The Development and Validation ofJihad Academic Scale (JAS)

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Abstract

The purpose of this study was to construct and validate the jihad academic scale. Because jihad is broadly divided into major (non-physical) and minor (physical) jihad, and this research focuses on the construction of the major (non-physical) jihad, which is carried out in the academic or how they strive to study in their education. The study consisted of a pilot study (n=61), study 1 (n=183), and study 2 (n=183), and all studies using a convenience sampling technique and using quantitative methods with exploratory factor analysis (EFA) design followed by confirmatory factor analysis (CFA) approach. Construct validity with convergent and discriminant and data analysis using Jeffreys's Amazing Statistics Program. The results of the EFA study formed three dimensions and CFA results stated that the proposed model was fit based on the CFI=0.94 (> 0.90) SRMR=0.05 (< 0.08) GFI=0.91 (> 0.90). But still not fit in accordance with p-value χ^2=0.01 (> 0.05) and RMSEA=0.06 (< 0.05). Then it has been reliably seen from α = 0.88 (> 0.70). Then the convergent validity is seen from the academic resilience scale with the correlation value of Pearson's (r = 0.41) and Spearman's (rho = 0.35) with each masingp-value< .001. Then, for discriminant validity, it can be seen from the school burnout inventory scale with the correlation value of Pearsons (r = - .11) with p-value=.012 and spearman's (rho = - .21) with p-value= .00438. The normality assumption of Shapiro-Wilk (W= 0.87) withp-value< .001. Overall, this scale can be used in a university student and can then be developed at other levels of education with a larger number of samples to confirm each factor.

Keywords: jihad, academic, measurement, scale

Abstrak

Tujuan dari penelitian ini adalah untuk melakukan konstruksi dan validasi skala Jihad Akademik. Secara garis besar, jihad terbagi menjadi jihad besar (non fisik) dan kecil (fisik) dan penelitian ini menitikberatkan pada konstruksi jihad besar (non fisik) yang dilakukan pada lingkungan akademik atau bagaimana mahasiswa berjuang untuk belajar dalam masa pendidikan mereka. Studi ini terdiri dari studi uji coba (n=61), studi 1 (n=183), dan studi 2 (n=183), pengambilan sampel sesuai kenyamanan dari sampel serta menggunakan metode kuantitatif dengan pendekatan analisis eksplorasi faktor (AEF) diikuti dengan analisis konfirmasi faktor (AKF). Validitas konstruk dari konvergen dan diskriminan dan anlisis data dengan Program Jeffreys's Amazing Statistics. Hasil dari studi AEF membentuk tiga dimensi dan hasil AKF menyatakan model yang diusulkan fit berdasarkan CFI=0.94 (>0.90) SRMR=0.05 (<0.08) GFI=0.91 (>0.90). Namun masih belum fit menurut p-value χ^2=.01 (>.05) dan RMSEA=0.06 (<0.05). Reliabilitas dilihat dari α = 0.88 (>0.70). Hasil validitas konvergen dilihat dari skala academic resilience dengan nilai korelasi Pearson's (r = .41) dan Spearman's (rho = .35) dengan masing-masing p-value< .001. Sedangkan untuk validitas diskriminan dapat dilihat dari skala school burnout inventory dengan nilai korelasi Pearson's (r = -.11) dengan p-value=.012 dan spearman's (rho = -.21) dengan p-value= .00438. Asumsi normalitas Shapiro-Wilk (W= 0.87) dengan p-value < .001. Secara keseluruhan skala ini dapat digunakan pada mahasiswa dan kemudian dapat dikembangkan di tingkat pendidikan lain dengan jumlah sampel yang lebih besar untuk mengkonfirmasi setiap faktor.

Kata kunci: jihad, akademik, pengukuran, skala

Introduction

The concept of jihad is debated and dichotomized to this day and is the most misunderstood and misinterpreted worldwide (Annahlia et al., 2020; Khoiriyah, 2020; Siddiqui & Mahmood, 2019). However, what has been agreed by the majority of Muslims is that jihad is not terrorist behavior(Asmara, 2016; Firmansyah, 2015; Latif & Munir, 2014) even though the western media convey the concept along with terrorism because some westerners consider jihad as a "holy war" based on the media local (Karipek, 2020). The media will create two opinions, the first is considered reasonable, and the second is unreasonable. News from the media is considered reasonable because the media conveys what is happening in the field without intending to increase or decreased (phenomenological method). Then it is considered unnatural because both epistemologically, ontologically and axiological, jihad and terrorism are different concepts and also terrorism is contrary to the Quran (Abdul-Raheem, 2015).

Terror is destructive, and acts of terrorism, and radicalism in the name of jihad tends to be due to political factors (Asghar, 2016) and wants to reflect the wishes of their group (Razak et al., 2020) as well as problems of poverty, injustice and power (Setiadi, 2019), religious understanding literal, wrong reading, political deprivation, social conflict, and internet (Mudawinun Nisa', 2018)below average educational status, lack of democracy, colonial and western imperialism, Arab conflict with Israel and foreign policy (Hamid, 2008), while the concept of jihad in the Quran is to improve and build (Pribadi, 2021). So it is clear that the two are contrasting concepts and have no correlation, and it's as different as black and white.

Jihad is again being debated because it is correlated with war, and this is true when viewed from the cause of the revelation of the verse in Medina. There was no war when it descended in Mecca. The application of physical war is only carried out when fought 22:39, even if war, Muslims are not encouraged to all of them went to war 9:122. The concept of jihad has not been recommended to young people who still have parents according to the narration of Bukhari No.3004 (Al-Bukhari, 1997b, p. 153) so war is carried out if it meets the requirements of the Quran only. However,the certain is that jihad is not another name for war (Muna, 2017) because there are many more important things than physical warfare, and it is obvious that the two concepts are distinct and separate.

So it is clear that there is no mistake in the Quran about jihad or war. It is not only the Quran that explains war because the concept is also found in the Jewish and Christian scriptures, and war is still valid today as a solution to disputes between nations in international law (Fadil, 2018). This means that it does not mean that because some revelations came down during the context of war all the concepts of jihad are war-filled. Of course, it is a big mistake to interpret the concept of jihad in a narrow sense because Muhammad and his closest companions also mentioned jihad in many contexts, so jihad must be returned to its etymological meaning and not terminology as Hajj is also a jihad according to the narration of Bukhari No. 1516 (Al-Bukhari, 1997a, p. 344).

Therefore there is nothing wrong between jihad and war even though it is based on *asbabun nuzul*, and it is also obvious that jihad is different from terrorism (Mohd et al., 2017), and all of them have their own rules based on the Quran and the appropriate sunnah with the Quran. In the interpretation of the jihad concept by a number of scholars, differ in opinion (Saladin, 2018) depending on the internal and external factors of the *ulama*. This difference in the perspective of the ulama also distinguishes the perspective of the Islamic ummah, and Muslims now only choose which jihad concept is the most appropriate to their circumstances or develops it according to conditions and situations that are still based on the Quran and the Sunnah in accordance with the Quran.

The concept of jihad is universal according to the context that surrounds it (Junaedi, 2020), and even the translators of the Quran into international languages are also different (V. P. C., 2014) so that this era can be ascertained the concept of jihad is widespread and deep because jihad is also a polysemy word

(Nisa & Muchlisin, 2018), so that the implementation of jihad does not only exist in the real world but also occurs in cyberspace, such as social media (A'yun, 2020) from telegrams (Shehabat et al., 2017) and not only men who can do jihad (Asiyah et al., 2020).In general, jihad is to exert total energy and ability to do something serious on a continuum. Meanwhile, in terminology, the meaning of jihad has various meanings. Each expert can provide a different definition from the others (Rouf, 2020), such as jihad is the maximum human effort to achieve something or achieve a goal (struggling hard for lasting peace) (Latif & Munir, 2014). In line with other studies that say jihad is the exertion of strength and ability for something else with all its difficulties and difficulties (Al-Hilal, 2018).

Based on the etymology of the word jihad is earnestness, attempt, effort, and ability (Ma'Luf, 1986; Manzhur, 1966; Qadir et al., 2004) or maybe there is a definition that has not been stated, the term jihad continues to develop like constitutional jihad (Arizona & Chandranegara, 2017) jihad resolution (Fadli & Sudrajat, 2020; Mubarok & Shobron, 2015; Saputra, 2019) economic jihad (Abidin & Wahed, 2018) peace jihad (Irawan, 2014) intellectual jihad (Ustadzi, 2020) e –jihad (Musyaffa, 2020) salafi jihadi (Musawar, 2015) gender jihad (Maftuchah, 2010).

Based on the phenomenon of the jihad concept, although interpretations around the world have differences, each interpretation is still based on the Quran, which is understood both through interpretations with *ma'tsur* and *ra'yu*. Because the implementation of jihad is different because it is contextualized so that it looks contradictory even though it is not. Research on Jihad, both national and international, is considered clear and well-described. However, based on data searches for research articles from published or perish programs both nationally (Nugraha, 2021b) and international articles (Nugraha, 2021a) it was found that until now in the worldwide there has been no measurement of the concept jihad against a Muslim.This is reasonable because the concept of jihad is diligently discussed in religion and socio-politics. However, the results of data and methods are still limited to qualitative ones. So recognition and accusations of being mujahedeen are considered very subjective, so there needs to be an objective measurement based on quantitative data so that the results can be measured. Therefore, to welcome this problem, at this time, science continues to develop until the birth of the field of Islamic psychology. The combination of these two sciences provides a new paradigm in religion, especially in measuring the human mentality based on the construction of existing concepts.

Islamic psychology is now slowly developing, which can be seen from the works that have been published, both books, research articles, proceedings, and international meetings. However, this field is still gray in scientific positions such as under religious science or psychology. Apart from its position, this field also has scientific specifications as psychology in general, and the best known in Indonesia is the field of Islamic education psychology. This field explores explicitly mental in Islamic education.Although the field of Islamic educational psychology is quite popular in Islamic psychology until now, the tendency of quantitative research by testing various hypotheses is still dominated by western theories, which can be seen in journals with the theme of Islamic psychology. Muslim science developed when Europe and America experienced a renaissance, so it is appropriate that the findings or theories of previous Muslim scientists are continued by the current generation.

Continuing the thoughts of previous Muslim scientists can be started in various ways. However, the most important and urgent thing is that it can be started by conceptualizing and operationalizing a phenomenon which is then tested by constructing and validating the results of these thoughts so that they can become a new theory in contemporary Islamic scholarship. A new theory with a clear problem base will certainly be popular like a snowball. Therefore the construction of measuring tools is essential in Islamic psychology as a basis for mental research by the next generation.

There are several arguments why construction in Islamic educational psychology is urgent or should be implemented as early as possible. First, so far, measurements in the field of Islamic education psychology

with quantitative methods, whether they are descriptive, correlative, comparative, or experimental, are still using western theory. Second, the lack of Islamic psychology scholars in Indonesia who create new theories based on quantitative research. Thus, the concept of jihad deserves to be proposed to see how far and how the psychology concept in Islamic education is. The concept of jihad being present in Indonesian education is considered appropriate because the ranking of Indonesian education, in general, is still unable to compete globally because the results are below average (OECD, 2020; PISA, 2019), and these results are assumed to cause low concern and awareness of the environment (Wendling et al., 2020) low social mobility (WEF, 2020) low global competition (IMD, 2019) low health sanitation (Statistics, 2020) low happiness (WHR, 2019) and high perceptions of corruption (CPI, 2020).

Seeing the situation and position of jihad that has developed, the results of the data and methods are still limited to qualitative ones. Then the imbalance of the scale produced by the field of Islamic psychology, both internationally and nationally from general psychology, and the absence of a measurement of the jihad of a Muslim even though jihad is an important concept in Islam. Based on this phenomenon, researchers see opportunities for originality and novelty in the field of Islamic educational psychology, so researchers are interested in finding the real mujahedeen by trying to construct and validate the scale of jihad, to be able to see the extent of jihad of a Muslim so that he can be called a mujahedeen. This research question is whether the concept of jihad academic can be constructed and validated.

Methods

This study used quantitative methods with exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) designs. EFA wants to see a new concept whose results will form or shorten several variables into a latent variable (Joshi, 2019). This analysis is appropriate for looking for structure among a series of observed variables, or it can be used as a data reduction technique this design is used when the researcher does not have prior knowledge about the number of factors that underlie the data and about which variables are included in each factor (Mindrila, 2017).

Whereas CFA requires that the researcher must have specific expectations regarding (a) the number of factors, (b) which variables reflect the given factors, and (c) whether the factors are correlated. CFA explicitly and directly tests the suitability of the factor model (Thompson, 2004). Acceptance of the model if the value of Chi square p value (p> 0.05) Goodness of fit (GFI> 0.9), Root mean square error of approximation (RMSEA <0.05), Comparative fit index (CFI> 0.9), and Standardized Root Mean Square Residual (SRMR < 0.08) (Hu & Bentler, 1999).

Instrument

There are three instruments used in this study. First, there is a jihad academic scale that will look for construct validity, secondly the Indonesian version of academic resilience (Dewi Kumalasari et al., 2020) with 15-item adaptation, which is also convergent validity and third there is the Indonesian version of the school burnout inventory (Rahman, 2020) with 9 item, which is also discriminant validity. Each instrument uses a likert model scale with a range of 1 = strongly disagree, and 5 = strongly agree. In this study, data collection was carried out using a questionnaire distributed online with google forms because it is easy and popular to use by students and considering that online learning was still going on in 2021.

Sample

This study begins with a pilot study with a quantitative way to find the concept of jihad academic. The participants are students from various universities who were randomly selected (n=61), after improvement, it was followed by the study 1 with EFA analysis. Participants were students from different universities (n=183). After finding the suitable model, a study 2 with CFA analysis was carried out. Students from different universities participated (n=183), so the total number of participants were (n=427). Of all studies using convenience sampling, which has referred to the rule of thumb, the number of 200 is considered fair (VanVoorhis & Morgan, 2007). However, if in the course of the research, the sample does not reach 200 participants, then at least every factor comparison with a sample such as 1:50 (Pedhazur & Schmelkin, 1991) and is now recommended for a sample that is not too large in factor analysis (Kyriazos, 2018).

Table 1. Overall data of sociodemographic.

Variable	Pilot study	Study 1	Study 2
Gender			
Men	16(26.23%)	22(12.02%)	70(38.25%)
Women	45(73.77%)	161(87.97%)	113(61.74%)
University			
Negeri Medan	2(3.27%)		1(0.54%)
Islam Negeri Sultan Syarif Kasim Riau		1(0.54%)	
Islam Negeri Sumatera Utara	9(14.75%)	167(91.25%)	2(1.09%)
Islam Sumatera Utara	1(1.63%)		4(2.18%)
Medan Area	43(70.49%)	7(3.82%)	157(85.79%)
Muhammadiyah Sumatera Utara	3(4.91%)	4(2.18%)	
Negeri Malang		1(0.54%)	
Sumatera Utara		2(1.09%)	
Brawijaya	1(1.63%)		
Harapan Medan	1(1.63%)		
Sari Mutiara Indonesia	1(1.63%)		
STAI Aceh Tamiang			17(9.29%)
STAI JM Tanjung Pura			1(0.54%)
Islam Negeri Ar-raniry			1(0.54%)
Academic years			
First year	20(32.78%)	117(63.93%)	59(32.24%)
Second year	4(6.55%)	12(6.55%)	53(28.96%)
third year	21(34.42%)	29(15.84%)	59(32.24%)
fourth year	16(26.23%)	25(13.66%)	12(6.55%)

Results and Discussion

Pilot Study

Descriptively, the participants in this study consisted of 16 male students and 45 female students from 17 different ethnic groups. Participants consisted of 8 universities from 15 different faculties. A total of 61 students participated in this pilot test. This test was carried out by parallel analysis and estimation method using maximum likelihood and orthogonal varimax rotation on EFA. The results on the assumption test show that the KMO value is 0.465, which is still below 0.500, then seeing the significance of the Bartletts test has (p<.001).

Meanwhile, of the 32 items that have been distributed, 17 items cannot be continued, or the loading factor value is below 0.4. Then the factors created to explain the latent construct are 2. Simultaneously, qualitative data collection is also carried out with open questions or essay answers.

Table 2. Loading factor jihad academic in pilot study.

item	Factor 1	Factor 2	Uniqueness
b1			0.94
b2			0.97
b3	0.48		0.77
b4			0.93
b5			0.91
b6			0.94
b7	0.60		0.64
b8			0.84
b9			0.95
b10			0.93
b11			0.91
b12			0.93
b13			0.82
b14			0.80
b15	0.43		0.81
b16	0.55		0.68
b17			0.99
b18		0.83	0.28
b19			0.95
b20			0.96
b21		0.86	0.22
b22		0.57	0.65
b23			0.99
b24	0.46		0.78
b25		0.44	0.76
b26		0.52	0.69
b27	0.58		0.64
b28	0.64		0.57
b29	-0.40	0.43	0.65
b30			0.91
b31	0.42	-0.43	0.64
b32	0.41		0.82

The content has been explicitly improved regarding the words of the Quran, which are considered abstract and cannot be explained, such as God, Angels, Spirits, etc., which allow answers to be biased and do not measure what is intended to be measured. So that the improvement of this item is done from an abstract word to a word that manifests the theory that has been obtained.

Study 1

After reformulating the statement items formed from the respondents and the jihad themes contained in the Quran, this study was carried out, which was deemed to have met the criteria for the jihad academic scale. Descriptively the number of respondents who participated in this study was 183 students consisting of 22 men and 161 women. The students came from 7 different universities.

In this study, 24 statements were submitted which manifested the jihad of a student in academics. Looking at the results of the KMO of 0.84, with ($X^2 = 1472,453$) with (p<.001). Then from the 24 items tested, there were seven items whose factor load value was below 0.4, which means that they will be

eliminated for the next research stage. Then the remainder of the set of 17 items makes up three factors. Furthermore, Chi-Square test, which states (p<.001).

Table 3. Loading factor jihad academic study 1 and KMO.

item	factor 1	factor 2	factor 3	Unique	MSA
					0.84
b1			0.52	0.73	0.77
b2			0.57	0.63	0.84
b3			0.56	0.56	0.85
b4				0.78	0.88
b5			0.76	0.32	0.87
b6			0.58	0.51	0.86
b7	0.53			0.64	0.84
b8				0.84	0.85
b9	0.75			0.41	0.83
b10	0.54			0.65	0.89
b11				0.73	0.76
b12		0.65		0.55	0.82
b13	0.46			0.66	0.89
b14	0.43			0.8	0.74
b15		0.53		0.71	0.8
b16				0.84	0.76
b17		0.48		0.71	0.77
b18				0.74	0.79
b19				0.83	0.76
b20		0.43		0.76	0.83
b21		0.71		0.38	0.84
b22		0.45		0.57	0.9
b23	0.55			0.63	0.88
b24				0.66	0.87

Before conducting the second test research, the 17 items were seen for their validity and reliability. Seeing the results of the overall reliability of this scale has a value of 0.84 from McDonald's and 0.84 from Cronbach's, meaning that the scale can be called reliable. While looking at each item involved, there is one item whose value is below 0.3. This means that the item is eliminated from participating in further research.

The three factors that have been formed are named according to the majority content of the items that make up the factors. Researchers do not give names in Indonesian because they have not found the right words to represent the items that make up these dimensions. Meanwhile, the researcher did not refer to the dimensions of the Arabic language because the concept that will be raised is the concept of Arabic, and Arabic also has a broad meaning in one word, so English is the appropriate choice for now.

The first factor is referred to as proof, because this word is more representative of verses 3:142, 5:53, 9:16, 6:109, 16:38, 24:53, 35:42, and the meaning that is in line with each verse The theme of this jihad is that it is not yet real or it is not clear who is jihad and who is not, because infidels and polytheists like to swear but are not followed by behavior that is in line with or without evidence (the difference between words and deeds).

Then the second factor is more accurately called kindness because this word represents verses 2:218, 9:24, 60:1 and the meaning found in line with each of these verses is that those who strive will expect God grace and seek God pleasure. Because in this section, we want to see the purpose or motivation so that it is more accurate to say that the content of the statement is for good rather than because of God. Because God is an abstract form that humans cannot think of, if the goal is goodness, it means that God through his revelation provides instructions for the implementation of goodness.

Then the third factor is more accurately called endurance (striving to stay afloat to carry out divine instructions). The word represents verses 5:35,54, 9:41,81,86, 25:52, 47:31, 49:15 and the corresponding meaning of all the verses is that Muslims are obliged to fight as a whole (big strive) both light or heavy, always looking for a way (*wasilah*) to strive, and not afraid of being blamed and does not hesitate.

Study 2

After finding the results of the EFA, which formed three factors with a factor load of more than 0.4, the research continued by confirming the jihad academic construct with different samples. Descriptively who participated in this study amounted to 286 students consisting of 70 men and 216 women. However, to balance the EFA and CFA analysis, only 183 students were taken from this second test, which (sample according to the previous EFA) consisted of 70 men and 113 women.

Table 4. Loading factor jihad academic in study 2

Factor	Indicator	Std. Est. (all)
Prove	p1	0.69
	p2	0.46
	p3	0.53
	p4	0.52
	p5	0.36
	p6	0.58
Kindness	k1	0.66
	k2	0.51
	k3	0.54
	k4	0.72
	k5	0.74
	k6	0.66
Endurance	e1	0.72
	e2	0.83
	e3	0.73
	e4	0.71

On the jihad academic scale, the Chi-square model has a (p<.001), with an indication of the fit of the Comparative Fit Index (CFI= 0.94). Then it is supported by other fit measurements such as Root mean square error of approximation (RMSEA= 0.06) Standardized root mean square residual (SRMR = 0.05), and Goodness of fit index (GFI= 0.91). The range of contributions from the R^2 value ranges from 0.22 to 0.68, and only one is below 0.2. Meanwhile, the factor load with the estimation standard has a range of values from 0.36 to 0.83 and overall (p<.001).

While on the academic resilience scale, CFA was also carried out because the items had been previously eliminated by the author, such as in the severance dimension, which only included six items, then in the reflecting and adaptive help-seeking dimensions, only five items were included, and finally only in the overall negative affect and emotional response dimension. The following items are as original,

namely,six items. So the items proposed in this scale are fewer than previous studies, so it is necessary to do the CFA again to see if the model is correct after deducting several points.

Table 5. Loading factor academic resilience.

Factor	Indicator	Std. Est. (all)
Perseverance	per1	0.66
	per2	0.72
	per3	0.69
	per4	0.49
	per5	0.78
	per6	0.79
Reflecting and Adaptive Help-seeking	ref1	0.7
	ref2	0.8
	ref3	0.64
	ref4	0.68
	ref5	0.58
Negative Affect and Emotional Response	ne1	0.64
	ne2	0.74
	ne3	0.85
	ne4	0.88
	ne5	0.8
	ne6	0.86

On the academic resilience scale, the Chi-square model has a (p<.001), with an indication of the fit of the Comparative Fit Index (CFI= 0.93). Then it is supported by other fit measurements such as Root mean square error of approximation (RMSEA= 0.07), Standardized root mean square residual (SRMR= 0.06) and Goodness of fit index (GFI= 0.88). The range of contributions from the R^2 value ranges from 0.24 to 0.78, and none is below 0.2. While the factor load with the estimation standard as a whole has a range of values from 0.49 to 0.88 and overall (p<.001).

Likewise with the school burnout inventory scale which has been modified by previous researchers from a scale for students to students. Although the researchers did not filter as the previous scale, but to reconfirm whether the constructs from previous researchers were suitable to be carried out in different samples, the CFA was also carried out on this school burnout inventory scale.

Table 6. Loading factor school burnout inventory.

Factor	Indicator	Std. Est. (all)
Emotional exhaustion	ke1	0.75
	ke2	0.75
	ke3	0.72
	ke4	0.58
	ke5	0.73
Cynism	si1	0.87
	si2	0.9
	si3	0.67
	si4	0.75

On the school burnout inventory model scale, the Chi-square size has a (p<.001), with an indication of the fit of the Comparative Fit Index (CFI= 0.93). Then it is supported by other fit measurements such as Root mean square error of approximation (RMSEA= 0.11), Standardized root mean square residual (SRMR= 0.06) and Goodness of fit index (GFI= 0.91). Looking at the range of contributions from the $R2$ value, it ranges from 0.34 to 0.82, and none is below 0.2. Meanwhile, the factor load with the estimation standard as a whole has a range of values from 0.58 to 0.90 and overall (p<.001).

Table 7. Correlations of variable.

Variable	1	2	3	4	5	6	7	8	9	10	11
1. prove	—										
2. Kindness	.649[3]	—									
3. Endurance	.549[3]	.708[3]	—								
4. Jihad academic	.872[3]	.903[3]	.829[3]	—							
5. Perseverance	.572[3]	.619[3]	.683[3]	0.708[3]	—						
6. Reflecting	.58[3]	.637[3]	.596[3]	0.693[3]	0.759[3]	—					
7. Negative Affect	-.195[2]	-.199[2]	-.163[1]	-0.216[2]	-0.128	-0.166[1]	—				
8. Resilience academic	.324[3]	.363[3]	.403[3]	0.411[3]	0.632[3]	0.589[3]	0.648[3]	—			
9. Emotional exhaustion	-.021	-.043	-.047	-0.041	-0.055	-0.063	0.42[3]	0.274[3]	—		
10. Cynism	-.16[1]	-.184[1]	-.101	-0.175[1]	-0.115	-0.09	0.453[3]	0.262[3]	0.658[3]	—	
11. school burnout	-.094	-.12	-.079	-0.114	-0.092	-0.083	0.478[3]	0.295[3]	0.922[3]	0.898[3]	—

[1] p < .05, [2] p < .01, [3] p < .001

In this study, convergent validity was carried out with an academic resilience scale with a correlation value of (r = 0.41) and (rho = 0.35) with each (p<.001). Then for discriminant validity, it is carried out using a school burnout inventory scale with a correlation (r = -0.11) with (p .012) and (rho = -0.21) with (p 4.38e -3). The normality assumption (W = 0.87) with (p<.001).

Looking at the validity of each item on the jihad academic scale, none of them is below 0.3, it can be seen that the item value ranges from 0.38 to 0.68. Then on the academic resilience scale, it was found that there were statements that were below 0.3, then the range of item values started from 0.38 to 0.61. While on the school burnout inventory scale, none of them are below 0.3, it can be seen that the range of item values starts from 0.52 to 0.77. Reliability on jihad academic scale of McDonald's = 0.88, Cronbach's = 0.88. While on the academic resilience scale seen from McDonald's = 0.82, and Cronbach's = 0.87. Then on the school burnout inventory scale seen from McDonald's = 0.89, and Cronbach's = 0.90. it means that the whole scale has good reliability because it is > 0.70.

Conclusion

There are at least some parts of why the results of this study are essential. First, this quality of theory testing is a strength of the scientific method. Second, theorists are now emphasizing more informative theory tests to avoid or cover up previous weaknesses. Third, the need for validation of the extent to which the response is truly appropriate so that it reflects influence. Fourth, there is a lack of proper explanation for using a single score to represent multidimensional constructs, so researchers are now relying on unidimensionality to increase the validity of their theory. Fifth, empirical evidence of validity is needed (Strauss & Smith, 2009).

Based on the results of the data that has been analyzed by the EFA which the CFA then follows, the overall jihad academic scale is declared to have a fit model as well as valid and reliable, both from the overall scale and from the point of view to explain jihad academic. Although some data results to see whether this scale model is good or not, it has a rudimentary value. As Chi-square has a p-value of 0.01 (> 0.05), which means it is not under the standard of the formula because Chi-square is sensitive to the sample. So because the sample in this study is quite large, it can be ignored.

Then it is the same with other assessment indices that are commonly used to construct measuring instruments where there is a CFI of 0.94 (> 0.90) RMSEA 0.06 (< 0.05) SRMR 0.05 (< 0.08) GFI 0.91

(> 0.90). It can be seen from these results that several assessment indices are not appropriate but close to. However, this is also acceptable because if the purpose of CFA is to see the existence of a construct (the nature of theory development) and not to confirm the validity of an instrument, it is understandable if it does not have to be fully "confirmatory" because it is "model generation" (Joreskog et al., 2016). So that the determination of "model fit" with an index that is not population-based (non-statistical) is understandable.

The proposed jihad academic scale construction model was fit based on the CFI index value of 0.94 (> 0.90) SRMR 0.05 (< 0.08) GFI 0.91 (> 0.90). But still not in accordance with Chi-square 0.01 (> 0.05) and RMSEA 0.06 (< 0.05). Then it has been reliable seen from McDonald's = 0.88, Cronbach's = 0.88 (> 0.70). Convergent validity with academic resilience scale with correlation (r = 0.41) and (rho = 0.35) with (p<.001), respectively. Then for discriminant validity, it is carried out using a school burnout inventory scale with a correlation (r = -0.11) with (p .012) and (rho = -0.21) with (p 4.38e -3). The normality assumption (W = 0.87) with (p<.001).

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