Article

Development and Validation of a Scale for Christian Character Assessment of University Students

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Abstract: After the Character Education Act was enacted, providing character classes became a prerequisite in some Korean colleges starting in spring 2017. Keeping in step with these changes, experts researching character education cited the need for the development of character scales. The purpose of the present study is to explore the validity and reliability of the Christian character scale for university students. The participants were 994 students attending a Christian university in Seoul. The original 75 questions were developed from 13 factors, within three domains, from the three Biblical references and Christian universities' virtuous character traits. These questions were reduced to 39, three per each factor, through the examination of content validity by a validation panel. Twenty-nine questions were finalized through exploratory factor analysis and confirmatory factor analysis within five factors: relationships with others I—loving and caring, relationship with God, relationships with others II—loving and peacemaking, personal responsibility, and social responsibility.

Keywords: Christian character; character scale; scale development; university students

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1. Introduction

The tragedy of the Sewol Ferry Incident, with the loss of 304 lives—mostly high school students on a school trip—symbolizes the spirit of the age. It bears witness to the erosion of traditional values and a crisis of character. Faced with societal problems such as school violence, teenage suicide, and violent crime along with the Sewol Ferry Incident, Korea has sought a remedy to these difficulties through character development by enacting the Character Education Promotion Act in July 2015 (Lee 2015). According to this law, the objective of character education includes the attitude of both mind and personality, such as good manners, honesty, responsibility, respect, consideration, communication, cooperation, and others. State or local governments should establish and execute long-term and systematic policies to nurture citizens skilled in the best expressions of character (Korea Ministry of Government Legislation 2017). At the same time, the Korean Ministry of Education designated character courses as prerequisite classes at universities and colleges of education starting in 2017. These actions reflect the idea that before beginning subject-specific course work, there should be foundational development of one's humane character—the basis of all education (Nam 2015). Beyond these factors, students have become aware that university programs lack character education, and have expressed the need for such coursework (Cho 2016). In this regard, it is important for those responsible for curriculum development to identify which character traits should be nurtured through education to insure, as much as possible, that this process enjoys universal support and cooperation (Yoo et al. 2012).

In recent years, a considerable volume of research has been conducted on character education; however, only a few studies have managed to develop character instruments (Son and Jeong 2014). Psychology, however, has contributed significantly by rendering the virtues measureable, and suggesting observable traits that are indispensable prerequisites for intentional instruction aiming at cultivating virtue (Langer et al. 2010). Aware of the paucity of character scales, Son and Jeoung suggested a need for more active studies on character instrument development (Son and Jeong 2014).

Among character instruments, the study conducted by Lee, Kang, and Kim designated certain factors within the fields of cognition, affection, and behavior. The cognitive domain includes moral self-awareness, knowledge of moral values, moral deductive reasoning, reflective decision-making, and moral self-knowledge. The affective domain includes conscience, self-respect, empathy, love of good, self-control, and modesty. The behavioral domain includes capability and habit (Lee et al. 2013). Lim's character scale featured global citizen consciousness, respect for others, and conscientious individual reflection (Lim 2015). Kim's measurement tool, which is designed for Christian university students, consists of trustworthiness, ability to take the initiative, respect for others, spirit to challenge, civic consciousness, consideration for others, and tolerance of others (Kim 2013). It has been found that the existing character scales for university students emphasize, and commonly adopt as factors, moral judgment and ability to practice such judgment, conscientious reflection, respect for others, civic consciousness, self-respect, and power of execution.

The purpose of Christian higher education is not only to convey information, but also to develop character and competence for effective service (Dockery 2008). In order to achieve the goal, the Bible provides guidance for God's people who learn from it and discern its meaning (Wright 2010). Extensive portions of scripture are written as moral exhortations regarding how to live well in diverse areas of life. Character development is encouraged as a high priority both to please God and to flourish in life (Langer et al. 2010). The Bible trains readers to learn from various kinds of stories and to discern meaning within them. The Bible is filled with demonstrations of virtuous character: Noah's courage, Abraham's faith, Joseph's hope (even in prison), Moses' leadership, and many others. Although these are exemplary, they are not character templates to pick up and copy. Christians, therefore, need to play their part in the ongoing narrative according to their calling as God's chosen royal priesthood (Wright 2010).

Kim points out that, based on his teaching experiences at the university, there is a limitation to changing people only through education on morality or ethics, and that the school needs to focus on the fact that God's Word changes people (Kim 2013). When a person receives the Bible as the Word of God, their relationship to Christ is nurtured and sustained, and their relationship to Israel and the church, as people of the book, is formed. The Bible reinforces Christian family tradition, identity, and stories, and shapes their values and characters (Gill 2004). Therefore, the starting point of Christian character education is Scripture, the preeminent character-forming book (Wright 2010).

Extraction of character elements and development of a character scale would be meaningful tasks, since the Character Education Promotion Act was enacted recently and there is a high interest in character education. Therefore, based on the abovementioned need for more research, the purpose of this study is to develop a scale that can measure the Biblical character of university students with Christian beliefs. In this paper, Biblical character refers to "traits that are consistent with Biblical values, attitudes, and behaviors that reflect one's Christian identity through restoration of God's image."

2. Methods

2.1. Research Procedure

2.1.1. Factor Development

In order to identify Christian character traits, several sources are referenced: three Bible texts presented by Kang (Kang 2015), the character attributes of Handong Global University known for its Christian character education (Handong Global University 2016), the character attributes of Calvin College

(Calvin College 2016) and Wheaton College (Wheaton College Center for Vocation and Career 2015), and the Christian Character Index (Assess-Yourself.org 2016). The character virtues disclosed from these are summarized as follows in Table 1.

Table 1. Bases of Christian character virtues.

Source	Character Traits	
Matthew 5:3–10	humility, empathy, self-control, righteousness, mercy, integrity, forgiveness, justice	
Galatians 5:22–23	love, joy, peace, patience, kindness, goodness, faithfulness, gentleness, self-control	
2 Peter 1:5–7	faith, goodness, knowledge, self-control, perseverance, godliness, brotherly kindness, love	
Handong Global University Calvin Virtue	wisdom, sexual purity, self-control, love, honesty, integrity, humility diligence, patience, honesty, courage, charity, creativity, empathy, humility, stewardship, compassion, justice, faith(loyalty + trust), hope, wisdom	
Wheaton College	humility, generosity, hardwork, integrity, royalty, broad worldview, trustworthiness	
Christian Character Index	joy, inner peace, patience and gentleness, kindness and generosity, faithfulness, self-control, forgiveness, gratitude, compassion, love	
C. S. Lewis: Abolition of Man (Lewis 2015)	the law of general beneficence; the law of special beneficence; duties to parents, elders, ancestors; duties to children and posterity; the law of justice; the law of God faith and veracity; the law of mercy; the law of magnanimity	
C. S. Lewis: The 12 Narnian Virtues (Pike et al. 2015)	wisdom (including prudence), love (including kindness), fortitude, courage (an aspect of fortitude), self-control, justice, forgiveness, gratitude, humility, integrity (including honesty), hard work, curiosity	
Jubilee Centre for Character and Virtues (The Church of England Education Office 2015)	civic character virtues	service, citizenship, volunteering
	moral character virtues	courage, self-discipline, compassion, gratitude, justice, humility, honesty
	performance character virtues	resilience, determination, creativity

(Lewis 2015; Pike et al. 2015; The Church of England Education Office 2015) were used as reference resources, but were not used in factor selection.

The character traits described above have been categorized into intrapersonal values, interpersonal values, and social values, as proposed by Park and Hue (Park and Huh 2012). Where all of the intrapersonal, interpersonal, and social values are applicable, such as diligence and responsibility, they were placed in the most appropriate categories as discussed by the panel of experts. From the character traits listed above, the category of intrapersonal values includes patience/hope, self-control/purity, faith/loyalty, faithfulness/honesty, diligence/responsibility, and joy/gratitude. The category of interpersonal values lists compassion, love, forgiveness/gentleness/peace, kindness/consideration/manners, and generosity/benevolence. The category of social values consists of justice and community spirit.

2.1.2. Item Development and Content Validity

Based on a Biblical and theoretical foundation, an item pool of 75 questions was developed. Seven professors who major in Christian ethics, Christian philosophy, or Christian education, or who were instrument development specialists, were invited to serve as a panel of experts to evaluate the developed item pool. They ranked each question by a 5-point-Likert scale for relevance and clarity (Gable 1993). They were also asked to check whether the questions fit into individual, interpersonal, and social values properly, and to add supplementary questions that the researcher failed to include. Based on the relevance and clarity scores, 39 questions were selected of 75.

2.1.3. Pilot Study

Following Patten's recommendation that 25 or more respondents who represent the target population should be invited to a pilot study (Pattern 2001), this study was conducted with 37 students. Since subjects showed difficulty understanding Item 17, "I am honest, even when there is an advantage to lie," was modified to "I do not tell a lie, even when there is an advantage to lie." The questions were formatted with a 5-point Likert scale. Internal consistency using the Cronbach's alpha coefficients of the instrument was r = 0.79.

2.2. Research Subjects

The data were collected from 994 Christian university students who attended C Christian university and self-evaluated their character. This university, which advocates Reformed theology, has 1500 students with nine majors including theology and Christian education. The sample was 331 male (33.3%) and 663 female students (66.7%); by school year, there were 290 freshmen (29.2%), 254 sophomores (25.6%), 256 juniors (25.8%), and 194 seniors (19.5%).

2.3. Data Analysis

In order to perform this study, the SPSS 22 program was conducted to determine reliability and validity through exploratory factor analysis. The Amos 20 was used to confirm the model fit through confirmatory factor analysis.

3. Results

3.1. Data Screening

To assess normality, the distribution of the data was examined with respect to skewness and kurtosis. The values between -2 and $+2$ for skewness and kurtosis were considered acceptable for proving normal univariate distribution (Field 2009). Skewness ranged from -0.91 to 0.03 and kurtosis ranged from -0.70 to 0.17. Therefore, no indicators that appeared to have a problematic distribution in statistical analyses were found.

3.2. Exploratory Factor Analysis

Exploratory factor analysis was used to simplify the set of data and explore the possible structure of the scale. A principal component analysis using varimax rotation was performed. In this study, the Kaiser-Meyer-Olkin Measure of Sampling (KMO) value (0.968) and Bartlett's test value (χ^2 (741) = 18,447.27, p = 0.000) indicate that factor analysis is appropriate (Pallant 2010).

The five factors that had eigenvalues greater than ones that were extracted, and 52.99% variance was explained. Rotated factor loadings, variances, and eigenvalues are provided in Table 2. The first factor, entitled "relationships with others I—loving and caring," included 11 items, representing 12.58%. The second factor, entitled "relationship with God," included 9 items, and accounted for 10.94%. The third factor, labeled "relationships with others II—loving and peacemaking," included 6 items, accounting for 10.94%. The fourth factor entitled "personal responsibility," included 7 items, representing 10.02%. The fifth factor, named "social responsibility," included 6 items, and explained 9.32%.

Table 2. Factor loadings.

Items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Communality
Factor 1: Relationship with Others I—Loving & Caring						
7. I carefully consider and sympathize with what others say.	0.673	0.178	0.240	0.138	0.131	0.578
19. I greet others with a smiling face.	0.608	0.277	0.128	0.024	0.167	0.491
23. I am polite, when talking on the phone, chatting, greeting.	0.586	0.294	0.001	0.190	0.227	0.518
34. I use positive language, which lifts up and encourages others.	0.577	0.209	0.260	0.222	0.247	0.554
36. I show an attitude of caring for others and serving them.	0.560	0.203	0.349	0.197	0.326	0.622
10. I communicate and behave with kindness.	0.539	0.117	0.410	0.276	0.025	0.549
33. I rejoice with those who rejoice and mourn with those who mourn.	0.490	0.282	0.218	0.168	0.396	0.552
13. I seek harmonious communications and decision making within groups.	0.485	0.277	0.179	0.224	0.251	0.457
35. I take the role as a mediator to achieve conflict resolution.	0.444	0.133	0.307	0.283	0.357	0.516
20. I help people who are having difficulties.	0.433	0.304	0.362	0.126	0.364	0.560
18. I take responsibility for my part of group tasks.	0.430	0.329	−0.028	0.254	0.353	0.482
Factor 2: Relationship with God						
29. I know I am a child of God and believe that God has a purpose for me.	0.271	0.753	−0.016	0.027	0.184	0.675
1. I hold hope in God, no matter what the circumstance.	0.214	0.678	0.206	0.203	0.100	0.599
28. I think sexual purity is important and, with God's help, I maintain it.	0.174	0.663	0.023	0.073	0.138	0.495
27. I endure economic and academic hardships, and difficulties in personal relationships, as I wait patiently for God's time.	0.104	0.572	0.284	0.203	0.304	0.552
32. I am satisfied with the conditions that God provides for me.	0.222	0.542	0.275	0.243	0.113	0.490
16. I use my time, possessions and talents for the expansion of God's kingdom in the church.	0.264	0.526	0.228	0.293	0.155	0.508
3. I rely on God's strength to overcome when I am inclined to sin.	0.229	0.469	0.200	0.440	0.045	0.509
26. I cooperate with all my heart and power for the good works of God.	0.332	0.466	0.218	0.160	0.434	0.589
6. I give thanks in all circumstances.	0.354	0.372	0.370	0.346	−0.065	0.524
Factor 3: Relationship with Others II—Loving & Peacemaking						
9. I forgive people who have harmed me.	0.135	0.155	0.722	0.151	0.133	0.604
14. I patiently endure people who make things difficult for me.	0.169	0.214	0.687	0.132	0.055	0.567
8. I consider the needs of others before mine.	0.452	0.094	0.552	0.145	0.133	0.557
39. I can put up with discomforts and inconveniences for the benefit of others.	0.258	0.195	0.485	0.144	0.402	0.522
21. I do not quickly condemn others.	0.211	−0.010	0.477	0.419	0.200	0.488
11. I help other people without expecting to be thanked.	0.405	0.232	0.464	0.027	0.315	0.533
Factor 4: Personal Responsibility						
2. I use time effectively.	0.218	0.129	0.060	0.726	0.102	0.605
4. My thoughts, words, and behaviors coincide.	0.211	0.109	0.292	0.646	0.115	0.572
31. I complete my responsibilities on time, regardless of the situation.	0.174	0.233	0.027	0.620	0.318	0.571
5. I perform the tasks given to me responsibly and sincerely.	0.431	0.213	−0.010	0.588	0.197	0.615
15. I am disciplined with my finances.	0.084	0.208	0.212	0.511	0.116	0.370
17. I do not tell a lie, even when there is an advantage to lie.	−0.158	0.123	0.343	0.467	0.197	0.415
22. I objectify my anger and express it in a rational way.	0.151	0.071	0.421	0.425	0.270	0.458
Factor 5: Social Responsibility						
38. I am interested in political, social, and economic issues, and I agonize over injustice.	0.257	0.073	−0.006	0.211	0.650	0.538
25. I believe the church should humbly consider the world's critique and renovate itself.	0.131	0.212	0.073	0.048	0.622	0.457
12. I am attentive to injustice and participate in reformation.	0.211	0.102	0.343	0.179	0.512	0.466
24. I practice care for the disadvantaged.	0.335	0.093	0.267	0.235	0.495	0.492
37. I know the value of donating my talents and possessions, and practice it.	0.249	0.246	0.273	0.280	0.478	0.622
30. I do not compromise right values, even though this requires me to make sacrifices.	−0.009	0.410	0.257	0.264	0.455	0.511
% of Variance	12.58	10.94	10.14	10.02	9.32	
Eigenvalues	14.79	1.84	1.57	1.33	1.19	

3.3. Confirmatory Factor Analysis

3.3.1. Model Fit

An initial confirmatory factor analysis was conducted to assess 39 items, within five factors, based on exploratory factor analysis results. However, the original model did not provide an acceptable fit to the data ($\chi^2(692) = 3020.48$, $p = 0.000$; SRMR = 0.056; CFI = 0.870; TLI = 0.861; RMSEA = 0.058 (low 0.056; high 0.060)). For modification, the items in which the loadings of each factor are less than 0.50 were eliminated. Modification indices were examined, and some of the reasonable modifications were incorporated through correlated residuals and cross-loadings (Hooper et al. 2008). With these changes,

the model produced a reasonably good fit. The first modified model was comprised of 29 items within five factors. This model was found to fit the data marginally (χ^2(367) = 1663.95, p = 0.000; SRMR = 0.042; CFI = 0.906; TLI = 0.896; RMSEA = 0.059 (low 0.057; high 0.063)). With the exception of Item 6, "I give thanks in all circumstances," all construct measures loaded significantly onto their respective factors. The second modified model included 28 items excluding Item 6 pertaining to five factors. This revised model provided a highly satisfactory fit to the data (χ^2(340) = 1529.01, p = 0.000; SRMR = 0.042; CFI = 0.911; TLI = 0.901; RMSEA = 0.059 (low 0.056; high 0.062)). Table 3 presents the model fit indices for the original and revised models.

Table 3. Goodness-of-fit indices from confirmatory factor analysis.

Models	χ^2	df	SRMR	CFI	TLI	RMSEA	
						Low	High
39 items	3020.48	692	0.056	0.870	0.861	0.056	0.060
29 items	1663.95	367	0.042	0.906	0.896	0.057	0.063
28 items	1529.01	340	0.042	0.911	0.901	0.056	0.062
Threshold			$\leq$08	$\geq$90	$\geq$90	$\leq$06	

Although the third model showed a better model fit, this researcher prefers the second model that includes Item 6, "I give thanks in all circumstances," which showed slightly higher loading scores across four factors. The reason is that "thankfulness" was one of the factors originally included, and without thankfulness, Christian character would not be measured properly. As a final point, it must be noted that, while fit indices are a useful guide, a structural model should also be examined with respect to substantive theory (Hooper et al. 2008). Therefore, the scale was finalized to 29 items including Item 6, even this model is less satisfactory.

With the revised model, the standard coefficients of each factor appeared as Factor 1: 0.66–0.78, Factor 2: 0.64–0.75, Factor 3: 0.64–0.71, Factor 4: 0.66–0.74, and Factor 5: 0.61–0.70. These standard coefficients and graphic illustrations of the five-factor model with 29 items are presented in Figure 1.
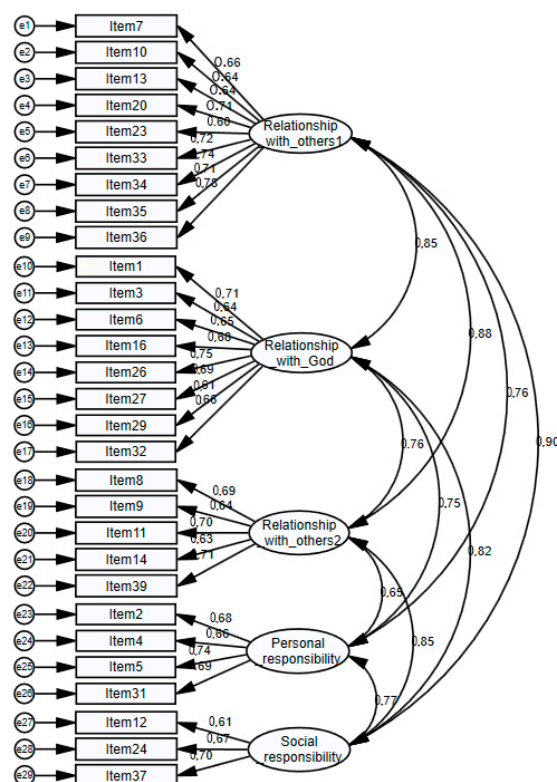

Figure 1. The path diagram of the final five-factor model.

3.3.2. Convergent & Discriminant Validity

Confirmatory factory analysis was used to assess the measurement model with respect to convergent and discriminant validity, as well as fit. Large standardized factor loadings, which indicated large inter-correlations among items associated with the same latent variable, support convergent validity (Kline 2011). The averaged variance extracted (AVE) and construct reliability (CR) scores are higher than the cutoffs of 0.5 and 0.7 respectively (Zait and Berte 2011) (see Table 4).

Table 4. Construct reliability and averaged variance extracted results.

Construct	Item	Standardized Regression Weight	*t*-Value (CR)	CR (Construct Reliability)	AVE	Cronbach's α
Relationship with Others I: Loving & Caring	7	0.661	Fix	0.918	0.555	0.889
	10	0.640	18.29			
	13	0.644	18.41			
	20	0.711	20.05			
	23	0.596	17.16			
	33	0.723	20.33			
	34	0.736	20.65			
	35	0.707	19.95			
	36	0.778	21.65			
Relationship with God	1	0.710	Fix	0.913	0.567	0.868
	3	0.641	19.04			
	6	0.647	19.22			
	16	0.678	20.12			
	26	0.748	22.13			
	27	0.692	20.53			
	29	0.609	18.11			
	32	0.660	19.58			
Relationship with Others II: Loving & Peacemaking	8	0.691	Fix	0.898	0.638	0.808
	9	0.637	18.06			
	11	0.701	19.71			
	14	0.628	17.82			
	39	0.712	19.98			
Personal Responsibility	2	0.684	Fix	0.840	0.570	0.789
	4	0.665	18.02			
	5	0.745	19.77			
	31	0.695	18.71			
Social Responsibility	12	0.614	Fix	0.802	0.576	0.702
	24	0.672	17.05			
	37	0.702	17.59			

Model fit $\chi^2(367) = 1663.95$, $p = 0.000$; SMRM = 0.042, CFI = 0.906; TLI = 0.896; RMSEA = 0.059 (low 0.057, high 0.063).

The correlations between factors through CFA are in Table 5. In the case of discriminant validity, correlations are less than 0.76 and square roots of AVE are greater than inter-construct correlations (Cho 2015). Therefore, discriminant validity was proved.

Table 5. Inter-correlations between factors.

Factors	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	*Mean*	*SD*
Factor 1	[0.744]					4.02	0.734
Factor 2	0.661 **	[0.752]				4.02	0.786
Factor 3	0.755 **	0.643 **	[0.799]			3.77	0.864
Factor 4	0.728 **	0.626 **	0.627 **	[0.755]		3.63	0.847
Factor 5	0.729 **	0.641 **	0.667 **	0.647 **	[0.759]	3.66	0.814

** $p < 0.01$, [ ] square root of AVE.

4. Discussion and Conclusions

In the recently enacted Character Education Promotion Act, character education is defined as "education with an objective of nurturing human characters and abilities that are necessary for raising one's inner self in an upright and sound manner and living in harmony with others, community, and nature" (Korea Ministry of Government Legislation 2017). However, Christian character education is to educate people to maintain, in a consistent and constant manner, lifestyles and behaviors that are in accordance with the inherent personal moral character traits, given by God, and the characteristics of a person created in the image of God (Han 2014). Not only expressed behaviors but also hidden motives need to be counted. For ancient philosophers such as Plato and Aristotle, virtues were connected to purposes. Just as a knife for cutting and a horse for transportation, so goodness is based on the goal Christians wish to achieve (Gill 2000). Therefore, lifestyles, behaviors, and motivations are important to character formation. In this sense, Christian character education should not merely be ethicalized character education. A relationship with God should take precedence as the basis of Christian character education (Kang 2015).

Therefore, this study developed a scale that measures the university student's character traits based on a Biblical standard, which are beyond the morality, conscience, respect for others, civic awareness, self-regard, and taking the initiative that are emphasized in general character education. Calvin College sets an example of the biblical criterion for character education, explaining its core virtues: "As God's chosen people, we are enjoined by St. Paul to clothe ourselves with 'compassion, kindness, humility, meekness, and patience,' but above all to clothe ourselves 'with love, which binds everything together in perfect harmony' (Colossians 3:12, 14)" (Calvin College 2016). The Biblical references cited in this study are related to the fruits of character that are evident in the lives of people who have undergone a second birth. This fruit is recognized as the core of Christian character education (Kang 2015). This study commenced by identifying 13 virtues of Christian character commonly emphasized in Bible texts and at Christian universities—patience/hope, self-control/purity, faith/loyalty, faithfulness/honesty, diligence/responsibility, joy/gratitude, compassion, love, forgiveness/gentleness/peace, kindness/consideration/manners, generosity/benevolence, justice, and community spirit—and then categorizing them by intrapersonal values, interpersonal values, and social values. From these, 75 questions were formed and further reduced to 39 questions after undergoing the content validity test by a panel of experts consisting of seven people. Ultimately, they were finalized into 29 questions related to five factors through an exploratory factor analysis and a confirmatory factor analysis. It can be seen that the five factors named in this study include the original three values of intrapersonal, interpersonal, and social values. These also share factors with the four areas of reconciliation explained by Harbermas and Issler—communion, character, community, and commission (Habermas and Issler 1992).

It is meaningful in that it has developed a valid and reliable scale for measuring the Christian character of university students through a statistically necessary procedure. Taken together, the present study provides the first stage for measuring the Biblical character of emerging adults. This study, however, has a limitation in that the 994 research subjects were collected from one Christian university only. The fact that this scale measures the student perception of character, not their actual character practice, might be another limitation. The Narnian Virtues curriculum was performed to test the understanding and application of virtues. One hundred sixty students, aged 9–14 years, participated in this experiment. A statistically significant increase in their ability to correctly identify 12 virtues (knowledge) was found. No statistically significant change was found in assessing their application of 12 virtues or in assessing personality and attitude characteristics (Pike et al. 2015). These results show that knowledge is different from the application of knowledge or the attitude reflecting the knowledge. This scale also measures the students' perceptions of their character and does not actually measure their character. One's actual character might be different from their perception of it.

To maximize the utility of the Christian character scale for university students, additional studies of its use are needed. First, an analysis of the factors affecting character development is needed. If the

factors that influence emerging adults to be Christ-like and mature are known, educators can equip them more effectively. Second, as the Character Education Promotion Act suggests that Christian character programs need to be developed to evaluate their effect on Christian character formation. Experimental studies regarding Christian character programs might contribute to Christian education by developing new programs and proving their effectiveness. The author hopes that this instrument might be a useful tool to measure biblical character for other Christian university students or Christian students attending university. It could be used in other countries after culturally inappropriate items are revised.

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