

Adaptation of Teenage Nonviolence Test to Measure the Peacefulness of Senior High School Students

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Abstract: This study aims to adapt the scale of teenage nonviolence test (TNT) that Mayton developed into the Indonesian cultural context to obtain a valid and reliable scale. By using descriptive method toward number of 2,293 students from some State Senior High Schools of Bandung and through Rasch modeling analysis, it is reported that all items can be correctly perceived by the students. Cronbach alpha reliability of .89 and unidimensionality of 36.5%, are both categorized good. The Indonesian version of the TNT scale has a high internal consistency in psychological nonviolence, physical nonviolence, and Satyagraha. Whereas in empathy/helping, Tapasya, and the active values orientation, internal consistency including medium category. The implications of the research still require further research on the scale of TNT at the level of education in elementary, junior and vocational schools, or among *santri* in *Pesantren* in order to obtain conclusive and comprehensive results, both urban and rural areas. This research, however, demonstrates a good dynamic, movement, progress, and a good beginning for the development of the TNT scale in the context of a rich ethnic Indonesia.

1 INTRODUCTION

Since the 1920s, Ki Hadjar Dewantara, a prominent educationist, stressed the importance of education based on an orderly and peaceful principle. "Order will not exist if it does not rely on peace. On the contrary, no one will live peacefully, if he is impeded in all conditions of his life. But the order and peace created in the school must be free from coercion, facilitated through a very democratic method among the people" (Majlis Luhur Persatuan Tamansiswa, 2013, p 48). Orderly and peaceful meaning refers to a dynamic state, not static, also free from injustice.

The concept of pedagogical development of peace in Indonesia, is a concern and considered as important component in discussing quality education. Peace pedagogy study is an implementation of peace education in line with the structure of UNICEF programs through the Millennium Development Goals (MDG, 2000); human rights principles in an effort to call for education that helps children, youth and adults to acquire skills such as conflict prevention and resolution and social and ethical values;

implementation of the 16th point "Sustainable Development Goals (SDGs):" Peace, Justice, and Strong Institutions -Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels " (UNESCO, 2017). Furthermore, the awareness of the importance of peace education is one of the important points of article 3 of the Presidential Regulation of the Republic of Indonesia number 87 of 2017 on Strengthening Character Education, which states that strengthening character education (PPK) is to apply *Pancasila* values, especially the values of peace loving. Reardon (1988), an expert on peace education affirms, peace can be interpreted as a dynamic behavior concept, active process, and describes a condition in which justice can be achieved, in the absence of violent behavior.

In an effort to build schools as a "safe and peaceful institution" and to become a pioneer of nonviolent institutions "which emphasizes the welfare of students in schools, as confirmed by Baswedan (2016, pp. 1), Lama (2016), Syrjäläinen, et al. (2015), Kartadinata (2016, 113), Bangchun (2013), Sneddon

(2010), Konu and Rimpelä (2002), Landau and Gathercoal (2000), the tendency to early peace behavior needs to be appropriate and accurately identified to respond to needs in order to empower students (Tang in UNESCO, 2017) on a sustainable development education system. This system is expected to inspire, encourage, and become an integral part of the effort to develop the mindset of student peacefulness. Student peacefulness refers to a process of developing a mindset, behavior, value orientation, corrective action, and conflict resolution in a student's life to create or achieve a peaceful and harmonious state. Peacefulness as a result refers to the process of development and not the endpoint of a peaceful and harmonious process because peacefulness is a condition that must be nurtured so that it is always in a dynamic optimum condition (Kartadinata, 2014).

So far, in Indonesia research on the peacefulness of high school students is still limited. In fact, since the last few years, in the United States, Mayton (2001, 2002, 2009), has developed the TNT scale of detecting a trend toward peaceful behavior among adolescents and his research reports on the extent to which adolescents support peace. The TNT was developed by Mayton based on the concept of Pacificism (Elliot, 1980), nonviolence concepts of Kool (1990), Kool and Sen (in Mayton II, 2009, pp. 219) and to a certain extent, Mohandas philosophy (1957, 1951, 1921) and Gandian Personality Scale (GPS) developed by Hasan and Khan in 1983 (in Mayton II, 2009, pp. 219) that concentrate on the concept of Ahimsa (nonviolence), Satyagraha (seeking wisdom and truth), and Tapasya (willingness to accept suffering). Gerstein, et al. (2014) affirmed the importance of testing TNT factorial structures in the US and in Hong Kong (Gerstein, et al, 2016). The purpose of this study is to see whether the scale of the peace detector is successfully translated and adapted so that it is feasible to use to ensure the tendency of peacefulness of high school students in Indonesia. Eventually, this adaptation is expected to succeed so as to enable this research to measure the peacefulness among high school students in Indonesia and compare it with existing peacefulness trends, for example in America and China (Mayton, 2009; Bangchun, 2013; Lama, 2016).

In further developments, Mayton (2001, 2002, 2009), reports that the TNT scale contains 55 items of Likert scale. Divided into firstly a physical nonviolence dimension (16 items) measuring awareness to reject various forms of behavioral violence or behavioral threats that could cause others to injury, force, limit or eliminate their behavior and

support alternative conflict resolution (acknowledging the existence of an ethical trust structure and moral). Secondly, psychological nonviolence (16 items) measuring awareness to reject various forms of psychological violence in the form of behavior or behavioral threats, contempt or ways that can degrade the dignity of human beings individually or in groups in an attempt to force, limit or eliminate behavior them and support alternative conflict resolution, conscious rejection of behavior that seeks to force by humiliation, intimidation, or other means of degrading the dignity of another person or group. Thirdly, using Gandhi's thinking scale, which has an orientation of active values. The insight contains a willingness to display behaviors designed to achieve a situation that fits the purpose, values, and norms. Fourthly, help or empathy, have an interest to help others in a small level of need though. Fifthly, Satyagraha, actively seeking a policy and willing to change the conception of the truth of his life. Sixthly, Tapasya or Tapa, that is willing to remain patient in the face of adversity or suffering, instead of causing new conflicts that can harm.

Mayton (in Bangchun, 2013, pp. 61) and Lama (2016, pp. 706) report high internal consistency for five of the six dimensions. TNT is highly correlated with 65 items of nonviolence test (NVT) developed by Kool and Sen (in Mayton, 2009), the Aggression Questionnaire (AQ) developed by Buss and Perry (in Lama, 2016) and students' self-assessment of aggressive tendencies (Mayton, 2009). Furthermore, the scale of physical and psychological nonviolence correlates $-.33$ and $-.38$ with teacher aggression ratings as measured on the Teacher Assessment Form (BAMED) (Baker, et al., 1991 in Lama, 2016). The Mayton TNT scale is a good instrument, but according to Lama (2016) and Bangchun (2013), it fails to test the gender score on each item. In addition, it is also explained that the Mayton scale is not one that tries to assess the tendency of high school students to take action in order to combat or combat the structural violence initiated by Gandhi and Martin Luther King. In 2001 Diamond (in Lama, 2016, Bangchun, 2013) succeeded in developing a nonviolence self-test (NST) and equipped TNT with the three items that contained the will to take action in fighting or against structural violence or fighting for justice.

This research was conducted to obtain valid and reliable TNT scale instrument based on Indonesian context. Then the data obtained from 2293 sample persons will show characteristics that may be relatively the same or different from previous data

based on a sample of American teenagers (Mayton, 2009) and China (Bangchun, 2013, Lama, 2016).

2 METHOD

2.1 Participants

The random sample for this study involved as many as 2293 students from 14 selected Bandung State Senior High Schools, consisting of male students as many as 1,149 (50.11%) and female students of 1,144 in number (49.89%), with a standard deviation of total data of .44.

2.2 Procedure

This survey was conducted in early August-October 2016. Firstly, this study involved about 28 students who have been trained first in understanding the instruction instruments and the flow of research that will be done. So every school was visited by two research students. Secondly, contacting the school management office to request permission for research at the school and contact the subject teachers and/or guidance and counseling teachers (BK teachers) designated for their learning hours/hours of BK services, a day before the survey. Thirdly, explain in detail in the sample class and answer student questions if there are certain items that have not been understood and motivating students to fill the questionnaire carefully and seriously. The time span required to work on the TNT scale is about 30-45 minutes. Fourthly, after filling out the questionnaire, each participant was given thanks.

The TNT scale scaling pattern has a range from deeply describing the respondent (5), describing oneself (4), simply describing oneself (3) lacking oneself (2), and not describing oneself (1). To test the validity and reliability of the items, Rasch modeling analysis (Sumintono and Widhiarso, 2015, pp. 51-57) and Boone (2016, pp. 1) emphasized that:

“Rasch analysis is a psychometric technique that was developed to improve the precision with which researchers construct instruments, monitor instrument quality, and compute respondents’ performances. Rasch analysis allows researchers to construct alternative forms of measurement instruments, which opens the door to altering an instrument in light of student growth and change. Rasch analysis also helps researchers think in more sophisticated ways with respect to the constructs (variables) they wish to measure....”

3 RESULTS AND DISCUSSION

3.1 Validity and Reliability

The TNT item validity figures range between .16-.59 at $p < .05$. This means that the validity of all TNT items adapted into Indonesian culture, can be perceived accurately by the respondents. The Cronbach alpha value of .89, including the good category (Sumintono and Widhiarso, 2015, pp. 109). The unidimensionality index is 36.5%, including the good category (Sumintono and Widhiarso, 2014, p. 122).

3.2 Internal Consistency

The Indonesian version of the TNT scale appears to have a high internal consistency for three of the six dimensions, with the Cronbach alpha coefficient of .85 on the psychological dimension of .76 in the physical nonviolence dimension, and .72 in the Satyagraha nonviolence dimension. Three of the other dimensions tend to be the internal consistent level ($\alpha = .67$ in the "empathy/help" dimension, $\alpha = .56$ on the "tapasya" dimension, $\alpha = .40$ on the dimension "orientation of active values"). More clearly this result can be seen in table 1 below.

Table 1: TNT internal consistency.

TNT subscale	Alpha coefficient		
	American (n=376)*	Chinese (n=313)*	Indonesian (n=2293)
Physical nonviolence	.90	.79	.76
Psychological nonviolence	.86	.83	.85
Active value orientation	.32	.37	.40
Helping/empathy	.80	.63	.67
Satyagraha	.77	.65	.72
Tapasya	.78	.60	.56

* Mayton, 2009, Bangchun, 2013, and Lama 2016

3.3 Comparison of Interrelations in Each Dimension

One of the six dimensions of TNT is intertwined with the high category significantly, namely the correlation coefficient between the dimensions of physical and psychological nonviolence. It appears

that Pearson's correlation for Indonesian samples is .819 (n = 2293) at p <.01. As for American samples (n=376) is .86 and China (n=313) is .56 (Mayton,

2009; Bangchun, 2013; Lama, 2016). In detail this result can be seen in table 2.

Table 2: Comparison of interrelated on each dimension.

Dimension	Psychological nonviolence	Active value orientation	Helping/empathy	Satyagraha	Tapasya
Physical nonviolence	.819**	.209**	.124**	.184**	.162**

**Correlation is significant at the .01 level (1-tailed)

3.4 Correlation of Willingness to Take Nonviolence (Items 8, 9, 10) with Each Dimension

Of the 55 items on the TNT scale, three items were adopted from nonviolence self-test (NST) from Louise Diamond (2001 in Lama, 2016), item 8, 9, and 10. It describes the desire or consciousness to take action in the realization of non-violence. These six dimensions of TNT are interconnected with moderate categories significantly, i.e. on the correlation coefficient between the willing action with the dimensions of helping or empathy (.519), Satyagraha (.508), psychological nonviolence (.468), and psychological nonviolence (.401), while for the

correlation of action with active value orientation (.380) and Tapasya (.282), both belong to the category of low relationship but still remains significant. These six results are very different from Bangchun (2013) and Lama (2016) (see Bangchun 2013 and Lama, 2016).

Other results of this study indicate a success in measuring the tendency of desire or awareness of high school students to take action in realizing nonviolence. These results also provide evidence support to the peaceful scale of Louise (2001) known as Louise Diamond Nonviolence Self-Test (NST). The total of these three items shows a significant relationship with each dimension. In detail this result can be seen in table 3.

Table 3: Correlation of willing to take action with the six dimensions of TNT.

Dimension	Physical nonviolence	Psychological nonviolence	Active value orientation	Helping/empathy	Satyagraha	Tapasya
Willing to action	.401**	.468**	.380**	.519**	.508**	.282**

**Correlation is significant at the 0.01 level (1-tailed)

3.5 Discussion

By comparing reliability between America, China, and Indonesia, it seems that the Indonesian version of TNT scale is promising, because it has a high internal consistency for three of the six dimensions measured. With the Cronbach alpha coefficient ($\alpha=.85$) on the dimension of psychological anti-violence, .76 on the physical hardness dimension, and .72 in the Satyagraha nonviolence dimension. Three of the other dimensions tend to have a moderate level of internal consistency ($\alpha=.67$ in the "empathy/help" dimension, $\alpha=.56$ on the "tapasya" dimension, $\alpha=.40$ on the dimension "active values orientation"). Interestingly, the acquisition of the Cronbach alpha coefficient in Chinese and Indonesian countries is relatively similar (see the six dimensions of nonviolence measured, the difference is not too far apart). For example, on the dimensions of physical

nonviolence, China=.79 and Indonesia=.76. Then, on the nonviolence psychological dimension, China=.83 and Indonesia=.85). Neither America, China, nor Indonesia, in the dimensions of psychological nonviolence, all of which show relatively few figures (AS=.86; China=.83; Indonesia=.85). Neither America, China, nor Indonesia, in the dimensions of psychological nonviolence, all of which show relatively few figures (AS=.86; China=.83; Indonesia=.85). In terms of the dimensions of physical violence and the empathy/help dimension, the American state is larger than China and Indonesia, but then it becomes relatively close to the dimensions of active values orientation. Then, in the dimensions of the American and Indonesian Satyagraha the figures are relatively not much different.

It is interesting to re-examine why almost all TNT items in Indonesian version (55 items) can be used. In this case, approximately 2293 respondents responded

appropriately. This means that high school students have the same perception and the instruments themselves are appropriate in formulating each dimension of TNT scale so that the instrument is reliable. The Indonesian version of TNT scale has successfully measured the tendency of peacefulness behavior.

By comparing the relationship between TNT scale dimensions, it appears that in the Indonesian context only the dimensions of physical nonviolence with high and significant psychological harm, while the rest are moderate, and even in China the relationship is weaker than America. In the correlation coefficient between the willing action with the dimensions of helping/empathy (.519), Satyagraha (.508), psychological nonviolence (.468), and physical nonviolence (.401). The four relationships are categorized as being medium. This means that high school adolescents have the potential of encouragement or desire to take action in realizing nonviolence or trying to bring about justice, while the rest for the correlation of willing action with the active value orientation and Tapasya, both belong to the category of low relations but is still significant, there is a desire or encouragement to take nonviolence action. These six results are very different from Bangchun (2013) and Lama (2016) (see Bangchun 2013 and Lama, 2016).

However, there are some limitations to this research. First, sample comes from one city from the selected schools taken based on simple random sampling so that the information is not complete and comprehensive. Second, trial reliability, concurrent coefficients and group validity among high school student groups have not been perfected by gender and class context. Third, TNT's validity has not been assessed or compared with other scales. Fourth, there may be a discrepancy in placing all TNT American items for immediate use in the Indonesian context.

4 CONCLUSIONS

There are some important and interesting things to do in the future TNT scale research in the Indonesian context. First, it is necessary to know the validity and reliability of TNT with a larger number of samples among elementary, junior, vocational and santri students in pesantrenan, both in urban and rural areas. Second, TNT's concurrent validity will be assessed on a different scale, e.g. Pacifism Scales developed by Elliot (1980), Nonviolence Test (NVT) developed by Kool and Sen (1984), Gandhian Personality Scale (GPS) developed by Hasan and Khan (1983),

Multidimensional Scales of Nonviolence (MSN) developed by Johnson et al., The Nonviolent Relationship Questionnaire (NVRQ) developed by Eckstein and La Grassa (2005), "Self-Assessment" of Nonviolence, Nonviolence Self-Inventory developed by French (2004), Self-Test on Nonviolence developed by Diamond (2011), Nonviolence Inventory of Your Home and Family developed by Diamond (2001).

REFERENCES

- Bangchun, L. 2013. The Peacefulness of Chinese Teenagers. *International Journal of Educational*, 2 3, 60-66.
- Baswedan, A. 2016. *Permendikbud 82/2015: Pencegahan dan Penanggulangan Tindak Kekerasan di Lingkungan Satuan Pendidikan*. Jakarta: Kemendikbud RI.
- Boone, W. J. 2016. Rasch Analysis for Instrument Development: Why, When, and How? *CBE Life Sciences Education*, 154, rm4.
- Elliot, G. C. 1980. Components of pacifism: conceptualization and measurement. *Journal of Conflict Resolution*, 24, 27-54.
- Gerstein, L.H., Chan, Y., Hutchison, A. et al. *Curr psychol* 2016. [Online] tersedia melalui: <https://doi.org/10.1007/s12144-016-9514-3>
- Gerstein, L.H., Mayton, D., Hutchison, A.N, Kirkpatrick, D. 2014. The teenage nonviolence test: a factor analytic investigation. *Revista de Cercetare si Interventie Sociala*, 44, 9-19.
- Kantor Prinsipal UNESCO untuk Kawasan Asia-Pasifik Bangkok dan Universitas Pendidikan Indonesia. 2000. *"Belajar untuk hidup bersama dalam damai dan harmoni: pendidikan nilai untuk perdamaian, hak-hak asasi manusia, demokrasi, dan pembangunan berkelanjutan untuk kawasan Asia-Pasifik"*. Buku sumber UNESCO-APNIEVE untuk pendidikan guru dan jenjang pendidikan tinggi. Bandung: Universitas Pendidikan Indonesia.
- Kartadinata, S. 2016. *Reveal The Veil of Guidance and Counseling In Pedagogic Effort*. Bandung: UPI Press.
- Konu, A., Rimpelä, M. 2002. Well-being in Schools: A Conceptual Model. *Health Promotion International*, 17 1, 79-87.
- Lama, D.C. 2016. Peacefulness of Chinese Teenagers in a High School. *International Journal of Educational Research and Reviews*, 705-711.
- Landau B.M., Gathercoal, P. 2000. *Creating Peaceful Classrooms: Judicious Discipline and Class Meetings*. 450-454.
- Lubelksa, A. 2012. Peaceful Schools. *International Journal of Children's Spirituality*, 17 2, 187-191.
- Majelis Luhur Persatuan Taman Siswa. 2013. *Ki Hadjar Dewantara: pemikiran, konsepsi, keteladanan, sikap merdeka*. Yogyakarta: Universitas Sarjanawiyata Taman Siswa UST-Press.

- Mayton, D. M. 2001. Nonviolence within cultures of peace: a means and an ends. *Peace and Conflict: Journal of Peace Psychology*, 7, 143–155.
- Mayton, D.M., Palmer, B.J. 1996. The Measurement of Nonviolence. 1-16.
- Mayton, D.M., 2009. Measurement Tools for Research on Nonviolence and Related Concept. *Nonviolence and Peace Psychology*, 219-237.
- Mayton, D.M. dkk. 2001. Nonviolent Tendencies of Adolescents across Gender and Grade. *Journal of Nonviolent Tendencies of Adolescents*, 3-14.
- Mayton, D.M. dkk. 2002. Measuring the Nonviolent Tendencies of College Students. 1-17.
- Peraturan Presiden Republik Indonesia Nomor 87 Tahun 2007 tentang Penguatan Pendidikan Karakter
- Reardon, B. 1988. *Comprehensive peace education*. New York. Teacher College. Columbia University.
- Sneddon, S. 2010. The Peaceable Classroom. [Online]. Diakses dari <http://www.promotingpeace.org/2010/3/sneddon.html>.
- Sumintono, B., Widhiarso, W. 2014. *Aplikasi Model Rasch untuk Penelitian Ilmu-ilmu Sosial*. Cimahi: Trim Komunikata Publishing House.
- Syrjäläinen, E., dkk. 2015. Young: Nordic journal of youth research, February, Volume 23, Number 1, 59-75.
- UNDP. 2000. Sustainable Development Goals: In 2000, 189 Countries of The World Came Together To Face The Future.
- UNESCO. 2017. *Education for Sustainable Development Goals Learning Objective*. Paris.

