Reliability, Validity, and Cultural Adaptation of the Multidimensional Scale of Life Skills in Late Childhood with Upper Primary School Students in Afghanistan and Pakistan

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Doi: 10.23918/ijsses.v8i1p37

Abstract: Life skills, also known as psychosocial and non-cognitive skills, are critical to children's development and well-being as they progress through early life courses but difficult to measure. The present study aims at validating a culturally adapted version of the Multidimensional Scale of Life Skills in Late Childhood in the context of primary school of rural Afghanistan and Pakistan. The instrument was face validated by six of the authors. The scale was found accessible to students' grades three to five despite its original target of late childhood. Content validation was also carried out by the authors to evaluate the representativeness of the scale items for the various dimensions of life skills. The items were found relevant for the seven dimensions of life skills considered. The scale also showed overall good internal consistency, acceptable test retest and inter rate consistence and high responsiveness. Exploratory factorial analysis showed that 4 and 3 factors explained 40% and 37% of the total variance respectively in Pakistan and Afghanistan.

Keywords: Afghanistan, Children Life Skills, Cultural Adaptation, Pakistan, Psychometric Properties, Scale Validation

1. Introduction

Life skills, also known as psychosocial and non-cognitive skills or "social and emotional learning" (Durlak et al., 2011), have been shown to be critical to childhood development, health and well-being as children progress through the early portion of the life course (Almlund et al., 2011; Moffitt et al., 2011; Prajapati,

Received: January 5, 2021
Accepted: February 22, 2021
Trani, J., Greenfeld, A.L., Bakhshi, P., Kaplan, I., Azimi, P., Safi, M., Sohail, M., & Babulal, G.M. (2021). Reliability, Validity, and Cultural Adaptation of the Multidimensional Scale of Life Skills in Late Childhood with Upper Primary School Students in Afghanistan and Pakistan. *International Journal of Social Sciences & Educational Studies*, 8(1), 37-50.

et al., 2017). Life skills have been defined by the World Health Organization (WHO) as abilities for adaptive and positive behavior that enable individuals to effectively deal with the demands and challenges of everyday life (World Health Organisation 1999).

The WHO defined 10 core life skills that are relevant across cultures: Decision making; Problem solving; Creative thinking; Critical thinking; Effective communication; Interpersonal relationship skills; Self-awareness; Empathy; Coping with emotions; and Coping with stress. These core life skills can be acquired through education but also through other experience outside the school (UNESCO 2015). They are considered transferrable skills, as they create the capabilities to analyze problems, clearly communicate ideas and share innovative solutions, but also to collaborate with others and take the lead on projects. Life skills are complementary to cognitive skills that children learn, mostly during childhood and lead to meaningful ways of interacting, doing, and being (UNESCO 2000). Furthermore, evidence exists that there is a congruence between life skills and early childhood poverty (Evans & Rosenbaum 2008). Children do not learn in a vacuum but through interactions with adults and peers in dynamic cultural, social, and physical contexts (Bronfenbrenner, 2005). Research shows that both life skills and cognitive skills are influenced by early parental investment in education with upstream effects with further investment at a later age and beneficial significant long-term effect on life skills (Cunha and Heckman 2008). Smaller class size has been shown to influence life skills such as emotional engagement in class (Dee and West 2011). A review has confirmed that early childhood as well as various school interventions may effectively improve life skills in the long term (Heckman & Kautz 2014). The importance of life skills explains the promotion of the right to equitable access to quality life skills programs in education (UNESCO 2000). Even if attention to life skills development and measurement has increased considerably (West et al., 2016), questions remain as to whether and how well children are developing these skills in schools (Tough, 2012). Until recently, in the context of Low- and Middle-Income Countries (LMICs), focus on education quality, including the acquisition of life skills has been largely neglected and the focus has been primarily on access to school (UNESCO 2020). To remedy this lack of focus on life skills acquisition during the learning process in LMICs, we developed a participatory intervention program aimed at improving both cognitive and non-cognitive or life skills learning outcomes using community-based system dynamics in the context of rural primary schools of Afghanistan and Pakistan (Trani et al., 2019). As a result, we needed a reliable scale to measure life skills.

Measuring life skills in early childhood is a complex endeavor. There is lack of consensus on what the most important skills for child development are, how to measure them and how to promote them in the school environment (West et al., 2016). Currently, few scales exist that provide a good overview of prominent life skills, mostly because of the difficulty in measuring such skills, particularly when comparing skills internationally (UNESCO 2012). As a result, there is limited evidence on how education shapes transferable skills, such as problem-solving, teamwork, grit, self-control, or motivation. While numerous scales with ratings have been developed related to specific life skills, they have either been developed for vocational and adult uses or for specific disease rehabilitation and not for generalized life skills in children, particularly in LMICs.

There have been several scales developed that do apply to children that assess life skills. The Big Five Inventory for instance is a 44-item scale measuring each of the “Big Five” personality traits: neuroticism,

extraversion, openness to experience, agreeableness, and conscientiousness (John & Srivastava 1999). Personality traits are a different construct than life skills as the later constitute a dynamic process of acquisition of knowledge at an early stage in life laying the foundation for positive personality traits. The Impulsivity Scale for Children is an 8-item scale measuring self-control (Tsukayama et al., 2013) that is too narrow of a construct for our purpose. Particularly relevant to our study were three recent scales from the Indian and Japanese contexts that measured a range of life skills close to the WHO's 10 core list. Subasree and Nair (2014) developed and implemented a Life Skills Assessment Scale with 890 Indian adolescents ages 12-19 consisting of 100 items across the 10 WHO life skills domains (Subasree & Radhakrishnan Nair, 2014). The scale was found to be too long by local experts who tested it with a few children for the attention span of children ages nine to 11 (grades three to five). Kennedy, Pearson, Brett-Taylor, and Talreja (2014) also constructed and implemented another Life Skills Assessment Scale with 1,136 disadvantaged Indian adolescents ages 8-16 consisting of 5 items assessing: interacting with others; overcoming problems and finding solutions; taking initiative; managing conflict; and understanding and following instructions (Kennedy, Pearson et al. 2014). We found this scale to be not extensive enough even though the scale showed good internal and interrater reliability and discriminative validity between advantaged and disadvantaged children. Kobayashi, Gushiken et al. (2013) developed and implemented the Multidimensional Scale of Life Skills in Late Childhood (MSLSLC) with 1,888 Japanese children in the 4th through 6th grades, consisting of 60 items that were later reduced to 24. This was done through exploratory factor analysis. It consists of seven factors or subscales focused on major life skills domains with strong overlaps with the WHO core areas: Problem-solving/synthesis (six items); Relationships with friends (three items); Personal manners (three items); Decision-making and future planning (three items); Self learning (three items); Collecting/using information (three items); and Leadership (three items) (Kobayashi et al., 2013). The MSLSLC is scored on a Likert scale that ranges one to five from Never (Not True), Rarely, Sometimes, Very Often, to Always (Very True).

2. Methods

2.1 Measurement Instrument

The MSLSLC was chosen because of its wide coverage of the WHO core life skills and its suitability for children in grades three to five. Six of the authors reviewed the scale for face validity and tested it for content validity. It was then tested for its psychometric qualities. Authors investigated if the items reflect the seven life skills of interest. The scale was slightly simplified after an in-depth and rigorous process of content validation that involved the authors in the field (Haynes et al., 1995; Rubio et al., 2003). While the seven subdimensions were retained, three types of modifications were introduced for cultural adaptation to the contexts of Afghanistan and Pakistan: 1) reconstruction of questions so that they were contextually linguistically appropriate; 2) removal of five questions that were deemed redundant or confusing to the children; and 3) translation and back-translation of the English 19 items version into Dari and Pashto in Afghanistan and Urdu and Sindhi in Pakistan and back to English. The reconstruction of questions was essential for children to understand how relatively complex concepts are used. We simplified terminology used to better capture the content of the life skills and avoid confusing or overlapping meanings (DeVellis, 2012). For instance, the first item of the MSLSLC "I can solve a problem by using reasoning" was changed to "I can solve a problem by thinking" since reasoning is a difficult term

to understand for children ages nine to 11 years old. We also reorganized the original item 17, "I can devise my own plan for doing homework" into a simpler question more suitable to younger children by referring to an often-common situation at home after class: "When I need information for homework, I know who to ask and where to go".

The five removed questions were the following: Among questions about friendship, we merged two items, one related to privileged relationship with one friend " I have a friend to share or consult with" and one referring to a feeling of easiness of discussing a problem with friends "I can freely share with friends when facing a problem" into one general question about the idea of having a trusted privileged friend the child feels comfortable sharing ideas but also feelings and secrets (secrets including potential problems) with: "I have a friend I can share ideas or feelings or secrets with". Similarly, because the meaning was confusing for children in our age group, we condensed the three items about decision-making and future planning into one simple item "I can think about my future". We added an example to explain the question based on construct validity testing: "What is your aspiration when you will be a grown up? What would you like to be and do? How would you achieve success in your future life? When the school will be off, what are your plans? For instance, you might say 'I would like to be a teacher or go in the army'". The concepts of "determin[ing] what must be done to reach a chosen future career" and "consider[ing] potential self-development for the future" were unintelligible for many children in our age group in both countries. We also regrouped two items about collecting and using information, "I can collect study materials in self-study" and "I can collect many materials while doing activities" into one simpler question about sense of initiative in self-study: "When I have a project or an activity for class, I can find the material I need". There were three items about different broad aspects of leadership in the MSLSLC ("I can lead others while doing activities with friends", "I can summarize everyone's opinions in a discussion" and "I can lead others through words and actions") that we aggregated and simplified into two more concrete questions, one centered on leading the group in games and other activities —"When I play or carry an activity with friends, I can guide the group"— and the other showing leadership in academic learning — "After listening to a lesson in class, I can briefly explain it to my classmates". All items were accompanied with examples and followed up with probe questions identified in the field by some of the authors and tested with 22 and 25 children ages 9 to 11, respectively, in Afghanistan and Pakistan to make the questions palatable to the children. While doing this exercise of item explanation, we identified the correct lexical meanings in local languages (Dari and Pashto in Afghanistan, Urdu, and Sindh in Pakistan). All enumerators were trained to ask the questions exactly as phrased and then to provide the examples to the child respondent.

2.2 Data Collection

Prior to implementing the questionnaire with children in schools, enumerators and supervisors participated in a three-day training including use of tablets, awareness, and sensitization around attitudes during child interview, questionnaire content and interview practice in a nearby school. During the testing of the questionnaire and the following fieldwork, children were interviewed privately (without other children or teachers nearby). The only exception was when students with learning disabilities needed assistance from a primary caregiver to complete the interview. Female students were interviewed by female enumerators, and male students were interviewed by male enumerators. Interviews were recorded on tablets and saved

in a secure dataset. Data quality was reviewed each day by supervisors that were present in each school. Because the multidimensional life skills questionnaire was nested in a broader survey, students engaged in group activities and games for a break from the interview. Students also took cognitive tests in reading, writing, mathematics and general knowledge after completing the survey. IRB approval was secured from the National Rural Support Program (NRSP) Board in Pakistan and the Ministry of Education (MoE) in Afghanistan, as well as, from Washington University in St. Louis.

2.3 Statistical Analysis

Data were visually checked using descriptive statistics and histograms. The scale's overall internal consistency was calculated using raw and standardized Cronbach's Alpha. Exploratory factor analysis (EFA) assessed the lowest number of factors to account for the common variance among the 19 questions. The absolute value was set at 0.40 for both sets of EFA. Principal axis factoring was used for extraction since it models error variance and orthogonal method (varimax) was used for rotation. Test-retest reliability was assessed by calculating intra-class correlation (ICC) for the total score between the two testing sessions. Inter-rater reliability was determined by ICC, which assessed the level of agreement between the two raters (Terwee, Bot et al. 2007). The ICC (3, k) model (two-way mixed, absolute agreement) was selected and utilized for all ICC calculations, as it tested the specific enumerators involved in the study who had been trained in the MSLSLC as well as the intervention (Shrout and Fleiss 1979).

Reliability, specifically dispersion of measurement errors, was calculated with the standard error of measurement formula (SEM = Standard Deviation x $\sqrt{1}$-ICC) and the smallest change considered to be significant was calculated with the minimal detectable change formula (MDC=1.96 x SEM x $\sqrt{2}$). The SD and ICC used to calculate the SEM were obtained from the final raw scores of the survey. All analyses were completed using SPSS version 25 (Chicago, Illinois, USA).

3. Results

3.1 Participants' Demographics

The total number of children interviewed was 5,427, including 2,727 Afghan children (47.2% male and 52.8% female) and 2,700 Pakistani children (62.9% male and 37.1% female). (Table 1). The average children's age was 9.7 and 9.4 years old in grade 3 and 11.5 and 11.1 in grade 5, respectively in Afghanistan and Pakistan. The mean life skills score for children was 62.6 and 64.7 respectively in Afghanistan and Pakistan.

Table 1: Demographic characteristics of the sample

		Pakistan	Afghanistan
		n (%)	n (%)
Sample, (n)			
		2700	2727
Gender			
	Male	1699 (62.9%)	1439 (47.2%)
	Female	1001 (37.1%)	1288 (52.8%)
Grade			
	Grade 3	1482 (54.9%)	1236 (45.3%)
	Grade 5	871 (32.3%)	1083 (39.7%)
Age (mean years/SD)			
	Grade 3	9.4 (0.04)	9.8 (0.04)
	Grade 5	11.1 (0.05)	11.5 (0.03)
Life skills			
	Mean score, SD	64.66(0.23)	62.59 (0.21)

3.2 Scale Reliability

Internal consistency, as indicated by a raw/standardized Cronbach's Alpha, was 0.874/0.876 for Afghanistan (n=2727) and 0.887/0.889 for Pakistan (n=2700). The test statistics for both countries were very close to each other in magnitude and exceeded the established acceptable benchmark of 0.70 (Terwee, et al., 2007). Yet, the results for the subscales did not show a strong internal consistency at this sub-level except from problem solving (0.78 and 0.79 respectively in Afghanistan and Pakistan) indicating that the 19-item adapted MSLSLC might be better understood as an overall construct of life skills.

Test-retest reliability for Pakistan (n = 17) and Afghanistan (n = 37) were established with participants who were tested 10-14 days apart. The intraclass correlation for Pakistan and Afghanistan, respectively, reached ICC = 0.979 (95% CI 0.942-0.992, p< .001) and ICC = 0.651 (CI 0.316-0.822, p< .001) with Pakistan exceeding 0.70 and Afghanistan just below the acceptable level. Inter-rater reliability for Pakistan (n = 36) and Afghanistan (n = 40) were established with participants being tested on the same day by different raters. The intraclass correlation for Pakistan and Afghanistan, respectively, reached ICC = 0.973 (95% CI 0.946-0.986, p< .001) and ICC = 0.715 (CI 0.456-0.850, p< .001) with both countries exceeding the acceptable level.

3.3 Responsiveness

The standard errors of measurement (SEM)—respectively 3.5 and 3.6 in Afghanistan and Pakistan— were relatively small, close to each other and smaller than the minimum detectable changes (MDC), indicating that the agreement was acceptable. The MDC based on a 95% confidence interval was relatively high (9.6 in Afghanistan and 9.9 in Pakistan) and corresponds to the minimum amount of change in a participant's score that is required to confirm the change does not result from measurement error. It should also be noted

that both SEMs' and MDCs' raw statistics were slightly higher than both of their standardized ones, showing that the scale measurements' standard errors and minimum changes are indeed reasonable (Table 2).

Established lowest- and highest-score cut-offs indicate that ≤15% of a sample's responses are needed to demonstrate no floor effects or ceiling effects (Terwee, 2007). Floor effects indicated that 0.04% of both Afghan and Pakistani children respondents had the lowest-score possible of 19 (10 – 19 in Pakistan and 20 – 29 in Afghanistan), indicative of the absence of floor effects. Similarly, the numbers of respondents who had the highest-score possible of 95 (90 – 95) were 0.37% and 2.96%, respectively, for Afghanistan and Pakistan, indicating no ceiling effects for our adapted life skills scale (Table 2).

Of significance, 40.9% of children in Pakistan and 38.2% of children in Afghanistan scored in the 60 – 69-point decile out of a possible score of 95. It is somewhat surprising to have such a concentration of almost half of both countries' children scoring in this range. Interestingly, the 70 – 79 deciles constituted 21% in Pakistan, while it constituted 18.2% in Afghanistan, and the 50 – 59 deciles constituted 21.6% in Pakistan, while it constituted 30.4% in Afghanistan (Table 2).

Table 2: Standard Error Measurement (SEM), Minimum Detectable Change (MDC), Total Score Responses (by decile)

		Pakistan	Afghanistan
Standard Error Measurement (SEM)			
	Raw, Standardized	3.579, 3.547	3.461, 3.433
Minimum Detectable Change (MDC)			
	Raw, Standardized	9.921, 9.832	9.592, 9.516
Total Score Responses (by decile)			
	10-19	1 (0.0%)	
	20-29	1 (0.0%)	1 (0.0%)
	30-39	13 (0.5%)	21 (0.8%)
	40-49	123 (4.6%)	202 (7.4%)
	50-59	584 (21.6%)	829 (30.4%)
	60-69	1104 (40.9%)	1043 (38.2%)
	70-79	567 (21.0%)	496 (18.2%)
	80-89	227 (8.4%)	125 (4.6%)
	90-95	80 (3.0%)	10 (0.4%)

3.4 Exploratory Factor Analyses

The Kaiser-Meyer-Olkin measure of sampling was well above the accepted cutoff of 0.40 for Pakistan (0.930) and Afghanistan (0.915). The criteria for Bartlett's test of sphericity were also met for both Pakistan ($p < .001$) and Afghanistan ($p < .001$). For Pakistan, there were four factors that explained 40% of the variance (see Figure 1). The first factor (10 items) was best characterized as leadership, data collection/manipulation, and critical thinking. The second factor (4 items) consisted of questions

encompassing ability to choose, self-help, and advocacy. One question about problem-solving by thinking was shared between the first and second factor. There were two questions that did not load due to absolute values below 0.40. The third factor (2 items) encompassed relationships with friends, and the fourth factor (2 items) encompassed personal manners.

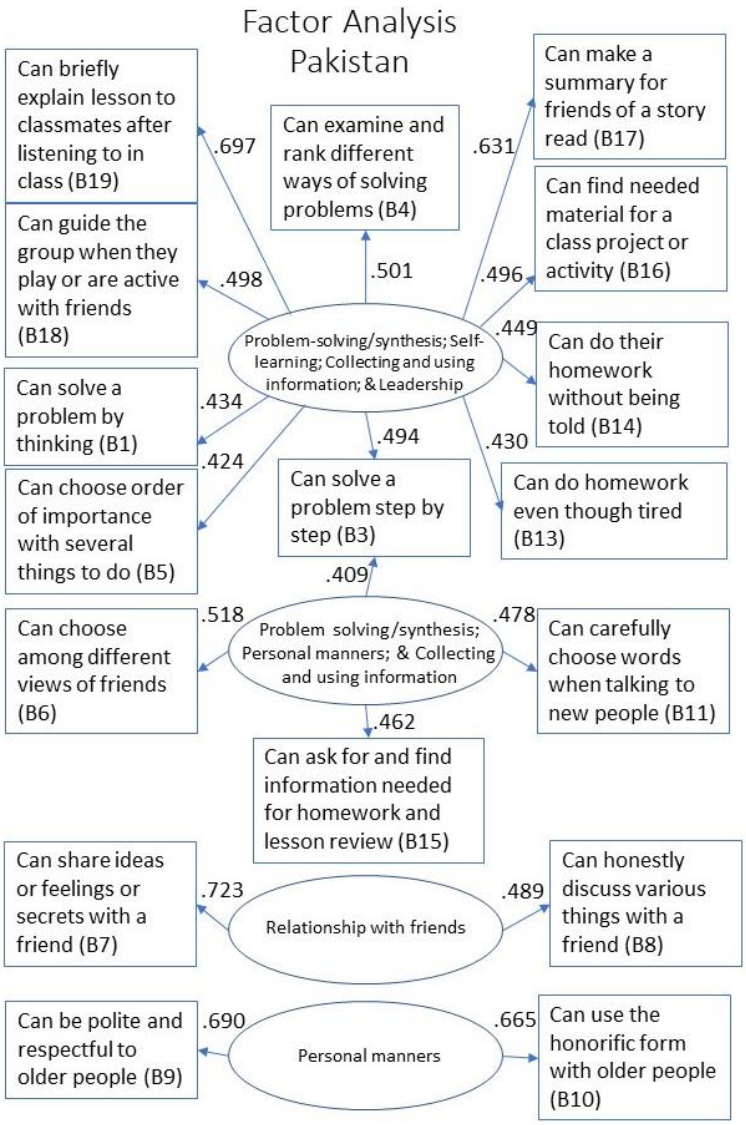

Figure 1: Pakistan Exploratory Factor Analysis (EFA)

In Afghanistan, there were three factors that explained 37% of the variance (see Figure 2). The first factor (7 items) encompassed domains of data collection/manipulation and critical thinking. The second factor (5 items) reflected questions that covered leadership and self-help, while the third factor (3 items) comprised of questions that probed into personal manners. There were four items that did not load due to low absolute values. After examining the EFA results across the two countries, the order and number of items in the questionnaire do not exactly map onto the a priori domains. However, the a priori domains

established by Kobayashi et al. (2013) were tested by raw Cronbach's Alpha and intraclass correlation with test-retest and inter-rater reliability and were found to be highly significant (p<.001) for all subscales except: Problem-solving/synthesis test-retest in Afghanistan (ICC=0.456, p=.013, n=43); Personal manners test-retest and inter-rater reliability in Afghanistan (ICC=0.488/0.416, p=.015/.044, n=45/42, respectively); and Self-learning test-retest in Afghanistan (ICC=0.422, p=.042, n=43). What's more, there was strong overlap between both countries and putative domains are emphasized.

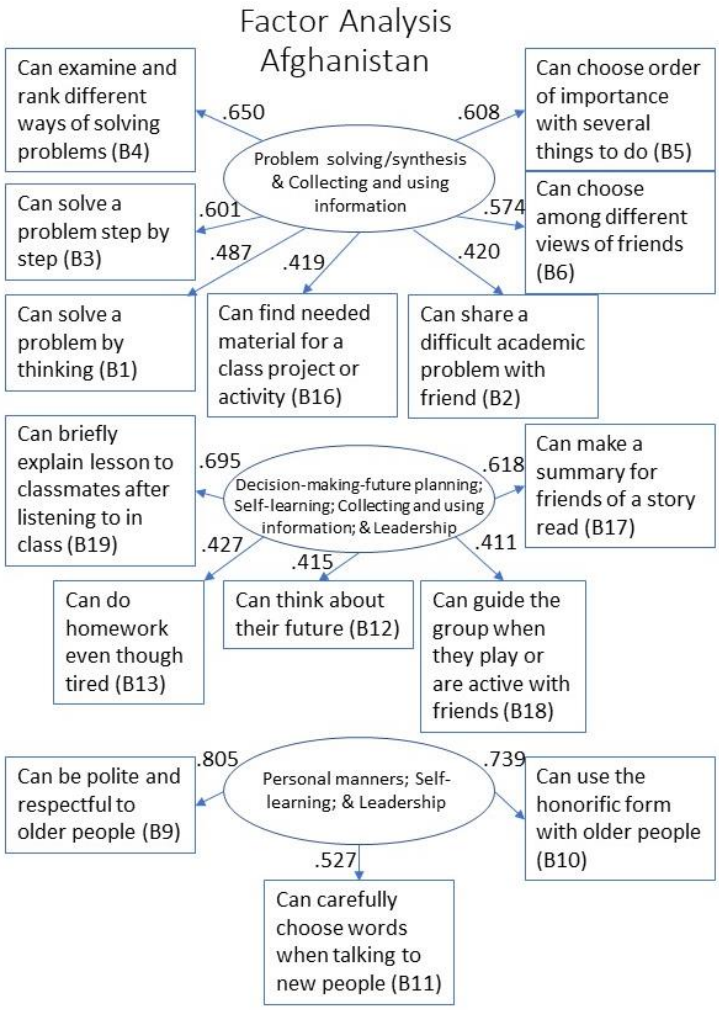

Figure 2: Afghanistan Exploratory Factor Analysis (EFA)

As stated above, Afghanistan had 15/19 and Pakistan had 17/19 life skills questions map onto the total scales with EFA. Both Afghanistan's and Pakistan's total scales had high Cronbach's Alphas of 0.853 and 0.881 and high ICCs of 0.798 and 0.862 (p<.001), respectively. Domains' Cronbach's Alphas across Afghanistan were between 0.710 – 0.797, while domains' Cronbach's Alphas across Pakistan were between 0.642 – 0.854. Domains' ICCs across Afghanistan were between 0.657 – 0.791, while domains' ICCs across Pakistan were between 0.636 – 0.843 with all being significant at p<.001 (see Table 3).

Table 3: MSLSLC EFA Reliability Summary with Domains

	C's Alpha Raw	C's Alpha Std.	ICC Low	ICC Point	ICC High	ICC Significance
Afghanistan						
EFA Total (B=15)	0.851	0.853	0.754	0.798	0.832	p<.001
Problem-solving & Learning (B=7)	0.796	0.797	0.778	0.791	0.804	p<.001
Decision-making, Utilizing Information, & Leadership (B=5)	0.713	0.710	0.588	0.664	0.721	p<.001
Personal Manners, Learning, & Leadership (B=3)	0.747	0.764	0.436	0.657	0.773	p<.001
Pakistan						
EFA Total (B=17)	0.881	0.881	0.846	0.862	0.876	p<.001
Problem-solving, Learning, & Leadership (B=10)	0.852	0.854	0.830	0.843	0.854	p<.001
Utilizing Information & Problem-synthesis (B=4)	0.669	0.671	0.617	0.652	0.684	p<.001
Relationship with Friends (B=2)	0.642	0.642	0.602	0.636	0.666	p<.001
Personal Manners (B=2)	0.688	0.688	0.647	0.681	0.710	p<.001

3. Discussion

We evaluated the quality of measurement properties of a culturally and age specific version of the Multidimensional Scale of Life Skills in Late Childhood (MSLSLC) adapted and validated in Afghanistan and Pakistan by assessing various dimensions of life skills, namely problem-solving/synthesis, relationships with friends, personal manners, decision-making and future planning, self-learning, collecting/using information, and leadership. We assessed content validity, internal consistency, agreement, reliability, responsiveness, floor and ceiling effects and interpretability against established acceptable cut-offs. To the best of our knowledge, in the absence of an existing gold standard or other similar measures of life skills available for Afghan and Pakistani children, we were not able to test the correlation of our instrument with another life skills measure. In both countries, the adapted 19-item MSLSLC with children ages 9 - 14 showed strong psychometric properties that indicated that it effectively measures the concepts of life skills among children, key social and emotional learning competencies.

To assess content validity, we adapted the original 24-item MSLSLC to the context of Afghanistan and Pakistan and to a theoretically slightly younger age group of 3 - 5 graders instead of the original 4 - 6 graders target group. The authors reviewed the original questions to establish if they reflected adequately the life skills the MSLSLC was intended to measure. For instance, we identified different facets of "problem solving" by asking children if they can: (i) pose and reflect to solve a problem; (ii) explain to a classmate a lesson discussed in class; (iii) look at a problem in stages; (iv) identify different possible solutions for a problem; (v) identify how to order tasks they have to do and; (vi) identify what is right from wrong even if it means deciding between two friends who have different ideas which one they agree with, seems right to them. The phrasing of each item in English, Dari, Pashto, Urdu, and Sindhi accurately

related to the corresponding domain of life skills. Children, once presented with an example for each question, faced little hardship in understanding or interpreting the questions. This is reflected in the low level of 'no' responses: below 0.1% in both countries. Questions about problem solving appeared to be sometimes difficult to comprehend among younger children. The meanings of solving a problem step by step or looking at different solutions and choosing the better option were easier to convey with concrete examples from children's everyday lives. Cronbach's alpha demonstrated good internal consistency of the overall 19-item MSLSLC in both settings. Only the "problem solving" subscale reached an alpha of 0.70 in both settings which is probably explained by the larger number of questions and their complementary evaluation of judgement skills. EFA did not completely reflect the pre-assigned latent Life skills domains. Nevertheless, the results suggest a construct of six domains that contain most of the screening tool items.

Test-retest demonstrated a very good level (over 0.90) and an acceptable level (0.66) of ICC, respectively, in Pakistan and Afghanistan. This indicates that the 19-item MSLSLC is reliable over time and can identify adequately life skills of interest among children grades 3 to 5. All subscales demonstrated high internal reliability in Pakistan. Internal reliability was not as high in Afghanistan. These changes over a couple of weeks could be linked to a limited variation in some items those linked to mood or affect functioning that are affected by circumstances in the short term. Similarly, estimates of inter-rater reliability (ICC) confirmed absolute and standardized agreement calculations and very small SEM showed a very good level of agreement in Pakistan and a relatively good level in Afghanistan except on the subscale of personal manners. In the present case, exact agreement between raters is important to identify the ability to conduct activities of 3 or 4 on the Likert scale, showing significant difficulty, while not agreeing precisely on choices 1 or 2 which do not reflect lack of rater consistency but rather the minor difficulty identified by the low end of the Likert scale for each item. Reliability was confirmed by good responsiveness measurement. This also reflects the ability of the 19-item MSLSLC to reflect changes in conditions if they did indeed occur. The MSLSLC reported no floor and ceiling effects reflecting the concentration of values among average levels of life skills.

3.1 Limitations

One important limitation to consider of adapting the MSLSLC from the Japanese context is that the scale was developed around the Japanese concept of ikiruchikara, or 'zest for living,' (Kobayashi et al., 2013). While it is reasonable to think that zest for living exists in its own forms in Afghanistan and Pakistan, the fact that the Japanese Ministry of Education, Culture, Sports, Science, and Technology has been actively implementing a social curriculum in schools around this concept for multiple decades to make the MSLSLC too specific for other contexts. In this consideration, one must also reflect on the fact that, during the implementation of the MSLSLC in this study, occasional conflict, and violence (particularly in Afghanistan) interrupted children's daily lives, potentially influencing their zest for living during specific time periods of study.

4. Conclusion

Overall, the MSLSLC seems to be a utilitarian tool to for assessing general life skills among children and was effectively adapted to the Afghan and Pakistani contexts. In our study of inclusion in learning in primary school, MSLSLC works well in association with other tools measuring cognitive skills, in

particular basic knowledge in different domains (reading, writing, mathematics) but also other non-cognitive skills such as self-efficacy, resilience, and mental health status (e.g., anxiety and depression). Future research should investigate the correlations between those different elements of child development and adaptation to their environment.

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Life skills questionnaire

	Never (Not True)	Rarely	Sometimes	Very Often	Always (Very True)
I can solve a problem by thinking	1	2	3	4	5
I can share a difficult academic problem with a friend	1	2	3	4	5
When I have a problem, I can solve it step by step	1	2	3	4	5
I can look at different ways of solving a problem and some might be better than others.	1	2	3	4	5
When I have several things to do, I can choose in order of importance what comes first, second, third, etc.	1	2	3	4	5
I can choose among different views of my friend which one I think is right.	1	2	3	4	5
I have a friend I can share ideas or feelings or secrets with	1	2	3	4	5
I can honestly discuss various things with a friend	1	2	3	4	5
I can be polite (courteous, respectful) to older people	1	2	3	4	5
I can use the polite form (honorific expression) with older people	1	2	3	4	5
I can carefully choose words when talking to unknown people.	1	2	3	4	5
I can think about my future	1	2	3	4	5
I can do homework or review the lesson even though tired	1	2	3	4	5
I can do my homework or review the lesson without being told	1	2	3	4	5
When I need information for homework, I know who to ask and where to go	1	2	3	4	5
When I have a project or an activity for class, I can find the material I need.	1	2	3	4	5
When I have a story to read, I can make a summary for friends.	1	2	3	4	5
When I play or carry an activity with friends, I can guide the group.	1	2	3	4	5
After listening to a lesson in class, I can briefly explain it to my classmates.	1	2	3	4	5