Assessing Forgiveness among University Students

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Abstract

This study aimed to examine forgiveness among university students in term of gender and age. In this quantitative study, a sample taken from 500 of undergraduate and postgraduate Malaysian university students of 240 males and 260 females with three range of ages 20-29 (younger adult), 30-39 (middle adult) and 40 years above (older adult). Data were analyzed by using Rasch Model for psychometric properties of the Heartland Forgiveness scale. Independent t-test and one way ANOVA were used to analyze the differences in gender and age of the students on forgiveness. In term of psychometric properties results showed that person reliability (0.77) and item reliability (1.00) indicate that students involved in this study were reliable and items used were highly reliable. Result presented that there was no significant difference on forgiveness for both gender and age of the university students. It was recommend that forgiveness should be explored to other factors related to it such as anger, religiosity, health, culture, background of respondents and other factors in the context of Malaysian perspective. In order to help individuals reap the benefits associated with forgiveness and avoid the consequences associated with unforgiveness, educational systems in university suggested focusing on providing students with the moral perspective closely related to the subjects about forgiveness in the syllabus of their study.

Keywords: Forgiveness; psychometric properties; Rasch Model; university students

Abstrak

Kajian ini dijalankan untuk mengkaji kemaafan di kalangan pelajar universiti dari segi jantina dan umur. Seramai 500 orang pelajar telah digunakan sebagai sampel dari salah sebuah universiti di Malaysia dalam kalangan pelajar ijazah pertama dan ijazah lanjutan yang terdiri daripada 240 lelaki dan 260 perempuan. Sampel terdiri daripada tiga peringkat umur iaitu, 20-29 (dewasa muda), 30-39 (dewasa pertengahan) dan 40 tahun ke atas (dewasa lebih tua) . Data dianalisis dengan menggunakan Model Rasch, ujian t sampel bebas dan ANOVA satu hala. Kebolehpercayaan *person* (0.77) kajian ini berada pada tahap baik dan kebolehpercayaan *item* (1.00) yang digunakan menunjukkan tahap yang sangat baik. Keputusan menunjukkan tiada perbezaan yang signifikan antara jantina dan umur pelajar universiti. Pengkaji mencadangkan kajian tentang kemaafan perlu diterokai lagi dengan menitikberatkan faktor-faktor lain yang berkaitan seperti kemarahan, keagamaan, kesihatan, budaya, latar belakang responden dan lain-lain lagi dalam konteks Malaysia. Dalam usaha untuk membantu individu mendapat manfaat yang berkaitan dengan kemaafan dan mengelakkan kesan-kesan yang berkaitan dengan ketidakmaafan, sistem pendidikan di universiti dicadangkan memberi tumpuan kepada penyediaan pelajar dengan perspektif moral yang berkait rapat dengan matapelajaran tentang kemaafan dalam sukatan pelajaran pengajian.

Kata kunci: Kemaafan; ciri-ciri psikometrik; Model Rasch; pelajar universiti

■1.0 INTRODUCTION

In the literature, there are many different definitions of forgiveness. Research conducted by Ho and Fung (2011) and Enright & Fitzgibbons (2000) found that forgiveness is defined as a process which involves changes in cognitions, emotions, motivations and behaviors regarding to the transgressor. Enright and North (1998) defined forgiveness as "A willingness to abandon one's right to resentment, negative judgment and indifferent behaviour toward one who unjustly hurt us, while fostering the undeserved qualities of compassion, generosity and even love toward him or her". Generally regarded as a positive response to human wrongdoing, forgiveness is a conceptually, psychologically and morally complex phenomenon. McCullough (2000) suggested forgiving increase concordance of relationship. According to McCullough (2000) and McCullough et al. (1998), forgiveness reflects prosocial changes in interpersonal motivations such that one experiences

Many researches revealed that social problems especially brawling, drinking, abuse, loafing and others are bad attitude happen on campus still being uncontrolled (Engs & Hanson, 1994; Noon, Haneef, Yusof, & Amin, 2003; Perkins, 2003). Social problems closely related with religiosity (Giddens, Duneier, Appelbaum, & Carr, 2000; Miller & Thoresen, 2003) and forgiveness (Exline, Worthington, Hill, & McCullough, 2003; McCullough, Bellah, Kilpatrick, & Johnson, 2001). Many researches relate forgiveness with empathy, anger, revenge, health and many more in the context of western culture. Most researches on forgiveness have been conducted in western countries, where considerable focus has been on the benefits of forgiveness for the individual/s directly involved in the transgression due to the western culture (Mellor, Fung & Mamat, 2012). However, there was still lack of forgiveness research done in Malaysia. This may be

more complicated in non-western collectivist cultures in which forgiveness is viewed within the broader context of social harmony and maintenance of social relationships is proposed to play a more central motivating role in forgiveness than individual goals such as inner peace (Karremans et al., 2011). Thus, this study examined whether forgiveness in non-Western culture having the same result as western culture.

Researches Marigoudar & V.Kamble (2014) and Javed, Kausar, & Khan (2010) found that there is a significant difference in forgiveness in term of gender but others researches Hussain (2012) and Toussaint & Webb (2005) revealed that there is no significant difference towards forgiveness. Steiner, Allemand, and McCullough (2011), revealed that older adults and on average adults were more willing to forgive others than younger adults. Besides, the previous researches examined forgiveness in many different perspectives and found that forgiveness is different in gender and age depending on related view of perspectives. This study examined forgiveness towards gender and age from difference perspective in university environment that is different from the previous researches. Researchers are interested to examine whether gender and age in different perspective also presented different results from previous research.

Most of the researches discussed on forgiveness (Chiaramello, Sastre, & Mullet, 2008; Runke, 2009), concept of forgiveness (Prieto et al., 2013) and effect of forgiveness with health (Lawler et al., 2005; . Toussaint, Owen, & Cheadle, 2012; Toussaint et al., 2001), forgiveness with empathy (Kmiec, 2009; Modica, 2012) and forgiveness with moral value (Javed, Kausar, & Khan, 2010). However determinations of psychometric characteristics were not emphasized clearly in those researches. Most of the researches only discussing the reliability and validity by analyzing factor analysis using Amos (Asli Bugay, Demir, & Delevi, 2012) and varimax rotation (Rye et al., 2001) to determine factor structure of the scales. Those measures did not provide procedure for obtaining information about individuals, items and the test itself. Previous researches did not emphasize in detail about person ability and how far was the item difficulty for the instrument used. Furthermore, the analyses were not including unidimensionality, person item reliability, person item misfit order and analysis of rating scale. All this information is vital to determine the construct validity of the assessment.

1.1　Research Purposes

The aims of this study were to assess forgiveness among university's students in Malaysia and examined the psychometric properties of the instrument. Continuation of this study, researchers is expected to see whether gender and age have an effect on forgiveness among university students.

1.2　Significant of the Study

Present study offered significant implication in providing the valid and reliable measure for future implementation in investigating forgiveness. Since forgiveness has been demonstrated by the research to be a process which one learns and develops over time, the best solution to help advancement of forgiveness across populations would be the use of forgiveness education programs. Forgiveness can be provided through educational study for example in moral or religious education or in university syllabus. As the children get older, forgiveness education will add on to the previous years by incorporating the benefits and consequences of forgiveness and myths about forgiveness. Thus, the education of forgiveness can lead students to have good manners and be careful in every action taken.

■2.0 REVIEW OF RELATED LITERATURE

2.1　Background Study of Heartland Forgiveness Scale and Forgiveness

Studies by Thompson et al. (2005) shown that the structure of Heartland Forgiveness Scale (HFS) had an excellent fit, $x^2(133) = 412$, $p < .0001$, CFI = .956, RMSEA= .044, RMSEA CI=.040 −.049 which loading substantively factors of self, others and situations. The forgiveness factors were significantly correlated to each other's (forgiveness of self, forgiveness of others and forgiveness of situations) in study conducted by Thompson et al. (2005). In other studies conducted by Thompson et al. (2005), the convergent and discriminant validity, internal consistency, and test retest reliability of the HFS has been measured. After three weeks interval, the Cronbach's alphas was .83 for total HFS which indicated good reliability (Field & Gillett, 2010). Study has shown that HFS displayed stronger relationships to the dispositional forgiveness measures (Thompson et al., 2005).

In the study of Bugay, Demir, and Delevi (2012) revealed that HFS in Turkish version with reliability of .80 indicated good reliability. The findings revealed good model fit indices for the three-factor model of the HFS [χ^2 ($N = 132$) = 349.8, $p < .0001$; χ^2/df = 2.65; $GFI = .96$, $CFI = .97$, $RMSEA = .04$, $SRMR = .03$] by using Amos and the model fit was adequate. Positive correlation were found with others two instrument used (Bugay et al., 2012).

Worthington Jr, Witvliet, Pietrini, and Miller (2007), suggested that forgiveness also involves replacing negative thoughts, feelings, and behaviours toward the offender with positive thoughts, feelings and behaviours. Forgiveness involves relinquishing anger and re-establishing a perception of love and value for the offender. However, most theorists have agreed that reconciliation is not always possible or necessary, particularly in situations that lead to perpetual harm toward the victim (Worthington Jr, 2006). Many researches have shown that cognitive and emotional factors may be operative in facilitating or deterring forgiveness (Bono & McCullough, 2006; Carver, 2004). As individuals develop empathy toward their offenders, a change in perspective takes place where changes in motivation and perspective make possible relinquishing of desires to retaliate and remain estranged from the offender. Finally, these interpersonal changes will produce feelings of goodwill toward the offender despite the offender's hurtful act (Carver, 2004). This understanding of forgiveness addresses cognitive, affective and behavioural domains.

2.2　Review of Related Literature due to Gender and Age Differences

Researches by Marigoudar and V.Kamble (2014) and Javed, Kausar, and Khan (2010) have shown that women have higher levels of dispositional forgiveness than men however research by Kmiec (2009) stated that men and women were similar in level of forgiveness but men was found more forgiving than women. In the study, men was more forgiving than women because of women were tend to value the meaning of forgiveness more than men. Studies by Hussain (2012) and Toussaint and Webb (2005) discovered that there was no significant difference in level of forgiveness by men and women. It is unclear why these sex differences exist. But in research by Modica (2012) discovered that individual with higher level of femininity was more likely to be forgiving.

In term of age, several studies have found that older people more forgiving than younger people. Allemand (2008), conducted a research of age differences in forgiveness and found that older adults were more willing to forgive than younger adults. The study was supported by Steiner, Allemand, and McCullough (2011) shown that older adults and on average adults were more willing to forgive others than younger adults. Both researches determined age due to different factor where research by Allemand (2008) indicated that age related to future time perspective while Steiner et al. (2011) discussed age related to frequency and intensity of transgression.

Present study discussed the age and gender differences of participant in between 20-60 years old related to how they were responding (cognitively, affectively and behaviorally) to the transgression among the university students so that intervention can be given to improve the forgiveness, to reduce resentment and negative judgments toward offender and relinquishing the revenge inside offended

2.3 Previous studies of Psychometric Properties related to Heartland Forgiveness Scale

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In the study of Asli Bugay et al. (2012) revealed that HFS in Turkish version with reliability of .80 indicated good reliability. The findings revealed good model fit indices for the three-factor model of the HFS [χ^2 (N = 132) = 349.8, $p < .0001$; χ^2/df = 2.65; GFI = .96, CFI = .97, $RMSEA$ = .04, $SRMR$ = .03] by using Amos and the model fit was adequate. Positive correlation were found with others two instrument used (Asli Bugay et al., 2012). In conclusion, the psychometric properties of instrument had only been examined by using classic test theory.

■3.0 RESEARCH METHODOLOGY

In this study, cross sectional survey research design was employed. The survey distributed to the university students because this study requires data collected directly from the groups of subjects which are undergraduate and postgraduate students. Through this concept it facilitates researchers to collect, analyze and interpret the data obtained in limited time. This cross sectional design is effective for providing a snapshot of the current behaviors, attitudes and beliefs in a population since it provide data in short amount of time (Gay, Mills, & Airasian, 2013). The data for the current study was collected in one of the local university area in Malaysia since the participants needed for this study were undergraduate and postgraduate students. Purposive sampling technique was selected in such a way as to be representative of the population in university to fulfil the need for this study. There were 303 undergraduate and 197 postgraduate students involved in this study.

Heartland Forgive Scale (HFS) was chosen in this study. This instrument measuring three types of forgiveness which are forgiveness of self, others and situations. Students who eligible to participate in this study if they were at least 20 years of age and had experience of wrongdoing in the past. The students needed to tick for the five level Likert-Scales questions. Moreover, researcher was interested in measuring situations since this is the new approach in modern research among forgiveness studies. Quantitative data analysis was conducted on the students' perception survey.

Measuring content validity of instruments is important. This type of validity can help to ensure construct validity and give confidence to the readers and researchers about instrument used (Sireci, Yang, Harter, & Ehrlich, 2006). Content validity refers to the degree that the instrument covers the content that it is supposed to measure. In the process of determining content validity, two judgments are involved, there are: i) the measurable extent of each item for defining the traits and, ii) the set of items that represents all aspects of the traits (Yaghmale, 2009). In order to test the Malay version of the HFS, three contents expert have been refer to validate the instrument. In fact, expert consultation is considered by some to be the sin qua non of content validity (Messick, 1995). Term *expert* has typically been used to refer to researchers who are knowledgeable in the specific topic area. Expert consultations are chosen from one English language teacher and two Malay language teachers who have more than ten years of experience in teaching language. They look into grammar and sentences structure of the instrument. In the translation process (forward), in the beginning of the first translator panel was asked to translate the instrument to the desired language (Malay language). Next, the second panel was asked to assess the equivalence both meaning and content between the two versions of the instrument.

Results were analyzed by using Rasch Model to determine the reliability and construct validity of the instrument and SPSS version 22 to determine forgiveness in gender and age among university students.

■4.0 FINDING AND DISCUSSION

4.1 Demographic Data

The sample consist of male students (N= 240) about 48% and female students (N= 260) about 52%. In terms of ages, younger adult (20-29) about (N= 168) 33.6%, middle adult (30-39) about (N= 166) 33.2% and older adult about (N= 166) 33.2%. All the samples were taken from different courses in one of the school from the university. They had experiences of transgression in self, others and situations. (Refer Table 1, Figure 1 and figure 2).

Table 1 Demographic of the students

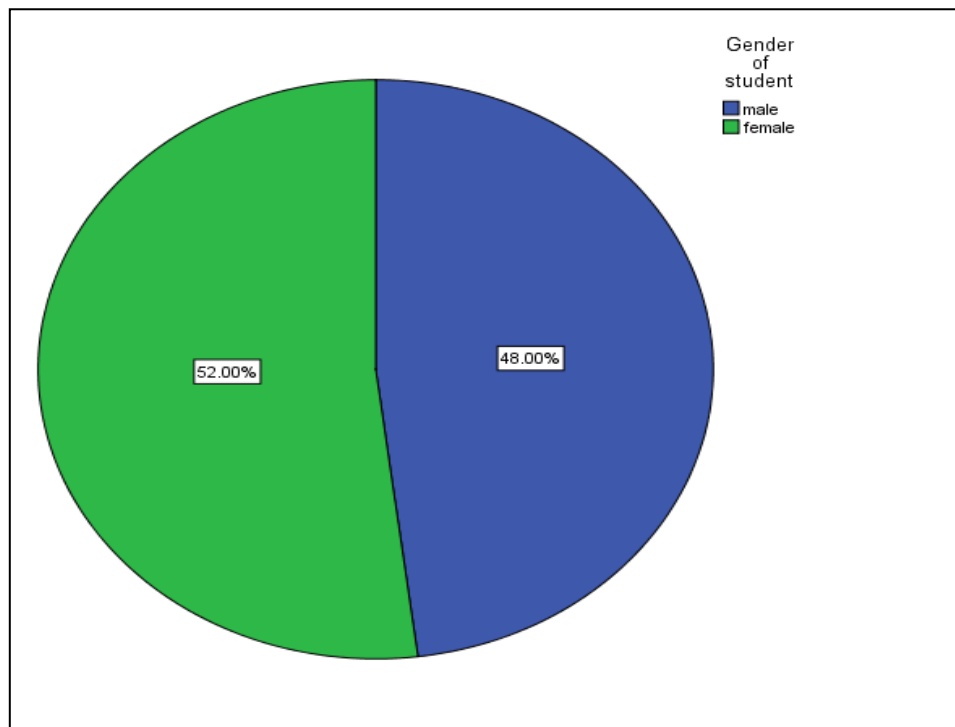|	Numbers	%
Gender		
Male	240	48.0
Female	260	52.0
Age		
20-29	168	33.6
30-39	166	33.2
40++	166	33.2

Figure 1 Percentage of male and female students in participating the study
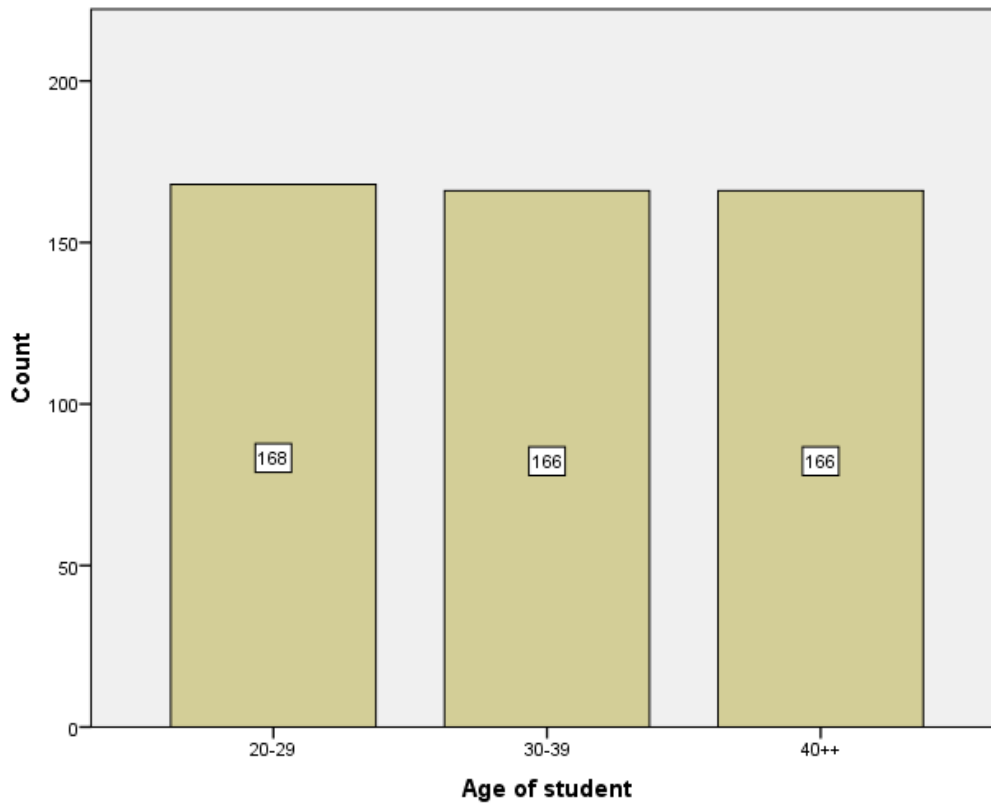
Figure 2. Number of students participating in the study according to their age

4.2 Psychometric Properties of Adapted HFS by using Rasch Model

In this section, data analyzed in terms of item person reliability and construct validity were discussed in terms of unidimensionality, person and item reliability, fit order and rating scale analysis by using Rasch model version 3.69.1.

4.2.1 Person Item Reliability and Separation

Table 2 showed the summary statistics of person measures. As seen in the table, person reliability was .76 and standard deviation of person was .70. This indicated that students involved in this study were reliable. Meanwhile, person separation value (1.77) indicated that approximately two distinct groups could be identified in the data. Moreover, the Cronbach Alpha of person raw score reliability was 0.77, which indicated the good internal consistency.

Table 2 Summary of person measure

		Score	Count	Measure	Infit		Outfit	
					MNSQ	ZSTD	MNSQ	ZSTD
Mean		63.2	18.0	.60	1.01	-.2	1.02	-.2
S.D		7.5	.0	.70	.67	1.8	.79	1.7
Real RMSE	**.34**	**True SD .61**	**Separation 1.77**	**Person Reliability .76**				

Person Raw Score-To-Measure Correlation = .78
Cronbach Alpha (KR-20) Person Raw Score Reliability = .77

On the other hand, Table 3 below showed the summary statistics of 18 items measured. Item reliability was 1.00 and standard deviation of item was 1.00. This indicated that all 18 items in HFS used in this study were perfect and highly reliable. In addition, the separation value for item was 16.67. This suggests that the items could be grouped into 17 levels of difficulty with highly reliable.

Table 3 Summary of item measure

	Score		Count	Measure	Infit			Outfit	
					MNSQ	**ZSTD**		**MNSQ**	**ZSTD**
Mean		1755.5	500.0	.00	.99	-.2		1.03	.2
S.D		346.0	.2	1.00	.19	3.0		.26	3.7
Real RMSE	.06	**True SD 1.00**		**Separation 16.67**	**Item Reliability**	**1.00**			

4.3 Construct Validity

In this section three parts of analysis were discussed which are unidimensionality, person and item fit order and rating scale analysis.

4.3.1 Unidimensionality

The requirement of unidimensionality embodies the common sense notion that it is best to measure one attribute at a time. Refer table 4 below.

Table 4 Standardized Residual variance (in Eigenvalue units)

	Empirical			Modeled in %
Total raw variance in observations	37	100%		100
Raw variance explained by measures	19	51.3%		48.3
Raw variance explained by persons	4.4	11.8%		11.1
Raw Variance explained by items	14.6	39.6%		37.3
Raw unexplained variance (total)	18.0	48.7%	100%	51.7
Unexplained variance in 1st contrast	**2.8**	7.5%	**15.5%**	

Unidimensionality is frequently defined as a single latent trait being able to account for the performance on items forming a questionnaire. It represents a fundamental requirement when an item response theory model or a Rasch model is used in order to obtain a measurement for the latent trait of interest. The variance explained by the measure is 51.3% which is considered a strong measurement dimension. Since unexpected variance in the first contrast less than 5 (= 2.8) and 15.5% of the variance is explained by the first factor of residuals. The ratio of 46.5 to 15.5 is 3 to 1 which was supportive of unidimensionality.

4.3.2 Person and item fit order

By analyzing the means square for infit and outfit of each students (Table 5), found that the person statistic are within the reasonable range. The mean findings for person infit and outfit mean squared were between 1.01 to 1.02.

Table 5 Person statistic misfit order

Entry Number	Infit		Outfit	
	MNSQ	**ZSTD**	**MNSQ**	**ZSTD**
Mean	1.01	-.2	1.02	-.2

Based on the means square for infit and outfit of each items in Table 6 below, all the items for students were within the reasonable range and also can be used as a part of Rasch Model's data analysis technique. However, only item #2 showed the high mean square for outfit (1.65) and might be the result of a few random responses by the low performer.

Table 6 Item statistics misfit order

Item No	Total score	Measure	Infit		Outfit	
			MNSQ	ZSTD	MNSQ	ZSTD
2	998	2.00	1.30	4.3	**1.65**	8.2
4	1574	.53	1.45	7.0	1.53	7.9
1	760	2.89	.79	-2.9	1.32	3.4
8	1600	.47	1.19	3.1	1.25	3.9
3	1847	-.20	1.15	2.2	1.22	3.1
6	1931	-.47	1.17	2.5	1.12	1.8
16	2119	-1.21	1.06	.8	.97	-.4
9	1852	-.22	1.05	.7	1.02	.3
5	2117	-1.20	1.02	.3	.98	-.2
7	2058	-.94	.98	-.2	.92	-1.2
11	1786	-.02	.93	-1.1	.91	-1.4
10	1918	-.43	.88	-1.8	.88	-1.9
13	1750	.08	.84	-2.7	.85	-2.5
15	1891	-.34	.85	-2.4	.81	-3.1
18	1949	-.53	.84	-2.5	.81	-2.9
17	1959	-.57	.83	-2.7	.80	-3.1
14	1795	-.05	.80	-3.4	.80	-3.4
12	1695	.23	.75	-4.6	.75	-4.4
Mean	1755.5	.00	.99	-.2	1.03	.2
S.D	346	1.00	.19	3.0	.26	3.7

4.3.3 Rating Scale analysis

The appropriateness of the rating scale for each item was examined according to the observation in each category.

Table 7 Summary of category structure

Score	Category Label	Observed Count	%	Obsv Avrge	Sample Expect	Infit MNSQ	Outfit MNSQ	Structure Calibration	Category Measure
1	1	629	7	-1.41	-1.78	1.54	1.61	none	-2.98
2	2	1156	13	**-.62**	**-.45**	.91	1.05	**-1.71**	-1.29
3	3	1800	20	**.31**	**.44**	.94	.93	**-.40**	-.13
4	4	3817	42	**1.02**	**.99**	.80	.78	**-.03**	1.23
5	5	1598	18	**1.62**	**1.56**	.99	.98	**2.14**	3.32

1= almost always false of me   **4** = more often true of me
2 = more often false of me   **5** = almost always true of me
3 = neutral

Table 7 summarizes operational use of the rating scale for the samples of student in the university. The rating scale category showed items were generally cooperating to produce meaningful measures of student statistic. The rating categories appear to be aligned with the latent variable, as indicated by a close match between observed and expected average measures. In term of category label, analysis showed that there are five category label of scoring key from less to most. Most of the students prefer to answer on "More often true of me" of scoring key 4 about 42% of (N=500) students participating in this study. Less number of students (7%) endorsed label 1 which is "Almost always false of me". Analysis shows outfit mean square statistics for category label 2, 3, 4 and 5 are near their expected value 1.00 but category label 1 overfit the rating scale. For category measure, it can be seen that it is measuring from lowest to the highest value in ascending order.

In examining the 5 response options, observed of a monotonic progression from one step calibration to the next, which is desirable. However, the steps are very small between #2 and #3 (i.e., -1.71 to -.40).
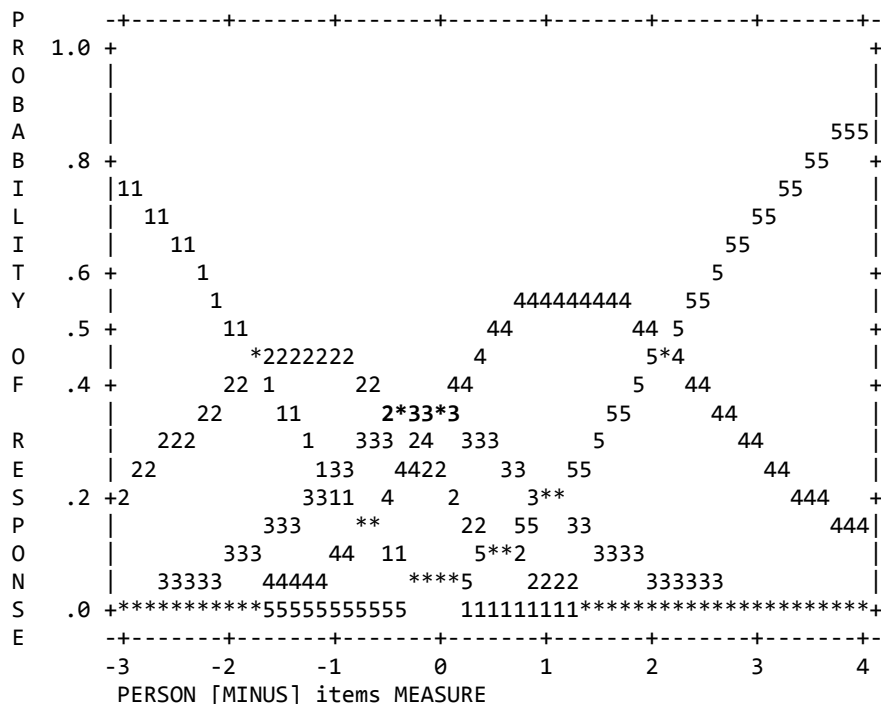
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CATEGORY PROBABILITIES: MODES - Structure measures at intersections
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P    -+-------+-------+-------+-------+-------+-------+-------+--
R 1.0 +                                                        +
O     |                                                        |
B     |                                                        |
A     |                                               555|
B  .8 +                                             55       +
I     |11                                         55         |
L     |  11                                     55           |
I     |   11                                  55             |
T  .6 +     1                                5              +
Y     |       1                  444444444     55             |
   .5 +         11              44          44 5             +
O     |          *2222222          4              5*4          |
F  .4 +        22 1        22     44            5  44        +
      |       22    11       2*33*3            55      44        |
R     |     222         1   333 24  333      5         44       |
E     | 22              133   4422    33   55        44        |
S  .2 +2               3311  4    2     3**            444    +
P     |           333      **      22  55  33          444|
O     |          333    44  11    5**2     3333          |
N     |     33333   44444      ****5   2222     333333        |
S  .0 +**********55555555555   111111111********************+
E     -+-------+-------+-------+-------+-------+-------+-------+--
      -3      -2      -1       0       1       2       3       4
       PERSON [MINUS] items MEASURE
```

Figure 3 Structure Measure Intersection of Category Label

The curves (Figure 3) showed how probable is the observation of each category for measures relative to the item measure. Ordinarily, 0 logits on the plot corresponds to the item measure, and is the point at which the highest and lowest categories are equally likely to be observed. The plot should look like a range of hills. Categories which never emerge as peaks correspond to disordered Rasch-Andrich thresholds. In the figure 3 above, for categories #2 and #3 emerge together as peaks correspond to disordered Rasch-Andrich thresholds.

Table 8 Mean and standard deviation of gender

Gender of student		N	Mean	Std. Deviation
Forgiveness	**Male**	240	66.87	8.06
	Female	260	67.03	8.76

Table 9 Independent samples t-test

		Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	
forgiveness	Equal variances assumed	.18	.67	-.22	498	.83	-.16	.76	

Table 8 showed the mean forgiveness of male (M= 66.87, SD= 8.06) was approximately nearly or equal to mean forgiveness of female (M= 67.03, SD = 8.76). Table 9 showed the analysis of the data by using an independent samples t-test for students' gender with the significant level of p ≤ 0.05. Finding showed that equal variance assumed was met (F = .18, p = .67). Finding showed that there was no significant difference in means forgiveness between male and female, t (498) = -.22 and p > 0.05 (p = 0.67). Thus, this indicated that 0.01% of the variance in forgiveness can be explained by gender.

Table 10 Analysis of one way ANOVA

Tests of Between-Subjects Effects
Dependent Variable: Forgiveness

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	392.126[a]	**2**	196.06	2.78	.06	.01
Intercept	2241172.00	1	2241172.00	31827.62	.00	.99
Age	**392.13**	**2**	**196.06**	**2.78**	**.06**	**.01**
Error	34996.72	497	70.42			
Total	2276674.00	500				
Corrected Total	35388.85	499				

Table 10 showed the analysis of the data with significant level of p ≤ 0.05. Finding showed that assumption of equal variance for 3 groups was met (p > 0.05). Finding showed that there was no significant difference in means forgiveness between age of students, F (497) = 2.78 and p > 0.05 (df= 2, p= 0.06). Partial Eta Squared reading (.01) showed there was no difference in mean score between ages. Thus, forgiveness on different age groups were equal.

■ **5.0 DISCUSSION AND CONCLUSION**

The instrument used was said to be unidimensionality since unexpected variance in the first contrast < 5 (= 2.8) and 15.5% of the variance was explained by the first factor of residuals. The variance explained by the measure is 51.3% which is strong and considered a strong measurement dimension (John M Linacre, 2006). It is said to be unidimensionality since all of the non-random variance found in the data can be accounted for by a single dimension of difficulty and ability whereby the ratio of 46.5 to 15.5 is 3 to 1 which is supportive of unidimensionality. Since infit and outfit mean square of person reliability in within the range of 0.6 to 1.5 (Bond & Fox, 2013) so it can be used as a part of Rasch Model's data analysis technique. Result found that item #2 showed the high mean square for outfit (1.65). It can be said that might be the result of few random responses by the low performer.

Rating scale categories are functioning as intended based on the model, and that they can be used to describe student locations on a latent variable (Jonathan M Linacre, 2002). In this study of rating scale category, it showed items were generally cooperating to produce meaningful measures of student statistic. By observing the monotonic progression from one step calibration to the next, it is desirable. However, the step showed a very small between #2 and #3 (i.e., -1.71 to -.40). The curve showed the observation of each category for measures relative to the item measure. This pattern suggests the need to reconsider the choice of response options both in terms of the number of response options and corresponding labels. Because of the confusion around categories #2 and #3, it is suggested to be re-coded the response categories to create a 4 point option which combined categories #2 and #3 (more often false of me and neutral).

Results indicated that there was no significant difference in means forgiveness between male and female. This finding confirmed findings of previous researchers that showed no gender difference on forgiveness (Hussain, 2012; Toussaint & Webb, 2005).

 However, another researches by B. Marigoudar and V. Kamble, (2014) and Javed et al., (2010) have shown that women have higher levels of dispositional forgiveness than men. Nevertheless, research by Kmiec (2009) stated that men and women were similar in level of forgiveness but men was found more forgiving than women. Kmiec (2009) found men were more forgiving than women because of women were tend to value the meaning of forgiveness more than men. Researchers have indicated that there were several reasons as to why there were gender differences on forgiveness scales, yet this study was not able to demonstrate higher levels of forgiveness among men or women. Women in this study might not have scored higher than men or else because it might be that Malaysian men and women, or at least in this study, forgive at similar rates. Thus, gender differences found in other studies might not be applied to the participants in this study.

Result indicated that there was no significant difference in means forgiveness between age groups. Several studies by Allemand (2008), Mansour (2013) and Steiner et al. (2011) have proved that older adults and above average adults were more willing to forgive than younger adult. However, these previous findings were different with present study since their samples age of older adult were around 80 years (Allemand, 2008; Mansour, 2013; Steiner et al., 2011). In this study, the sample age of older adult was limited approximately around 60 years only. This could be one factor why present result is not aligning with the previous studies.

Based on the overall findings, forgiveness occurs when there is a feeling of let go toward negative things that people ever experience. It could be in term of offense toward self, transgression in relationship and adverse situations that befall to. The way people thought, feel and acting toward all negative things is influence by the cognitive factor. Cognitive is important for making decisions including those that involve in transgression. A cognitive accomplishment enables student to produce behavior that went beyond what they had seen or experience. Social cognitive theory (SCT) highly correlated with this study since it is explaining that learning process happened since children. When people involved in transgression, they will respond whether positive or negative thought toward it. Then emotion will change automatically and effected to behavior whether to keep revenge react or forgive the transgression.

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