

The Psychometric Device of the Scale of Cultural Intelligence in the Context of Social Media for Indonesian Adolescents

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KEYWORDS

Cross-cultural intelligence, psychometric of cultural intelligence, cultural differences, cultural diversity, social media

ABSTRACT

Through social media, any individual can interact with individuals from numerous cultural foundations. One element that becomes significant in maintaining amicable correspondence on social media is cultural intelligence. As a psychometric device, the objective of this examination was to make and approve the Scale of Cultural Intelligence in the Context of Social Media (SCICSM). Very little exploration has been finished to foster a device for assessing cultural intelligence in the setting of social media. A trial of develop legitimacy was administered to 1,000 understudies in Malang, Indonesia. The 20-thing SCICSM is delegated great, careful, and proper with the model according to the information investigation using the Rasch model. The SCICSM was viewed as a pertinent and reliable instrument for assessing understudies' social media-based cultural intelligence. The results and commitments to the advancement of direction and counseling administrations are shrouded in this article.

1. Introduction

Social media, a result of the more complex interchanges innovation of the Industrial Upheaval 4.0 age, is proof that times are changing (Grover et al., 2022; Huang et al., 2022; Masood et al., 2020). Social media has turned into a worldwide norm and has extraordinarily influenced individuals' lives, particularly those of young teenagers (Astleitner et al., 2023; Dhawan et al., 2022; Dilawar et al., 2022; Parcell et al., 2022). This is shown by the way that, during the Coronavirus pandemic, everybody today involves social media for relaxation exercises and correspondence (Huang et al., 2022; Moretta et al., 2023; Zarate et al., 2023). Different social media destinations, including Facebook, Twitter, WhatsApp, Instagram, and TikTok, give method for correspondence including open messaging (i.e., by means of announcements), picture and video uploading, and confidential messaging (Farooq et al., 2023; Pang et al., 2021).

Extraordinary issues with bullying, disdain discourse, and intolerance against specific gatherings, identities, religions, or races during social media correspondence have emerged with the utilization of these platforms (Castaño-Pulgarín et al., 2021; Charitidis et al., 2020; Freyth et al., 2023; Ramli et al., 2022). An individual's capacity to adjust to a culture not the same as their own is a proportion of their cultural intelligence (Velarde et al., 2022). Sternberg and Detterman previously proposed the possibility of cultural intelligence (CQ) as a proportion of an individual's intellect that spotlights on calculated cognizance and critical thinking abilities in the study hall (Ang & Inkpen, 2008; Snodgrass et al., 2023). Social media use without cultural intelligence may trigger the spread of false information (Guo et al., 2023).

The capacity of an individual to grasp, reason, and act fittingly in conditions where they should manage cultural differences is known as cultural intelligence (Latif, 2017). Generally, an individual with an elevated degree of cultural intelligence will be more delicate to and appreciative of the cultural differences surrounding that person and will find it less complex to conform to another setting (Kilduff & Cormican, 2021; Lam et al., 2022). Four key components—behavioral, cognitive, motivational, and metacognitive—are used to characterize cultural intelligence (Ang & Inkpen, 2008; Ng et al., 2009; Van Dyne et al., 2012). Because of this, cultural intelligence greatly influences how someone thinks, reasons, and behaves in contexts where there is cultural difference (Merklen & Wolfe, 2020).

A device for assessing cultural intelligence on social media is required in light of the ongoing peculiarity in request to determine the degree of cultural intelligence among understudies (Sasaki, 2012). Proportions of cultural intelligence were created for Italian culture through past exploration (Gozzoli & Gazzaroli, 2018), Indian employees (Ruparel et al., 2020), and the Saudi society (AL-Dossary, 2016). The utilization of Cronbach's alpha and exploratory and corroborative variable examinations for the instrument approval is the wellspring of the instruments' shortcomings (Lemay et al., 2020). Subsequently, this study utilized the Rasch examination to make and approve the Scale of Cultural Intelligence in the Context of Social Media (SCICSM). It is guessed that the review's findings would assist with evaluating teens' or alternately understudies' cultural intelligence on social media

2. Methodology

Research design

Understudies' cultural intelligence according to social media is estimated using the Scale of Cultural Intelligence in the Context of Social Media (SCICSM). This study's instrument was made and endorsed. It tends to the following four subjects: conduct, inspiration, metacognition, and comprehension (Aydın et al., 2021). Rasch examination was utilized in the SCICSM approval since it might give information under certain conditions, including item suitability, difficulty level, Rasch discriminating power, and item information function. In addition to other things, the Rasch examination is prevalent in view of its more serious level of factual examination precision (Hulloli & Venkatesh, 2021). Furthermore, the Rasch examination was believed to have the option to satisfy the prerequisites of a measuring instrument and offer extensive information on the SCICSM.

Participants

1,000 senior secondary school understudies from Batu City, Malang City, and Malang Rule — all piece of the Greater Malang area — partook in this review. The review members were chosen using the group random sampling method. Table 1 gives a portrayal of the picked research members.

Table 1. Distribution of participants

No	School names	Number of participants
1	MAN 2 Malang City	102
2	MAN Batu City	103
3	SMAN 1 Ngantang	93
4	SMA Hassanudin	89
5	SMA Islam Malang	106
6	SMAN 1 Sumberpucung	108
7	SMAN 1 Turen	109
8	SMAN 10 Malang	110
9	SMAN 5 Malang	95
10	SMAN I Singosari	85
Total		1,000

Data collection tools

The SCICSM was validated in this research. It covered four aspects, namely, metacognition, cognition, motivation, and behavior. Table 2 describes the instrument draft prior to validation with the Rasch analysis.

Table 2. SCICSM blueprint

Indicators	Statements
Metacognition	- I am aware of the cultural knowledge that I use when interacting with people of different cultural backgrounds on social media.
	- I am able to adjust my own cultural knowledge when interacting with people of a culture that I am not familiar with on social media.
	- I am aware of the cultural knowledge that I apply in cross-cultural interactions in the social media space.
	- I check the accuracy of my cultural knowledge when interacting with people of different cultures on social media.
	- I am aware of my knowledge of the beliefs belonging to other cultures when using social media.
Cognition	- I know others' legal, economic, and cultural systems when interacting on social media.
	- I know the rules (e.g., vocabulary and grammar) of other cultures when using social media.
	- I know the cultural values of other cultures when interacting on social media.
	- I know the religious values of other cultures when interacting on social media.
	- I know the arts and crafts of other cultures when interacting on social media.
	- I know the rules for expressing non-verbal behaviors in other cultures when using social media.
Motivation	- I take pleasure in interacting with people of other cultures on social media.
	- I believe that I am capable of socializing with new groups of people on social media.
	- I believe that I am capable of overcoming pressures (e.g., shame and nervousness) to adapt to and interact with new people of different cultures on social media.
	- I enjoy social interactions with people of different cultures on social media.

	- I believe that I am capable of getting myself accustomed to interacting with people of different cultures on social media.
	- I take interest in interacting with people of different cultures on social media.
Behavior	- I reply messages using certain emoticons when interacting with people of different cultures on social media.
	- I alter my verbal behaviors (e.g., accent and intonation) when speaking via connections (i.e., phone calls/voice notes/video calls) with people of different cultures on social media.
	- I reply messages or comments on social media with some adjustment of writing/spelling to certain cultures.
	- I change my facial expressions during video calls with people of different cultures on social media.
	- I vary my speaking speed during phone or video calls with people of different cultures.
	- I respond to others' social media posts in a manner that suits their cultures.
	- I send messages to people of different cultures in a manner that suits their cultures when need be.

Data collection

The SCICSM was created and approved using a progression of logical systems fully intent on measuring cultural intelligence within the social media setting. In the first place, we defined the build cultural intelligence in the context of social media that would be utilized to plan the instrument. We made the instrument blueprint, collected the instrument materials, and evaluated applicable writing in the subsequent stage. During the third stage, understudies were approached to finish the SCICSM using Google Forms as a feature of an instrument preliminary. The Rasch model was utilized to break down the information in the last step. The reason for this was to approve the device with the goal that estimating cultural intelligence in the setting of social media could be utilized. The Rasch examination pertained to the item fit portrayal while assessing understudies' cultural intelligence within the structure of social media.

Data analysis

Winstep software is utilized in the execution of this examination, which utilizes the Rasch Model. This portrayal of the Rasch model gives information examination in the form of concurrent items and two-man interaction connections. Rasch examination utilizes two fundamental theorems: how to determine an individual's capacity in light of that individual's capacity and the way in which troublesome the inquiries are. As a psychometric tool, it fills in as the establishment for research examination that incorporates outline information regarding the matter's quality, the instrument's quality, and the manner by which subjects and items interact. While developing and validating examination instruments, item measures offer a determination of the most challenging or least complex things according to respondent understanding, fit item ordering in the form of fit and maverick items, and unidimensionality (the capacity to measure what must be assessed).

3. Results and discussion

Rasch analysis is being used in this study to test validity. The results will be presented as an image pertaining to (a) the respondent's quality, the tool's quality, and the interaction between people and objects; (b) the selection of items that are the hardest and easiest for the respondent to accept; (c) the element of completeness and non-compliance; (d) the tool's capacity to measure what needs to be measured; and (e) a map showing the locations of people and objects.

SUMMARY OF 1000 MEASURED (EXTREME AND NON-EXTREME) PERSON									
	TOTAL SCORE	COUNT	MEASURE	MODEL ERROR	INFINIT	OUTFIT			
					WNSQ	ZSTD	WNSQ	ZSTD	
MEAN	93.4	24.0	1.47	.34					
S.D.	9.7	.0	1.21	.17					
MAX.	120.0	24.0	7.43	1.83					
MIN.	61.0	24.0	-.92	.23	.08	-5.8	.07	-5.3	
REAL RMSE	.42	TRUE SD	1.14	SEPARATION	2.68	PERSON RELIABILITY	.88		
MODEL RMSE	.38	TRUE SD	1.15	SEPARATION	1.03	PERSON RELIABILITY	.90		
S.F. OF PERSON MEAN	.04								
PERSON RAW SCORE-TO-MEASURE CORRELATION = .93									
CRONBACH ALPHA (KK-20) PERSON RAW SCORE "TEST" RELIABILITY = .89									
SUMMARY OF 24 MEASURED (NON-EXTREME) ITEM									
	TOTAL SCORE	COUNT	MEASURE	MODEL ERROR	INFINIT	OUTFIT			
					WNSQ	ZSTD	WNSQ	ZSTD	
MEAN	3891.0	1000.0	.00	.05	.98	-.7	1.02	-.1	
S.D.	194.3	.0	.45	.00	.28	5.1	.30	5.4	
MAX.	4203.0	1000.0	1.02	.06	1.62	9.9	1.72	9.9	
MIN.	3395.0	1000.0	-.81	.04	.57	-9.8	.58	-9.3	
REAL RMSE	.05	TRUE SD	.45	SEPARATION	8.64	ITEM RELIABILITY	.99		
MODEL RMSE	.05	TRUE SD	.41	SEPARATION	0.06	ITEM RELIABILITY	.99		
S.L. OF ITEM MEAN	.09								
LMEAN=.0000 USCALE=1.0000									
ITEM RAW SCORE-TO-MEASURE CORRELATION = 1.00									
23760 DATA POINTS. LOG-LIKELIHOOD CHI-SQUARE: 44652.13 with 22744 d.f. p=.0000									
Global Root-Mean-Square Residual (excluding extreme scores): .6335									

Figure 1. Summary Statistics

The statistical study that yielded the results given above indicates that an individual's average logit is +1.47. According to the Rasch model's guidelines, a respondent is more likely to agree with the question in the event that the mean is higher than logit 0.0. The obtained Cronbach's alpha coefficient was 0.89. In the Rasch model, a value is classified as very good in the event that it rises by 0.8 using Cronbach's alpha criteria. This indicates that all respondent interaction items are well-known to be excellent.

The value achieved for respondent dependability was 0.88. As per the Rasch model's human dependability criterion, a number falling between 0.81 and 0.90 is considered satisfactory. This indicates that respondents' responses are generally consistent. The result achieved for item dependability was 0.99. The Rasch model's criteria for item dependability values state that a value is added to the special category assuming it increases by 0.94. In summary, the investigation indicates that the quality of the materials used is excellent. The findings of the item measurements are shown in Figure 2, with an emphasis on the items that respondents find the hardest and easiest to accept.

ITEM STATISTICS: MEASURE ORDER													
ENTRY NUMBER	TOTAL SCORE	TOTAL COUNT	MEASURE	MODEL S.E.	INFIT MNSQ	ZSTD	OUTFIT MNSQ	ZSTD	PT-MEASURE CORR.	EXP.	EXACT OBS%	MATCH EXP%	ITEM
16	3395	1000	1.02	.04	1.39	7.9	1.55	9.9	.45	.56	42.5	48.3	16
20	3538	1000	.77	.04	1.22	4.4	1.34	6.5	.48	.54	49.3	50.8	20
23	3600	1000	.65	.04	1.07	1.4	1.15	3.0	.52	.53	52.4	52.1	23
11	3711	1000	.43	.05	1.10	2.0	1.15	2.8	.50	.52	51.3	55.1	11
4	3739	1000	.38	.05	1.62	9.9	1.72	9.9	.41	.52	44.9	55.3	4
12	3757	1000	.34	.05	1.13	2.6	1.14	2.8	.49	.51	57.9	56.5	12
8	3793	1000	.26	.05	1.58	9.8	1.63	9.9	.45	.51	51.0	57.7	8
18	3801	1000	.24	.05	.79	-4.4	.83	-3.6	.53	.51	60.6	57.8	18
7	3855	1000	.12	.05	.88	-2.5	.95	-.9	.55	.50	57.8	59.3	7
2	3869	1000	.09	.05	.91	-1.7	.95	-.9	.51	.50	60.5	59.5	2
21	3888	1000	.04	.05	.77	-4.8	.79	-4.2	.52	.50	66.3	60.2	21
24	3932	1000	-.06	.05	.84	-3.2	.84	-3.2	.51	.49	68.9	61.2	24
17	3942	1000	-.09	.05	.68	-6.8	.69	-6.5	.57	.49	71.4	61.3	17
10	3955	1000	-.12	.05	.76	-5.0	.81	-3.8	.54	.49	67.7	61.9	10
14	3969	1000	-.16	.05	.89	-2.1	.89	-2.2	.53	.49	66.5	62.1	14
6	3985	1000	-.20	.05	1.08	1.6	1.12	2.2	.49	.49	57.2	62.5	6
13	3991	1000	-.21	.05	.65	-7.7	.66	-7.3	.57	.49	73.8	62.6	13
9	3998	1000	-.23	.05	.57	-9.8	.58	-9.3	.56	.49	75.3	62.6	9
19	4027	1000	-.31	.05	.77	-4.8	.75	-5.2	.58	.48	67.7	63.2	19
5	4063	1000	-.41	.05	.81	-3.8	.83	-3.4	.53	.48	68.7	63.6	5
22	4082	1000	-.46	.05	1.14	2.6	1.13	2.4	.47	.47	61.6	63.8	22
15	4107	1000	-.53	.05	.80	-4.0	.78	-4.4	.56	.47	69.6	64.0	15
3	4185	1000	-.76	.05	1.30	5.2	1.29	4.9	.45	.46	59.8	64.4	3
1	4203	1000	-.81	.06	.81	-3.9	.90	-2.0	.47	.45	69.7	64.6	1
MEAN	3891.0	1000.0	.00	.05	.98	-.7	1.02	-.1			61.3	59.6	
S.D.	194.5	.0	.45	.00	.28	5.3	.30	5.4			9.0	4.5	

Figure 2. Item Measure

Item number 1 has a logit of +1.02, according to the results of the item scale analysis above, indicating that it is the question on the cultural intelligence instrument that respondents find most difficult to agree upon. With a logit of - 0.81, item number 1 was thus determined to be valid or authorized by the respondent. By modifying items, the Rasch model analyzes the item sequence to identify fit and misfit characteristics. Refer to Figure 3 for the results of the adjustment order items.

ITEM STATISTICS: MISFIT ORDER													
ENTRY NUMBER	TOTAL SCORE	TOTAL COUNT	MEASURE	MODEL S.E.	INFIT MNSQ	ZSTD	OUTFIT MNSQ	ZSTD	PT-MEASURE CORR.	EXP.	EXACT OBS%	MATCH EXP%	ITEM
4	3739	1000	.38	.05	1.62	9.9	1.72	9.9	.41	.52	44.9	55.3	4
8	3793	1000	.26	.05	1.58	9.8	1.63	9.9	.45	.51	51.0	57.7	8
16	3395	1000	1.02	.04	1.39	7.9	1.55	9.9	.45	.56	42.5	48.3	16
20	3538	1000	.77	.04	1.22	4.4	1.34	6.5	.48	.54	49.3	50.8	20
3	4185	1000	-.76	.05	1.30	5.2	1.29	4.9	.45	.46	59.8	64.4	3
23	3600	1000	.65	.04	1.07	1.4	1.15	3.0	.52	.53	52.4	52.1	23
11	3711	1000	.43	.05	1.10	2.0	1.15	2.8	.50	.52	51.3	55.1	11
12	3757	1000	.34	.05	1.13	2.6	1.14	2.8	.49	.51	57.9	56.5	12
22	4082	1000	-.46	.05	1.14	2.6	1.13	2.4	.47	.47	61.6	63.8	22
6	3985	1000	-.20	.05	1.08	1.6	1.12	2.2	.49	.49	57.2	62.5	6
7	3855	1000	.12	.05	.88	-2.5	.95	-.9	.55	.50	57.8	59.3	7
2	3869	1000	.09	.05	.91	-1.7	.95	-.9	.51	.50	60.5	59.5	2
1	4203	1000	-.81	.06	.81	-3.9	.90	-2.0	.47	.45	69.7	64.6	1
14	3969	1000	-.16	.05	.89	-2.1	.89	-2.2	.53	.49	66.5	62.1	14
24	3932	1000	-.06	.05	.84	-3.2	.84	-3.2	.51	.49	68.9	61.2	24
5	4063	1000	-.41	.05	.81	-3.8	.83	-3.4	.53	.48	68.7	63.6	5
18	3801	1000	.24	.05	.79	-4.4	.83	-3.6	.53	.51	60.6	57.8	18
10	3955	1000	-.12	.05	.76	-5.0	.81	-3.8	.54	.49	67.7	61.9	10
15	4107	1000	-.53	.05	.80	-4.0	.78	-4.4	.56	.47	69.6	64.0	15
21	3888	1000	.04	.05	.77	-4.8	.79	-4.2	.52	.50	66.3	60.2	21
19	4027	1000	-.31	.05	.77	-4.8	.75	-5.2	.58	.48	67.7	63.2	19
17	3942	1000	-.09	.05	.68	-6.8	.69	-6.5	.57	.49	71.4	61.3	17
13	3991	1000	-.21	.05	.65	-7.7	.66	-7.3	.57	.49	73.8	62.6	13
9	3998	1000	-.23	.05	.57	-9.8	.58	-9.3	.56	.49	75.3	62.6	9
MEAN	3891.0	1000.0	.00	.05	.98	-.7	1.02	-.1			61.3	59.6	
S.D.	194.5	.0	.45	.00	.28	5.3	.30	5.4			9.0	4.5	

Figure 3. Item Fit Order

It is well known that summing the AVERAGE and standard deviation yields the appropriateness and nonconformity of an item. The INFIT MNSQ value can be used to compare the outcomes. When the logit value exceeds the sum of the MEAN and S.D., it indicates that some elements are mismatched. The ideal logit value found in Figure 3 is $0.98 + 0.28 = 1.26$. Basically, items number 4 (1.62), item number 8 (1.58), item number 16 (1.39), and item number 3 (1.30) are the four that belong in the improper category. Things that don't belong in one of the categories are taken out of SCICSM. You can utilize unidimensionality to determine whether the equipment being used can measure what you wish to measure. Figure 4 below shows the results in a single direction.

Table of STANDARDIZED RESIDUAL variance (in Eigenvalue units)				
		-- Empirical --		Modeled
Total raw variance in observations	=	34.7	100.0%	100.0%
Raw variance explained by measures	=	10.7	30.9%	31.1%
Raw variance explained by persons	=	4.8	13.7%	13.8%
Raw variance explained by items	=	6.0	17.1%	17.3%
Raw unexplained variance (total)	=	24.0	69.1%	68.9%
Unexplned variance in 1st contrast	=	2.7	7.7%	11.2%
Unexplned variance in 2nd contrast	=	2.1	6.2%	8.9%
Unexplned variance in 3rd contrast	=	1.5	4.4%	6.4%
Unexplned variance in 4th contrast	=	1.3	3.8%	5.6%
Unexplned variance in 5th contrast	=	1.3	3.8%	5.5%

Figure 4. Unidimensionality

According to Figure 4, 30.9% of the raw variance was explained by the measures. This demonstrates that the 20% minimum unidimensionality value that was necessary was exceeded. Moreover, the unexplained variance increased from 3.8% to 7.7%, indicating that the requirement that an instrument's value not surpass 15% in order for it to be applicable was met. It was determined that the research instrument, which measured cultural intelligence, was capable of measuring what it was intended to test. A variable map highlighting the distribution of respondent ability and item difficulty level is shown in Figure 5.

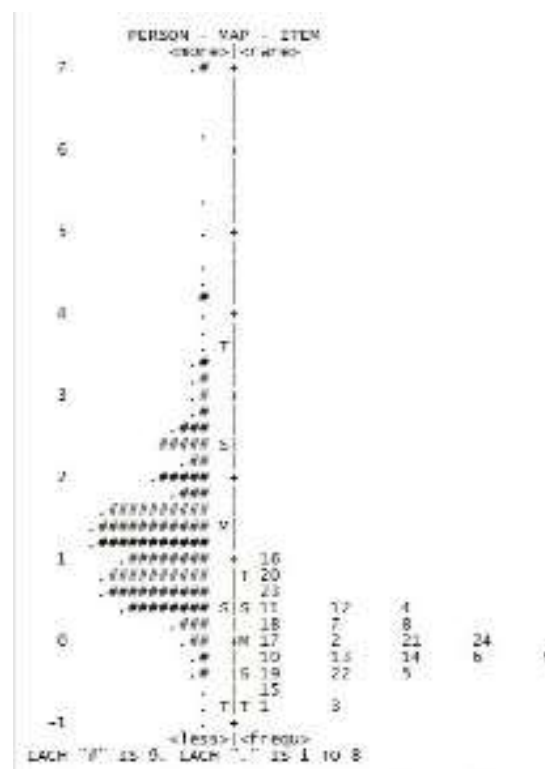


Figure 5. Variable Map

The item difficulty level distribution is shown on the right side, and the responder ability distribution is shown on the left. As can be seen from Figure 5, which displays the item distribution generally against the respondent ability distribution, all of the statements on the study instrument were deemed appropriate for use. Nonetheless, assuming that the items were improved to better target respondents with higher ability, there is still potential for the instrument's accuracy level to rise. The respondents found that item number 16, which was ranked highest, was the hardest to agree with. The easiest thing, then again, was number 1, which was at the bottom.

According to the requirements, the SCICSM qualified as a measuring device. In the context of social media, it assesses students' cultural intelligence by looking at four important areas: behavior, motivation, metacognition, and cognition. It helps with the evaluation process that counselors carry out, especially when it comes to issues like cultural intelligence in relation to social media. Considering earlier studies that concentrated on the creation and validation of cultural intelligence scales, it becomes a fresh tool in the guidance and counseling sector. Social media-related issues have become a contentious topic in modern times (Bhargava & Velasquez, 2021). Low levels of wellbeing have been linked to heavy usage of social media (Boer et al., 2020). A number of issues associated with teenage usage of social media include nomophobia (the fear of not being able to use a mobile phone) and fomophobia (the fear of losing out on information on social media), which are both linked to students' falling academic performance (Farooqui et al., 2018; Tandon et al., 2021; Tezer et al., 2017). According to other research, teenage social lives are influenced by social media use, since teenagers tend to prioritize their own social circles over their immediate social contexts (Antheunis et al., 2016; Kim et al., 2016). If proactive steps are not taken right away, the social media difficulties mentioned above could lead to a host of other challenges.

If social media is used properly, it essentially fulfills good intentions. It gives teenagers access to modern communication tools so they can communicate over vast distances (Reid & Weigle, 2014). However, if social media is not used properly, it can have detrimental effects. Teenagers' mental health and well-being are among the drawbacks of excessive usage of social media (Reid & Weigle, 2014). More specifically, social media brings up cultural concerns (Ray, 2014) which could lead to disputes between groups (Gómez et al., 2014). This is particularly true for Indonesia, a country rich in cultural diversity. Conflicts between different cultures are a result of Indonesia's sociocultural richness (Fitriani & Dewi, 2021). Cultural knowledge is crucial when it comes to kids using social media for learning purposes. According to research, one of the skills that students need to have in the 21st century — a period when people are living in chaos — is cultural intelligence (Livermore et al., 2022). Teenagers presently have the chance to express themselves on social media, including their cherished cultural values, thanks to the disruptive period. Students that possess cultural intelligence have the potential to become globally involved citizens with multicultural education (Goh, 2012). Furthermore, pupils with cultural intelligence can assist in resolving conflicts (Ahmadi et al., 2013). This is consistent with the educational objectives of Indonesia, a nation rich in cultural diversity.

Early and Song Ang were the ones who initially promoted the idea of cultural intelligence in 2003. This idea was initially put to use in an analysis of how the business community interacted economically, taking into account the steady march of globalization. (Latif, 2017; Leung et al., 2014). Cultural intelligence can be defined as a person's capacity to adjust to different cultural circumstances (Ang et al., 2007). It's also a skill that one needs to have in order to communicate with other people on social media. A cultural blunder on social media could lead to disputes and bloodshed between people or organizations (Patton et al., 2014, 2019). The study of cultural intelligence looks at four different areas: a person's metacognition, cognition, motivation, and behavior when interacting with a certain culture. The study of cultural intelligence is increasingly spreading to include social sciences, health, and educational studies, particularly in the area of school guidance and counseling (Bücker et al., 2015; Rockstuhl et al., 2019). Different cultural intelligence scales used in different academic domains are used to measure cultural intelligence (Bücker et al., 2015; Devina, 2021; Gozzoli & Gazzaroli, 2018; Van Dyne et al., 2012). One tool available to counselors for conducting evaluations and creating advice and counseling programs is the Scale of Cultural Intelligence in the Context of Social Media. Instruments for measuring cultural intelligence have been developed through several studies. One study, for example, created a 20-item measure of cultural intelligence that covers internalized cultural knowledge intelligence and effective cultural adaptability intelligence. (Bücker et al., 2016). Similar to this study, another one created a 20-item scale of cultural intelligence for Italian society that addresses four domains: metacognition, cognition, behavior, and motivation (Gozzoli & Gazzaroli, 2018). For Indian workers, an additional cultural intelligence measure including 20 items was

developed, addressing four domains: metacognition, cognition, behavior, and motivation (Ruparel et al., 2020). Additionally, the Saudis use a 20-item cultural intelligence test that includes behavior, motivation, metacognition, and cognition (AL-Dossary, 2016). The aforementioned instruments do, however, have limitations with regard to the way that Cronbach's Alpha and exploratory and confirmatory factor analyses are used in the validation process. Furthermore, no specific reference to a cultural intelligence scale in relation to social media was made in the studies. There are several advantages and benefits of using the Rasch analysis in the development and validation of an instrument. An improved method for evaluating an instrument's quality is the Rasch analysis, which also guides instrument revision (Van Zile-Tamsen, 2017). Additionally, it is mentioned that the Rasch analysis can be used to record and assess an instrument's measuring function, allowing researchers to interpret the instrument score and create a substitute, as well as offering a way to maximize the quality of instruments used in life science research (Boone, 2016). Some have even claimed that measures in the counseling sector can be made using the Rasch analysis (Bayne & Hankey, 2020; Marfu'i, 2019; Tran et al., 2018). There are four components to the Cultural Intelligence Scale in the Social Media Context: metacognition, cognition, behavior, and motivation (Ang & Inkpen, 2008; Ng et al., 2009; Van Dyne et al., 2012). A type of knowledge and cognitive control during the process of acquiring and comprehending information is known as the metacognitive dimension of intelligence. An individual's knowledge and knowledge structure comprise the cognitive dimension of intelligence. A significant piece of the motivational aspect of intelligence is cognitive motivation, which focuses on the definition and measurement of intelligence. Lastly, an individual's capacity for action is the main emphasis of the behavioral dimension of intelligence. The science of guidance and counseling benefits from the findings of this study. In the context of social media, the Cultural Intelligence Scale becomes a useful tool for assessing implementations. According to reports, levels of cultural intelligence make up an evaluation domain (Thomas et al., 2008). The assessment results could serve as a foundation for the creation of different counseling and guidance programs, especially those that focus on fostering positive social interactions on social media. This is especially important because Indonesians are among the people who don't act civil on social media (Anwar et al., 2021; Subyantoro & Apriyanto, 2020). However, there are certain drawbacks to this study. Initially, in order to determine the degree to which experts agree with the instrument items, assessments from a variety of experts are required for the Scale of Cultural Intelligence in the Context of Social Media. In order to address this shortcoming, it is anticipated that future research will consult with multiple specialists to determine whether each instrument item is acceptable. Second, just students from the Greater Malang region which includes Malang City, Malang Regency, and Batu City were eligible to participate in the trial. It is advised that future studies have a wider focus, such as one that includes other Indonesian regions. The results of this study could inspire new research to create and validate a more careful instrument.

4. Conclusion and future scope

Students need cultural knowledge in order to build social media communication. Counselors can evaluate students' cultural intelligence in relation to social media by using the SCICSM. It is composed of four primary components: behavior, motivation, metacognition, and cognition. There are three components to the metacognitive element. There are five things in the cognitive aspect. There are five things in the motivating category. Finally, there are seven items in the behavioral aspect. The Rasch analysis was used to analyze the research data, and it showed that the SCICSM could assess adolescents' cultural intelligence in the setting of social media. As a research product, the SCICSM helped to create a welcoming atmosphere that promotes the wellbeing of the students.

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