    2    571    202    -.20    .10| .89 -1.15| .87 -1.34|D .58   .50| 60.4  55.8| 2    |
|    6    571    202    -.20    .10| .73 -3.02| .72 -3.00|c .59   .50| 68.8  55.8| 6    |
|    4    572    202    -.21    .10| .67 -3.69| .65 -3.89|b .62   .50| 69.3  55.9| 4    |
|    3    580    202    -.30    .10| .65 -4.01| .63 -4.22|a .66   .50| 72.8  56.2| 3    |
|-----------------------------------+----------+----------+-----------+-----------+------|
| MEAN  550.7  202.0    .00    .10| .99  -.3|1.00  -.2|           | 60.5  54.0|      |
| P.SD   39.2    .0     .39    .00| .33  3.4| .37  3.7|           |  9.4  2.9|      |
-------------------------------------------------------------------------------
```

Figure 3. Item Fit Order

The way to identify fit and misfit items are to compare the INFIT MNSQ value with the sum of the mean and standard deviation values. Based on Figure 3, the mean and standard deviation values sum is 0.99 + 0.33 = 1.32. A larger logit value indicates a misfit item. Based on Figure 3, the items that are a misfit and need to be revised are items 5 and 7. Item number 5 initially reads, "I control my emotions by changing how I think about the situation I'm in." After reviewing, we revised it to "I control my emotions by changing the way I think positively about the situation I'm in." While item number 7 initially reads, "I keep emotions in my heart." After reviewing, we revised it to "I prefer to vent my emotions on myself instead of trying to talk to other people."

Figure 4 describes the unidimensionality of the instrument. The description in this fourth part is to evaluate whether the tool can measure what it should count, in this case, the Indonesian Peace of Mind Scale (IPoMS) construct.

```
Table of STANDARDIZED RESIDUAL variance in Eigenvalue units = ITEM information units
                                      Eigenvalue   Observed   Expected
Total raw variance in observations   =   10.0825  100.0%      100.0%
  Raw variance explained by measures =    3.0825   30.6%       30.9%
    Raw variance explained by persons =   1.2657   12.6%       12.7%
    Raw Variance explained by items   =   1.8167   18.0%       18.2%
  Raw unexplained variance (total)   =    7.0000   69.4% 100.0%  69.1%
    Unexplned variance in 1st contrast =  2.4254   24.1%  34.6%
    Unexplned variance in 2nd contrast =  1.2908   12.8%  18.4%
    Unexplned variance in 3rd contrast =  1.1379   11.3%  16.3%
    Unexplned variance in 4th contrast =   .8127    8.1%  11.6%
    Unexplned variance in 5th contrast =   .7859    7.8%  11.2%
```

Figure 4. Unidimensionalitas

Unidimensionality interpretation compares the results of raw variance measurements with the minimum requirement of unidimensionality. The condition that an instrument can measure what it wants to measure is the unidimensionality value of at least 20%. Figure 4 shows the results of the raw data variance measurement of 30.6%. The measurement results indicate that the minimum unidimensionality requirement is 20%. This analysis means the instrument is included in the excellent category in measuring what is intended to be measured.

The study results found that the IPoMS is a reliable and valid measuring tool to measure students' level of peace accurately. However, IPoMS data needs to be supported and strengthened by other instruments. Thus, the IPoMS data shows the actual condition of student peace. This measurement of peace becomes a systematic schedule to raise valid data. Data on student peace is the basis for stakeholders to design a program for developing a culture of peace in schools, especially in Indonesia. A culture of peace is one of the needs of students in schools that can spur self-actualization in both academic and non-academic fields. Individuals who have true peace seek not only to create a culture of peace but also to develop development, positive relationships, character, and protection for human rights [31].

Several studies have developed and validated peace measuring tools. The first study describes a peace of mind scale consisting of 7 statement items. However, the instrument validation analysis in this study used factor analysis [24]. The second study yielded a Peace Attitudes Scale consisting of 7 statement items

[23]. The validation analysis of the measuring instrument also uses factor analysis. Subsequent research developed a peace scale involving 71 statement items using the SOS-10 analysis [32]. The weakness of the instrument is the number of items too many, which causes the possibility of data bias.

Weaknesses that emerged in previous studies became one of the backgrounds for developing and validating IPoMS. Therefore, the validation of IPoMS in this study used Rasch analysis. Rasch analysis provides a more accurate description of the results of measuring instrument validation, produces more holistic information about the instrument, and better meets the measurement definition [25], [33], [34]. Rasch analysis to develop and validate a measuring tool can provide the weaknesses and strengths of the statement items of an instrument [35]. This condition increases the accuracy of the data from the measurement results of an instrument. Because of the importance of measurement in the field of Education, Rasch analysis is the answer to various problems of instrument validity and reliability [36].

School counselors are parties who have the potential and opportunities to take advantage of IPoMS. The Rasch analysis provides holistic data of instrument validation results. Furthermore, Rasch became one of the analyzes that developed in the psychometric field of counseling [37]. Several examples of the implementation of Rasch analysis in psychometry in counseling include the Psychological Well-Being measuring tool for adolescent victims of violence [38] and the career decision self-efficacy scale [39]. However, to improve the accuracy of data collection, this study focuses on developing and validating IPoMS using Rasch analysis to strengthen peace education in Indonesia.

As a measure of the level of peace among students in Indonesia, IPoMS involves two core aspects, namely the internal state of peacefulness and harmony [24]. The internal state of peacefulness refers to psychological calm despite being under a stressor that becomes a burden in his life [40]. In contrast, the internal state of harmony refers to a positive condition in a person who has harmony and balance between expectations and the reality of the world [41]. The results of previous studies prove that the conditions of peacefulness and harmony are essential aspects of forming true peace in humans [42].

The findings of this study, which can describe a measuring instrument for peace in the form of IPoMS, have implications for efforts to develop a culture of peace in the school environment. Measuring student peace using IPoMS can be one of the basics for planning a peace culture development program in schools [43]. With more straightforward language, IPoMS accommodates an assessment of the portrait of students' peaceful condition. A culture of peace is vital for students to feel safe and psychologically comfortable learning at school. Thus, students can have a good perception of the school climate and spur themselves in academic performance [17].

The parties involved in the school setting are also responsible for creating a peace culture development program based on the measurements' results using IPoMS. One party who can create a culture of peace is a counselor. Moreover, various works of literature state that counselors are agents of peace [44]–[46]. Peace-oriented counselors strive to carry out counseling services to suppress child abuse early on. To create a culture of peace in the school environment, counselors must collaborate with various parties to obtain data other than those documented through IPoMS. Guidance and Counseling services that have an orientation to the peaceful aspect are one of the recommendations for counselors to follow up on the results of the IPoMS measurement.

Several studies show that guidance programs promoting the value of peace are a strategy to minimize violence. Violence is a form of the absence of peace in the individual [9]. The first study showed that guidance programs that raised the topic of peace could suppress students' aggressive impulses [47]. Other research shows that the guidance program can also raise the value of peace in Markesot figures. It can also suppress students' aggressive drives [10]. Based on the results of these studies, a guidance program with the theme of peace can be one of the recommendations for counselors to build a culture of peace in schools.

In addition to the guidance program, the counseling program with the theme of peace can also suppress students' aggressive behavior. Some studies have shown that peace counseling can be a counselor strategy to stop student aggressive behavior [11], [21]. The value of local wisdom is a critical aspect of supporting the success of peace counseling, for example, the teachings of KH. Ahmad Dahlan [48], [49] and Markesot [50] on peace. The results of the research above show that counseling that raises the value of peace can also be one of the recommendations for counselors to build a culture of peace in schools.

This study has limitations in developing and validating IPoMS. Research that develops and verifies IPoMS needs to involve experts to assess instrument statement items. This expert judgment is to increase the validity of the content of the IPoMS instrument. In addition, the pilot of the instrument needs to involve respondents on a wider scale so that this instrument can indeed have high acceptance in Indonesia to measure the level of peace.

4. CONCLUSION

Indonesia is a country that participates and participates in maintaining world order and peace. To build true peace, one of them starts at the school level. This research is developing and validating a peace measuring instrument, and we named it IPoMS. This measuring instrument consists of two aspects: the internal state of peacefulness and harmony. The first aspect has 4 statement items, while the second aspect has 3 statement items. The validation results using Rasch analysis show that IPoMS is a measuring tool that accurately measures the level of peace. School counselors can use the IPoMS instrument to conduct an assessment when developing a peace-building program at the school level. The results of this study should be one of the tools that can reveal the level of peace among students, and the data will be the basis for implementing peace education in guidance and counseling settings. This study also recommends conducting a content validity analysis using expert judgment to validate the statement items of the peace measuring instrument. Thus, the instrument has more real content clarity and does not cause meaning bias.

REFERENCES

[1] E. Karliani, A. Saefulloh, and T. Triyani, 'The Integration of Islamic Education Value in Strengthening Higher Education Students' Peace-loving Character', *Al-Izzah: Jurnal Hasil-Hasil Penelitian*, vol. 16, no. 2, pp. 134–140, 2021, doi: http://dx.doi.org/10.31332/ai.v0i0.3274.

[2] M. Marien, 'Futures studies in the 21st century: a reality-based view', *Futures*, vol. 34, no. 3–4, pp. 261–281, 2002, doi: https://doi.org/10.1016/S0016-3287(01)00043-X.

[3] A. H. Qureshi and H. M. Ajmal, 'Towards Establishing Global peace in the 21st Century, An Analysis of Holy Prophet's (PBUH) preaching and Practices', *Rahat-ul-Quloob*, vol. 3, no. 2, pp. 13–20, 2019, doi: https://doi.org/10.51411/rahat.3.2(2).2019.224.

[4] J. Haessly, 'Tourism and a culture of peace', in *Tourism, progress and peace*, O. Moufakkir and I. Kelly, Eds. CABI Wallingford, 2010, pp. 1–16.

[5] M. Umar, T. Pangalila, and J. Biringan, 'Peace Education: An Effort to Realize a Peaceful Social Life in Indonesia', in *International Conference on Social Science 2019 (ICSS 2019)*, 2019, pp. 718–721. doi: https://doi.org/10.2991/icss-19.2019.95.

[6] K. Bickmore and C. Parker, 'Constructive conflict talk in classrooms: Divergent approaches to addressing divergent perspectives', *Theory & Research in Social Education*, vol. 42, no. 3, pp. 291–335, 2014, doi: https://doi.org/10.1080/00933104.2014.901199.

[7] E. Morales, 'Peace Education and Colombia's Efforts Against Violence: A Literature Review of Cátedra de la Paz', *Revista Latinoamericana de Estudios Educativos (México)*, vol. 51, no. 2, pp. 13–42, 2021, doi: https://doi.org/10.48102/rlee.2021.51.2.384.

[8] F. Yilmaz, 'Road to peace education: Peace and violence from the viewpoint of children.', *International Education Studies*, vol. 11, no. 8, pp. 141–152, 2018, doi: 10.5539/ies.v11n8p141.

[9] W. N. E. Saputra, A. Supriyanto, P. S. Rohmadheny, B. Astuti, Y. Ayriza, and S. Adiputra, 'The effect of negative peace in mind to aggressive behavior of students in Indonesia', *European Journal of Educational Research*, vol. 10, no. 1, pp. 485–496, 2021, doi: 10.12973/eu-jer.10.1. 485.

[10] P. Purwadi *et al.*, 'Peace Guidance Based on the Perspective of "Markesot": Acceptability and Effectiveness of Reducing Student Aggressiveness', *Pegem Journal of Education and Instruction*, vol. 12, no. 1, pp. 213–221, 2022, doi: https://doi.org/10.47750/pegegog.12.01.22.

[11] W. N. E. Saputra, Y. Ayriza, I. B. Handaka, and E. Ediyanto, 'The Development of Peace Counseling Model (PCM): Strategy of School Counselor to Reduce Students' Aggressive Behavior', *Jurnal Kajian Bimbingan dan Konseling*, vol. 4, no. 4, pp. 134–142, 2019, doi: http://dx.doi.org/10.17977/um001v4i42019p134.

[12] S. Alhadi, W. N. E. Saputra, and P. Purwadi, 'Aggressive Behavior Profile of Student's in Indonesia: Analysis of Physical Aggression, Verbal Aggression, Anger, and Hostility', 2019.

[13] J. Galtung and D. Fischer, *Johan Galtung: Pioneer of peace research*, vol. 5. Springer, 2013.

[14] A. Goldweber, T. E. Waasdorp, and C. P. Bradshaw, 'Examining the link between forms of bullying behaviors and perceptions of safety and belonging among secondary school students', *Journal of school psychology*, vol. 51, no. 4, pp. 469–485, 2013, doi: https://doi.org/10.1016/j.jsp.2013.04.004.

[15] L. T. Back, E. Polk, C. B. Keys, and S. D. McMahon, 'Classroom management, school staff relations, school climate, and academic achievement: Testing a model with urban high schools', *Learning*

Environments Research, vol. 19, no. 3, pp. 397–410, 2016, doi: https://doi.org/10.1007/s10984-016-9213-x.

[16] S. M. Daily, M. J. Mann, A. L. Kristjansson, M. L. Smith, and K. J. Zullig, 'School climate and academic achievement in middle and high school students', *Journal of school health*, vol. 89, no. 3, pp. 173–180, 2019, doi: https://doi.org/10.1111/josh.12726.

[17] W. N. E. Saputra, A. Supriyanto, B. Astuti, Y. Ayriza, and S. Adiputra, 'The Effect of Student Perception of Negative School Climate on Poor Academic Performance of Students in Indonesia', *International Journal of Learning, Teaching and Educational Research*, vol. 19, no. 2, pp. 279–291, 2020, doi: https://doi.org/10.26803/ijlter.19.2.17.

[18] A. K. Attri, 'Gandhi and Luther Philosophies of Non-Violence', *International Journal of Peace, Education and Development*, vol. 2, no. 1, pp. 19–23, 2014.

[19] M. Tandon, 'Non Violence and Peace Education-Role of Teachers and Teacher Education', *International Journal of Peace, Education and Development*, vol. 2, no. 2and3, pp. 117–123, 2014.

[20] L. E. Sponsel, 'The anthropology of peace and nonviolence', *Diogenes*, vol. 61, no. 3–4, pp. 30–45, 2014, doi: https://doi.org/10.1177/0392192116648597.

[21] W. N. E. Saputra, A. Supriyanto, B. Astuti, Y. Ayriza, and S. Adiputra, 'Peace Counseling Approach (PCA) to Reduce Negative Aggressive Behavior of Students', *Universal Journal of Educational Research*, vol. 8, no. 2, pp. 631–637, 2020, doi: 10.13189/ujer.2020.080236.

[22] J. A. D. Datu, 'Peace of mind, academic motivation, and academic achievement in Filipino high school students', *The Spanish journal of psychology*, vol. 20, pp. 1–8, 2017, doi: https://doi.org/10.1017/sjp.2017.19.

[23] E. Broccoli, V. Canegallo, E. Santoddì, M. Cavarra, and R. A. Fabio, 'Development and preliminary evaluation of the Peace Attitudes Scale.', *Peace and Conflict: Journal of Peace Psychology*, vol. 27, no. 3, pp. 512–517, 2020, doi: 10.1037/pac0000508.

[24] Y.-C. Lee, Y.-C. Lin, C.-L. Huang, and B. L. Fredrickson, 'The construct and measurement of peace of mind', *Journal of Happiness studies*, vol. 14, no. 2, pp. 571–590, 2013, doi: https://doi.org/10.1007/s10902-012-9343-5.

[25] T. G. Bond and C. M. Fox, *Applying the Rasch model: Fundamental measurement in the human sciences*. Psychology Press, 2013.

[26] M. P. Rabbitt, 'Causal inference with latent variables from the Rasch model as outcomes', *Measurement*, vol. 120, pp. 193–205, 2018, doi: https://doi.org/10.1016/j.measurement.2018.01.044.

[27] B. Sumintono, 'Rasch model measurements as tools in assesment for learning', in *1st International Conference on Education Innovation (ICEI 2017). Atlantis Press*, 2018, pp. 38–42. doi: https://doi.org/10.2991/icei-17.2018.11.

[28] Z. Khayyer, H. Oreyzi, K. Asgari, and S. Sikström, 'Self-perception and interpersonal peacefulness: the mediating role of theory of mind and harmony', *Journal of Aggression, Conflict and Peace Research*, vol. 11, no. 3, pp. 180–199, 2019, doi: 10.1108/JACPR-10-2018-0383.

[29] B. Sumintono and W. Widhiarso, *Aplikasi model Rasch untuk penelitian ilmu-ilmu sosial (edisi revisi)*. Trim Komunikata Publishing House, 2014.

[30] J. M. Linacre, *A user's guide to WINSTEP MINISTEP Rasch model computer programme manual 3.67*. Chicago: Winsteps.com, 2008.

[31] J. P. Klein, G. Goertz, and P. F. Diehl, 'The peace scale: Conceptualizing and operationalizing non-rivalry and peace', *Conflict Management and Peace Science*, vol. 25, no. 1, pp. 67–80, 2008, doi: https://doi.org/10.1080/07388940701860466.

[32] H. Zucker, R. Ahn, S. J. Sinclair, M. Blais, B. D. Nelson, and T. F. Burke, 'Development of a scale to measure individuals' ratings of peace', *Conflict and Health*, vol. 8, no. 1, pp. 1–7, 2014, doi: https://doi.org/10.1186/1752-1505-8-17.

[33] N. S. da Rocha, E. Chachamovich, M. P. de Almeida Fleck, and A. Tennant, 'An introduction to Rasch analysis for psychiatric practice and research', *Journal of psychiatric research*, vol. 47, no. 2, pp. 141–148, 2013, doi: https://doi.org/10.1016/j.jpsychires.2012.09.014.

[34] C. Hagquist and D. Andrich, 'Recent advances in analysis of differential item functioning in health research using the Rasch model', *Health and quality of life outcomes*, vol. 15, no. 1, pp. 1–8, 2017, doi: https://doi.org/10.1186/s12955-017-0755-0.

[35] W. J. Boone, 'Rasch analysis for instrument development: Why, when, and how?', *CBE—Life Sciences Education*, vol. 15, no. 4, pp. 1–7, 2016, doi: https://doi.org/10.1187/cbe.16-04-0148.

[36] C. Van Zile-Tamsen, 'Using Rasch analysis to inform rating scale development', *Research in Higher Education*, vol. 58, no. 8, pp. 922–933, 2017, doi: 10.1007/s11162-017-9448-0.

[37] J. T. Willse, 'Polytomous Rasch models in counseling assessment', *Measurement and Evaluation in Counseling and Development*, vol. 50, no. 4, pp. 248–255, 2017, doi: https://doi.org/10.1080/07481756.2017.1362656.

[38] R. P. Fadli, A. Alizamar, A. Afdal, and I. Ifdil, 'Psychological Well-Being of Youth Inventory on Domestic Violence Victims: Rasch Model Analysis', *The International Journal of Counseling and Education*, vol. 4, no. 2, pp. 69–77, 2019, doi: https://doi.org/10.23916/0020190421620.

[39] G. Makransky, M. E. Rogers, and P. A. Creed, 'Analysis of the Construct Validity and Measurement Invariance of the Career Decision Self-Efficacy Scale: A Rasch Model Approach', *Journal of Career Assessment*, vol. 23, no. 4, pp. 645-660., 2015, doi: https://doi.org/10.1177/1069072714553555.

[40] N. Fakhri and S. Buchori, 'Intrapersonal peacefulness in Indonesian adolescents', in *1st World Conference on Social and Humanities Research (W-SHARE 2021)*, 2022, pp. 188–192. doi: https://doi.org/10.2991/assehr.k.220402.040.

[41] D. F. Carreno, N. Eisenbeck, J. A. Pérez-Escobar, and J. M. García-Montes, 'Inner harmony as an essential facet of well-being: a multinational study during the COVID-19 pandemic', *Frontiers in psychology*, vol. 12, pp. 1–14, 2021, doi: https://doi.org/10.3389/fpsyg.2021.648280.

[42] L. L. Nelson, 'Identifying determinants of individual peacefulness: A psychological foundation for peace education.', *Peace and Conflict: Journal of Peace Psychology*, vol. 27, no. 2, pp. 109–119, 2021, doi: https://doi.org/10.1037/pac0000517.

[43] P. Enaigbe and N. Igbinoghene, 'Challenges of managing and planning peace education and peace culture in Nigeria', *African research review*, vol. 10, no. 4, pp. 83–92, 2016, doi: 10.4314/afrrev.v10i4.6.

[44] L. H. Gerstein and S. L. Moeschberger, 'Building cultures of peace: An urgent task for counseling professionals', *Journal of Counseling & Development*, vol. 81, no. 1, pp. 115–119, 2003, doi: https://doi.org/10.1002/j.1556-6678.2003.tb00233.x.

[45] L. Grayshield, W. Mihecoby, and A. Mihecoby, 'Indigenous ways of knowing as a philosophical base for the promotion of peace and justice in counseling education and psychology', *Journal for Social Action in Counseling & Psychology*, vol. 2, no. 2, pp. 1–16, 2010, doi: https://doi.org/10.33043/JSACP.2.2.1-16.

[46] V. Lee, 'A culture of positive peace: Counseling for structural and cultural transformation', in *CC Lee, Counseling for social justice*, C. C. Lee, Ed. American Counseling Association Foundation, 2018, pp. 23–42.

[47] W. N. E. Saputra, W. Nurani, and M. Fauziah, 'Developing a Peace Guidance Book to Alleviate Student Aggressiveness', *Jurnal Kajian Bimbingan dan Konseling*, vol. 6, no. 2, pp. 71–79, 2021, doi: http://dx.doi.org/10.17977/um001v6i22021p071-079.

[48] W. N. E. Saputra, A. Mappiare-AT, N. Hidayah, and M. Ramli, 'KH Ahmad Dahlan's the values of peace in the novel entitled Sang Pencerah: A hermeneutics study', *Pegem Journal of Education and Instruction*, vol. 11, no. 2, pp. 32–42, 2021, doi: https://doi.org/10.14527/pegegog.2021.04.

[49] N. Sutarna and A. S. Anwar, 'Value of Character and Philosophy of Life KH. Ahmad Dahlan', *Istawa: Jurnal Pendidikan Islam*, vol. 5, no. 2, pp. 206–221, 2020, doi: 10.24269/ijpi.v5i2.2558.

[50] W. N. E. Saputra, Y. Ayriza, A. Supriyanto, and B. Astuti, 'The Indonesians' Peaceful Mind: A Gadamerian Hermeneutic Study of the Markesot Bertutur', in *1st International Conference on Folklore, Language, Education and Exhibition (ICOFLEX 2019)*, 2020, pp. 275–279. doi: https://doi.org/10.2991/assehr.k.201230.052.

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#24847 Review

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Submission

Authors	Wahyu Nanda Eka Saputra, Nur Hidayah, Muhammad Ramli, Adi Atmoko ✉
Title	Development and validation of Indonesian peace of mind scale: The Rasch analysis
Section	Educational Approaches
Editor	Rafael Denadai ✉ (Review)
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Round 1

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1 message

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Cc: Nur Hidayah <nur.hidayah.fip@um.ac.id>, M Ramli <m.ramli.fip@um.ac.id>, Adi Atmoko <adi.atmoko.fip@um.ac.id>

The following message is being delivered on behalf of International Journal
of Evaluation and Research in Education (IJERE).

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Dear Prof/Dr/Mr/Mrs: Wahyu Nanda Eka Saputra,

We have reached a decision regarding your submission entitled "Development
and validation of Indonesian Peace of Mind Scale (IPoMS): The Rasch
analysis" to International Journal of Evaluation and Research in Education
(IJERE), a SCOPUS and ERIC indexed journal (https://bit.ly/2EI8hDj).

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Comments to the Author

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:
The paper develops and validates a peace measuring instrument called the Indonesian Peace of Mind Scale (IPoMS) consisting of seven items in two aspects: the internal state of peacefulness and harmony. Using Rasch analysis of 202 vocational high school students in Yogyakarta, Indonesia, results find that IPoMS is good, precise, reliable, and valid measuring tool for students' level of peace. Results provide implications and recommendations for the implementation of guidance and counseling containing the value of peace.
In general, the paper is well-written with clearly identified gap and academic contribution, detailed methodology, and well-presented and well-discussed results.
There are only minor comments to further improve the paper.
1. Review the paper for the use of English, e.g. grammar, spelling, repeated words, capitalization, and formatting.
2. The Methodology should be based on a theoretical framework. Particularly, on peacefulness and the seven indicators of internal state of peacefulness and harmony.
3. Describe the Ethical considerations involving human subject/participants.
4. Justify why is Indonesia an interesting case study for this topic.

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Development and validation of Indonesian Peace of Mind Scale (IPoMS): The Rasch analysis

Article Info	ABSTRACT
	Every society dreams of true peace. To achieve true peace, humans need to start with inner peace. The importance of peace becomes one of the bases for developing a measure of peace for designing peace-building programs. This research answers the need for these measuring tools by developing and validating a peace measuring instrument called the Indonesian Peace of Mind Scale (IPoMS). This instrument consists of seven items in two aspects: the internal state of peacefulness and harmony. This study used Rasch analysis to test the construct validity of IPoMS. The construct validity test involved 202 vocational high school students in Yogyakarta, Indonesia. Data analysis using Winstep software provides information about the quality of respondents and instruments, items that are easy and difficult for respondents to agree on, fit order items, and unidimensionality. The results of the application of Rasch analysis show that IPoMS is good, precise, and have item conformity with the model. IPoMS is a reliable and valid measuring tool to measure students' level of peace accurately. This paper discusses the implications and recommendations for further research for the implementation of guidance and counseling containing the value of peace as a follow-up to the performance of IPoMS.

1.   INTRODUCTION

Peace is a new vision in the 21st century. In Indonesia, a love of peace is also one of the pillars of character in education [1]. The conditions behind the emergence of this vision are the needs of the people of a country that not only requires material prosperity but also requires lasting peace and tranquility [2], [3]. People's need for peace indirectly challenges them to realize peace by living together and side by side in a calm, comfortable, and minimally violent manner [4], [5]. Peace can also be achieved with competitive conditions without contradiction and diversity without conflict [6]. It is also possible to apply it in a school environment where students face various competitions that can nurture and train them to create peace.

People's expectations about living peacefully with the surrounding environment did not work as they should. Several studies have shown that the lack of peace in individuals correlates with violence [7], [8]. Specifically, students' discontentment contributes to high levels of aggressive behavior [9]. Research in Indonesia shows that the level of aggressiveness of students in the very high category is 5.82%, and in the high category is 17.82% [10]. Another study also in Indonesia stated that the aggressive level of students in

the very high category was 5%, and the very high category was 26% [11]. The results of other studies in Indonesia show that the profile of aggressive behavior in Indonesia consists of four aspects namely physical by 29%, verbal by 18%, anger by 24%, and hostility by 29% [12].

The violence that appears as a form of unrest has a negative impact. The violence that occurs continuously encourages the development of cultural violence in a specific environment, including in schools. Cultural violence involves cultural aspects, regional symbols in religion and ideology, language and art, empirical science, and formal science that can justify and legitimize direct or structural violence [13]. In addition, violence that appears can also trigger students' poor perceptions of the school climate [14]. Meanwhile, students' perceptions of school climate contribute to academic performance [15]–[17].

Peace is an essential aspect of human life. Peace in students has benefits for developing non-violent attitudes. The values of non-violence themselves include love and living in harmony [18]. Non-violence as an effective way to deal with conflict requires thought, resources, vision, planning, patience, and commitment [19]. Environmental conditions without violence and peace are not just an idea or idea but are the norm throughout human history and prehistory [20]. The environment as described has become a condition desired by many parties, including schools. It becomes a challenge for humans to realize this non-violent attitude; humans must face the five great enemies of peace: greed, ambition, envy, anger, and arrogance [19].

The urgency of peace in humans triggers the need for a measuring instrument that can measure the level of peace of students. Efforts to measure peace will result in a description of the student's level of peace. Thus, various related parties can follow up in guidance and counseling interventions to develop peace in students [10], [11], [21]. What strengthens this measurement effort is that peace indirectly affects academic achievement through the mediating effect of academic motivation [22]. Based on the explanation of the importance of measuring peace, the Indonesian Peace of Mind Scale (IPoMS) is one of the measuring tools that can measure the level of peace.

There has not been much research to develop and test the usefulness of measuring student peace. Previous research has produced the Peace Attitudes Scale [23] and Peace of Mind scale [24]. However, both of these studies used factor analysis techniques, whereas this study used Rasch analysis. Rasch analysis in testing a data collection instrument has the accuracy and accuracy of data analysis [25]–[27]. Thus, as a product of this research, the Indonesian Peace of Mind Scale (IPoMS) is more precise and accurate in photographing the level of peace of students, especially students in Indonesia.

This article aims to describe the development of the IPoMS instrument. The IPoMS uses two aspects: the internal state of peacefulness and harmony [24]. The internal state of peacefulness means the ability within humans to control aggressive impulses and conflict resolution competencies. In comparison, the internal state of harmony refers to the hope in humans for intrapersonal peace and self-compassion [24], [28]. Thus, the results of this study can provide an opportunity for other experts and practitioners to measure the level of peace of students using IPoMS. Counselors consider the consequences of measuring the student's level of peace in developing a culture of peace in schools.

2.   METHOD
2.1. Research design

This study uses a quantitative approach by focusing on the analysis of the instrument for measuring the level of peace (IPoMS). IPoMS validation using the Rasch model. Compared to other methods, the advantage of Rasch analysis is the ability to predict missing data based on individual response patterns [29]. This advantage makes the results of the statistical analysis of the Rasch model more accurate in the research carried out. More importantly, the Rasch model can produce standard error measurement values for the instruments used, increasing the accuracy of calculations. Using the Rasch analysis in instrument validation will have more holistic information about the instrument and better meet the definition of measurement [25].

2.2. Participants

The participants of this study were 202 vocational high school students. The selection of research participants using stratified random sampling technique in four Vocational High Schools in Yogyakarta City. We disguise all participants involved in this study so confidentiality is maintained. So that the security and good name of the participants can be maintained. The distribution of participants in the study is in table 1 below.

Table 1. Distribution of participants

No	School name	Number of participants
1	Muhammadiyah Vocational high school 1 Yogyakarta	86
2	Muhammadiyah Vocational high school 2 Yogyakarta	29
3	Muhammadiyah Vocational high school 3 Yogyakarta	59
4	Muhammadiyah Vocational high school 4 Yogyakarta	28

2.3. Data collection tools

This study used an instrument in the form of the Indonesian Peace of Mind Scale (IPoMS). The research instrument measuring the level of peace in students consists of two aspects: the internal state of peacefulness and harmony [24]. The internal state of peacefulness includes the ability of students to accept themselves and non-violence. In contrast, the internal state of harmony consists of the compatibility between the soul and human behavior [30]–[32]. Table 2 describes the draft of the tool for measuring the level of peace in the form of IPoMS. Validation of the instrument using Rasch analysis is ready to measure the level of peace in students.

Tabel 2. IPoMS instrument grid

Indicator	Statement	No item
The internal state of peacefulness	- When I face a stressful situation, I think of ways that can help me stay calm (+)	3
	- When I want to feel more positive emotions, I change the way I think about the situation I'm in (+)	4
	- When I want to reduce negative feelings, I change the way I think about the situation at hand (+)	6
	- I keep emotions in my heart (-)	7
The internal state of harmony	- When I want to feel more positive (like happy or happy), I change what I think about (+)	1
	- When I want to reduce negative feelings (such as sadness or anger), I change what I think about (+)	2
	- I control my emotions by changing the way I think about the situation I'm in (+)	5

2.4. Data collection

This research has several procedures for collecting the data. The first stage is research preparation. At this stage, researchers make research plans and prepare research materials. This effort can support the implementation of research step by step. The second stage is the formulation of the research instrument draft. In this second stage, the researcher began to draft the IPoMS instrument grid. The draft instrument underwent an expert assessment process to see the appropriateness of the language on each item of the IPoMS instrument. The third stage is the implementation of the research. At the implementation stage of the study, the researcher made the IPoMS instrument format on google forms. This effort can make it easier for students to fill out the instrument. The fourth stage is conducting data analysis and preparing reports. At this stage, the researcher conducted data analysis using the Rasch analysis to validate the instrument so that the instrument could be ready to measure the level of peace in students.

2.5. Data analysis

Research data analysis using Rasch analysis with the help of Winstep software [33]. The Rasch model can see the interaction between respondents and items at once. In the Rasch analysis, a value is not seen based on the raw score but a logit value that reflects the probability of selecting an item in a group of respondents. This effort is to anticipate the raw score of the Likert rating in the form of an ordinal that does not have the same interval between the scores. Two fundamental theorems that form the basis of Rasch's analysis are the level of individual ability/agreement and the level of difficulty of the item to be approved [33]. The psychometric tools that are the basis for analyzing the research data include summary statistics (quality of respondents, quality of instruments, and interactions between person and item). This study also provides item measure (items that are most difficult to agree on and easiest to agree with by respondents), item fit order (items fit and misfit), and unidimensionality (ability to measure what should be measured).

3. RESULTS AND DISCUSSION

The results of validating the IPoMS instrument are one of the studies and research results. The results of the study will describe a description of (a) the quality of the respondents, the quality of the instrument, and the interaction between the person and the item, (b) the items that are the most difficult to agree on, and the easiest to agree with by the respondents, (c) the items that are fit and misfit, and (d) the ability of the instrument to measure what it is supposed to measure. The four data analysis descriptions result from identifying construct validity using Rasch analysis.

Figure 1 describes the description of summary statistics. The first part of the picture provides comprehensive information about the respondents' quality of the instrument and the interaction between person and item.

```
          SUMMARY OF 202 MEASURED PERSON
-------------------------------------------------------------------
|           TOTAL                      MODEL      INFIT      OUTFIT   |
|           SCORE    COUNT   MEASURE    S.E.    MNSQ   ZSTD  MNSQ   ZSTD |
|-----------------------------------------------------------------|
| MEAN      19.1      7.0       .37      .56    1.01  -.31   1.00  -.32 |
|  SEM        .2       .0       .07      .01     .07   .12    .07   .12 |
| P.SD       2.9       .0       .96      .09     .93  1.71    .95  1.72 |
| S.SD       2.9       .0       .96      .09     .93  1.72    .95  1.73 |
| MAX.      27.0      7.0      3.85     1.07    4.07  4.30   4.76  4.79 |
| MIN.      10.0      7.0     -2.26      .50     .07 -3.92    .06 -3.68 |
|-----------------------------------------------------------------|
| REAL RMSE   .66 TRUE SD    .69  SEPARATION 1.05  PERSON RELIABILITY  .53 |
|MODEL RMSE   .57 TRUE SD    .77  SEPARATION 1.36  PERSON RELIABILITY  .65 |
| S.E. OF PERSON MEAN = .07                                          |
-------------------------------------------------------------------

PERSON RAW SCORE-TO-MEASURE CORRELATION = .98
CRONBACH ALPHA (KR-20) PERSON RAW SCORE "TEST" RELIABILITY = .65  SEM = 1.97

          SUMMARY OF 7 MEASURED ITEM
-------------------------------------------------------------------
|           TOTAL                      MODEL      INFIT      OUTFIT   |
|           SCORE    COUNT   MEASURE    S.E.    MNSQ   ZSTD  MNSQ   ZSTD |
|-----------------------------------------------------------------|
| MEAN     550.7    202.0       .00      .10     .99  -.31   1.00  -.25 |
|  SEM      16.0       .0       .16      .00     .14  1.38    .15  1.50 |
| P.SD      39.2       .0       .39      .00     .33  3.38    .37  3.67 |
| S.SD      42.4       .0       .42      .00     .36  3.65    .40  3.96 |
| MAX.     580.0    202.0       .88      .10    1.55  4.84   1.59  5.03 |
| MIN.     461.0    202.0      -.30      .10     .65 -4.01    .63 -4.22 |
|-----------------------------------------------------------------|
| REAL RMSE   .11 TRUE SD    .37  SEPARATION 3.41  ITEM   RELIABILITY  .92 |
|MODEL RMSE   .10 TRUE SD    .37  SEPARATION 3.66  ITEM   RELIABILITY  .93 |
| S.E. OF ITEM MEAN = .16                                            |
-------------------------------------------------------------------

ITEM RAW SCORE-TO-MEASURE CORRELATION = -1.00
Global statistics: please see Table 44.
UMEAN=.0000 USCALE=1.0000
```

Figure 1. Summary Statistics

Based on Figure 1 shows the person measure has a value of 0.37. This value means that respondents tend to agree on statements in various items. The Cronbach's Alpha value which measures the instrument's reliability, is 0.65, which means it is pretty good. Figure 1 also shows the coefficient of person reliability is 0.53, and item reliability is 0.92. This value indicates that the consistency of the respondents' answers is weak, but the quality of the items in the instrument is good. Other data in Figure 1 are INFIT MNSQ and OUTFIT MNSQ. In the person table, the average values are 1.01 and 1.00 (the closer to 1.00, the better). In INFIT ZSTD and OUTFIT ZSTD, the average values in the person table are 0.31 and 0.32 (the closer to 0.0, the better the quality. While in the item table, the INFIT MNSQ and OUTFIT MNSQ values are 0.99 and 1,00 (the closer to 1.00, the better). The INFIT ZSTD and OUTFIT ZSTD values in the item table, are 0.31 and 0.25 (the closer to 0.0, the better the quality.

Figure 2 describes the item measure. The second figure represents the items that are the most difficult to agree with and easy to agree with by the respondents.

```
          ITEM STATISTICS:  MEASURE ORDER
-------------------------------------------------------------------------------
|ENTRY  TOTAL  TOTAL         MODEL|  INFIT  | OUTFIT  |PTMEASUR-AL|EXACT MATCH|      |
|NUMBER SCORE  COUNT MEASURE  S.E.|MNSQ ZSTD|MNSQ ZSTD|CORR.  EXP.| OBS%  EXP%| ITEM |
|-----------------------------------------------------------------------------|
|    7    461    202    .88    .10|1.39 4.05|1.51 5.03| .25   .54| 54.0  48.2| 7    |
|    1    533    202    .19    .10|1.07  .80|1.06  .68| .61   .52| 52.5  51.1| 1    |
|    5    567    202   -.16    .10|1.55 4.84|1.59 5.01| .32   .50| 46.0  55.2| 5    |
|    2    571    202   -.20    .10| .89 -1.15| .87 -1.34| .58   .50| 60.4  55.8| 2   |
|    6    571    202   -.20    .10| .73 -3.02| .72 -3.00| .59   .50| 68.8  55.8| 6   |
|    4    572    202   -.21    .10| .67 -3.69| .65 -3.89| .62   .50| 69.3  55.9| 4   |
|    3    580    202   -.30    .10| .65 -4.01| .63 -4.22| .66   .50| 72.8  56.2| 3   |
|-----------------------------------------------------------------------------|
| MEAN  550.7  202.0    .00    .10| .99  -.3|1.00  -.2|          | 60.5  54.0|      |
| P.SD   39.2    .0     .39    .00| .33  3.4| .37  3.7|          |  9.4   2.9|      |
-------------------------------------------------------------------------------
```

Figure 2. Item Measure

The way to interpret Figure 2 above is by looking at the logit items numbered 1 to 7. Based on Figure 2, item 7 shows the logit item 0.88, which means that the respondent has the most difficulty agreeing with item number 7. This conclusion is based on the logit value of item 7, which is greater than the other items. While item 3 shows the logit item -0.30, the respondent is the easiest to agree with item number 3. This conclusion is based on the logit value of item 3, which is smaller than the other items.

Figure 3 describes fit order items. The third part of the picture illustrates the fit and misfit items.

```
              ITEM STATISTICS:  MISFIT ORDER

-------------------------------------------------------------------------------
|ENTRY   TOTAL  TOTAL           MODEL|  INFIT  | OUTFIT  |PTMEASUR-AL|EXACT MATCH|       |
|NUMBER  SCORE  COUNT  MEASURE   S.E. |MNSQ  ZSTD|MNSQ  ZSTD|CORR.  EXP.| OBS%  EXP%| ITEM |
|-----------------------------------+---------+---------+-----------+-----------+------|
|    5    567    202    -.16     .10|1.55  4.84|1.59  5.01|A .32   .50| 46.0  55.2|  5   |
|    7    461    202     .88     .10|1.39  4.05|1.51  5.03|B .25   .54| 54.0  48.2|  7   |
|    1    533    202     .19     .10|1.07   .80|1.06   .68|C .61   .52| 52.5  51.1|  1   |
|    2    571    202    -.20     .10| .89 -1.15| .87 -1.34|D .58   .50| 60.4  55.8|  2   |
|    6    571    202    -.20     .10| .73 -3.02| .72 -3.00|c .59   .50| 68.8  55.8|  6   |
|    4    572    202    -.21     .10| .67 -3.69| .65 -3.89|b .62   .50| 69.3  55.9|  4   |
|    3    580    202    -.30     .10| .65 -4.01| .63 -4.22|a .66   .50| 72.8  56.2|  3   |
|-----------------------------------+---------+---------+-----------+-----------+------|
| MEAN   550.7 202.0     .00     .10| .99   -.3|1.00   -.2|           | 60.5  54.0|      |
| P.SD   39.2    .0     .39     .00| .33   3.4| .37   3.7|           |  9.4   2.9|      |
-------------------------------------------------------------------------------
```

Figure 3. Item Fit Order

The way to identify fit and misfit items are to compare the INFIT MNSQ value with the sum of the mean and standard deviation values. Based on Figure 3, the mean and standard deviation values sum is 0.99 + 0.33 = 1.32. A larger logit value indicates a misfit item. Based on Figure 3, the items that are a misfit and need to be revised are items 5 and 7. Item number 5 initially reads, "I control my emotions by changing how I think about the situation I'm in." After reviewing, we revised it to "I control my emotions by changing the way I think positively about the situation I'm in." While item number 7 initially reads, "I keep emotions in my heart." After reviewing, we revised it to "I prefer to vent my emotions on myself instead of trying to talk to other people."

Figure 4 describes the unidimensionality of the instrument. The description in this fourth part is to evaluate whether the tool can measure what it should count, in this case, the Indonesian Peace of Mind Scale (IPoMS) construct.

```
Table of STANDARDIZED RESIDUAL variance in Eigenvalue units = ITEM information units
                                     Eigenvalue   Observed    Expected
Total raw variance in observations    =    10.0825  100.0%       100.0%
  Raw variance explained by measures  =     3.0825   30.6%        30.9%
    Raw variance explained by persons =     1.2657   12.6%        12.7%
    Raw Variance explained by items   =     1.8167   18.0%        18.2%
  Raw unexplained variance (total)    =     7.0000   69.4% 100.0%  69.1%
    Unexplned variance in 1st contrast =    2.4254   24.1%  34.6%
    Unexplned variance in 2nd contrast =    1.2908   12.8%  18.4%
    Unexplned variance in 3rd contrast =    1.1379   11.3%  16.3%
    Unexplned variance in 4th contrast =     .8127    8.1%  11.6%
    Unexplned variance in 5th contrast =     .7859    7.8%  11.2%
```

Figure 4. Unidimensionalitas

Unidimensionality interpretation compares the results of raw variance measurements with the minimum requirement of unidimensionality. The condition that an instrument can measure what it wants to measure is the unidimensionality value of at least 20%. Figure 4 shows the results of the raw data variance measurement of 30.6%. The measurement results indicate that the minimum unidimensionality requirement is 20%. This analysis means the instrument is included in the excellent category in measuring what is intended to be measured.

The study results found that the IPoMS is a reliable and valid measuring tool to measure students' level of peace accurately. However, IPoMS data needs to be supported and strengthened by other instruments. Thus, the IPoMS data shows the actual condition of student peace. This measurement of peace becomes a systematic schedule to raise valid data. Data on student peace is the basis for stakeholders to design a program for developing a culture of peace in schools, especially in Indonesia. A culture of peace is one of the needs of students in schools that can spur self-actualization in both academic and non-academic fields. Individuals who have true peace seek not only to create a culture of peace but also to develop development, positive relationships, character, and protection for human rights [34]. In Indonesia, the risk of creating uneasy conditions for students is substantial, considering that Indonesia is an archipelagic country with various customs and cultures [35].

Several studies have developed and validated peace measuring tools. The first study describes a peace of mind scale consisting of 7 statement items. However, the instrument validation analysis in this study used factor analysis [24]. The second study yielded a Peace Attitudes Scale consisting of 7 statement items [23]. The validation analysis of the measuring instrument also uses factor analysis. Subsequent research developed a peace scale involving 71 statement items using the SOS-10 analysis [36]. The weakness of the instrument is the number of items too many, which causes the possibility of data bias.

Weaknesses that emerged in previous studies became one of the backgrounds for developing and validating IPoMS. Therefore, the validation of IPoMS in this study used Rasch analysis. Rasch analysis provides a more accurate description of the results of measuring instrument validation, produces more holistic information about the instrument, and better meets the measurement definition [25], [37], [38]. Rasch analysis to develop and validate a measuring tool can provide the weaknesses and strengths of the statement items of an instrument [39]. This condition increases the accuracy of the data from the measurement results of an instrument. Because of the importance of measurement in the field of Education, Rasch analysis is the answer to various problems of instrument validity and reliability [40].

School counselors are parties who have the potential and opportunities to take advantage of IPoMS. The Rasch analysis provides holistic data of instrument validation results. Furthermore, Rasch became one of the analyzes that developed in the psychometric field of counseling [41]. Several examples of the implementation of Rasch analysis in psychometry in counseling include the Psychological Well-Being measuring tool for adolescent victims of violence [42] and the career decision self-efficacy scale [43]. However, to improve the accuracy of data collection, this study focuses on developing and validating IPoMS using Rasch analysis to strengthen peace education in Indonesia.

As a measure of the level of peace among students in Indonesia, IPoMS involves two core aspects, namely the internal state of peacefulness and harmony [24]. The internal state of peacefulness refers to psychological calm despite being under a stressor that becomes a burden in his life [44]. In contrast, the internal state of harmony refers to a positive condition in a person who has harmony and balance between expectations and the reality of the world [45]. The results of previous studies prove that the conditions of peacefulness and harmony are essential aspects of forming true peace in humans [46].

The findings of this study, which can describe a measuring instrument for peace in the form of IPoMS, have implications for efforts to develop a culture of peace in the school environment. Measuring student peace using IPoMS can be one of the basics for planning a peace culture development program in schools [47]. With more straightforward language, IPoMS accommodates an assessment of the portrait of students' peaceful condition. A culture of peace is vital for students to feel safe and psychologically comfortable learning at school. Thus, students can have a good perception of the school climate and spur themselves in academic performance [17].

The parties involved in the school setting are also responsible for creating a peace culture development program based on the measurements' results using IPoMS. One party who can create a culture of peace is a counselor. Moreover, various works of literature state that counselors are agents of peace [48]–[50]. Peace-oriented counselors strive to carry out counseling services to suppress child abuse early on. To create a culture of peace in the school environment, counselors must collaborate with various parties to obtain data other than those documented through IPoMS. Guidance and Counseling services that have an orientation to the peaceful aspect are one of the recommendations for counselors to follow up on the results of the IPoMS measurement.

Several studies show that guidance programs promoting the value of peace are a strategy to minimize violence. Violence is a form of the absence of peace in the individual [9]. The first study showed that guidance programs that raised the topic of peace could suppress students' aggressive impulses [51]. Other research shows that the guidance program can also raise the value of peace in Markesot figures. It can also suppress students' aggressive drives [10]. Based on the results of these studies, a guidance program with the theme of peace can be one of the recommendations for counselors to build a culture of peace in schools.

In addition to the guidance program, the counseling program with the theme of peace can also suppress students' aggressive behavior. Some studies have shown that peace counseling can be a counselor strategy to stop student aggressive behavior [11], [21]. The value of local wisdom is a critical aspect of supporting the success of peace counseling, for example, the teachings of KH. Ahmad Dahlan [52], [53] and Markesot [54] on peace. The results of the research above show that counseling that raises the value of peace can also be one of the recommendations for counselors to build a culture of peace in schools.

This study has limitations in developing and validating IPoMS. Research that develops and verifies IPoMS needs to involve experts to assess instrument statement items. This expert judgment is to increase the validity of the content of the IPoMS instrument. In addition, the pilot of the instrument needs to involve respondents on a wider scale so that this instrument can indeed have high acceptance in Indonesia to measure the level of peace.

4.   CONCLUSION

Indonesia is a country that participates and participates in maintaining world order and peace. To build true peace, one of them starts at the school level. This research is developing and validating a peace measuring instrument, and we named it IPoMS. This measuring instrument consists of two aspects: the internal state of peacefulness and harmony. The first aspect has 4 statement items, while the second aspect has 3 statement items. The validation results using Rasch analysis show that IPoMS is a measuring tool that accurately measures the level of peace. School counselors can use the IPoMS instrument to conduct an assessment when developing a peace-building program at the school level. The results of this study should be one of the tools that can reveal the level of peace among students, and the data will be the basis for implementing peace education in guidance and counseling settings. This study also recommends conducting a content validity analysis using expert judgment to validate the statement items of the peace measuring instrument. Thus, the instrument has more real content clarity and does not cause meaning bias.

REFERENCES

[1]   E. Karliani, A. Saefulloh, and T. Triyani, 'The Integration of Islamic Education Value in Strengthening Higher Education Students' Peace-loving Character', *Al-Izzah: Jurnal Hasil-Hasil Penelitian*, vol. 16, no. 2, pp. 134–140, 2021, doi: http://dx.doi.org/10.31332/ai.v0i0.3274.

[2]   M. Marien, 'Futures studies in the 21st century: a reality-based view', *Futures*, vol. 34, no. 3–4, pp. 261–281, 2002, doi: https://doi.org/10.1016/S0016-3287(01)00043-X.

[3]   A. H. Qureshi and H. M. Ajmal, 'Towards Establishing Global peace in the 21st Century, An Analysis of Holy Prophet's (PBUH) preaching and Practices', *Rahat-ul-Quloob*, vol. 3, no. 2, pp. 13–20, 2019, doi: https://doi.org/10.51411/rahat.3.2(2).2019.224.

[4]   J. Haessly, 'Tourism and a culture of peace', in *Tourism, progress and peace*, O. Moufakkir and I. Kelly, Eds. CABI Wallingford, 2010, pp. 1–16.

[5]   M. Umar, T. Pangalila, and J. Biringan, 'Peace Education: An Effort to Realize a Peaceful Social Life in Indonesia', in *International Conference on Social Science 2019 (ICSS 2019)*, 2019, pp. 718–721. doi: https://doi.org/10.2991/icss-19.2019.95.

[6]   K. Bickmore and C. Parker, 'Constructive conflict talk in classrooms: Divergent approaches to addressing divergent perspectives', *Theory & Research in Social Education*, vol. 42, no. 3, pp. 291–335, 2014, doi: https://doi.org/10.1080/00933104.2014.901199.

[7]   E. Morales, 'Peace Education and Colombia's Efforts Against Violence: A Literature Review of Cátedra de la Paz', *Revista Latinoamericana de Estudios Educativos (México)*, vol. 51, no. 2, pp. 13–42, 2021, doi: https://doi.org/10.48102/rlee.2021.51.2.384.

[8]   F. Yilmaz, 'Road to peace education: Peace and violence from the viewpoint of children.', *International Education Studies*, vol. 11, no. 8, pp. 141–152, 2018, doi: 10.5539/ies.v11n8p141.

[9]   W. N. E. Saputra, A. Supriyanto, P. S. Rohmadheny, B. Astuti, Y. Ayriza, and S. Adiputra, 'The effect of negative peace in mind to aggressive behavior of students in Indonesia', *European Journal of Educational Research*, vol. 10, no. 1, pp. 485–496, 2021, doi: 10.12973/eu-jer.10.1. 485.

[10]   P. Purwadi *et al.*, 'Peace Guidance Based on the Perspective of "Markesot": Acceptability and Effectiveness of Reducing Student Aggressiveness', *Pegem Journal of Education and Instruction*, vol. 12, no. 1, pp. 213–221, 2022, doi: https://doi.org/10.47750/pegegog.12.01.22.

[11]   W. N. E. Saputra, Y. Ayriza, I. B. Handaka, and E. Ediyanto, 'The Development of Peace Counseling Model (PCM): Strategy of School Counselor to Reduce Students' Aggressive Behavior', *Jurnal Kajian Bimbingan dan Konseling*, vol. 4, no. 4, pp. 134–142, 2019, doi: http://dx.doi.org/10.17977/um001v4i42019p134.

[12]   S. Alhadi, W. N. E. Saputra, and P. Purwadi, 'Aggressive Behavior Profile of Student's in Indonesia: Analysis of Physical Aggression, Verbal Aggression, Anger, and Hostility', 2019.

[13]   J. Galtung and D. Fischer, *Johan Galtung: Pioneer of peace research*, vol. 5. Springer, 2013.

[14]   A. Goldweber, T. E. Waasdorp, and C. P. Bradshaw, 'Examining the link between forms of bullying behaviors and perceptions of safety and belonging among secondary school students', *Journal of school psychology*, vol. 51, no. 4, pp. 469–485, 2013, doi: https://doi.org/10.1016/j.jsp.2013.04.004.

[15]   L. T. Back, E. Polk, C. B. Keys, and S. D. McMahon, 'Classroom management, school staff relations, school climate, and academic achievement: Testing a model with urban high schools', *Learning*

Environments Research, vol. 19, no. 3, pp. 397–410, 2016, doi: https://doi.org/10.1007/s10984-016-9213-x.

[16] S. M. Daily, M. J. Mann, A. L. Kristjansson, M. L. Smith, and K. J. Zullig, 'School climate and academic achievement in middle and high school students', *Journal of school health*, vol. 89, no. 3, pp. 173–180, 2019, doi: https://doi.org/10.1111/josh.12726.

[17] W. N. E. Saputra, A. Supriyanto, B. Astuti, Y. Ayriza, and S. Adiputra, 'The Effect of Student Perception of Negative School Climate on Poor Academic Performance of Students in Indonesia', *International Journal of Learning, Teaching and Educational Research*, vol. 19, no. 2, pp. 279–291, 2020, doi: https://doi.org/10.26803/ijlter.19.2.17.

[18] A. K. Attri, 'Gandhi and Luther Philosophies of Non-Violence', *International Journal of Peace, Education and Development*, vol. 2, no. 1, pp. 19–23, 2014.

[19] M. Tandon, 'Non Violence and Peace Education-Role of Teachers and Teacher Education', *International Journal of Peace, Education and Development*, vol. 2, no. 2and3, pp. 117–123, 2014.

[20] L. E. Sponsel, 'The anthropology of peace and nonviolence', *Diogenes*, vol. 61, no. 3–4, pp. 30–45, 2014, doi: https://doi.org/10.1177/0392192116648597.

[21] W. N. E. Saputra, A. Supriyanto, B. Astuti, Y. Ayriza, and S. Adiputra, 'Peace Counseling Approach (PCA) to Reduce Negative Aggressive Behavior of Students', *Universal Journal of Educational Research*, vol. 8, no. 2, pp. 631–637, 2020, doi: 10.13189/ujer.2020.080236.

[22] J. A. D. Datu, 'Peace of mind, academic motivation, and academic achievement in Filipino high school students', *The Spanish journal of psychology*, vol. 20, pp. 1–8, 2017, doi: https://doi.org/10.1017/sjp.2017.19.

[23] E. Broccoli, V. Canegallo, E. Santoddì, M. Cavarra, and R. A. Fabio, 'Development and preliminary evaluation of the Peace Attitudes Scale.', *Peace and Conflict: Journal of Peace Psychology*, vol. 27, no. 3, pp. 512–517, 2020, doi: 10.1037/pac0000508.

[24] Y.-C. Lee, Y.-C. Lin, C.-L. Huang, and B. L. Fredrickson, 'The construct and measurement of peace of mind', *Journal of Happiness studies*, vol. 14, no. 2, pp. 571–590, 2013, doi: https://doi.org/10.1007/s10902-012-9343-5.

[25] T. G. Bond and C. M. Fox, *Applying the Rasch model: Fundamental measurement in the human sciences*. Psychology Press, 2013.

[26] M. P. Rabbitt, 'Causal inference with latent variables from the Rasch model as outcomes', *Measurement*, vol. 120, pp. 193–205, 2018, doi: https://doi.org/10.1016/j.measurement.2018.01.044.

[27] B. Sumintono, 'Rasch model measurements as tools in assesment for learning', in *1st International Conference on Education Innovation (ICEI 2017). Atlantis Press*, 2018, pp. 38–42. doi: https://doi.org/10.2991/icei-17.2018.11.

[28] Z. Khayyer, H. Oreyzi, K. Asgari, and S. Sikström, 'Self-perception and interpersonal peacefulness: the mediating role of theory of mind and harmony', *Journal of Aggression, Conflict and Peace Research*, vol. 11, no. 3, pp. 180–199, 2019, doi: 10.1108/JACPR-10-2018-0383.

[29] B. Sumintono and W. Widhiarso, *Aplikasi model Rasch untuk penelitian ilmu-ilmu sosial (edisi revisi)*. Trim Komunikata Publishing House, 2014.

[30] L. L. Nelson, 'Peacefulness as a personality trait', in *Peace Psychology Book Series*, G. K. Sims, L. L. Nelson, and M. R. Puopolo, Eds. New York: Springer Science+Business Media, 2014, pp. 7–43.

[31] J. Broadbent and W. L. Poon, 'Self-regulated learning strategies & academic achievement in online higher education learning environments: A systematic review', *The Internet and Higher Education*, vol. 27, pp. 1–13, 2015, doi: https://doi.org/10.1016/j.iheduc.2015.04.007.

[32] G. K. Sims, 'Towards a Theoretical Model of Personal Peacefulness', in *Peace Psychology Book Series*, G. K. Sims, L. L. Nelson, and M. R. Puopolo, Eds. New York: Springer Science+Business Media, 2014, pp. 179–208.

[33] J. M. Linacre, *A user's guide to WINSTEP MINISTEP Rasch model computer programme manual 3.67*. Chicago: Winsteps.com, 2008.

[34] J. P. Klein, G. Goertz, and P. F. Diehl, 'The peace scale: Conceptualizing and operationalizing non-rivalry and peace', *Conflict Management and Peace Science*, vol. 25, no. 1, pp. 67–80, 2008, doi: https://doi.org/10.1080/07388940701860466.

[35] E. F. Rusydiyah, H. R. Virgiannada, M. Ridwan, B. A. Nugroho, and M. R. Rahman, 'Clustering of learning media user data during Covid-19 Pandemic using K-Means method based on multicultural culture in Indonesia', *Journal of Innovation in Educational and Cultural Research*, vol. 2, no. 2, pp. 67–76, 2021, doi: https://doi.org/10.46843/jiecr.v2i2.39.

[36] H. Zucker, R. Ahn, S. J. Sinclair, M. Blais, B. D. Nelson, and T. F. Burke, 'Development of a scale to measure individuals' ratings of peace', *Conflict and Health*, vol. 8, no. 1, pp. 1–7, 2014, doi: https://doi.org/10.1186/1752-1505-8-17.

[37] N. S. da Rocha, E. Chachamovich, M. P. de Almeida Fleck, and A. Tennant, 'An introduction to Rasch analysis for psychiatric practice and research', *Journal of psychiatric research*, vol. 47, no. 2, pp. 141–148, 2013, doi: https://doi.org/10.1016/j.jpsychires.2012.09.014.

[38] C. Hagquist and D. Andrich, 'Recent advances in analysis of differential item functioning in health research using the Rasch model', *Health and quality of life outcomes*, vol. 15, no. 1, pp. 1–8, 2017, doi: https://doi.org/10.1186/s12955-017-0755-0.

[39] W. J. Boone, 'Rasch analysis for instrument development: Why, when, and how?', *CBE—Life Sciences Education*, vol. 15, no. 4, pp. 1–7, 2016, doi: https://doi.org/10.1187/cbe.16-04-0148.

[40] C. Van Zile-Tamsen, 'Using Rasch analysis to inform rating scale development', *Research in Higher Education*, vol. 58, no. 8, pp. 922–933, 2017, doi: 10.1007/s11162-017-9448-0.

[41] J. T. Willse, 'Polytomous Rasch models in counseling assessment', *Measurement and Evaluation in Counseling and Development*, vol. 50, no. 4, pp. 248–255, 2017, doi: https://doi.org/10.1080/07481756.2017.1362656.

[42] R. P. Fadli, A. Alizamar, A. Afdal, and I. Ifdil, 'Psychological Well-Being of Youth Inventory on Domestic Violence Victims: Rasch Model Analysis', *The International Journal of Counseling and Education*, vol. 4, no. 2, pp. 69–77, 2019, doi: https://doi.org/10.23916/0020190421620.

[43] G. Makransky, M. E. Rogers, and P. A. Creed, 'Analysis of the Construct Validity and Measurement Invariance of the Career Decision Self-Efficacy Scale: A Rasch Model Approach', *Journal of Career Assessment*, vol. 23, no. 4, pp. 645-660., 2015, doi: https://doi.org/10.1177/1069072714553555.

[44] N. Fakhri and S. Buchori, 'Intrapersonal peacefulness in Indonesian adolescents', in *1st World Conference on Social and Humanities Research (W-SHARE 2021)*, 2022, pp. 188–192. doi: https://doi.org/10.2991/assehr.k.220402.040.

[45] D. F. Carreno, N. Eisenbeck, J. A. Pérez-Escobar, and J. M. García-Montes, 'Inner harmony as an essential facet of well-being: a multinational study during the COVID-19 pandemic', *Frontiers in psychology*, vol. 12, pp. 1–14, 2021, doi: https://doi.org/10.3389/fpsyg.2021.648280.

[46] L. L. Nelson, 'Identifying determinants of individual peacefulness: A psychological foundation for peace education.', *Peace and Conflict: Journal of Peace Psychology*, vol. 27, no. 2, pp. 109–119, 2021, doi: https://doi.org/10.1037/pac0000517.

[47] P. Enaigbe and N. Igbinoghene, 'Challenges of managing and planning peace education and peace culture in Nigeria', *African research review*, vol. 10, no. 4, pp. 83–92, 2016, doi: 10.4314/afrrev.v10i4.6.

[48] L. H. Gerstein and S. L. Moeschberger, 'Building cultures of peace: An urgent task for counseling professionals', *Journal of Counseling & Development*, vol. 81, no. 1, pp. 115–119, 2003, doi: https://doi.org/10.1002/j.1556-6678.2003.tb00233.x.

[49] L. Grayshield, W. Mihecoby, and A. Mihecoby, 'Indigenous ways of knowing as a philosophical base for the promotion of peace and justice in counseling education and psychology', *Journal for Social Action in Counseling & Psychology*, vol. 2, no. 2, pp. 1–16, 2010, doi: https://doi.org/10.33043/JSACP.2.2.1-16.

[50] V. Lee, 'A culture of positive peace: Counseling for structural and cultural transformation', in *CC Lee, Counseling for social justice*, C. C. Lee, Ed. American Counseling Association Foundation, 2018, pp. 23–42.

[51] W. N. E. Saputra, W. Nurani, and M. Fauziah, 'Developing a Peace Guidance Book to Alleviate Student Aggressiveness', *Jurnal Kajian Bimbingan dan Konseling*, vol. 6, no. 2, pp. 71–79, 2021, doi: http://dx.doi.org/10.17977/um001v6i22021p071-079.

[52] W. N. E. Saputra, A. Mappiare-AT, N. Hidayah, and M. Ramli, 'KH Ahmad Dahlan's the values of peace in the novel entitled Sang Pencerah: A hermeneutics study', *Pegem Journal of Education and Instruction*, vol. 11, no. 2, pp. 32–42, 2021, doi: https://doi.org/10.14527/pegegog.2021.04.

[53] N. Sutarna and A. S. Anwar, 'Value of Character and Philosophy of Life KH. Ahmad Dahlan', *Istawa: Jurnal Pendidikan Islam*, vol. 5, no. 2, pp. 206–221, 2020, doi: 10.24269/ijpi.v5i2.2558.

[54] W. N. E. Saputra, Y. Ayriza, A. Supriyanto, and B. Astuti, 'The Indonesians' Peaceful Mind: A Gadamerian Hermeneutic Study of the Markesot Bertutur', in *1st International Conference on Folklore, Language, Education and Exhibition (ICOFLEX 2019)*, 2020, pp. 275–279. doi: https://doi.org/10.2991/assehr.k.201230.052.

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Development and validation of Indonesian peace of mind scale: The Rasch analysis

Wahyu Nanda Eka Saputra[1], Nur Hidayah[2], Muhammad Ramli[2], Adi Atmoko[2]
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ABSTRACT

Every society dreams of true peace. To achieve true peace, humans need to start with inner peace. The importance of peace becomes one of the bases for developing a measure of peace for designing peace-building programs. This research answered the need for these measuring tools by developing and validating a peace measuring instrument called the Indonesian peace of mind scale (IPoMS). This instrument consists of seven items in two aspects: the internal state of peacefulness and harmony. This study used Rasch analysis to test the construct validity of IPoMS. The construct validity test involved 202 vocational high school students in Yogyakarta, Indonesia. Data analysis using Win step software provides information about the quality of respondents and instruments, items that are easy and difficult for respondents to agree on, fit order items, and unidimensionality. The results of the application of Rasch analysis showed that IPoMS is good, precise, and have item conformity with the model. IPoMS is a reliable and valid measuring tool to measure students' level of peace accurately. This research discussed the implications and recommendations for further research for the implementation of guidance and counseling containing the value of peace as a follow-up to the performance of IPoMS.

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1. INTRODUCTION

Peace is a new vision in the 21st century. In Indonesia, a love of peace is also one of the pillars of character in education [1]. The conditions behind the emergence of this vision are the needs of the people of a country that not only requires material prosperity but also requires lasting peace and tranquility [2], [3]. People's need for peace indirectly challenges them to realize peace by living together and side by side in a calm, comfortable, and minimally violent manner [4], [5]. Peace can also be achieved with competitive conditions without contradiction and diversity without conflict [6]. It is also possible to apply it in a school environment where students face various competitions that can nurture and train them to create peace.

People's expectations about living peacefully with the surrounding environment did not work as they should. Several studies have shown that the lack of peace in individuals correlates with violence [7], [8] and contributes to high levels of aggressive behavior [9]. Research in Indonesia shows that the level of aggressiveness of students in the very high category is 5.82%, and in the high category is 17.82% [10]. Another study also in Indonesia stated that the aggressive level of students in the very high category was 5%,

and the very high category was 26% [11]. The results of other studies in Indonesia show that the profile of aggressive behavior in Indonesia consists of four aspects namely physical by 29%, verbal by 18%, anger by 24%, and hostility by 29% [12]. The violence that appears as a form of unrest has a negative impact, like a cultural violence [13], students' poor perceptions of the school climate [14] and contribute to academic performance [15]–[17].

Peace in students has benefits for developing non-violent attitudes. The values of non-violence themselves include love and living in harmony [18]. Non-violence as an effective way to deal with conflict requires thought, resources, vision, planning, patience, and commitment [19]. Environmental conditions without violence and peace are not just an idea or idea but are the norm throughout human history and prehistory [20]. The environment as described has become a condition desired by many parties, including schools. It becomes a challenge for humans to realize this non-violent attitude; humans must face the five great enemies of peace: greed, ambition, envy, anger, and arrogance [19].

The urgency of peace in humans triggers the need for a measuring instrument that can measure the level of peace of students. Efforts to measure peace will result in a description of the student's level of peace. Thus, various related parties can follow up in guidance and counseling interventions to develop peace in students [10], [11], [21]. What strengthens this measurement effort is that peace indirectly affects academic achievement through the mediating effect of academic motivation [22]. Based on the explanation of the importance of measuring peace, the Indonesian peace of mind scale (IPoMS) is one of the measuring tools that can measure the level of peace.

There has not been much research to develop and test the usefulness of measuring student peace. Previous research has produced the peace attitudes scale [23] and peace of mind scale [24]. However, both of these studies used factor analysis techniques, whereas this study used Rasch analysis. Rasch analysis in testing a data collection instrument has the accuracy and accuracy of data analysis [25]–[27]. Thus, as a product of this research, the IPoMS is more precise and accurate in photographing the level of peace of students, especially students in Indonesia. The IPoMS uses two aspects: the internal state of peacefulness and harmony [24], [28].

2. RESEARCH METHOD
2.1. Research design
This study used a quantitative approach by focusing on the analysis of the instrument for measuring the level of peace IPoMS. IPoMS validation using the Rasch model. Compared to other methods, the advantage of Rasch analysis is the ability to predict missing data based on individual response patterns [29]. Using the Rasch analysis in instrument validation will have more holistic information about the instrument and better meet the definition of measurement [25].

2.2. Participants
The participants of this study were 202 vocational high school students. The selection of research participants using stratified random sampling technique in four vocational high schools in Yogyakarta City, Indonesia. The researchers disguise all participants involved in this study, so confidentiality is maintained. So that the security and good name of the participants can be maintained. The distribution of participants in the study is presented in Table 1.

Table 1. Distribution of participants

No	School name	Number of participants
1	Muhammadiyah Vocational High School 1 Yogyakarta	86
2	Muhammadiyah Vocational High School 2 Yogyakarta	29
3	Muhammadiyah Vocational High School 3 Yogyakarta	59
4	Muhammadiyah Vocational High School 4 Yogyakarta	28

2.3. Data collection tools
IPoMS measuring the level of peace in students consists of two aspects: the internal state of peacefulness and harmony [24]. The internal state of peacefulness includes the ability of students to accept themselves and non-violence. In contrast, the internal state of harmony consists of the compatibility between the soul and human behavior [30]–[32]. Table 2 describes the draft of the tool for measuring the level of peace in the form of IPoMS.

Table 2. IPoMS instrument grid

Indicator	Statement	No. item
The internal state of peacefulness	When I face a stressful situation, I think of ways that can help me stay calm (+)	3
	When I want to feel more positive emotions, I change the way I think about the situation I'm in (+)	4
	When I want to reduce negative feelings, I change the way I think about the situation at hand (+)	6
	I keep emotions in my heart (-)	7
The internal state of harmony	When I want to feel more positive (like happy or happy), I change what I think about (+)	1
	When I want to reduce negative feelings (such as sadness or anger), I change what I think about (+)	2
	I control my emotions by changing the way I think about the situation I'm in (+)	5

2.4. Data collection

This research has several procedures for collecting the data. The first stage is research preparation. At this stage, researchers make research plans and prepare research materials. This effort can support the implementation of research step by step. The second stage is the formulation of the research instrument draft. In this second stage, the researcher began to draft the IPoMS instrument grid. The draft instrument underwent an expert assessment process to see the appropriateness of the language on each item of the IPoMS instrument. The third stage is the implementation of the research. At the implementation stage of the study, the researcher made the IPoMS instrument format on Google Forms. This effort can make it easier for students to fill out the instrument. The fourth stage is conducting data analysis and preparing reports. At this stage, the researcher conducted data analysis using the Rasch analysis.

2.5. Data analysis

Research data analysis using Rasch analysis with the help of Winstep software [33]. There were two fundamental theorems that form the basis of Rasch's analysis: the level of individual ability/agreement and the level of difficulty of the item to be approved [33]. The psychometric tools that are the basis for analyzing the research data include summary statistics (quality of respondents, quality of instruments, and interactions between person and item). This study also provides item measure (items that are most difficult to agree on and easiest to agree with by respondents), item fit order (items fit and misfit), and unidimensionality (ability to measure what should be measured).

3. RESULTS AND DISCUSSION

The results of validating the IPoMS instrument are one of the studies and research results. The results of the study will describe a description of the quality of the respondents, the quality of the instrument, and the interaction between the person and the item; the items that are the most difficult to agree on, and the easiest to agree with by the respondents; the items that are fit and misfit; and the ability of the instrument to measure what it is supposed to measure. The four data analysis descriptions result from identifying construct validity using Rasch analysis.

Figure 1 describes the description of summary statistics. The first part of the picture provides comprehensive information about the respondents' quality of the instrument and the interaction between person and item. The figure shows the person measure has a value of 0.37. This value means that respondents tend to agree on statements in various items. The Cronbach's alpha value which measures the instrument's reliability, is 0.65, which means it is pretty good. Figure 1 also shows the coefficient of person reliability is 0.53, and item reliability is 0.92. This value indicates that the consistency of the respondents' answers is weak, but the quality of the items in the instrument is good.

Other data in Figure 1 are INFIT MNSQ and OUTFIT MNSQ. In the person table, the average values are 1.01 and 1.00 (the closer to 1.00, the better). In INFIT ZSTD and OUTFIT ZSTD, the average values in the person table are 0.31 and 0.32 (the closer to 0.0, the better the quality. While in the item table, the INFIT MNSQ and OUTFIT MNSQ values are 0.99 and 1,00 (the closer to 1.00, the better). The INFIT ZSTD and OUTFIT ZSTD values in the item table, are 0.31 and 0.25 (the closer to 0.0, the better the quality.

```
      SUMMARY OF 202 MEASURED PERSON
-----------------------------------------------------------------------
|           TOTAL                       MODEL      INFIT       OUTFIT  |
|           SCORE    COUNT    MEASURE    S.E.    MNSQ   ZSTD  MNSQ   ZSTD |
|---------------------------------------------------------------------|
| MEAN      19.1      7.0       .37       .56    1.01  -.31  1.00  -.32 |
| SEM         .2       .0       .07       .01     .07   .12   .07   .12 |
| P.SD       2.9       .0       .96       .09     .93  1.71   .95  1.72 |
| S.SD       2.9       .0       .96       .09     .93  1.72   .95  1.73 |
| MAX.      27.0      7.0      3.85      1.07    4.07  4.30  4.76  4.79 |
| MIN.      10.0      7.0     -2.26       .50     .07 -3.92   .06 -3.68 |
|---------------------------------------------------------------------|
| REAL RMSE    .66 TRUE SD    .69 SEPARATION 1.05 PERSON RELIABILITY .53 |
|MODEL RMSE    .57 TRUE SD    .77 SEPARATION 1.36 PERSON RELIABILITY .65 |
| S.E. OF PERSON MEAN = .07                                            |
-----------------------------------------------------------------------
PERSON RAW SCORE-TO-MEASURE CORRELATION = .98
CRONBACH ALPHA (KR-20) PERSON RAW SCORE "TEST" RELIABILITY = .65  SEM = 1.97

      SUMMARY OF 7 MEASURED ITEM
-----------------------------------------------------------------------
|           TOTAL                       MODEL      INFIT       OUTFIT  |
|           SCORE    COUNT    MEASURE    S.E.    MNSQ   ZSTD  MNSQ   ZSTD |
|---------------------------------------------------------------------|
| MEAN     550.7    202.0       .00       .10     .99  -.31  1.00  -.25 |
| SEM       16.0       .0       .16       .00     .14  1.38   .15  1.50 |
| P.SD      39.2       .0       .39       .00     .33  3.38   .37  3.67 |
| S.SD      42.4       .0       .42       .00     .36  3.65   .40  3.96 |
| MAX.     580.0    202.0       .88       .10    1.55  4.84  1.59  5.03 |
| MIN.     461.0    202.0      -.30       .10     .65 -4.01   .63 -4.22 |
|---------------------------------------------------------------------|
| REAL RMSE    .11 TRUE SD    .37 SEPARATION 3.41 ITEM   RELIABILITY .92 |
|MODEL RMSE    .10 TRUE SD    .37 SEPARATION 3.66 ITEM   RELIABILITY .93 |
| S.E. OF ITEM MEAN = .16                                              |
-----------------------------------------------------------------------
ITEM RAW SCORE-TO-MEASURE CORRELATION = -1.00
Global statistics: please see Table 44.
UMEAN=.0000 USCALE=1.0000
```

Figure 1. Summary statistics

Figure 2 describes the item measure. The figure represents the items that are the most difficult to agree with and easy to agree with by the respondents. The way to interpret Figure 2 is by looking at the logit items numbered 1 to 7. Based on Figure 2, item 7 shows the logit item 0.88, which means that the respondent has the most difficulty agreeing with item number 7. This conclusion is based on the logit value of item 7, which is greater than the other items. While item 3 shows the logit item-0.30, the respondent is the easiest to agree with item number 3. This conclusion is based on the logit value of item 3, which is smaller than the other items.

```
      ITEM STATISTICS:  MEASURE ORDER
------------------------------------------------------------------------------------
|ENTRY  TOTAL  TOTAL           MODEL|  INFIT   |  OUTFIT  |PTMEASUR-AL|EXACT MATCH|      |
|NUMBER SCORE  COUNT  MEASURE  S.E. |MNSQ  ZSTD|MNSQ  ZSTD|CORR.  EXP.| OBS%  EXP%| ITEM |
|----------------------------------------------------------------------------------|
|    7    461    202     .88    .10|1.39  4.05|1.51  5.03| .25   .54| 54.0  48.2|  7   |
|    1    533    202     .19    .10|1.07   .80|1.06   .68| .61   .52| 52.5  51.1|  1   |
|    5    567    202    -.16    .10|1.55  4.84|1.59  5.01| .32   .50| 46.0  55.2|  5   |
|    2    571    202    -.20    .10| .89 -1.15| .87 -1.34| .58   .50| 60.4  55.8|  2   |
|    6    571    202    -.20    .10| .73 -3.02| .72 -3.00| .59   .50| 68.8  55.8|  6   |
|    4    572    202    -.21    .10| .67 -3.69| .65 -3.89| .62   .50| 69.3  55.9|  4   |
|    3    580    202    -.30    .10| .65 -4.01| .63 -4.22| .66   .50| 72.8  56.2|  3   |
|----------------------------------------------------------------------------------|
| MEAN   550.7  202.0    .00    .10| .99   -.3|1.00   -.2|           | 60.5  54.0|      |
| P.SD    39.2     .0    .39    .00| .33   3.4| .37   3.7|           |  9.4   2.9|      |
------------------------------------------------------------------------------------
```

Figure 2. Item measure

Figure 3 describes fit order items. The third part of the picture illustrates the fit and misfit items. The way to identify fit and misfit items are to compare the INFIT MNSQ value with the sum of the mean and standard deviation values. Based on the figure, the mean and standard deviation values sum is 0.99+0.33=1.32. A larger logit value indicates a misfit item. Based on Figure 3, the items that are a misfit and need to be revised are items 5 and 7. Item number 5 initially reads, "I control my emotions by changing how I think about the situation I'm in." After reviewing, we revised it to "I control my emotions by changing the way I think positively about the situation I'm in." While item number 7 initially reads, "I keep emotions in my heart." After reviewing, we revised it to "I prefer to vent my emotions on myself instead of trying to talk to other people."

```
ITEM STATISTICS:  MISFIT ORDER

-------------------------------------------------------------------------------------
|ENTRY   TOTAL  TOTAL          MODEL|   INFIT  |  OUTFIT  |PTMEASUR-AL|EXACT MATCH|      |
|NUMBER  SCORE  COUNT  MEASURE  S.E.|MNSQ  ZSTD|MNSQ  ZSTD|CORR.  EXP.| OBS%  EXP%| ITEM |
|-----------------------------------+----------+----------+-----------+-----------+------|
|     5    567    202    -.16   .10|1.55  4.84|1.59  5.01|A .32   .50| 46.0  55.2| 5    |
|     7    461    202     .88   .10|1.39  4.05|1.51  5.03|B .25   .54| 54.0  48.2| 7    |
|     1    533    202     .19   .10|1.07   .80|1.06   .68|C .61   .52| 52.5  51.1| 1    |
|     2    571    202    -.20   .10| .89 -1.15| .87 -1.34|D .58   .50| 60.4  55.8| 2    |
|     6    571    202    -.20   .10| .73 -3.02| .72 -3.00|c .59   .50| 68.8  55.8| 6    |
|     4    572    202    -.21   .10| .67 -3.69| .65 -3.89|b .62   .50| 69.3  55.9| 4    |
|     3    580    202    -.30   .10| .65 -4.01| .63 -4.22|a .66   .50| 72.8  56.2| 3    |
|-----------------------------------+----------+----------+-----------+-----------+------|
| MEAN   550.7  202.0    .00    .10| .99  -.3|1.00  -.2|          | 60.5  54.0|      |
| P.SD    39.2     .0    .39    .00| .33  3.4| .37  3.7|          |  9.4   2.9|      |
-------------------------------------------------------------------------------------
```

Figure 3. Item fit order

Figure 4 describes the unidimensionality of the instrument. The description in this fourth part is to evaluate whether the tool can measure what it should count, in this case, the IPoMS construct. Unidimensionality interpretation compares the results of raw variance measurements with the minimum requirement of unidimensionality. The condition that an instrument can measure what it wants to measure is the unidimensionality value of at least 20%. Figure 4 shows the results of the raw data variance measurement of 30.6%. The measurement results indicate that the minimum unidimensionality requirement is 20%. This analysis means the instrument is included in the excellent category in measuring what is intended to be measured.

```
Table of STANDARDIZED RESIDUAL variance in Eigenvalue units = ITEM information units
                                          Eigenvalue   Observed   Expected
Total raw variance in observations     =    10.0825    100.0%     100.0%
  Raw variance explained by measures   =     3.0825     30.6%      30.9%
    Raw variance explained by persons  =     1.2657     12.6%      12.7%
    Raw Variance explained by items    =     1.8167     18.0%      18.2%
  Raw unexplained variance (total)     =     7.0000     69.4% 100.0% 69.1%
    Unexplned variance in 1st contrast =     2.4254     24.1%  34.6%
    Unexplned variance in 2nd contrast =     1.2908     12.8%  18.4%
    Unexplned variance in 3rd contrast =     1.1379     11.3%  16.3%
    Unexplned variance in 4th contrast =      .8127      8.1%  11.6%
    Unexplned variance in 5th contrast =      .7859      7.8%  11.2%
```

Figure 4. Unidimensionalitas

The study results found that the IPoMS is a reliable and valid measuring tool to measure students' level of peace accurately. However, IPoMS data needs to be supported and strengthened by other instruments. Thus, the IPoMS data shows the actual condition of student peace. This measurement of peace becomes a systematic schedule to raise valid data. Data on student peace is the basis for stakeholders to design a program for developing a culture of peace in schools, especially in Indonesia. A culture of peace is one of the needs of students in schools that can spur self-actualization in both academic and non-academic fields. Individuals who have true peace seek not only to create a culture of peace but also to develop development, positive relationships, character, and protection for human rights [34]. In Indonesia, the risk of creating uneasy conditions for students is substantial, considering that Indonesia is an archipelagic country with various customs and cultures [35].

Several studies have developed and validated peace measuring tools. The first study describes a peace of mind scale consisting of seven statement items. However, the instrument validation analysis in this study used factor analysis [24]. The second study yielded a Peace Attitudes Scale consisting of seven statement items [23]. The validation analysis of the measuring instrument also uses factor analysis. Subsequent research developed a peace scale involving 71 statement items using the SOS-10 analysis [36]. The weakness of the instrument is the number of items too many, which causes the possibility of data bias.

Weaknesses that emerged in previous studies became one of the backgrounds for developing and validating IPoMS. Therefore, the validation of IPoMS in this study used Rasch analysis. Rasch analysis provides a more accurate description of the results of measuring instrument validation, produces more holistic information about the instrument, and better meets the measurement definition [25], [37], [38]. Rasch analysis to develop and validate a measuring tool can provide the weaknesses and strengths of the statement items of an instrument [39]. This condition increases the accuracy of the data from the measurement results of an instrument. Because of the importance of measurement in the field of education, Rasch analysis is the answer to various problems of instrument validity and reliability [40].

School counselors are parties who have the potential and opportunities to take advantage of IPoMS. The Rasch analysis provides holistic data of instrument validation results. Furthermore, Rasch became one of the analyzes that developed in the psychometric field of counseling [41]. Several examples of the implementation of Rasch analysis in psychometry in counseling include the Psychological Well-Being measuring tool for adolescent victims of violence [42] and the career decision self-efficacy scale [43]. However, to improve the accuracy of data collection, this study focuses on developing and validating IPoMS using Rasch analysis to strengthen peace education in Indonesia.

As a measure of the level of peace among students in Indonesia, IPoMS involves two core aspects, namely the internal state of peacefulness and harmony [24]. The internal state of peacefulness refers to psychological calm despite being under a stressor that becomes a burden in his life [44]. In contrast, the internal state of harmony refers to a positive condition in a person who has harmony and balance between expectations and the reality of the world [45]. The results of previous studies prove that the conditions of peacefulness and harmony are essential aspects of forming true peace in humans [46].

The findings of this study, which can describe a measuring instrument for peace in the form of IPoMS, have implications for efforts to develop a culture of peace in the school environment. Measuring student peace using IPoMS can be one of the basics for planning a peace culture development program in schools [47]. With more straightforward language, IPoMS accommodates an assessment of the portrait of students' peaceful condition. A culture of peace is vital for students to feel safe and psychologically comfortable learning at school. Thus, students can have a good perception of the school climate and spur themselves in academic performance [17].

The parties involved in the school setting are also responsible for creating a peace culture development program based on the measurements' results using IPoMS. One party who can create a culture of peace is a counselor. Moreover, various works of literature state that counselors are agents of peace [48]–[50]. Peace-oriented counselors strive to carry out counseling services to suppress child abuse early on. To create a culture of peace in the school environment, counselors must collaborate with various parties to obtain data other than those documented through IPoMS. Guidance and counseling services that have an orientation to the peaceful aspect are one of the recommendations for counselors to follow up on the results of the IPoMS measurement.

Several studies show that guidance programs promoting the value of peace are a strategy to minimize violence. Violence is a form of the absence of peace in the individual [9]. The first study showed that guidance programs that raised the topic of peace could suppress students' aggressive impulses [51]. Other research shows that the guidance program can also raise the value of peace in Markesot figures. It can also suppress students' aggressive drives [10]. Based on the results of these studies, a guidance program with the theme of peace can be one of the recommendations for counselors to build a culture of peace in schools.

In addition to the guidance program, the counseling program with the theme of peace can also suppress students' aggressive behavior. Some studies have shown that peace counseling can be a counselor strategy to stop student aggressive behavior [11], [21]. The value of local wisdom is a critical aspect of supporting the success of peace counseling, for example, the teachings of K. H. Ahmad Dahlan [52], [53] and Markesot [54] on peace. The results of the research showed that counseling that raises the value of peace can also be one of the recommendations for counselors to build a culture of peace in schools.

This study has limitations in developing and validating IPoMS. Research that develops and verifies IPoMS needs to involve experts to assess instrument statement items. This expert judgment is to increase the validity of the content of the IPoMS instrument. In addition, the pilot of the instrument needs to involve respondents on a wider scale so that this instrument can indeed have high acceptance in Indonesia to measure the level of peace.

4. CONCLUSION

Indonesia is a country that participates in maintaining world order and peace. This research is developing and validating a peace measuring instrument, and we named it IPoMS. This measuring instrument consists of two aspects: the internal state of peacefulness and harmony. The first aspect has four statement items, while the second aspect has three statement items. The validation results using Rasch analysis show that IPoMS is a measuring tool that accurately measures the level of peace. The results of this study should be one of the tools that can reveal the level of peace among students, and the data will be the basis for implementing peace education in guidance and counseling settings. This study also recommends conducting a content validity analysis using expert judgment to validate the statement items of the peace measuring instrument. Thus, the instrument has more real content clarity and does not cause meaning bias.

REFERENCES

[1] A. Saefulloh, E. Karliani, and T. Triyani, "The integration of islamic education value in strengthening higher education students' peace-loving character," *Al-Izzah: Jurnal Hasil-Hasil Penelitian*, p. 134, 2021, doi: 10.31332/ai.v0i0.3274.

[2] M. Marien, "Futures studies in the 21st century: A reality-based view," *Futures*, vol. 34, no. 3–4, pp. 261–281, 2002, doi: 10.1016/S0016-3287(01)00043-X.

[3] A. H. Qureshi and H. M. Ajmal, "Towards Establishing Global Peace in the 21st Century, An Analysis of Holy Prophet's (PBUH) Preaching and Practices," *Rahat-Ul-Quloob*, vol. 3, no. 2(2), pp. 13–20, 2019, doi: 10.51411/rahat.3.2(2).2019.224.

[4] J. Haessly, "Tourism and a culture of peace," in *Tourism, Progress and Peace*, UK: CABI, 2010, pp. 1–16.

[5] M. Umar, T. Pangalila, and J. Biringan, "Peace education: An effort to realize a peaceful social life in Indonesia," *Proceedings of the International Conference on Social Science 2019 (ICSS 2019)*, 2019, doi: 10.2991/icss-19.2019.95.

[6] K. Bickmore and C. Parker, "Constructive conflict talk in classrooms: Divergent approaches to addressing divergent perspectives," *Theory and Research in Social Education*, vol. 42, no. 3, pp. 291–335, 2014, doi: 10.1080/00933104.2014.901199.

[7] E. Morales, "Peace education and Colombia's efforts against violence: A literature review of cátedra de la Paz," *Revista Latinoamericana de Estudios Educativos*, vol. 51, no. 2, pp. 13–42, 2021, doi: 10.48102/rlee.2021.51.2.384.

[8] F. Yilmaz, "Road to peace education: Peace and violence from the viewpoint of children," *International Education Studies*, vol. 11, no. 8, p. 141, 2018, doi: 10.5539/ies.v11n8p141.

[9] W. N. E. Saputra, A. Supriyanto, P. S. Rohmadheny, B. Astuti, Y. Ayriza, and S. Adiputra, "The effect of negative peace in mind to aggressive behavior of students in Indonesia," *European Journal of Educational Research*, vol. 10, no. 1, pp. 485–496, 2021, doi: 10.12973/eu-jer.10.1.485.

[10] Purwadi *et al.*, "Peace Guidance Based on the Perspective of *Markesot*: Acceptability and Effectiveness of Reducing Student Aggressiveness," *Pegem Egitim ve Ogretim Dergisi*, vol. 12, no. 1, pp. 213–221, 2022, doi: 10.47750/pegegog.12.01.22.

[11] W. N. E. Saputra, Y. Ayriza, I. B. Handaka, and E. Ediyanto, "The development of peace counseling model (PCM): Strategy of school counselor to reduce students' aggressive behavior," *Jurnal Kajian Bimbingan dan Konseling*, vol. 4, no. 4, pp. 134–142, 2019, doi: 10.17977/um001v4i42019p134.

[12] S. Alhadi, W. N. E. Saputra, and P. Purwadi, "Aggressive behavior profile of student's in Indonesia: Analysis of physical aggression, verbal aggression, anger, and hostility," *The 1st International Conference on Folklore, Language, Education and Exhibition (ICOFLEX)*, 2019, [Online]. Available: http://proceeding.unindra.ac.id/index.php/icoflex/article/view/5502.

[13] J. Galtung and D. Fischer, *Johan Galtung: Pioneer of peace research*. Springer, 2013.

[14] A. Goldweber, T. E. Waasdorp, and C. P. Bradshaw, "Examining the link between forms of bullying behaviors and perceptions of safety and belonging among secondary school students," *Journal of School Psychology*, vol. 51, no. 4, pp. 469–485, 2013, doi: 10.1016/j.jsp.2013.04.004.

[15] L. T. Back, E. Polk, C. B. Keys, and S. D. McMahon, "Classroom management, school staff relations, school climate, and academic achievement: testing a model with urban high schools," *Learning Environments Research*, vol. 19, no. 3, pp. 397–410, 2016, doi: 10.1007/s10984-016-9213-x.

[16] S. M. Daily, M. J. Mann, A. L. Kristjansson, M. L. Smith, and K. J. Zullig, "School climate and academic achievement in middle and high school students," *Journal of School Health*, vol. 89, no. 3, pp. 173–180, 2019, doi: 10.1111/josh.12726.

[17] W. N. E. Saputra, A. Supriyanto, B. Astuti, Y. Ayriza, and S. Adiputra, "The effect of student perception of negative school climate on poor academic performance of students in Indonesia," *International Journal of Learning, Teaching and Educational Research*, vol. 19, no. 2, pp. 279–291, 2020, doi: 10.26803/ijlter.19.2.17.

[18] A. K. Attri, "Gandhi and Luther Philosophies of Nonviolence," *International Journal of Peace, Education and Development*, vol. 2, no. 1 (April), pp. 19–23, 2014.

[19] M. Tandon, "Non violence and peace education-role of teachers and teacher education," *International Journal of Peace, Education and Development*, vol. 2, no. December, pp. 117–123, 2014, [Online]. Available: https://www.indianjournals.com/ijor.aspx?target=ijor:ijepd&volume=2&issue=2and3&article=010.

[20] L. E. Sponsel, "The anthropology of peace and nonviolence," *Diogenes*, vol. 61, no. 3–4, pp. 30–45, 2014, doi: 10.1177/0392192116648597.

[21] W. N. E. Saputra *et al.*, "Peace counseling approach (PCA) to reduce negative aggressive behavior of students," *Universal Journal of Educational Research*, vol. 8, no. 2, pp. 631–637, 2020, doi: 10.13189/ujer.2020.080236.

[22] J. A. D. Datu, "Peace of mind, academic motivation, and academic achievement in Filipino high school students," *Spanish Journal of Psychology*, vol. 20, p. E22, 2017, doi: 10.1017/sjp.2017.19.

[23] E. Broccoli, V. Canegallo, E. Santoddì, M. Cavarra, and R. A. Fabio, "Development and preliminary evaluation of the peace attitudes scale," *Peace and Conflict*, vol. 27, no. 3, pp. 512–517, 2021, doi: 10.1037/pac0000508.

[24] Y. C. Lee, Y. C. Lin, C. L. Huang, and B. L. Fredrickson, "The construct and measurement of peace of mind," *Journal of Happiness Studies*, vol. 14, no. 2, pp. 571–590, 2013, doi: 10.1007/s10902-012-9343-5.

[25] T. G. Bond and C. M. Fox, *Applying the Rasch model: Fundamental measurement in the human sciences*, 3rd ed. New York: Routledge, 2015.

[26] M. P. Rabbitt, "Causal inference with latent variables from the Rasch model as outcomes," *Measurement: Journal of the International Measurement Confederation*, vol. 120, pp. 193–205, 2018, doi: 10.1016/j.measurement.2018.01.044.

[27] B. Sumintono, "Rasch model measurements as tools in assessment for learning," *Proceedings of the 1st International Conference on Education Innovation (ICEI 2017)*, 2018, doi: 10.2991/icei-17.2018.11.

[28] Z. Khayyer, H. Oreyzi, K. Asgari, and S. Sikström, "Self-perception and interpersonal peacefulness: the mediating role of theory of mind and harmony," *Journal of Aggression, Conflict and Peace Research*, vol. 11, no. 3, pp. 180–199, 2019, doi: 10.1108/JACPR-10-2018-0383.

[29] B. Sumintono and W. Widhiarso, *Application of the Rasch model to social science research*. Cimahi: Trim Komunikata Publishing House (in Indonesian), 2014.

[30] L. L. Nelson, "Peacefulness as a personality trait," in *Peace Psychology Book Series*, Springer, New York, 2014, pp. 7–43, doi: 10.1007/978-1-4614-9366-2_2.

[31] J. Broadbent and W. L. Poon, "Self-regulated learning strategies & academic achievement in online higher education learning environments: A systematic review," *Internet and Higher Education*, vol. 27, pp. 1–13, 2015, doi: 10.1016/j.iheduc.2015.04.007.

[32] G. K. Sims, "Towards a theoretical model of personal peacefulness," *Personal Peacefulness, Psychological Perspectives*, Springer, New York, 2014, pp. 179–208, doi: 10.1007/978-1-4614-9366-2_8.

[33] J. M. Linacre, *A user's guide to WINSTEP MINISTEP Rasch model computer program*. 2008.

[34] J. P. Klein, G. Goertz, and P. F. Diehl, "The peace scale: Conceptualizing and operationalizing non-rivalry and peace," *Conflict Management and Peace Science*, vol. 25, no. 1, pp. 67–80, 2008, doi: 10.1080/07388940701860466.

[35] E. F. Rusydiyah, H. R. Virgiannada, M. Ridwan, B. A. Nugroho, and M. R. Rahman, "Clustering of learning media user data during COVID-19 pandemic using K-Means method based on multicultural culture in Indonesia," *Journal of Innovation in Educational and Cultural Research*, vol. 2, no. 2, pp. 67–76, 2021, doi: 10.46843/jiecr.v2i2.39.

[36] H. Zucker, R. Ahn, S. J. Sinclair, M. Blais, B. D. Nelson, and T. F. Burke, "Development of a scale to measure individuals' ratings of peace," *Conflict and Health*, vol. 8, no. 1, p. 17, 2014, doi: 10.1186/1752-1505-8-17.

[37] N. S. Da Rocha, E. Chachamovich, M. P. de Almeida Fleck, and A. Tennant, "An introduction to Rasch analysis for psychiatric practice and research," *Journal of Psychiatric Research*, vol. 47, no. 2, pp. 141–148, 2013, doi: 10.1016/j.jpsychires.2012.09.014.

[38] C. Hagquist and D. Andrich, "Recent advances in analysis of differential item functioning in health research using the Rasch model," *Health and Quality of Life Outcomes*, vol. 15, no. 1, p. 181, 2017, doi: 10.1186/s12955-017-0755-0.

[39] W. J. Boone, "Rasch analysis for instrument development: Why, when, and how?" *CBE Life Sciences Education*, vol. 15, no. 4, p. rm4, 2016, doi: 10.1187/cbe.16-04-0148.

[40] C. Van Zile-Tamsen, "Using Rasch analysis to inform rating scale development," *Research in Higher Education*, vol. 58, no. 8, pp. 922–933, 2017, doi: 10.1007/s11162-017-9448-0.

[41] J. T. Willse, "Polytomous rasch models in counseling assessment," *Measurement and Evaluation in Counseling and Development*, vol. 50, no. 4, pp. 248–255, 2017, doi: 10.1080/07481756.2017.1362656.

[42] R. P. Fadli, A. Alizamar, A. Afdal, and I. Ifdil, "Psychological well being youth inventory for domestic violence victims: Rasch model analysis," *COUNS-EDU: The International Journal of Counseling and Education*, vol. 4, no. 2, p. 69, 2019, doi: 10.23916/0020190421620.

[43] G. Makransky, M. E. Rogers, and P. A. Creed, "Analysis of the construct validity and measurement invariance of the career decision self-efficacy scale: A rasch model approach," *Journal of Career Assessment*, vol. 23, no. 4, pp. 645–660, 2015, doi: 10.1177/1069072714553555.

[44] N. Fakhri and S. Buchori, "Intrapersonal peacefulness in Indonesian adolescents," in *Proceedings of the 1st World Conference on Social and Humanities Research (W-SHARE 2021)*, 2022, vol. 654, doi: 10.2991/assehr.k.220402.040.

[45] D. F. Carreno, N. Eisenbeck, J. A. Pérez-Escobar, and J. M. García-Montes, "Inner Harmony as an Essential Facet of Well-Being: A Multinational Study During the COVID-19 Pandemic," *Frontiers in Psychology*, vol. 12, 2021, doi: 10.3389/fpsyg.2021.648280.

[46] L. L. Nelson, "Identifying determinants of individual peacefulness: A psychological foundation for peace education," *Peace and Conflict*, vol. 27, no. 2, pp. 109–119, 2021, doi: 10.1037/pac0000517.

[47] P. Enaigbe and N. Igbinoghene, "Challenges of managing and planning peace education and peace culture in Nigeria," *African Research Review*, vol. 10, no. 4, p. 83, 2016, doi: 10.4314/afrrev.v10i4.6.

[48] L. H. Gerstein and S. L. Moeschberger, "Building cultures of peace: An urgent task for counseling professionals," *Journal of Counseling and Development*, vol. 81, no. 1, pp. 115–119, 2003, doi: 10.1002/j.1556-6678.2003.tb00233.x.

[49] L. Grayshield, W. Mihecoby, and A. Mihecoby, "Indigenous ways of knowing as a philosophical base for the promotion of peace and justice in counseling education and psychology," *Journal for Social Action in Counseling & Psychology*, vol. 2, no. 2, pp. 1–16, 2010, doi: 10.33043/jsacp.2.2.1-16.

[50] V. V Lee, "A culture of positive peace: Counseling for structural and cultural transformation," in *Counseling for social justice* (3rd ed.), American Counseling Association Foundation, 2018, pp. 23–42.

[51] W. N. E. Saputra, W. Nurani, and M. Fauziah, "Developing a peace guidance book to alleviate student aggressiveness," *Jurnal Kajian Bimbingan dan Konseling*, vol. 6, no. 2, pp. 71–79, 2021, doi: 10.17977/um001v6i22021p071-079.

[52] W. N. E. Saputra, A. Mappiare-AT, N. Hidayah, M. Ramli, and T. Triyono, "KH Ahmad Dahlan's the Values of Peace in the Novel Entitled Sang Pencerah: A hermeneutics study," *Pegem Egitim ve Ogretim Dergisi*, vol. 11, no. 2, pp. 32–42, 2021.

[53] N. Sutarna and A. S. Anwar, "Value of character and philosophy of life KH. Ahmad Dahlan," *Istawa: Jurnal Pendidikan Islam*, vol. 5, no. 2, p. 206, 2020, doi: 10.24269/ijpi.v5i2.2558.

[54] W. N. E. Saputra, Y. Ayriza, A. Supriyanto, and B. Astuti, "The Indonesians' Peaceful Mind: A Gadamerian Hermeneutic Study of the Markesot Bertutur," *Proceedings of the 1st International Conference on Folklore, Language, Education and Exhibition (ICOFLEX 2019)*, 2021, doi: 10.2991/assehr.k.201230.052.

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