



Developing the Religious Students Scenario Tolerance Assessment Paradigm (RS-STAP) Scale for Indonesia's Diverse Society

Albertos Damni

Institut Agama Islam Negeri Kerinci, Sungai Penuh, Indonesia

damnialbertos@gmail.com

Abstract

This research aims to develop a valid and reliable cultural tolerance measurement scale to measure religious students' tolerance towards cultural differences. The research was carried out in the context of Indonesia, a country rich in cultural diversity. This scale development method follows the Rasch analysis approach. The first study was the identification stage of cultural tolerance dimensions, discussions with cultural experts, generalization of scale items, and target population judgment, which resulted in six scenarios and 48 items. The second item validation study employed Rasch for all generalization items and determined four scenarios and 16 items with higher validity. The third study finalized items using advanced Rasch analysis by trying out the final scale that had been determined. The final scale consists of 16 items derived from four scenarios, with each scenario comprising four items. These items were selected based on their prominent levels of validity and reliability, ensuring that they accurately measure the construct of cultural tolerance. Each item was rigorously tested, and only those with strong statistical support were included in the final scale.

Keywords: Cultural Tolerance; Diversity; Stap Scale; Tolerance; Tolerance Scale.

A. Introduction

The essence of diversity has long been of concern to the world, starting from hypotheses and axioms to state mottos. For example, the motto of the European

Union is "Unity in Diversity," the United States is "E Pluribus Unum," and the country of Indonesia is "Bhinneka Tunggal Ika." God created everything with a specific aim and purpose, as does the diversity among His creatures, such as humans with ethnicity, religion, culture, and other diversities.

This diversity is formed and triggered by many things, including globalization (Torres & Tarozzi, 2020; Zajda et al., 2021). Globalization is the spread of practices, relations, consciousness, and organization of social life at the world level that are transformed and often drastically. Globalization will inevitably involve interactions with society, and it is not uncommon for this society to be multicultural. This multicultural society phenomenon will create cultural diversity through a process of interaction, which is often called acculturation (Georgas & Papastylianou, 2021). In cultural interactions, acculturation occurs between confrontation-fusion and archaism-futurism (Berry, 2017; Sam, 2015), between confrontation that rejects acculturation and fusion that dissolves acculturation, and between archaism, which tries to maintain the essence created in previous times, and futurism, which denies previous conditions, wanting change in the culture itself.

As is known, Indonesia is the largest archipelagic country in the world, located between the Pacific Ocean and the Indian Ocean. It is located on the Southeast Asian continent bordering the Australian continent. Besides that, Indonesia had interacted with other countries before independence in 1945 from Portugal, Spain, the Netherlands, and Japan. This interaction with other countries indirectly influences the culture of the indigenous population who live and form social groups on various islands in Indonesia. Geographical location and the interactions that occur also contribute to the formation of cultural diversity.

The Indonesian state's attention to diversity cannot be separated from the fact that Indonesia has relatively high cultural diversity. As wise citizens, recognizing the existence of this diversity (plurality) is needed. However, referring to normal circumstances, humans are interested in similarities. The more similar someone is to another, the more they like each other (Jamin & Damni, 2024; Nakano & Yamamoto, 2022). This similarity usually refers to identity, for example, cultural identity.

This interest in similarities will undoubtedly interact with the existence of diversity. As a result of this interaction, some produce new cultures and reproduce existing cultures. The rest modify old cultures so that diversity will grow over time. This growing diversity certainly requires harmony. This depends on how humans interpret

diversity in the social environment, which will more or less influence human life in society and the state (M. Huda et al., 2020). How this diversity is interpreted will ultimately shape the identity of each member of society (U. et al., 2023; Taufiqurrachman & Fauzi, 2023). This identity self-affiliation will be attached to each individual, whether created from their perception or the perception of others.

Awareness of these identities will make it easier for people to interpret diversity. However, suppose people are not careful in interpreting this identity. In that case, it can potentially create stereotypes, prejudice, racism, and, in extreme cases, an ethnocentric attitude in a negative context (Bizumic et al., 2021; Hinner, n.d.). On the other hand, ethnocentrism also has a positive side, such as a barrier to guard against the loss of native culture towards the environment and foreign culture (Gizatova & Ivanova, 2021; Stankov et al., 2020). Ethnocentrism strengthens nationalism and patriotism; without ethnocentrism, a passionate national consciousness will probably not occur. Nationalism is nothing other than the level of group loyalty in another form. The persistent spirit and cooperation in nationalism are the result of ethnocentrism.

The importance of cultural tolerance is heightened in the context of intercultural tensions arising due to differences in beliefs, values, or cultural norms (Gulyamov, 2023; Hameed & Jabir, 2022). Developing a scale measuring cultural tolerance is crucial for understanding how individuals or groups can overcome cultural inequalities and build positive relationships with people from different cultural backgrounds. As a basis for scientific research, cultural tolerance measurement scales can provide the quantitative data needed to identify factors influencing tolerance levels at individual and group levels. An in-depth understanding of the dimensions of cultural tolerance can also provide a basis for developing interventions or educational programs aimed at increasing cultural tolerance in society (Fatah et al., 2023; Futaqi & Mashuri, 2023).

Within the scope of social psychology, studies related to cultural tolerance can provide insight into how humans manage cultural differences in their social adaptation process (Gaffar et al., 2022). Additionally, this research can help understand the impact of cultural tolerance on an individual's psychological well-being and mental health. Therefore, this scientific article details the steps for creating a scale for measuring cultural tolerance. It aims to contribute to understanding the concept of cultural tolerance and provide a reliable tool for measuring such tolerance. A better understanding of cultural tolerance can provide a basis for developing policies,

education, and social interventions to build more inclusive societies, respect differences, and create supportive environments (Ahmadi, 2021; Safitri, 2020).

The development of scales to measure cultural tolerance has been extensively studied, with each research effort focusing on different dimensions and contexts. However, there remains a significant gap in the literature specifically addressing the context of religious university students. Various studies have constructed and validated scales to measure cultural tolerance, but few have delved into this particular demographic, highlighting the need for a more nuanced approach in this area. Isac et al. emphasized the importance of cross-cultural comparability in measuring tolerance, particularly in the context of European education policies. Utilizing the International Civic and Citizenship Education Study (ICCS 2016), they ensured valid comparisons across countries (Isac et al., 2019). Their study highlighted the necessity of robust measurement tools that can accommodate diverse cultural backgrounds. Nonetheless, while their focus was on educational settings, the specific context of religious university students was not explored, indicating another gap in the literature. In addition, Verkuyten and Kollar underscored the broad acceptance of tolerance as essential for culturally diverse societies' functioning (Verkuyten & Kollar, 2021). However, their work did not delve into specific measurement tools, leaving a gap in practical applications for measuring cultural tolerance among religious university students. Similarly, Tanyel and Kiralp's study on the Peace Education Program (PEP) demonstrated that targeted educational interventions could significantly enhance students' tolerance tendencies and human values. They measured these changes using pre-test and post-test designs but did not focus on the religious aspect, again highlighting a gap (Tanyel & Kiralp, 2021).

Moreover, Liberati et al. proposed a multidimensional index for measuring tolerance, breaking it down by social domains and weighting them according to their importance (Liberati et al., 2021). This approach provided a nuanced view of tolerance levels among university students in Italy. Despite its comprehensive methodology, the study did not specifically address religious contexts, thus not filling the gap for religious university students. Pajarianto et al. highlighted the role of family and local wisdom in fostering religious tolerance, suggesting that cultural approaches can effectively strengthen inter-religious relations and counteract radicalism (Pajarianto et al., 2022). Their findings, while relevant, focused more on community and family influences rather than the academic environment of university students. Lastly, Perez-Larrazabal et al. introduced the Perceived Organizational Tolerance for Psychological Workplace

Harassment (POT) scale, measuring organizational tolerance towards inappropriate acts (Perez-Larrazabal et al., 2019). While this scale emphasizes ethical responses in workplaces, its relevance to the academic setting and religious tolerance among university students remains limited.

Collectively, these studies illustrate the multifaceted nature of cultural tolerance and the diverse methodologies employed to measure it. However, they also highlight the critical need for context-specific tools that address the unique challenges religious university students face. Developing a cultural tolerance scale tailored to this demographic could provide valuable insights and contribute significantly to promoting tolerance in increasingly diverse academic settings. Moreover, utilizing modern test theory (MTT) approaches, such as Rasch analysis, in developing this scale can offer significant advantages. Rasch analysis provides a robust framework for measuring latent traits, ensuring that the scale is both reliable and valid across different groups (David Andrich & Marais, 2019; Fischer & Molenaar, 2012). This method allows for precisely measuring individual tolerance levels and ensures that the scale operates consistently regardless of the sample. Employing Rasch analysis can enhance the scale's ability to detect subtle differences in cultural tolerance among religious university students, offering a more accurate and detailed understanding of their attitudes and behaviors.

B. Method

This study adopted a structured methodological approach divided into three main stages to develop and validate the Religious Students Scenario Tolerance Assessment Paradigm (RS-STAP) Scale. The first stage, Study 1, focused on the initial scale development with detailed steps. This process began with identifying relevant dimensions of cultural tolerance through a thorough literature review and consultation with cultural experts. Collaboration with three cultural experts was then initiated to enrich perspectives and validate the relevance of the identified dimensions. In-depth discussions with cultural experts refine concepts within the scale and help establish a robust theoretical foundation for the study (Döringer, 2021).

The second stage, Study 2, took a more focused approach to item validation using the Rasch method. This process involved testing the psychometric properties of previously generalized items (Ackerman et al., 2023; D. Andrich, 2005, 2010). Respondents from diverse backgrounds and religious affiliations were selected as

samples to test the validity and reliability of the scale. Data collected from these samples were then analyzed using Rasch analysis techniques to evaluate the psychometric characteristics of each scale item, ensuring that they accurately reflected the measured constructs.

The final stage, Study 3, marked the scale finalization phase by applying more advanced Rasch analysis to the previously developed scale. Here, the main focus was on fine-tuning and improving the scale's accuracy through a deeper understanding of respondent characteristics and cultural tolerance dimensions (D. Andrich, 2005; Bond & Fox, 2013). A larger sample size, particularly consisting of students with significant religious affiliations, was used to broaden the generalizability of findings and the scale's construct validity. The outcomes of this stage are expected to provide valuable contributions to understanding cultural tolerance among students, especially those with diverse religious backgrounds.

C. Result and Discussion

1. Identifying Dimensions of Cultural Tolerance Among Religious Students

The scale development process for the study's first phase involved identifying dimensions of cultural tolerance, discussing with cultural experts, generalizing scale items, and assessing the target population. Identification of dimensions of cultural tolerance involved an in-depth understanding of the critical aspects or elements of cultural tolerance that the researchers wish to measure. This can include an open attitude towards cultural differences, the ability to adapt, and the willingness to understand and appreciate cultural diversity.

Then, after involving cultural experts in discussions to gain deeper insight and understanding of the dimensions of cultural tolerance, the researchers conclude that the tolerance scale must depart from the entity of tolerance in appreciating and respecting differences. Cultural experts can help identify essential elements and provide insight into how they can be measured effectively.

In fact, this tolerance period is the result of the development of the Michael Blake Gasser Scale, which initially adopted the Theory of Reasoned Action (TRA) developed by Icek Ajzen and Fishbein in 1980 (Fishbein, 1979; Hale et al., 2002; Montano & Kasprzyk, 2015). However, in its evolution, the Tolerance Scale adopted a more sophisticated approach by utilizing the Theory of Planned Behavior (TPB) framework, which is an extension and development of TRA by Icek Ajzen (Ajzen, 1991;

Conner, 2020; Conner & Armitage, 1998). TPB adds dimensions of planned behavioral decisions, such as perceived behavioral control and subjective norms, to provide a more comprehensive understanding of a person's behavior. By applying the TPB, this Tolerance Scale has a more robust and comprehensive theoretical basis for measuring tolerance towards cultural differences. This approach allows researchers to dig deeper into the factors that influence cultural tolerance behavior, providing a more complete and contextual understanding of the variability in individual responses to cultural diversity. In TPB, four key constructs are integral to understanding and predicting human behavior: (1) attitude towards the behavior, which reflects an individual's positive or negative evaluation of performing the behavior; (2) subjective norm, which involves perceived social pressure from important others to perform or not perform the behavior; (3) perceived behavioral control, which represents the perceived ease or difficulty of performing the behavior and is influenced by past experiences and anticipated obstacles; (4) intention, which is the motivational factor that indicates the likelihood of performing the behavior. These constructs collectively provide a comprehensive framework for analyzing how attitudes, social influences, and perceived control contribute to the formation of behavioral intentions and actual behavior.

The scale in this study comprises several scenarios containing each TPB construct, tailored specifically for religious students in higher education. The constructs on this scale include attitude towards differences, measured by statements 1 and 2, which assess students' positive or negative evaluations of cultural differences. Addressing normative beliefs regarding differences with subjective norms, captured by statements 3 and 4, explores students' social pressures from peers, faculty, and religious leaders to accept or reject cultural differences. Perception regarding one's ability to appreciate and respect differences, reflected in statements 5 and 6, examines students' perceived control over their capacity to respect and value cultural diversity. Lastly, intentions or behavior that will be carried out intolerant of differences, indicated by statements 7 and 8, assesses the likelihood of students engaging in behaviors that either support or oppose cultural tolerance. These constructs provide a comprehensive framework for understanding how religious university students form attitudes, perceive social influences, and evaluate their control over behaviors related to cultural tolerance, ultimately shaping their intentions and actions.

The scale has answer categories from strongly disagree, disagree, between agree and disagree, agree, and strongly agree. In this study, several scenarios were

developed to measure the attitudes and reactions of religious university students toward cultural differences using TPB constructs. The first scenario involves a student exchange program where the student lives in an area with prevalent animist and dynamism beliefs passed down from ancestors. The statements in this scenario aim to gauge the students' appreciation, acceptance, and respect for these beliefs and their willingness to engage in or criticize these cultural practices.

The second scenario describes a student exchange in a region with an annual celebration permitting public alcohol consumption and intoxication, examining the student's interest, approval, and perception of this cultural event. The third scenario involves a group assignment discussion where one member smokes, causing discomfort to others, and measures the student's attitudes towards smoking, respect for smokers, and conflict resolution. The fourth scenario occurs in a canteen where female students flirt with a male friend, exploring the student's views on gender roles, flirting behaviors, and gender equality.

The fifth scenario describes a holiday trip where friends decide to get tattoos, assessing the student's attitudes towards tattoos, cultural norms, and personal decisions about body art. The sixth scenario involves a family meal at a coworker's house, following a tradition where the oldest person eats first and the youngest eats last, measuring the student's respect for age-based dining norms and adherence to traditional practices. These six scenarios aim to comprehensively understand how religious university students perceive and react to various cultural situations.

2. Item Validation and Psychometric Analysis Using the Rasch Method

This second study implemented a focus on item validation using the Rasch method for all generalization items. The Rasch method was used to analyze and understand the psychometric characteristics of a scale or test, ensuring that each item was measured precisely and consistently. The results of Rasch analysis were employed to assess the validity and reliability of each item in the scale. After involving a Rasch analysis process on all generalization items, this study determined four scenarios and sixteen items with higher validity.

By applying Rasch analysis, this research can more deeply evaluate individual responses and performance on each item. The results of the Rasch analysis provide insight into the degree to which each item accurately measures the desired dimension of cultural tolerance. Additionally, the identification of four scenarios and sixteen items with higher validity indicates that these variables are exceptionally reliable in measuring the construct of cultural tolerance.

Table 1. General Description, Scale Category, and Correspondence Between Measurements and Categories

Person									
		121 INPUT		121 MEASURED		INFIT		OUTFIT	
		TOTAL	COUNT	MEASURE	REALSE	INMSQ	ZSTD	OHMSQ	ZSTD
MEAN		117.6	47.1	-.45	.16	1.02	-.4	1.08	-.1
S.D.		16.5	2.9	.31	.03	.60	2.8	.73	2.7
REAL RMSE		.16	TRUE SD	.26	SEPARATION	1.63	Person	RELIABILITY	.73
Item									
		48 INPUT		48 MEASURED		INFIT		OUTFIT	
		TOTAL	COUNT	MEASURE	REALSE	INMSQ	ZSTD	OHMSQ	ZSTD
MEAN		296.5	118.9	.00	.10	1.06	.1	1.08	.1
S.D.		90.2	2.0	.70	.03	.34	2.2	.40	2.2
REAL RMSE		.10	TRUE SD	.70	SEPARATION	6.67	Item	RELIABILITY	.98
CATEGORY									
		OBSERVED	OBSVD	SAMPLE	INFINIT	OUTFIT	ANDRICH	CATEGORY	
		COUNT	%	AVRGE	EXPECT	MNSQ	MNSQ	THRESHOLD	MEASURE
1	1	1670	29	-1.01	-.95	.93	1.14	NONE	(-2.14)
2	2	1514	27	-.65	-.67	.96	.94	-.72	-.81
3	3	1092	19	-.23	-.33	.72	.63	-.17	-.02
4	4	889	16	.16	.07	.83	.80	.07	.79
5	5	540	9	.37	.60	1.48	1.68	.82	(2.20)
MISSING		103	2	-.37					
CATEGORY									
		STRUCTURE		SCORE-TO-MEASURE			50% CUM.	COHERENCE	
		MEASURE	S.E.	AT CAT.	---ZONE---	PROBABLY	M->C	C->M	RMSR
1	NONE			(-2.14)	-INF	-1.48	81%	17%	1.0352
2	-.72	.03		-.81	-1.48	-.38	-1.13	35%	68%
3	-.17	.03		-.02	-.38	.35	-.31	34%	51%
4	.07	.04		.79	.35	1.50	.26	44%	33%
5	.82	.05		(2.20)	1.50	+INF	1.18	73%	16%

The importance of item validity in this context is to ensure that the scale truly reflects the desired dimensions of cultural tolerance so that the research results become more reliable and relevant. The results of the second study, using Rasch analysis, provide a solid empirical basis for the effectiveness of each item in measuring levels of cultural tolerance. Thus, this study makes an essential contribution to validating and improving the quality of the developed cultural tolerance scale, and the results can be used as a solid basis for further research or practical application in various cultural contexts.

The comparison of the observed model values with the expected model values was almost the same. The mean value = -0.1 and Standard Deviation = 1.04 were almost the same as the expected model value $N(0,1)$. Participants and items were highly productive for measurement. The Outfit and Infit values for participants and items were close to 1 (Outfit MNSQ Person = 1.08; Outfit MNSQ Item = 1.08; Infit MNSQ Person = 1.02; Infit MNSQ Item = 1.06). Thus, it can be concluded that the reliability of the measurement is classified as very good. The test and sample reliability score was 0.73 (High), and the item reliability value was 0.98 (Very High). A general description of the tolerance scale test results can be seen in Table 1.

Table 2. Point Measure Correlation and Outfit Mean Square from the Tolerance Scale

ENTRY NUMBER	TOTAL SCORE	TOTAL COUNT	MEASURE	MODEL S.E.	INFIT MNSQ	ZSTD	OUTFIT MNSQ	ZSTD	PT-MEASURE CORR.	EXP.	EXACT OBS%	MATCH EXP%
21	560	120	-2.41	.16	2.34	4.8	3.08	6.6	-.23	.18	70.0	69.8
6	449	117	-1.12	.09	1.24	1.8	1.37	2.6	-.04	.30	39.3	34.9
43	392	121	-.61	.08	.85	-1.5	.89	-1.1	-.01	.33	41.3	29.7
45	474	119	-1.27	.09	1.29	2.0	1.34	2.3	.03	.29	44.5	35.6
8	481	117	-1.41	.10	1.07	.6	1.26	1.7	.03	.28	41.9	36.9
46	367	120	-.48	.08	.87	-1.3	.89	-1.1	.05	.34	34.2	29.1
48	380	121	-.54	.08	.90	-1.0	.94	-.5	.12	.34	35.5	29.2
30	268	118	.14	.09	1.38	3.0	1.43	3.2	.12	.31	19.5	32.0
47	407	120	-.74	.08	.96	-.4	.96	-.3	.17	.33	37.5	30.4
28	329	117	-.29	.08	1.16	1.5	1.19	1.8	.18	.33	24.8	28.9
7	383	117	-.64	.08	.73	-2.8	.76	-2.4	.22	.33	32.5	29.8
36	237	121	.44	.09	1.05	.4	1.08	.6	.23	.28	33.9	34.5
42	413	120	-.78	.08	.79	-2.1	.84	-1.5	.25	.33	40.8	30.9
5	265	115	.11	.09	.90	-.9	.92	-.7	.25	.32	44.3	31.7
22	293	119	-.02	.08	.87	-1.2	.88	-1.1	.27	.31	39.5	30.6
31	274	121	.15	.09	.89	-1.0	.97	-.2	.27	.31	33.9	32.1
4	304	115	-.16	.08	.84	-1.5	.90	-.9	.29	.33	32.2	29.3
9	280	117	.04	.08	1.16	1.4	1.18	1.5	.29	.32	33.3	31.1
12	274	115	.05	.09	1.41	3.3	1.47	3.6	.29	.32	26.1	31.2
18	325	118	-.25	.08	.92	-.8	.93	-.7	.30	.33	28.8	29.2
44	408	121	-.72	.08	.85	-1.5	.86	-1.3	.31	.33	40.5	30.4
37	198	121	.85	.11	.96	-.2	.90	-.6	.31	.24	47.9	41.8
23	329	121	-.22	.08	.79	-2.2	.80	-2.1	.31	.33	40.5	29.2
35	207	120	.73	.11	.92	-.5	.88	-.7	.32	.25	44.2	38.2
24	207	119	.71	.11	.84	-1.0	.85	-1.0	.32	.25	52.1	37.7
1	364	118	-.49	.08	.66	-3.7	.68	-3.4	.33	.34	43.2	29.2
40	193	121	.91	.12	.77	-1.4	.75	-1.5	.33	.23	56.2	43.5
17	199	120	.81	.11	1.27	1.6	1.15	.9	.34	.24	43.3	40.2
39	209	121	.72	.11	1.40	2.4	1.28	1.7	.34	.25	41.3	38.4
41	396	121	-.64	.08	.82	-1.8	.82	-1.8	.36	.33	43.0	29.8
29	259	121	.26	.09	1.00	.1	.99	.0	.36	.30	37.2	32.6
20	200	120	.80	.11	1.94	4.8	1.77	3.9	.37	.24	36.7	39.7
2	307	118	-.13	.08	.83	-1.7	.84	-1.5	.38	.33	44.1	29.5
26	284	119	.04	.08	.91	-.8	.92	-.7	.39	.32	32.8	31.1
3	359	116	-.50	.08	.51	-5.8	.51	-5.8	.40	.34	47.4	29.2
32	203	121	.79	.11	.82	-1.2	.81	-1.2	.40	.24	50.4	39.4
38	212	121	.69	.10	1.17	1.1	1.08	.6	.40	.26	41.3	37.6
33	213	121	.68	.10	1.80	4.5	1.74	4.0	.41	.26	33.9	37.7
25	237	120	.42	.09	1.20	1.5	1.31	2.1	.41	.29	30.0	34.5
34	237	121	.44	.09	.98	-.1	.96	-.2	.43	.28	38.8	34.5
13	233	116	.39	.09	1.41	2.8	1.41	2.7	.44	.29	23.3	33.9
10	253	116	.22	.09	1.19	1.5	1.18	1.4	.44	.30	32.8	32.5
14	194	116	.80	.11	1.79	4.1	1.55	2.9	.46	.24	28.4	39.7
MEAN	296.5	118.9	.00	.09	1.06	.1	1.08	.1			39.1	34.5
S.D.	90.2	2.0	.70	.02	.34	2.2	.40	2.2			9.0	6.6

Upon evaluating these results, the conclusion that the analyzed scale is a valid and reliable tool for measuring dimensions of cultural tolerance among religious education students provides a strong basis for proceeding to the next step in this research. However, to strengthen the overall validity and reliability of the scale, further analysis was needed to identify items that may require revision or deletion. The next step involved conducting Point Measure Correlation and Outfit Mean Square analyses of the tolerance scale. These analyses provide a deep understanding of how each item contributes to accurately measuring cultural tolerance. Point Measure Correlation helps identify the relationship between individual responses and the total scale score, while Outfit Mean Square indicates the fit between actual responses and the Rasch model used (Ackerman et al., 2023; Linacre, 2002). Thus, these steps not only enhance the scale's construct validity but also increase confidence that this measurement tool students.

In the preliminary stages of evaluating the measurement scale's validity through Rasch analysis, a critical step involved diagnosing Item Polarity. This diagnostic process primarily utilized Point Measure Correlation (PMC) to assess item performance, typically yielding positive values that signify valid and unidirectional measurement items. However, exceptions to this trend could be noted for items 21, 6, and 43, each displaying negative PMC values. These findings are detailed comprehensively in Tables 3 and 4, which provide a nuanced examination of each item's alignment with Rasch measurement principles. The identification of items diverging from the expected positive PMC values prompts further scrutiny into potential reasons for their discordance, thereby informing subsequent refinements in the scale's construction and enhancing its overall validity and reliability in assessing targeted constructs within the research context (Linacre, 2002).

Table 3. General Issues in Item

NO	ITEM	Problem
1	Smoking can cause health problems (21, T35).	<i>Outfit</i> MNSQ > 2 <i>Infit</i> MNSQ > 2 <i>Outfit</i> ZSTD > 1.96 <i>Infit</i> ZSTD > 1.96
2	Smoking can disturb the concentration of non-smokers (20, T34).	<i>Outfit</i> MNSQ $\neq$ 1.5-2 <i>Infit</i> MNSQ $\neq$ 1.5-2 <i>Outfit</i> ZSTD > 1.96

		<i>Infit ZSTD</i>	> 1.96
3	I would not say I like the culture (33, T51).	<i>Outfit MNSQ</i>	≠ 1.5-2
		<i>Infit MNSQ</i>	≠ 1.5-2
		<i>Outfit ZSTD</i>	> 1.96
		<i>Infit ZSTD</i>	> 1.96
4	This ancestral heritage is contrary to the religion I follow (14, T26).	<i>Outfit MNSQ</i>	≠ 1.5-2
		<i>Infit MNSQ</i>	≠ 1.5-2
		<i>Outfit ZSTD</i>	> 1.96
		<i>Infit ZSTD</i>	> 1.96
5	This ancestral heritage needs to be preserved (12, T24).	<i>Outfit ZSTD</i>	> 1.96
		<i>Infit ZSTD</i>	> 1.96
6	A woman's nature is to wait (30, T46).	<i>Outfit ZSTD</i>	> 1.96
		<i>Infit ZSTD</i>	> 1.96
7	This ancestral inheritance has had a destructive impact (13, T25).	<i>Outfit ZSTD</i>	> 1.96
		<i>Infit ZSTD</i>	> 1.96
8	It requires sufficient knowledge to judge the belief as strange (6, T16).	<i>Outfit ZSTD</i>	> 1.96
		<i>Infit ZSTD</i>	> 1.96
9	The norm indicates politeness (45, T65).	<i>Outfit ZSTD</i>	> 1.96
		<i>Infit ZSTD</i>	> 1.96
10	I would not say I like that attitude (25, T41).	<i>Outfit ZSTD</i>	> 1.96
11.	Gender equality allows women to seduce men (27, T43).	<i>Outfit ZSTD</i>	< -1.96
		<i>Infit ZSTD</i>	< -1.96
12	I will invite a smoking friend out of the room and accompany him to chat (23, T37).	<i>Outfit ZSTD</i>	< -1.96
		<i>Infit ZSTD</i>	< -1.96
13	I would say to these people that the beliefs they hold are strange (7, T17).	<i>Outfit ZSTD</i>	< -1.96
		<i>Infit ZSTD</i>	< -1.96
14	I like the difference in beliefs (1, T11).	<i>Outfit ZSTD</i>	< -1.96
		<i>Infit ZSTD</i>	< -1.96
15	This public belief is unacceptable (3, T13).	<i>Outfit ZSTD</i>	< -1.96
		<i>Infit ZSTD</i>	< -1.96
16	I will ask my friends not to get tattoos (39, T57).	<i>Infit ZSTD</i>	> 1.96
17	I feel flattered by the norm (42, T62).	<i>Infit ZSTD</i>	< -1.96

Referring to the suitability criteria of the Point Measure Correlation (PMC) value, apart from being positive, the PMC value would be better in the range of 0.4-0.85. Almost all PMC values were not in that range, but the PMC value was valuable, around EXP or expected correlation, where this correlation value exhibited the expected value of the model expected in Rasch analysis (the closer the distance between PMC and EXP, the more the data fits the Rasch model.). Only items 45 and 8

needed further consideration, taking into account the value of PMC, which was close to zero. The value of EXP (expected correlation) was not too close, and the items that had to be eliminated from the start were items 21, 6, and 43, which had negative values. Apart from the table above, problematic items also needed to be looked at based on misfits, which can be seen fully in Figure 1 by considering the category selection structure in Table 3.

Table 4. Item Misfit

ENTRY NUMBER	DATA CODE	SCORE VALUE	DATA COUNT	%	AVERAGE ABILITY	S.E. MEAN	OUTF MNSQ	PTMEA CORR.	ENTRY NUMBER	DATA CODE	SCORE VALUE	DATA COUNT	%	AVERAGE ABILITY	S.E. MEAN	OUTF MNSQ	PTMEA CORR.	
21	***		1	1#	-.56			-.03	25	***		1	1#	-.30			.04	
1	1	5	4		-.19	.13	2.0	.17	1	1	56	47		-.60	.04	.9	-.44	
4	4	20	17		-.34*	.05	1.3	.16	2	2	32	27		-.40	.04	.5	.10	
5	5	95	79		-.49*	.03	1.1	-.23	3	3	17	14		-.24	.04	.6	.28	
20	***		1	1#	.19			.19	4	4	9	8		-.13	.08	.7	.29	
1	1	80	67		-.53	.03	1.0	-.36	5	5	6	5		-.43*	.22	1.6	.02	
2	2	25	21		-.36	.06	.8	.16	27	***		1	1#	-.30			.04	
3	3	1	1		-.22	.7	.07		1	1	24	20		-.69	.06	.9	-.39	
4	4	3	3		-.16	.10	.8	.15	2	2	44	37		-.48	.04	.9	-.06	
5	5	11	9		-.21*	.09	1.0	.26	3	3	30	25		-.38	.06	1.0	.12	
33	1	1	76	63	-.55	.03	1.0	-.41	4	4	16	13		-.22	.07	.8	.29	
2	2	25	21		-.36	.04	.5	.14	5	5	6	5		-.24*	.13	1.0	.15	
3	3	5	4		-.23	.13	.8	.15	23	1	1	19	16		-.59	.09	1.1	-.20
4	4	3	2		-.01	.16	.6	.23	2	2	28	23		-.54	.06	1.0	-.15	
5	5	12	10		-.22*	.11	1.1	.25	3	3	47	39		-.40	.03	.7	.12	
14	***		5	4#	-.48	.14		-.02	4	4	22	18		-.39	.05	1.1	.08	
1	1	80	69		-.53	.03	1.0	-.41	5	5	5	4		-.12	.14	.8	.23	
2	2	15	13		-.44	.08	1.1	.01	7	***		4	3#	-.43	.17		.01	
3	3	8	7		-.12	.08	.6	.29	1	1	6	5		-.59	.21	1.3	-.10	
4	4	5	4		-.12*	.05	.7	.22	2	2	19	16		-.56	.08	1.1	-.16	
5	5	8	7		-.15*	.09	1.0	.26	3	3	37	32		-.44	.05	1.1	.01	
12	***		6	5#	-.48	.12		-.02	4	4	47	40		-.43	.04	1.1	.06	
1	1	41	36		-.56	.05	1.0	-.27	5	5	8	7		-.26	.10	.9	.16	
2	2	29	25		-.48	.04	.8	-.06	1	1	3	2#		-.56	.17		-.06	
3	3	17	15		-.34	.06	.7	.15	2	2	9	8		-.56	.16	1.3	-.10	
4	4	16	14		-.22	.07	.8	.30	3	3	19	16		-.64*	.06	.7	-.28	
5	5	12	10		-.44*	.11	1.5	.01	4	4	50	42		-.45	.04	.8	-.01	
30	***		3	2#	-.17	.08		.14	5	5	33	28		-.34	.05	.9	.22	
1	1	45	38		-.51	.04	1.1	-.14	5	5	7	6		-.27	.11	1.0	.15	
2	2	24	20		-.36	.06	1.4	.15	3	***		5	4#	-.48	.14		-.02	
3	3	29	25		-.51*	.06	1.6	-.10	1	1	5	4		-.71	.10	.8	-.18	
4	4	12	10		-.39*	.11	1.3	.07	2	2	21	18		-.65	.07	.8	-.31	
5	5	8	7		-.32	.09	1.1	.12	3	3	53	46		-.44	.04	1.0	.03	
13	***		5	4#	-.46	.14		.00	4	4	32	28		-.31	.04	.7	.28	
1	1	59	51		-.59	.04	.9	-.46	5	5	5	4		-.33*	.20	1.1	.08	
2	2	24	21		-.38	.04	.5	.11	39	1	1	67	55		-.53	.04	1.0	-.29
3	3	14	12		-.29	.05	.7	.20	2	2	38	31		-.42	.04	.9	.06	
4	4	11	9		-.13	.08	.8	.33	3	3	4	3		-.12	.21	.7	.20	
5	5	8	7		-.34*	.12	1.3	.10	4	4	6	5		-.18*	.09	.8	.20	
6	***		4	3#	-.43	.17		.01	5	5	6	5		-.24*	.09	1.1	.16	
1	1	4	3		-.28	.25	2.0	.10	42	***		1	1#	-.17			.08	
2	2	13	11		-.46*	.08	1.3	-.01	1	1	6	5		-.62	.18	1.2	-.12	
3	3	16	14		-.46*	.08	1.2	-.01	2	2	14	12		-.59	.11	1.1	-.16	
4	4	49	42		-.46*	.04	1.1	-.03	3	3	37	31		-.51	.05	.9	-.13	
5	5	35	30		-.45*	.06	1.1	.01	4	4	47	39		-.35	.04	.7	.26	
45	***		2	2#	-.32	.18		.06	5	5	16	13		-.42*	.08	1.2	.04	
1	1	6	5		-.56	.20	1.4	-.08										
2	2	8	7		-.56*	.15	1.2	-.09										
3	3	10	8		-.57*	.07	.8	-.11										
4	4	53	45		-.33	.04	1.0	.34										
5	5	42	35		-.54*	.04	1.2	-.20										

Based on the figure above, it can be seen that 17 items experienced misfit, namely items with numbers 21, 20, 33, 14, 12, 30, 13, 6, 45, 25, 27, 23, 7, 3, 39 and 42. In item No.21, with the statement "smoking can cause health problems," the answer

was too easy for respondents to predict. For this item, no respondents chose answers in categories 2 and 3, while for category 1, only one respondent chose it. Apart from that, the value of the Outfit Mean Square was far from the acceptable tolerance threshold (0.4-1).

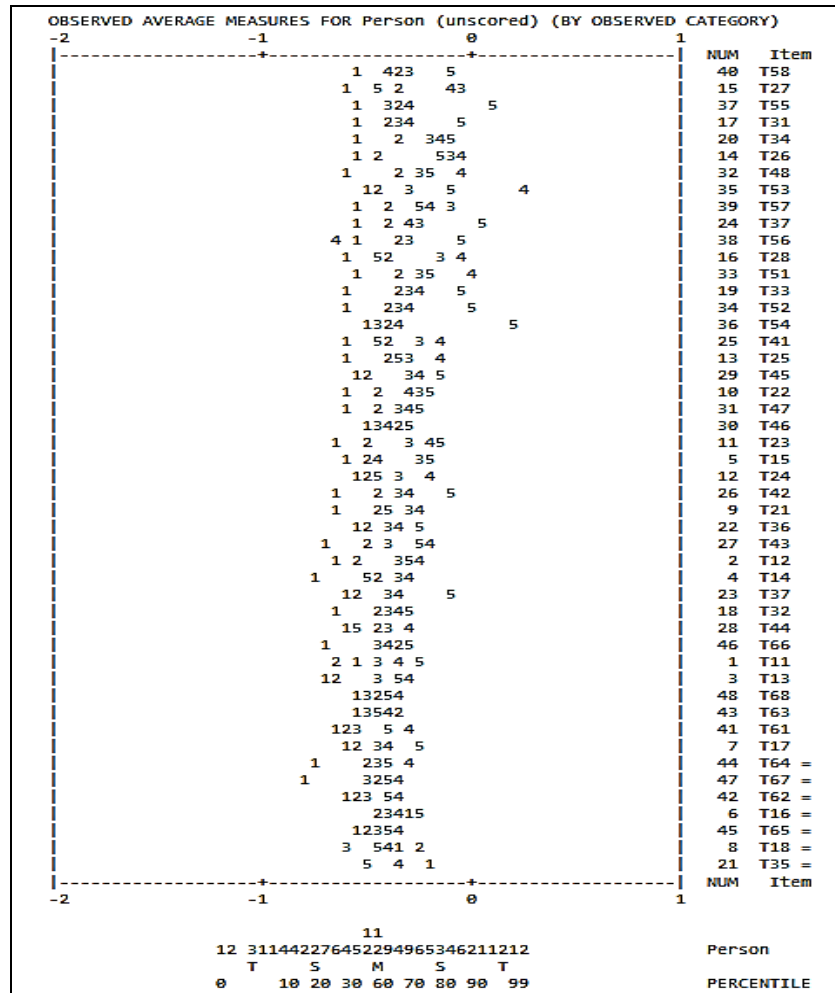


Figure 1. Results of Measurement Trials based on Ability and Category Selection

Item No. 20, with the statement "Smoking can disturb the concentration of non-smokers," the answer was too easy for respondents to predict. Respondents tended to choose answers in categories 1 and 2 on this item. In addition, the value of the Outfit Mean Square was far from the acceptable tolerance threshold (0.4-1.6).

Item No. 33, with the statement "I do not like that culture," the answer was too easy for respondents to predict. Respondents tended to choose answers in categories 1 and 2 for these items. Item No. 14, with the statement, "The ancestral heritage

conflicts with the culture that I follow," the answer was too easy for respondents to predict because it stated something different. Respondents tended to choose answers in categories 1 and 2 on this item. In addition, the value of the Outfit Mean Square was far from the acceptable tolerance threshold (0.4-1.6).

Item No. 6 states, "It takes sufficient knowledge to judge the belief as strange." This item has two main ideas in the sentence, which can confuse respondents in answering it. Item No. 45 has the statement, "These norms show politeness." The answer was too easy for respondents to predict. Respondents tended to choose answers in categories 4 and 5 for these items. Item No. 25, with the statement "I do not like that attitude," the answer was too easy for respondents to predict. Respondents tended to choose answers in categories 1 and 2 for these items. Item No. 27, with the statement "Gender Equality allows women to seduce men," the wording in the item confused respondents.

Item No. 23, with the statement "I will invite a friend who smokes out of the room and accompany him to chat," there are two sentences in one statement, so the respondent might be confused in answering. Item No. 7, with the statement "I will tell these people that the beliefs they hold are strange," there are two sentences in one statement, so the respondent might be confused in answering. Item No. 39, with the statement "I will ask my friends not to get tattoos," the answer was too easy for respondents to predict. Respondents tended to choose answers in categories 1 and 2 for these items. Therefore, the number of scenarios and final items that researchers obtained is four, with four items each. There are 37 items available without problems. The final scenarios used are 1, 2, 5, and 6 by eliminating scenarios with the most problematic items.

3. Advanced Rasch Analysis for Item Finalization and Validation in the Cultural Tolerance Scale Among Religious Education Students

In this third study, the research reached the item finalization stage by applying advanced Rasch analysis to a previously established scale. This process ensures that each item in the cultural tolerance scale remains consistent and valid in measuring the desired dimensions. Advanced Rasch analysis involved using the Rasch model to evaluate individual responses to each item, noting each item's difficulty level and discrimination.

By testing the final established scale, this research can identify potential improvements or further adjustments to certain items that may require revision. The results of follow-up Rasch analyses can provide a more in-depth look at the psychometric characteristics of each item, ensuring that the cultural tolerance scale has optimal measurement quality. In addition, this study can produce further information regarding the validity and reliability of the scale that has been developed. If weaknesses or discrepancies are found in some items, research can recommend changes or deletion of these items. This step is essential to ensure that the cultural tolerance scale is reliable and valid for describing and measuring cultural tolerance in a particular population.

For instance, the Islamic Temporal Focus Scale (ITFS) underwent rigorous validation processes, including exploratory and confirmatory factor analyses, to confirm its convergent validity with related constructs such as happiness and psychological stress, ensuring its scientific value and applicability in future studies (Aldahadha & Dwakat, 2024). Similarly, developing the Religious Conservatism Scale for university students involved a meticulous validation process using the Rasch Model Approach, which helped retain only the most relevant items, thereby enhancing the scale's accuracy and contextual applicability (Jamin & Damni, 2024). Reliability, on the other hand, ensures that the scale produces stable and consistent results over time.

For example, the RSS Scale demonstrated high reliability with Cronbach's alpha values ranging from 0.73 to 0.88, indicating its robustness in measuring religious and spiritual struggles across different samples (Esperandio et al., 2022). Furthermore, the scale development process, as outlined by DeVellis, emphasizes the importance of internal consistency reliability and classical test theory to ensure that the scales are reliable and can be generalized to broader populations (DeVellis, 2003). The development of the measure of religious head and heart beliefs also highlights the necessity of reliability and validity, as these attributes allow researchers to explore the nuanced differences between cognitive and emotional aspects of religious beliefs and their impact on well-being (Park & Carney, 2021). Therefore, ensuring the validity and reliability of religious scales is fundamental for advancing research, providing accurate assessments, and facilitating a deeper understanding of religious constructs.

The culmination of this third study represents a significant milestone with the successful development of a cultural tolerance scale, meticulously validated through the application of advanced Rasch analysis methodologies. This rigorous validation process ensures that the scale meets stringent criteria for measurement quality,

positioning it as a reliable instrument for evaluating cultural tolerance across a spectrum of research contexts and practical implementations. By refining and validating each item comprehensively, the scale not only promises robustness in its measurement properties but also facilitates a deeper understanding of the nuanced attitudes and behaviors associated with cultural tolerance within societal frameworks. The anticipated outcome of this endeavor is an enhanced capacity to capture and analyze complex dimensions of tolerance, thereby contributing substantially to the advancement of knowledge in this critical area. Researchers and practitioners alike are encouraged to consult Table 5 for an exhaustive overview of the research findings pertaining to the tolerance variable, providing a detailed elucidation of the scale's validation outcomes and implications for future studies and applications.

Table 5. Final Results

Person	390 INPUT		389 MEASURED		INFIT		OUTFIT	
	TOTAL	COUNT	MEASURE	REALSE	IMNSQ	ZSTD	OMNSQ	ZSTD
MEAN	42.3	15.7	-.22	.25	1.01	-.1	1.01	-.1
S.D.	7.0	1.6	.29	.05	.47	1.6	.48	1.5
REAL RMSE	.25	TRUE SD	.14	SEPARATION	.56	Person RELIABILITY	.24	
Item	16 INPUT		16 MEASURED		INFIT		OUTFIT	
	TOTAL	COUNT	MEASURE	REALSE	IMNSQ	ZSTD	OMNSQ	ZSTD
MEAN	1029.0	381.7	.00	.05	1.01	-.1	1.01	-.1
S.D.	193.9	2.5	.40	.00	.21	3.5	.22	3.5
REAL RMSE	.05	TRUE SD	.40	SEPARATION	8.31	Item RELIABILITY	.99	
Standardized Residuals N(0,1) Mean: -.01 S.D.: 1.01								

The measurement data for the tolerance variable comprised 389 samples out of a total of 390 samples and 16 items out of a total of 16 items. The distribution of this data appeared to be normal, evidenced by a mean value of -0.1 and a standard deviation of 1.01 (Linacre, 2012, p. 557). Detailed calculations of the reliability of the tolerance variable are presented in Table 6, offering comprehensive insights into the consistency and dependability of the measurement instrument. This empirical assessment validates the instrument's capacity to effectively capture and quantify the targeted tolerance dimensions within the specified research framework.

INPUT: 390 Person 16 Item REPORTED: 389 Person 16 Item 5 CATS WINSTEPS 3.73								
SUMMARY OF 389 MEASURED Person								
	TOTAL SCORE	COUNT	MEASURE	MODEL ERROR	INFIT		OUTFIT	
					MNSQ	ZSTD	MNSQ	ZSTD
MEAN	42.3	15.7	-.22	.23	1.01	-.1	1.01	-.1
S.D.	7.0	1.6	.29	.04	.47	1.6	.48	1.5
MAX.	62.0	16.0	.94	.71	2.49	3.9	2.70	3.8
MIN.	6.0	4.0	-1.67	.22	.12	-3.8	.11	-3.5
REAL RMSE	.25	TRUE SD	.14	SEPARATION	.56	Person	RELIABILITY	.24
MODEL RMSE	.23	TRUE SD	.17	SEPARATION	.76	Person	RELIABILITY	.36
S.E. OF Person MEAN = .01								
LACKING RESPONSES: 1 Person								
Person RAW SCORE-TO-MEASURE CORRELATION = .77								
CRONBACH ALPHA (KR-20) Person RAW SCORE "TEST" RELIABILITY = .58								
SUMMARY OF 16 MEASURED Item								
	TOTAL SCORE	COUNT	MEASURE	MODEL ERROR	INFIT		OUTFIT	
					MNSQ	ZSTD	MNSQ	ZSTD
MEAN	1029.0	381.7	.00	.05	1.01	-.1	1.01	-.1
S.D.	193.9	2.5	.40	.00	.21	3.5	.22	3.5
MAX.	1415.0	387.0	.83	.06	1.40	5.8	1.47	6.4
MIN.	675.0	378.0	-.73	.04	.66	-6.3	.64	-6.4
REAL RMSE	.05	TRUE SD	.40	SEPARATION	8.31	Item	RELIABILITY	.99
MODEL RMSE	.05	TRUE SD	.40	SEPARATION	8.65	Item	RELIABILITY	.99
S.E. OF Item MEAN = .10								
UMEAN=.0000 USCALE=1.0000								
Item RAW SCORE-TO-MEASURE CORRELATION = -1.00								
6108 DATA POINTS. LOG-LIKELIHOOD CHI-SQUARE: 17475.29 with 5701 d.f. p=.0000								
Global Root-Mean-Square Residual (excluding extreme scores): 1.1277								

Table 6. Reliability of the Scale

a. Person Reliability

Person Reliability in this measurement was relatively low, with a value of 0.24. This could indicate that the measuring instrument is not sensitive enough to separate those with high and low capabilities (Linacre, 2012, p. 644). However, the separation value was minimal, namely 0.56; the mean infit and outfit values were excellent (MNSQ, which is close to 1, ZSTD, which is almost close to 0), and the mean measure value was 0.0, indicating that the sample ability range was relatively the same. However, when measured using CTT (Classical Test Theory), this reliability value is classified as quite good, with a measuring value of 0.58.

b. Item Reliability and Fit Statistic

Item Reliability in this measurement was excellent, with a measurement value of 0.99; the MNSQ and ZSTD Infit and Outfit values were also excellent. The average MNSQ infit was 1.01, the average MNSQ outfit was 1.01, the ZSTD infit value was -0.1, and the ZSTD outfit was -0.1. All items could be categorized as very good based on the table above. This is indicated by the PMC values, which were all positive (in one direction of measurement), and the Outfit and Infit MNSQ values, which were all in the range of 0.5-1.5. The complete distribution of answer choices from respondents can be observed in Table 7.

Table 7. Fit Statistics

ENTRY	TOTAL	TOTAL		MODEL	INFIT		OUTFIT		PT-MEASURE		EXACT MATCH	
NUMBER	SCORE	COUNT	MEASURE	S.E.	MNSQ	ZSTD	MNSQ	ZSTD	CORR.	EXP.	OBS%	EXP%
15	1216	380	-.38	.04	.83	-3.3	.86	-2.6	.05	.31	31.3	25.3
4	1415	386	-.73	.05	1.40	5.8	1.47	6.4	.06	.30	26.4	31.7
14	1253	384	-.43	.04	1.01	.2	1.02	.4	.12	.31	30.2	25.9
6	1101	379	-.17	.04	1.32	5.4	1.36	5.8	.13	.31	20.8	25.3
13	1187	378	-.34	.04	1.01	.2	1.03	.5	.24	.31	28.8	25.2
16	1222	379	-.40	.04	.90	-1.9	.90	-1.8	.29	.31	28.2	25.8
12	894	382	.25	.05	1.40	5.5	1.37	5.0	.31	.30	27.7	34.2
11	675	382	.83	.06	.96	-.5	.94	-.7	.34	.24	42.4	38.5
5	1071	381	-.11	.04	1.13	2.2	1.11	2.0	.36	.31	20.2	25.8
7	940	382	.15	.05	1.08	1.3	1.07	1.1	.37	.30	31.4	32.1
10	901	384	.24	.05	.79	-3.4	.80	-3.2	.38	.29	38.5	33.5
8	777	387	.55	.05	1.05	.7	1.04	.6	.38	.26	34.6	37.8
1	1026	383	-.01	.04	.86	-2.6	.86	-2.4	.43	.30	33.9	27.2
3	924	380	.17	.05	.66	-6.3	.64	-6.4	.43	.29	48.4	32.3
9	796	381	.47	.05	.97	-.3	.94	-.7	.46	.27	43.3	37.1
2	1066	380	-.10	.04	.75	-4.9	.75	-4.9	.47	.31	28.4	25.9
MEAN	1029.0	381.7	.00	.05	1.01	-.1	1.01	-.1			32.2	30.2
S.D.	193.9	2.5	.40	.00	.21	3.5	.22	3.5			7.6	4.8

The figure above indicates the distribution of respondents' choice of item categories. Overall, the item categories in the measurement scale functioned well due to the selection of items in one direction of measurement (Linacre, 2012, p. 47), except item 15. The most accessible item to agree with was item 4, and the most challenging item to agree with was item 11. The tolerance measurement

Table 8. Tolerance Instrument Category Selection Structure

CATEGORY	OBSERVED	OBSVD	SAMPLE	INFIT	OUTFIT	ANDRICH	CATEGORY
LABEL	SCORE	COUNT	%AVRGE	EXPECT	MNSQ	MNSQ	THRESHOLD
1	1	1090	22	-.68	-.66	.99	1.03
2	2	1512	30	-.43	-.43	.98	.98
3	3	991	20	-.12	-.19	.87	.82
4	4	942	19	.07	.06	.98	.95
5	5	529	10	.25	.32	1.12	1.14
MISSING		104	2	-.10			

scale could be categorized as very good. Because the choices of "strongly disagree," "disagree," "between agree and disagree," "agree," and "strongly agree" were all worth less than 2, close to 1, and almost all were worth less than 1. The category selection structure for tolerance instruments can be seen in Table 8.

The influence of items variably approved in religious research manifests multifaceted implications, impacting the thoroughness and effectiveness of investigations. For instance, the integration of items about religious development within instruments such as the Posttraumatic Growth Inventory (PTGI) has proven challenging in less religiously inclined societies, implying potential limitations in universal applicability that might compromise the precision and applicability of research findings (Garrido-Hernansaiz et al., 2023). Consequently, maintaining a balance between the accessibility of approval and the imperative for meticulous, culturally attuned, and contextually pertinent research instruments becomes imperative for the progression of religious research and its diversified applications.

Table 9. Tolerance Instrument Category Selection Structure

CATEGORY LABEL	SCORE	OBSERVED COUNT	OBSVD %	SAMPLE AVRGE	INFINIT EXPECT	OUTFIT MNSQ	ANDRICH MNSQ	THRESHOLD	CATEGORY MEASURE
1	1	1090	22	-.68	-.66	.99	1.03	NONE	(-2.21)
2	2	1512	30	-.43	-.43	.98	.98	-.87	-.78
3	3	991	20	-.12	-.19	.87	.82	.11	.02
4	4	942	19	.07	.06	.98	.95	-.01	.80
5	5	529	10	.25	.32	1.12	1.14	.77	(2.15)
MISSING		104	2	-.10					

The table above reveals that the observed average and sample expectations had almost the same value, meaning that what happens in the field is as expected (Linacre, 2012, p. 323). To see how strongly the items form the measurement scale, the authors analyzed the Standardized Residual Variance in Eigenvalue, which can be seen in Table 9.

Table 10. Standardized Residual Variance in Eigenvalue

		-- Empirical --	Modeled
Total raw variance in observations	=	20.7 100.0%	100.0%
Raw variance explained by measures	=	4.7 22.9%	23.3%
Raw variance explained by persons	=	.4 1.7%	1.7%
Raw Variance explained by items	=	4.4 21.2%	21.6%
Raw unexplained variance (total)	=	16.0 77.1%	76.7%
Unexplnd variance in 1st contrast	=	2.7 13.0%	16.9%
Unexplnd variance in 2nd contrast	=	1.9 9.1%	11.8%
Unexplnd variance in 3rd contrast	=	1.8 8.5%	11.0%
Unexplnd variance in 4th contrast	=	1.5 7.1%	9.2%
Unexplnd variance in 5th contrast	=	1.2 5.8%	7.5%

From the table above, the unexplained variance in the first contrast problem was worth 2.7, which should not exceed 2 (Linacre, 2012, p. 397). However, the variance explained by the first contrast was 13% smaller than the difficulty item, which was worth 21.2%, which means it was not. There are secondary dimensions in the data because they have all been fully explained by the Rasch item difficulties.

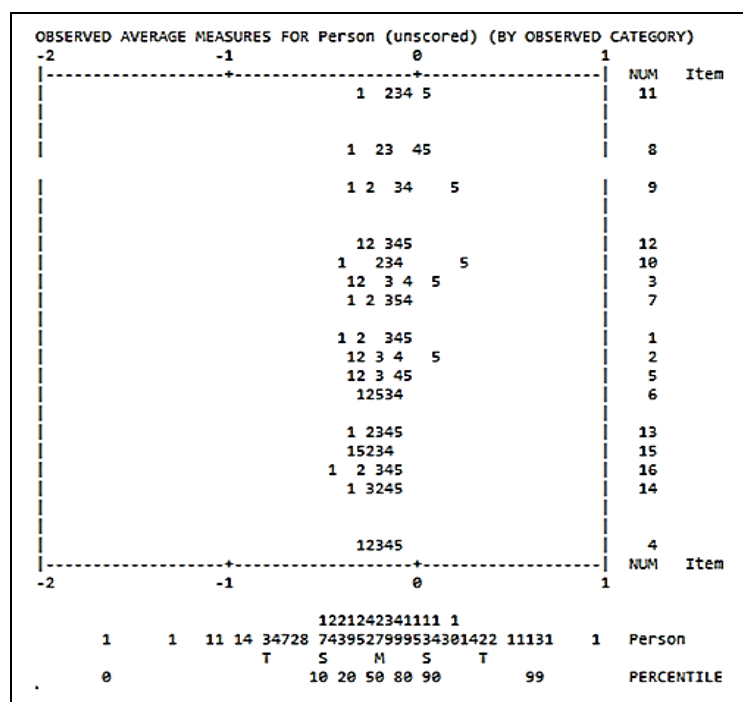


Figure 2. Distribution of Respondents' Selected Item Categories

Discussions regarding cultural tolerance in Indonesia in the context of research still face significant limitations. Most of the international study that has been conducted tends to emphasize religious tolerance, but the variance explained by the first contrast was 13% smaller than the item difficulties, which was worth 21.2%, which means there are no secondary dimensions in the data because Rasch has fully explained item difficulties (Hoffman, 2020; Mamayusupova & Gofurov, 2020). There is limited space left for an in-depth understanding of tolerance in the broader context of cultural diversity. Indonesia still focuses on religious tolerance (Azizi et al., 2021; Fahmi et al., 2023; Hidayat et al., 2023; Islam, 2020; Ratnaningsih et al., 2020). These studies often focus on specific dimensions of diversity. At the same time, the lack of research that explicitly examines cultural tolerance, in general, creates a gap in our understanding of diversity dynamics in Indonesia.

This limitation has essential consequences in describing and comparing levels of cultural tolerance in Indonesia. Without adequate research on cultural tolerance, it is not easy to form a comprehensive and accurate picture of how Indonesian society responds and interacts in the face of cultural diversity. Therefore, more in-depth and inclusive research on cultural tolerance needs to be emphasized to fill this knowledge gap. This is vital for the academic context and has significant implications for developing public policy and forming public attitudes toward cultural diversity in Indonesia. By expanding the scope of research, a more holistic and contextual understanding of the values of cultural tolerance can be achieved, reflected in the dynamics of Indonesian society.

In empirical data scarcity, researchers often rely on well-developed measurement instruments as pivotal references for discussing cultural tolerance variables. The creation of reliable and valid instruments becomes crucial in overcoming data limitations. While previous studies have predominantly focused on religious tolerance, an opportunity exists to extend and adapt these instruments to encompass broader dimensions of cultural tolerance. This adaptation is particularly pertinent in Indonesia, where cultural diversity is rich, but research on tolerance variables remains limited.

Integrating cultural tolerance into curricula, especially within Islamic education frameworks, assumes significant importance from an educational perspective. Educational institutions can promote understanding and respect for diverse cultural backgrounds (Bezerra & Coutinho, 2024; Eden et al., 2024). Moreover, such initiatives

align with the broader societal goal of nurturing inclusive attitudes and behaviors among future generations.

Furthermore, this research underscores the implications of cultural tolerance for social dynamics in Indonesia. The dearth of research in this area highlights the study's pivotal contribution in advocating for increased attention to cultural tolerance within Indonesian society. Enhancing research in cultural tolerance not only enriches scientific literature but also provides a robust foundation for social policies and interventions. By comprehensively understanding cultural tolerance variables, Indonesian society can effectively manage cultural diversity, cultivate inclusive relationships, and foster harmony amidst societal differences. This holistic approach aligns with educational objectives and reinforces the ethical and moral imperatives emphasized in religious teachings across diverse faith communities in Indonesia.

SCENARIO ONE

I participated in a student exchange in another country. While in that country, I lived in an area where most of the population adhered to animist and dynamist beliefs, which were passed down from the area's ancestors. On certain days, the people of this area worship the spirits of their ancestors by bringing heirloom objects that they believe contain magical powers.

Animism and dynamism are beliefs passed down from generation to generation.

I find the belief unreasonable (+).

People's beliefs are strange (-).

I do not understand why they hold these beliefs (-).

I respect their beliefs and will not raise the issue (+).

SCENARIO TWO

After college, some friends and I went to the canteen for lunch. While eating, we discussed the subjects we had just studied. While having fun discussing one of our male friends, he was teased by female students who were also eating and drinking in the canteen.

It is common nowadays for women to flirt with men first.

1. *I appreciate the woman's courage (+).*

2. *Women flirting with men is taboo (-).*

3. *There is nothing wrong if women flirt with men (+).*

4. *I would tell the female students to stop and ask them if they are not embarrassed to be more aggressive than men (-).*

SCENARIO THREE

I went on holiday with my friends to an area famous for its beautiful beaches. While walking in a shopping center, one of my friends asked me to go to a tattoo stand. He invited us to paint tattoos on our body parts. Several of my friends agreed to get a tattoo on one part of their body.

Tattoos are a form of artistic beauty permanently painted on the body.

1. *I feel strange about people with tattoos (-).*

2. *Tattoos are synonymous with crime (-).*
3. *Tattoos can damage the skin (-).*
4. *I kept quiet and followed what my friend was doing (+).*

SCENARIO FOUR

I went to stay at a coworker's house. I was greeted well when I got there. I was then invited to eat with my friend's extended family. However, I noticed that at the meal, the food order started with the oldest person first, and the last person was the youngest. Likewise, young people should not precede older people to finish their meal after eating.

It is impolite to precede older people in taking food or finishing eating.

1. *I would not say I like that norm (-).*
2. *These norms are not in line with the times (+).*
3. *These norms only apply in that area (+).*
4. *I will not follow those norms and do what I believe in (-).*

Figure 3. The Religious Students' Scenario Tolerance Assessment Paradigm (RS-STAP) Scale

D. Conclusion

The Cultural Tolerance Scale developed in this research has proven to be both reliable and valid in assessing the dimensions of cultural tolerance. These findings significantly advance the theoretical understanding of cultural tolerance and offer practical applications across various academic and social contexts. This research emphasizes the critical role of tolerance and cultural education in fostering an inclusive and respectful environment. Specifically, from the perspective of Islamic education, the study underscores the necessity of integrating cultural tolerance within educational frameworks. This integration promotes respect, understanding, and peaceful coexistence, fundamental to Islamic teachings. The impact of this research is multifaceted: it provides a robust foundation for future studies, enhances the theoretical discourse on cultural tolerance, and supports practical efforts to cultivate a deeper understanding and appreciation of cultural diversity within society. Consequently, this contributes to a more harmonious and tolerant community, aligning with academic and religious educational goals.

REFERENCES

- Ackerman, T., Ma, Y., Ma, M., Pacico, J. C., Wang, Y., Xu, G., Ye, T., Zhang, J., & Zheng, M. (2023). *Item Response Theory* (R. J. Tierney, F. Rizvi, & K. B. T.-I. E. of E. (Fourth E. Ercikan (eds.); pp. 72–85). Elsevier. <https://doi.org/10.1016/B978-0-12-818630-5.10010-7>

- Ahmadi, B. (2021). Analisis Persepsi Pelajar Tingkat Menengah pada Sekolah Tinggi Agama Islam Negeri Kudus. *Edukasia: Jurnal Penelitian Pendidikan Islam*, 10(1), 189–210. <https://doi.org/10.21043/edukasia.v17i2.16434>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Aldahadha, B., & Dwakat, M. Al. (2024). Development of an Islamic Temporal Focus Scale: Factorial Analysis, Validity, and Reliability. *Islamic Guidance and Counseling Journal*. <https://doi.org/10.25217/0020247442900>
- Andrich, D. (2005). Rasch, Georg. *Encyclopedia of Social Measurement*, 299–306. <https://doi.org/10.1016/B0-12-369398-5/00477-1>
- Andrich, D. (2010). Rasch Models. *International Encyclopedia of Education*, 111–122. <https://doi.org/10.1016/B978-0-08-044894-7.00258-X>
- Andrich, David, & Marais, I. (2019). A course in Rasch measurement theory. In D. Andrich y I. Marais (Coords.), *Measuring in the Educational, Social and Health Sciences* (pp. 41–53). Springer Singapore. <https://doi.org/10.1007/978-981-13-7496-8>
- Berry, J. W. B. T.-R. M. in N. and B. P. (2017). Acculturation☆. In *Reference Module in Neuroscience and Biobehavioral Psychology*. Elsevier. <https://doi.org/10.1016/B978-0-12-809324-5.05455-9>
- Bezerra, A. A., & Coutinho, D. J. G. (2024). Diversity and multiculturalism in education. *Revista Ibero-Americana de Humanidades, Ciências e Educação*. <https://doi.org/10.51891/rease.v10i4.13515>
- Bizumic, B., Monaghan, C., & Priest, D. (2021). The return of ethnocentrism. *Political Psychology*, 42, 29–73. <https://doi.org/10.1111/pops.12710>
- Bond, T. G., & Fox, C. M. (2013). *Applying the Rasch model: Fundamental measurement in the human sciences*. Psychology Press. <https://doi.org/10.4324/9781410614575>
- Conner, M. (2020). Theory of planned behavior. *Handbook of Sport Psychology*, 1–18. <https://doi.org/10.1002/9781119568124.ch1>
- Conner, M., & Armitage, C. J. (1998). Extending the theory of planned behavior: A review and avenues for further research. *Journal of Applied Social Psychology*, 28(15), 1429–1464. <https://doi.org/10.1111/j.1559-1816.1998.tb01685.x>
- DeVellis, R. (2003). *Scale Development: theory and application*. <https://doi.org/10.12691/education-7-4-7>
- Döringer, S. (2021). ‘The problem-centred expert interview’. Combining qualitative interviewing approaches for investigating implicit expert knowledge. *International Journal of Social Research Methodology*, 24(3), 265–278.

- <https://doi.org/10.1080/13645579.2020.1766777>
- Eden, C. A., Chisom, O. N., & Adeniyi, I. S. (2024). Cultural competence in education: strategies for fostering inclusivity and diversity awareness. *International Journal of Applied Research in Social Sciences*. <https://doi.org/10.51594/ijarss.v6i3.895>
- Esperandio, M. R. G., Viacava, J. J. C., Franco, R. S., Pargament, K. I., & Exline, J. J. (2022). Brazilian Adaptation and Validation of the Religious and Spiritual Struggles (RSS) Scale—Extended and Short Version. *Religions*, 13(4), 282. <https://doi.org/10.3390/rel13040282>
- Fatah, A., Syukur, F., Ihsan, I., & Saadah, H. (2023). Values of Tolerance Through Religious Learning at Al-Hikmah Lasem Islamic Boarding School: Concepts, Strategies, and Challenges. *Edukasia : Jurnal Penelitian Pendidikan Islam*, 18(1), 55. <https://doi.org/10.21043/edukasia.v18i1.18859>
- Fischer, G. H., & Molenaar, I. W. (2012). Rasch models: Foundations, recent developments, and applications. *Springer*.
- Fishbein, M. (1979). *A theory of reasoned action: some applications and implications*.
- Futaqi, S., & Mashuri, S. (2023). Intellectual Capital of Islamic Boarding Schools to Build Multicultural Education Epistemology. *Edukasia : Jurnal Penelitian Pendidikan Islam*, 18(1), 1. <https://doi.org/10.21043/edukasia.v18i1.17329>
- Gaffar, A., Falah, R. Z., & Syarif, Z. (2022). Inclusive Islamic Education in the Framework of Inter-Religious Harmony: A Study of Mohammad Talbi's Thoughts. *Edukasia : Jurnal Penelitian Pendidikan Islam*, 17(2), 207. <https://doi.org/10.21043/edukasia.v17i2.16434>
- Garrido-Hernansaiz, H., Collazo-Castiñeira, P., Collado, S., & Rodríguez-Rey, R. (2023). The religious faith item of the Spanish Posttraumatic Growth Inventory (PTGI) and its Short Form (PTGI-SF): challenges and solutions. *European Journal of Psychotraumatology*, 14. <https://doi.org/10.1080/20008066.2023.2263320>
- Georgas, J., & Papastylianou, D. (2021). Acculturation and ethnic identity: The remigration of ethnic Greeks to Greece. In *Key issues in cross-cultural psychology* (pp. 114–127). Garland Science.
- Gizatova, G. K., & Ivanova, O. G. (2021). Ethnicity and national culture: past, present future. *Revista EntreLinguas*.
- Gulyamov, X. (2023). INTER-ETHNICITY IN THE FORMATION OF CIVIL SOCIETY IN UZBEKISTAN HARMONY AND RELIGIOUS TOLERANCE. *Interpretation and Researches*, 1(12).
- Hale, J. L., Householder, B. J., & Greene, K. L. (2002). The theory of reasoned action. *The Persuasion Handbook: Developments in Theory and Practice*, 14(2002), 259–286.

- Hameed, A. R., & Jabir, S. K. (2022). The Religious Institution's Role in Spreading the Tolerance Culture. *Resmilitaris*, 12(2), 3000–3008.
- Hinner, M. B. (n.d.). IDENTIFYING POTENTIAL CURRICULA CONTENTS TO REDUCE ETHNOCENTRISM, STEREOTYPES, AND PREJUDICES. *Ss Cyril and Methodius University in Skopje Универзитет „Св. Кирил и Методиј“ во Скопје*, 106.
- Huda, M., Nor Muhamad, N. H., Isyanto, P., Muhamat, R., Marni, N., Ahmad Kilani, M., & Safar, J. (2020). Building harmony in diverse society: Insights from practical wisdom. *International Journal of Ethics and Systems*, 36(2), 149–165.
- Huda, U., & Sugiarti, I. (2023). HARMONY OF RELIGIOUS DIVERSITY IN BANYUMAS. *LEAD (Language, Education and Development)*, 2(2), 28–41.
- Isac, M. M., Palmerio, L., & Werf, M. P. C. Van der. (2019). Indicators of (in)tolerance toward immigrants among European youth: an assessment of measurement invariance in ICCS 2016. *Large-Scale Assessments in Education*, 7(6), 1–21. <https://doi.org/10.1186/S40536-019-0074-5>
- Jamin, A., & Damni, A. (2024). The scale of religious conservatism among Muslim students in Indonesia: A Rasch Analysis. *HTS Teologiese Studies/Theological Studies*, 80(1), 9134.
- Liberati, C., Longaretti, R., & Michelangeli, A. (2021). Measuring Tolerant Behavior. *Jahrbucher Fur Nationalokonomie Und Statistik*, 241(2), 149–171. <https://doi.org/10.1515/JBNST-2019-0030>
- Linacre, J. M. (2002). What do infit and outfit, mean-square and standardized mean. *Rasch Measurement Transactions*, 16(2), 878.
- Montano, D. E., & Kasprzyk, D. (2015). Theory of reasoned action, theory of planned behavior, and the integrated behavioral model. *Health Behavior: Theory, Research and Practice*, 70(4), 231.
- Nakano, T., & Yamamoto, T. (2022). You trust a face like yours. *Humanities and Social Sciences Communications*, 9(1), 226. <https://doi.org/10.1057/s41599-022-01248-8>
- Pajarianto, H., Pribadi, I., & Sari, P. (2022). Tolerance between religions through the role of local wisdom and religious moderation. *Theological Studies/Teologiese Studies*, 78(4). <https://doi.org/10.4102/hts.v78i4.7043>
- Park, C. L., & Carney, L. M. (2021). Religious head versus heart beliefs: Measurement development and validation. *Psychology of Religion and Spirituality*. <https://doi.org/10.1037/REL0000352>
- Perez-Larrazabal, J., Lopezdelallave, A., & Topa, G. (2019). Organizational Tolerance for Workplace Harassment: Development and Validation of the POT Scale.

- Sustainability*, 11(15), 4078. <https://doi.org/10.3390/SU11154078>
- Safitri, E. (2020). Instilling the Value of Religious Pluralism as the Effort to Overcome the Religious Conflict. *Edukasia : Jurnal Penelitian Pendidikan Islam*, 15(1), 19. <https://doi.org/10.21043/edukasia.v14i2.3897>
- Sam, D. L. (2015). Acculturation. In J. D. B. T.-I. E. of the S. & B. S. (Second E. Wright (Ed.), *International Encyclopedia of the Social & Behavioral Sciences* (pp. 68–74). Elsevier. <https://doi.org/10.1016/B978-0-08-097086-8.24034-8>
- Stankov, L., Međedović, J., Lazarević, L. B., Petrović, B., & Knežević, G. (2020). Sociopsychological correlates of militant extremist beliefs in a postconflict society: The importance of ethnocentrism and quality of interethnic contacts. *Group Processes & Intergroup Relations*, 23(8), 1249–1266.
- Tanyel, S. S., & Kıralp, F. S. Ş. (2021). Tolerance for Sustainable Peace Culture in a Divided Society: The effect of Peace Education on Tolerance Tendency and Human Values. *Social Indicators Research*, 156(1), 1–24. <https://doi.org/10.1007/S11205-021-02630-W>
- Taufiqurrachman, M., & Fauzi, A. M. (2023). Harmony in Diversity: The Dynamics of Interfaith Families. *Jurnal Sosiologi Agama Indonesia (JSAl)*, 4(3), 328–341.
- Torres, C. A., & Tarozzi, M. (2020). Multiculturalism in the world system: towards a social justice model of inter/multicultural education. *Globalisation, Societies and Education*, 18(1), 7–18.
- Verkuyten, M., & Kollar, R. (2021). Tolerance and intolerance: Cultural meanings and discursive usage: *Culture and Psychology*, 27(1), 172–186. <https://doi.org/10.1177/1354067X20984356>
- Zajda, J., Rust, V., Zajda, J., & Rust, V. (2021). Globalisation and cultural identity: The role of intercultural dialogue. *Globalisation and Comparative Education: Changing Paradigms*, 177–186.