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Measuring Integrativeness as a Motivation for Second-Language Acquisition of Arabic in Learners at Saudi Arabia's Arabic Language Institutes

Danya Shaalan*
Department of Applied Linguistics, College of Languages, Princess Nourah bint Abdulrahman University, Riyadh, Saudi Arabia

***Abstract*—Integrativeness, or the desire a second-language (L2) learner to integrate into their target L2 community, has been shown to be a strong motivation toward L2 learning. Aspects of identity, such as desire to learn a liturgical language (LL) associated with the L2 learner's religion, or the level of ability for the L2 learner to develop a clear vision of their future L2 self, have also been shown to be strong L2 motivators. Arabic is the LL of Islam, and it is also the heritage language (HL) of the Kingdom of Saudi Arabia (KSA). Although levels of integrativeness will likely greatly impact L2 learning progress among learners at these ALIs, currently, an instrument does not exist for accurately measuring integrativeness into the target L2 community in KSA. The objective of this study was to develop a new instrument to measure Saudi integrativeness in L2 Arabic learners from KSA ALIs Diploma Programs. A total of 66 learners in three of the ALIs Diploma Programs completed the instrument. Twenty-three items were reduced to 16 through factor analysis, which revealed the following subscales: intellectual integrativeness, social integrativeness, remote admiration, and anti-integrativeness. While most of the sample was Muslim and displayed high levels of social and intellectual integrativeness and were interested in learning about cultural topics, they also placed priority on the quality of the classroom environment. The ALI classroom environment could be negatively impacted by a predominance of learners with anti-integrative attitudes, who are also less likely to be motivated and succeed at the individual level.**

***Index Terms*—second language learning, Arabic, instrumental motivation, integrative motivation, liturgical languages**

I. Introduction

The early scientific foundation about what motivates individuals to engage in L2 learning includes work by Robert Gardner and colleagues (1972), who studied L2 motivation among individuals undergoing second language acquisition (SLA) of French in the French-speaking region of Canada to be able to adapt to their new surroundings. An enduring source of L2 motivation identified from this line of research is that learners often have "instrumental" motivations for L2 acquisition, meaning motivations towards practical use of the L2 in their workplace or educational setting (Gardner, 2000). Subsequent research has validated this to some degree, in that Gardner's learners showed a high correlation between instrumental motivation and grades on the L2 (Gardner, 2000), and research into groups learning L2 for vocational reasons show a high level of instrumental motivation (Azar & Tanggaraju, 2020; Kashefian-Naeeini et al., 2018; Stamenkovska et al., 2022).

Another source of L2 motivation identified by Gardner was "integrativeness", or the level of desire for the L2 learner to use the newly-acquired L2 to integrate into their new language community (Al-Musnad, 2018; Gardner, 1985; Lamb, 2004). Like with instrumental motivation, integrativeness has been repeatedly identified in research as a strong source of L2 motivation, and although the construct has been found to be correlated with instrumental motivation in L2 learners, discriminant validity has been demonstrated (Gardner, 2000; Pham, 2017). Gardner hypothesized that those who were integratively motivated would try to master the L2 faster than those who were not, and found some support for this with respect to learning L2 vocabulary (Gardner, 2000). On balance, Gardner illustrated that many different sources of L2 motivation may be correlated, but their causal associations remain complex (Gardner, 2000).

Theories alternative to Gardner's were developed, leading to a line of L2 motivation researchers including Dörnyei (2009) who posited that L2 motivation was largely a function of identity, in that if the learner could clearly envision a future L2 self who was proficient in the L2, this would serve as a strong L2 motivator. Considering this perspective, the L2 learner who has not selected a specific L2 community in which to integrate in the future may suffer from lower levels of integrative motivation simply from the inability to develop a sharply-focused vision of a future L2 self (Csizér

* Corresponding Author.

& Dörnyei, 2005; Deci & Ryan, 2000). On the other hand, L2 learners like Gardner's, who are surrounded by a specific L2 community, experience a motivational advantage, and those without it experience a disadvantage. Integrative motivation is one of the many positive features introduced by learning an L2 within a community that seem to be replicated through immersion programs established in L2 classrooms (Xie & Antolovic, 2022).

In addition to the clarity with which the learner envisions the future L2 self, another source of identity-related L2 motivation may have to do with the specific L2. In the Kingdom of Saudi Arabia (KSA), Arabic is the spoken language; for those born and raised in KSA, Arabic is a "heritage language" (HL), or one associated with KSA culture (Jaspal & Coyle, 2010). Additionally, Arabic is the "liturgical language" (LL) of Muslims, as their holy book, the Qur'an, is in Arabic (Jaspal & Coyle, 2010). Research has been conducted about how Muslim identity motivates the learning and speaking of L2 Arabic as a LL in an English-speaking country such as the United Kingdom (UK) (Jaspal & Coyle, 2010; Moraru, 2019; Rosowsky, 2005, 2021). In such learning situations, the exact target L2 community for integrativeness is not clearly defined. It could be predominantly an L2 community that operates in the L2 only in a religious setting (as an LL), or it could reflect a desire for integrativeness into a specific geographic L2 community with the L2 as the HL (e.g., KSA).

KSA is considered the global center of Islam; KSA's constitution is the Qur'an, so that civil society operates based on Islamic law, and Arabic is the official language (Rijal & Khoirina, 2019). In its university system, KSA has developed L2 Arabic language institutes (ALIs) which teach the "Fusha" Standard Arabic dialect (Abdelhalim & Alqubayshi, 2020). Three ALIs in the capital city Riyadh include Arabic Language Teaching Institute at Imam Mohammed Ibn Saud Islamic University (Imam-ALI, male only), the King Abdulaziz University Arabic Language Institute (KAU-ALI, female only) and the Arabic Teaching Institute for Non-Arabic Speakers at Princess Nourah bint Abdulrahman University (PNU-ALI, female only). Each ALI has a Diploma Program, which delivers instruction over two years to L2 Arabic learners from outside KSA who are studying in KSA universities, with a large proportion on government scholarship. The goal of the Diploma Program is to ensure the L2 Arabic learners are well-enough equipped in their L2 in order to learn in the Arabic-speaking classrooms of KSA's universities, where they will obtain their academic degrees.

Previous research on ALI learners has demonstrated that they have high levels of both instrumental motivation, as well as motivation arising from Muslim identity, as almost all of those in the sample reported being Muslim (Shaalan, IN PRESS; Shaalan et al., IN PRESS). Attitudes of L2 Arabic learners have been studied, and the power of the motivational role of learning Arabic as an LL for Islam cannot be understated (Moraru, 2019; Rosowsky, 2005). Therefore, KSA's universities are likely to attract foreigners who want to study in KSA due to its reputation as the global center of Islam, and these are the people enrolling in KSA's ALIs and being placed in the Diploma Program.

But how well the ALIs are leveraging what is known about L2 motivation to keep their Diploma Program students motivated is unknown. Among Saudis, speaking L2 English has been seen historically as showing off or displaying the attitude of denying culture, but with the recent implementation of a new country-level strategy in 2016, KSA has been promoting L2 English speaking and learning among the Saudi population to enhance its ability to participate in international business (Alrabai, 2018; Faruk, 2013; Saudi Vision, 2030, 2020). Hence, if an ALI learner wanted to carry on a casual conversation with a Saudi in KSA, they likely would need to be fluent in Arabic. So while a non-Arabic speaker living in KSA would likely be instrumentally motivated to master Arabic, it is not clear that the desire for integrativeness into KSA civil society would play a role in L2 motivation as well.

To this end, a pilot instrument was developed based on existing scientific literature specifically to measure Saudi integrativeness in L2 Arabic learners at KSA ALIs. The aim of this analysis was to provide evidence of validity and reliability of this new instrument developed to measure Saudi integrativeness as a type of L2 motivation in Arabic learners from KSA ALI diploma programs.

II. Materials and Methods

An instrument was developed based on the literature aimed at measuring level of Saudi integrativeness as an L2 motivation for Arabic learners at three of Saudi's ALIs. The instrument was included in an online anonymous survey sent to current and former learners at the ALIs that was part of a larger study (Shaalan, IN PRESS; Shaalan et al., IN PRESS). Also included in the survey was an adapted instrument for measuring L2 motivation arising from identity (Husseianali, 2005; Husseinali, 2006; Shaalan et al., IN PRESS), an experimental instrument for measuring influence of the Arabic L2 learning environment (L2LE) (Aladdin, 2010; Asker, 2012; Assulaimani, 2015; Moskovsky et al., 2016; Shaalan, IN PRESS; Subekti, 2018), and demographic items. After survey administration, statistical analyses aimed at evaluating evidence of reliability and validity of the Saudi integrativeness instrument were undertaken, and items not contributing meaningfully to detected factors were removed to develop a proposed instrument, which is streamlined and recommended to be tested in future research. Details of these processes are described here.

A. Integrative Instrument Development

To develop initial items, domains from an instrument developed by Gardner called Attitude/Motivation Test Battery (AMTB) that related to integrativeness were considered (Gardner, 1985). The AMTB, which is aimed at L2 French learners in the French-speaking part of Canada, has an integrativeness subscale that combines items that reflect learning

the L2 as part of a desire to integrate for social reasons, wanting to better understand the community, and as a result of attitudes toward the French Canadians and European French people (Gardner, 1985).

Also considered was research on non-Saudi nurses working in KSA who were interested in learning L2 Arabic, where Al-Musnad (2018) adapted items from the AMTB to measure integrativeness. After consideration of these integrativeness measurement approaches, two domains were selected to guide the development of items on the current instrument: those focused on attitudes toward integrating with the Saudi people ("people"), and those focused on aspects of integrating into KSA independent of the people, such as history and geography ("country", see Table 2 for items). Initially, 10 items were proposed on the country domain, and 13 on the people domain, for a total of 23 items (see Table 2). These items were listed as statements, and the respondent was asked to rate the statements according to their level of agreement on a scale of one to five, where one is strongly disagree, two is disagree, three is neutral, four is agree and five is strongly agree.

B. Participants, Setting and Data Collection

A survey that included the identity-motivation instrument, the L2LE instrument, demographic items, and the newly developed integrativeness instrument was programmed into survey application SurveyMonkey for anonymous online administration by web link. In April 2022, learners in the diploma program at KAU-ALI (n = 43) and Imam-ALI (n = 105) and learners who were alumni of the diploma program at PNU-ALI (n = 98) were provided a link to the survey via a WhatsApp group established by teachers at the ALIs. Current learners were asked to complete the survey either during or after class within the next week, and alumni were asked to complete the survey within the next week.

C. Data Analysis

To assess validity of the new integrativeness instrument, the intention was to apply confirmatory factor analysis (CFA) to confirm the two domains on which the items were originally placed, and to identify items not loading so that they could be removed. This would also confirm whether or not a two-factor structure is appropriate. After placing remaining items on factor subscales, to assess reliability, the intention was to use Cronbach α analysis on the items in each subscale to assess internal reliability. Pearson correlation analysis was also used to assess convergent and discriminant validity.

Data were analyzed in R (R Core Team, 2021). First, demographics variables underwent descriptive analysis. Next, factor analysis was conducted, in which the *principal* command from the *psych* package was used with the varimax rotation (Revelle, 2022). For factor analysis, three-factor, four-factor, and five-factor models were all considered, and the one that was felt to fit the data best was selected. Items were retained on factors if the loading was ≥ 0.50 or ≤ -0.50 unless removed for empirical reasons. The package *nfactors* was used to run a scree plot which supported model selection (Raiche & Magis, 2020). Based on all these results, final decisions were made as to which items to retain in the integrativeness instrument, on which subscales to place them, and what to label the subscales.

After factor structures were confirmed and items were selected for subscales, a Cronbach α score for each subscale was calculated using the *alpha* command from the same package for groups of items loading on factors, with a score of 0.70 and above being considered acceptable, which is consistent with the literature (Dörnyei, 2007). Distributions of raw item responses for each subscale were visualized using the *likert* package (Bryer & Speerschneider, 2016). Subsequently, summary scores for each subscale were calculated by summing the raw item scores. To compare mean scores from the three participating ALIs, an analysis of variance (ANOVA) was used, followed by a Pearson correlation analysis which was used to evaluate the correlation between subscales of the integrative instrument, as well as those of the identity-motivation and L2LE instrument (with α set at 0.05).

III. Results

A link to complete the anonymous survey was sent to 246 ALI diploma program learners (current learners: KAU-ALI n = 43 and Imam-ALI n = 105; alumni: PNU-ALI n = 98), and 140 completed it, for a response rate of 57%. Of these, 74 surveys had missing data either among the necessary demographic items or the items in the instrument, so they were removed, leaving 66 complete records for analysis.

A. Demographics

As shown in Table 1, over half (56.1%) were from PNU-ALI, leading to a predominance of women in the sample (68.2%). Almost all (97%) of the sample was between the ages of 18 and 34, and 59.1% classified themselves as "never married".

TABLE 1
DEMOGRAPHICS

			Site[d]		
Category	Level	All n, %	KAU-ALI n, %	PNU-ALI n, %	Imam-ALI n, %
All	All	66, 100.0%	8, 12.1%	37, 56.1%	21, 31.8%
Gender	Male	21, 31.8%	0, 0.0%	0, 0.0%	21, 100.0%
	Female	45, 68.2%	8, 100.0%	37, 100.0%	0, 0.0%
Age group (years)	18-24	32, 48.5%	3, 37.5%	15, 40.5%	14, 66.7%
	25-34	32, 48.5%	5, 62.5%	21, 56.8%	6, 28.6%
	35-64	2, 3%	0, 0.0%	1, 2.7%	1, 4.8%
Marital status[a]	Married	27, 40.9%	5, 62.5%	17, 45.9%	5, 23.8%
	Never married	39, 59.1%	3, 37.5%	20, 54.1%	16, 76.2%
Ethnic/ religious[b]	Identify as Arab	6, 9.1%	0, 0.0%	3, 8.1%	3, 14.3%
	Identify as Muslim	64, 97%	7, 87.5%	36, 97.3%	21, 100.0%
	Identify as Middle Eastern	4, 6.1%	2, 25.0%	2, 5.4%	0, 0.0%
Language fluency[c]	Any African language	22, 33.3%	5, 62.5%	6, 16.2%	11, 52.4%
	Any Chinese language	2, 3.0%	0, 0.0%	2, 5.4%	0, 0.0%
	Any Indian language	17, 25.8%	0, 0.0%	13, 35.1%	4, 19.0%
	Arabic	41, 62.1%	3, 37.5%	24, 64.9%	14, 66.7%
	English	48, 72.7%	4, 50.0%	28, 75.7%	16, 76.2%
	French	5, 7.6%	1, 12.5%	1, 2.7%	3, 14.3%
	German	2, 3.0%	0, 0.0%	2, 5.4%	0, 0.0%
	Fluency in any of above languages	59, 89.4%	6, 75.0%	34, 91.9%	19, 90.5%
Parents speak Arabic?	One speaks fluent Arabic	24, 36.4%	1, 12.5%	16, 43.2%	7, 33.3%
	Both speak fluent Arabic	1, 1.5%	0, 0.0%	1, 2.7%	0, 0.0%
Intensity of Arabic study	Enrolled in formal Arabic language learning program	44, 66.7%	8, 100.0%	18, 48.6%	18, 85.7%

[a]None of the respondents selected "widowed/divorced. [b]None of the respondents identified as Saudi. [c]None of the respondents were fluent in Spanish. [d]KAU-ALI: King Abdulaziz University Arabic Language Institute, PNU-ALI: Arabic Teaching Institute for Non-Arabic Speakers at Princess Nourah bint Abdulrahman University, Imam-ALI: Al-Imam Muhammad Ibn Saud Islamic University.

As shown in Table 1, while less than 10% identified as Arab (n = 6, 9.1%) or Middle Eastern (n = 4, 6.1%), 97% (n = 64) identified as Muslim. The most common language of fluency reported was English (72.7%), followed by Arabic (62.1%), any African language (33.3%), and any Indian language (25.8%). Over one third (36.4%) of the sample had one parent who speaks fluent Arabic, but only one respondent reported fluency in both parents. Finally, 66.7% reported being enrolled in a formal Arabic language learning program at the time of the survey.

B. Factor Analysis Results

Table 2 presents the results of factor analysis, and includes information on the original sources of the 23 items, and the original domains on which they were placed. As shown in Table 2, a four-factor rather than two-factor structure was confirmed, which revealed the following factor subscales: intellectual integrative (IntInt, four items), social integrative (SocInt, four items), anti-integrative (AntiInt, five items), and admire (Admire, three items), thus suggesting that these 16 items be retained in the instrument (see Appendix A for final instrument). The scree plot recommends a three-factor rather than four-factor model, although four distinct factors are seen in the plot (see Figure 1).

TABLE 2
FACTOR ANALYSIS RESULTS SAUDI INTEGRATIVE INSTRUMENT

		Four-factor Model			
Item Wording	Label*	RC1	RC3	RC2	RC4
I want to study Arabic because I am interested in Saudi locations and geography.[c]	IntInt1	**0.79**	0.03	-0.24	0.00
I want to study Arabic because I am interested in Saudi history.[c]	IntInt2	**0.82**	0.13	-0.16	0.06
I want to study Arabic so I can better understand Saudi society.[c]	IntInt3	**0.75**	0.23	-0.07	0.07
I am not interested in learning Arabic to better understand Saudi history.[c]	AntiInt1	-0.18	-0.02	**0.75**	-0.02
Studying Arabic can be important for me because it will enable me to better understand Saudi heritage.[a,c]	IntInt4	**0.70**	0.46	-0.21	0.14
Studying Arabic can be important for me because I will be able to understand Saudi's different cultural groups.[a,c]	SocInt1	0.48	**0.62**	-0.19	0.10
I am not interested in understanding Saudi society through learning Arabic.[c]	AntiInt2	-0.15	-0.25	**0.65**	-0.38
I am not interested in learning Arabic to study Saudi heritage.[c]	AntiInt3	-0.33	-0.31	**0.60**	0.12
I am not interested in learning Arabic so I can better understand Saudi locations and geography.[c]	AntiInt4	-0.28	0.09	**0.76**	0.07
I am not interested in studying Arabic to better comprehend Saudi's different cultural groups.[c]	AntiInt5	-0.32	-0.26	**0.77**	-0.02
I do not really care about being fluent in the language of the Saudi people.[b]	Did not load	0.12	-0.34	0.34	-0.17
I would like to meet Saudi people.[b]	SocInt2	0.20	**0.70**	0.08	0.22
I have a favorable attitude towards Saudi people.[a,b]	Did not load	0.48	0.36	-0.01	0.28
I have an unfavorable attitude towards the Saudi people.[b]	Did not load	0.16	0.01	0.37	-0.59
Saudi people are very sociable.[a,b]	Admire1	0.32	0.07	0.04	**0.68**
I am not interested in socializing with Saudis using Arabic.[b]	Did not load	0.30	-0.51	0.47	-0.04
I would like to know more about Saudi people.[b]	SocInt3	0.19	**0.83**	-0.24	0.03
Studying Arabic can be important to me because it will allow me to be more at ease with Saudis.[a,b]	SocInt4	0.22	**0.77**	-0.21	0.06
Non-Saudis should not be expected to use Arabic in Saudi Arabia.[b]	Did not load	0.14	-0.28	0.43	-0.14
Non-Saudis in Saudi should make a greater effort to learn Arabic.[a,b]	Did not load	-0.35	0.24	-0.06	0.39
Saudi people are very warm-hearted.[b]	Admire2	0.03	0.20	0.11	**0.79**
The more I get to know Saudi people, the more I want to be fluent in their language.[a,b]	Did not load	0.28	0.55	-0.16	0.38
Saudi people are very creative.[a,b]	Admire3	0.46	0.09	-0.16	**0.55**

* This code is used to indicate which subscale the item was placed on for scoring based on factor analysis results. Bolded value indicates how item was selected for factor. The four-factor model rendered factors RC1-RC4. RC1 was labeled "intellectual integrative", and consists of items IntInt1-4. RC2 was labeled "social integrative", and consists of items SocInt1-3. RC3 was labeled "anti-integrative", and consists of items AntiInt1-5. RC4 was labeled "admire" and consists of items Admire1-3. [a]Adapted from Al-Musnad (2018), all others developed by author. [b]Originally placed on "people" domain. [c]Originally placed on "country" domain.

As shown in Table 2, of the seven items that were removed, five did not meet loading criteria, and the two others met the criteria for retention with an estimate ≤ -0.50: one on the Admire subscale, and one on the SocInt subscale. An empirical decision was made to drop these items from the subscales, because they would have been the only reverse-coded item in each subscale. The resulting subscales had the following standardized Cronbach α results, of which only Admire did not meet preset acceptance criteria: IntInt = 0.87, SocInt = 0.84, AntiInt = 0.84, and Admire = 0.68.

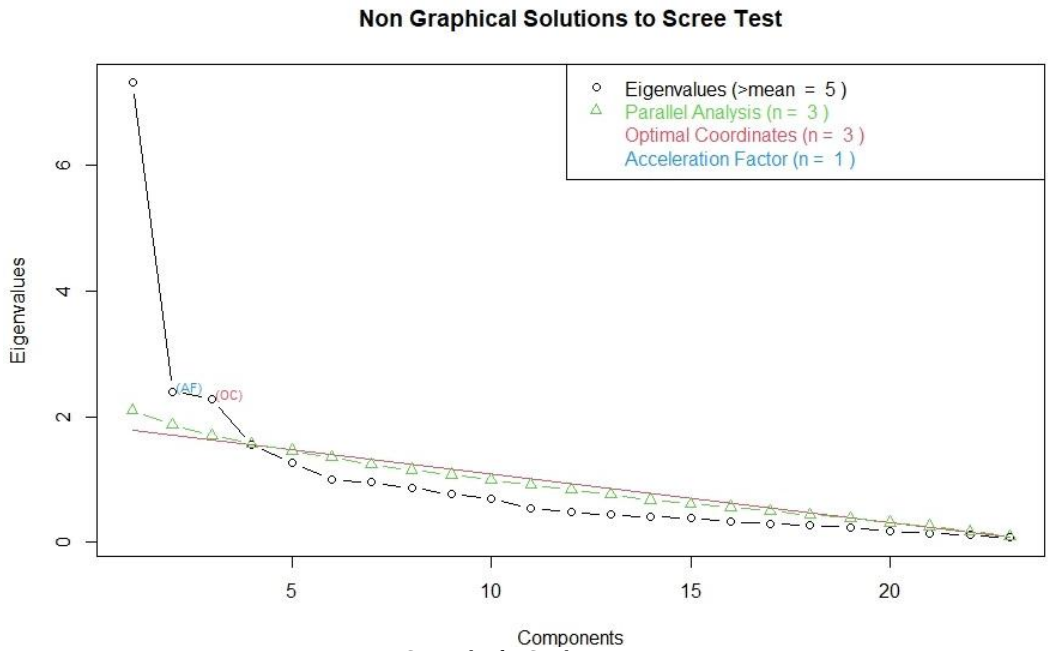

Figure 1. Scree Plot for Saudi Integrative Instrument
As can be seen in this scree plot, the optimal coordinates recommended is three, rather than four. This likely reflects the weaker loadings observed on the fourth Admire subscale compared to the other three subscales.

Subscale scores were created by summing responses (with distribution of individual responses to items in subscales visualized in Figure 2), and the results are reported in Table 3. In Figure 2, each horizontal bar represents an item retained in the instrument, and the label along the y-axis is labeled with the code for the item (see Table 2 to decode). The grey middle area centered vertically in the plot represents the percentage of respondents who responded "3 neutral" to the item and is labeled with this percentage. To the right of this middle area are light and dark green areas representing the proportion of respondents who said "4 agree" or "5 strongly agree" respectively; this combined percentage is listed along the y-axis on the right side of the figure. Left of the grey area are light and dark gold areas representing the proportion of respondents who said "2 disagree" and "1 strongly disagree" respectively, and this combined percentage is listed along the y-axis on the left side.

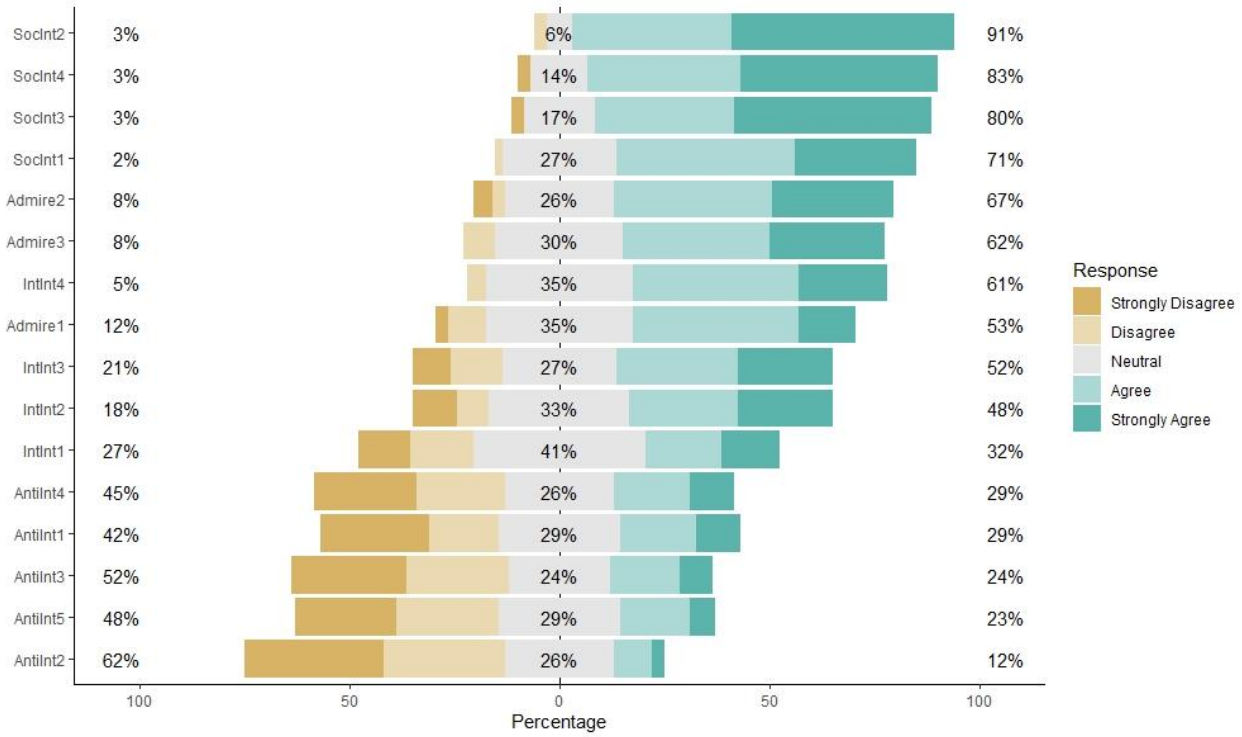

Figure 2. Distribution of Subscale Item Responses

This figure includes the distribution of responses for each item retained in the Saudi integrative instrument after factor analysis. Each horizontal bar represents an item, and the label along the y-axis is labeled with the code for the item (see Table 2 to decode). The percentages listed along the y-axis on the left side indicate the percentage of sample answering 1 and 2 (strongly disagree and disagree), and the percentages listed along y-axis on the right side indicate the percentage of sample answering 4 and 5 (agree and strongly agree). The percentage listed along the center vertical line indicates percentage of answers of 3 (neutral). Items are ordered decreasing from largest percentage of agreement. As can be seen by the distributions, prevalence of agreement was highest among the items in the social integrative subscale, and lowest on items in the anti-integrative subscales. All items in all the subscales were direct-coded except for the anti-integrative subscale, where the items were all reverse-coded, which may have influenced the higher rates of disagreement among those items.

As shown in Figure 2, the four items in the SocInt subscale had the highest combined agreement (71% to 91%), suggesting that social integration was a high priority for this sample. SocInt included items that indicated interest in social integration (e.g., "I would like to meet Saudi people."). Only the five AntiInt items were negatively coded, (e.g., "I am not interested in learning Arabic to better understand Saudi history") which explains the lowest combined rates of agreement with these items. The items on the IntInt and Admire subscales were directly coded and resulted in 32% to 67% combined agreement. IntInt items indicated interest in intellectual rather than social integration (e.g., "I want to study Arabic because I am interested in Saudi history"), and Admire items indicated vague or general positive statements about Saudis (e.g., "Saudi people are very warm-hearted").

C. Summary and Correlation Results

Table 3 presents subscale scores for each site and combined. Consistent with Figure 2, the sample had higher mean subscale scores for SocInt, with ANOVA revealing a statistically significant difference between site means, showing Imam-ALI having the highest mean score of 18.2, and PNU-ALI having the lowest at 16.0. Also consistent with Figure 2, AntiInt mean scores were low, but an ANOVA revealed that the means were statistically significantly different, with PNU-ALI recording the highest mean score of 13.9, and Imam-ALI recording the lowest mean score of 10.4.

TABLE 3
SUBSCALE SCORES

		Site[a]				
Subscale	All mean, sd	KAU-ALI mean, sd	PNU-ALI mean, sd	Imam-ALI mean, sd	ANOVA p-value	Range
Desire for intellectual integration	13.7, 3.8	14.0, 3.1	12.9, 3.6	15.0, 4.2	0.1410	4 to 20
Desire for social integration	16.8, 2.8	17.0, 2.6	16.0, 2.8	18.2, 2.4	0.0128*	4 to 20
Anti-integration	12.7, 4.8	13.1, 5.2	13.9, 4.4	10.4, 4.9	0.0245*	5 to 25

sd = standard deviation, ANOVA = analysis of variance. * indicates statistical significance at $p < 0.05$. [a]KAU-ALI: King Abdulaziz University Arabic Language Institute, PNU-ALI: Arabic Teaching Institute for Non-Arabic Speakers at Princess Nourah bint Abdulrahman University, Imam-ALI: Al-Imam Muhammad Ibn Saud Islamic University.

All internal subscale correlations were statistically significant except the one between Admire and AntiInt ($r = -0.1856$, $p = 0.1356$). IntInt showed a moderate positive significant correlation with SocInt ($r = 0.5238$, $p < 0.0001$), and SocInt and IntInt showed weaker significant positive correlations with Admire (SocInt $r = 0.3480$, $p = 0.0042$, IntInt $r = 0.3813$, $p = 0.0016$). Significant moderate negative correlations were seen between AntiInt and IntInt ($r = 0.-4854$, $p < 0.0001$), and between AntiInt and SocInt ($r = -0.4476$, $p = 0.0042$).

Table 4 presents the results of correlation comparisons between instrument subscales and those from the identity-motivation and L2LE instruments (Shaalan, IN PRESS; Shaalan et al., IN PRESS). The identity-motivation instrument represents an adaptation of an instrument developed by Husseinali (2006) to study identity as a source of motivation to study L2 Arabic; previous analysis showed that the data in this sample fell along three subscales: for cultural exposure (CultExp), due to Islamic identity (Islamic), to better understand problem and politics in the Arab-speaking world (PP), and for instrumental reasons (Inst) (Shaalan et al., IN PRESS). As shown in Table 4, CultExp, PP, and Inst were moderately positively and significantly correlated with IntInt (CultExp $r = 0.5589$, PP $r = 0.5941$, and Inst $r = 0.5155$; $p < 0.0001$ for all), and CultExp and Inst were also weakly and significantly positively associated with SocInt (CultExp $r = 0.3834$, $p < 0.0001$; and Inst $r = 0.2963$, $p = 0.0126$). AntiInt was significantly negatively associated with CultExp ($r = -0.2943$, $p = 0.0143$), PP ($r = -0.3738$, $p = 0.0022$), and Inst ($r = -0.2506$, $p = 0.0333$). No significant correlations were seen between Admire and the identity-motivation instrument subscale scores, nor were any significant correlations seen between the Islamic subscale and any of the subscale scores from the integrative instrument.

TABLE 4
SUBSCALE CORRELATIONS

Integrative Subscale	Identity Motivation Subscale	*r*	p	Arabic Second Language Learning Subscale	*r*	p
Desire for intellectual integration	For cultural exposure	0.5589	<0.0001	Classroom	0.1752	0.1197
	Due to Muslim identity	0.1740	0.1747	Teacher/ Curriculum	0.1087	0.2835
	Better understand problems/ politics	0.5941	<0.0001	Personal Anxiety	-0.0299	0.0457
	Instrumental	0.5155	<0.0001			
Desire for social integration	For cultural exposure	0.3834	<0.0001	Classroom	0.3643	0.0023
	Due to Muslim identity	-0.0005	0.9853	Teacher/ Curriculum	0.1582	0.1509
	Better understand problems/ politics	0.2034	0.1042	Personal Anxiety	-0.0864	0.8439
	Instrumental	0.2963	0.0126			
Anti-integration	For cultural exposure	-0.2943	0.0143	Classroom	-0.2071	0.0990
	Due to Muslim identity	-0.0404	0.7646	Teacher/ Curriculum	-0.1086	0.3970
	Better understand problems/ politics	-0.3738	0.0022	Personal Anxiety	0.0791	0.3431
	Instrumental	-0.2506	0.0333			
Saudi admirer	For cultural exposure	0.1582	0.2071	Classroom	0.3392	0.0041
	Due to Muslim identity	-0.0400	0.7504	Teacher/ Curriculum	0.2892	0.0270
	Better understand problems/ politics	0.0994	0.4309	Personal Anxiety	-0.0105	0.8956
	Instrumental	0.1546	0.2201			

Note. *r* indicates Pearson correlation coefficient with corresponding p value, which is considered statistically significant at $\alpha = 0.05$.

Results from the instrument to measure the Arabic L2LE as a source of L2 motivation is also in Table 4. This instrument produced three subscale scores: Classroom environment (Classroom), influence of the teacher and curriculum (TeachCurric), and personal anxiety about learning Arabic (PersAnx) (Shaalan, IN PRESS). As shown in Table 4, IntInt was statistically significantly correlated with PersAnx ($r = -0.0299$, $p = 0.0457$), but the relationship was weak. SocInt was moderately significantly positively correlated with Classroom ($r = 0.3643$, $p = 0.0023$), AntiInt was weakly negatively correlated with Classroom in a relationship that approached but did not reach statistical significance ($r = -0.2071$, $p = 0.0990$). Finally, Admire was statistically significantly positively moderately correlated with Classroom ($r = 0.3392$, $p = 0.0041$) and TeachCurric ($r = 0.2892$, $p = 0.0270$).

IV. Discussion and Conclusion

In analyzing 66 responses from L2 Arabic learners at KSA's ALIs, a 23-item instrument was reduced to 16 items and four factor subscales: one reflecting the desire for intellectual integration into KSA (four items), one reflecting the desire for social integration among the Saudi people (four items), one reflecting remote admiration for the Saudi people (three items), and one strongly-presenting subscale reflecting a negative attitude toward integration into Saudi society (five items). Respondents had highest mean scores on social integration, possibly reflecting the personality of individuals who would desire to travel to a foreign country to study at a KSA ALI. The desire for intellectual integration was also high, while the subscale indicating admiration was relatively unstable, and reflected a lower level of reliability. Although the subscale reflecting an anti-integrative attitude had the lowest mean factor score, it was a scale with strong evidence of validity and reliability.

Demographically, the sample was almost entirely Muslim, suggesting that this identity feature might be a main motivator to join the Diploma Program at a KSA university. However, none of the integrativeness measures was associated with L2 motivation arising from Islamic identity as measured in this study. This suggests that among a group of individuals motivated to study a LL in a country speaking this LL, there may be varying levels of integrative motivation for engaging with society around them. Although desire to integrate intellectually was seen as distinct from the desire to integrate socially, both of these were associated with identity features of wanting cultural exposure to Arabic, and wanting to better understand problems and politics in the Arabic-speaking world.

These findings also suggest that intellectual and social integrativeness may influence level of interest and engagement in the L2 learning environment. Among the integrative Arabic learners at KSA's ALIs, it appears that some may lean more towards social integration, and others may lean more towards intellectual integration. Those who scored high on the social integration subscale also felt strong about the influence of the classroom in the L2LE. Logically, those seeking social integration may value classroom time as a part of practicing the L2 socially. Further, there were significant differences in levels of social integrativeness by site, suggesting that those at sites with learners with less social integrativeness may suffer from a lower quality classroom environment.

A finding that was surprising to this author was the strong anti-integrative subscale that was revealed through statistical analysis. Predictably, the anti-integrative subscale score was negatively correlated with subscales measuring levels of integrativeness. However, this subscale score was not significantly correlated with identity-related motivation subscales, or subscales having to do with the L2LE. Theoretically, those scoring high on the anti-integrative subscale will be at a distinct disadvantage in the L2 Arabic classroom, as integrativeness has been so strongly associated with L2 motivation and subsequent acquisition. Importantly, it should be noted that the anti-integrative subscale score was almost statistically significantly negatively correlated with the Classroom subscale from the identity-motivation instrument.

In a previous paper describing the reliability and validity analysis from the L2LE instrument data in the same sample, it was discovered that in-person communication in the L2 was de-emphasized in the classroom in lieu of other learning activities. That is because the ALI Arabic curriculum is standardized by the Saudi Ministry of Education (MoE) and designed to teach academic topics about Arabic in lessons delivered through reading, writing, and listening to lectures (Shaalan, IN PRESS). This author postulated that the lack of emphasis on in-class person-to-person communication in Arabic may have led to elevated speaking anxiety that was detected in some of these learners (Shaalan, IN PRESS). Additionally, this lack of in-class L2 dialogue may also be discouraging integrativeness into the KSA community at large.

Overall, these results show that Diploma learners at KSA's ALIs are generally interested in social and intellectual integration. However, given the approach to the ALI curriculum, those with more anti-integrative motivations may struggle along their L2 Arabic learning journey, as they may also experience L2 anxiety in the classroom. In fact, one study conducted in Imam-ALI learners found that they were motivated to learn L2 Arabic so they could more easily interact with the Saudi community, but experienced speaking anxiety when trying to do so (Abdelhalim & Alqubayshi, 2020). This was because they were learning the Fusha dialect at the ALI, and the Saudi community speaks the Amaya dialect, making it difficult to communicate (Abdelhalim & Alqubayshi, 2020). As was recommended in the previous paper, instructors at KSA's ALIs should consider leveraging the benefits of L2 in-person communication in the classroom as a way of improving L2 mastery in learners, even if target L2 speech is not the educational goal (Shaalan, IN PRESS). Including more L2 interaction in the classroom among the students and instructors would likely decrease anti-integrativeness and increase interest in oral classroom participation, as well as improve learning (Brosh, 2019; Dewaele, 2019; Khajavy et al., 2018; Mahmoodi & Moazam, 2014).

This study has several strengths and weaknesses. While this report focuses specifically on the Saudi integrative instrument, the overall study has produced instruments and subscales that display some evidence of both validity and reliability (although the Admire subscale in the integrativeness instrument was admittedly less reliable) (Shaalan, IN PRESS; Shaalan et al., IN PRESS). While these new instruments are relatively untested and therefore should serve as the subject of future studies, they provide a foundation for further research in the area. The results of this study also provide insight useful for ALI leadership to develop strategies to increase L2 motivation among Diploma Program learners. However, these studies are preliminary, and these instruments only apply to L2 learners at KSA's ALIs. It is unclear how results from the Saudi integrative instrument should be interpreted if provided to L2 Arabic learners

studying outside of KSA. Determining if these results apply to other L2 Arabic learners should be done through future studies focused on other populations.

In conclusion, an instrument displaying evidence of validity and reliability for measuring sources of L2 motivation arising from integrativeness in L2 Arabic learners at KSA's ALIs was successfully developed and piloted. ALI learners showed high levels of social integrativeness, which correlated with the level of importance they placed on the L2 classroom environment. Since most of the learners were Muslim, their Islamic faith provided a source of motivation to learn Arabic as their LL. Yet, there was a non-trivial level of anti-integrative attitude detected among learners; lack of in-class communication in the L2 per the ALI curriculum design may contribute to this. Since integrativeness has been strongly linked to successful L2 acquisition, KSA's ALIs should consider including more L2 interaction in the classroom, as well as seek other ways to improve levels of integrativeness as a source of L2 motivation.

APPENDIX. FINAL PROPOSED SAUDI INTEGRATIVE INSTRUMENT

Please rate your agreement with the following statements about Saudi Arabia where 1 is strongly disagree, 2 is disagree, 3 is neutral, 4 is agree and 5 is strongly agree.

Statement	1. Strongly Disagree	2. Disagree	3. Neutral	4. Agree	5. Strongly Agree
I want to study Arabic because I am interested in Saudi locations and geography.	1	2	3	4	5
I want to study Arabic because I am interested in Saudi history.	1	2	3	4	5
I want to study Arabic so I can better understand Saudi society.	1	2	3	4	5
I am not interested in learning Arabic to better understand Saudi history.	1	2	3	4	5
Studying Arabic can be important for me because it will enable me to better understand Saudi heritage.	1	2	3	4	5
Studying Arabic can be important for me because I will be able to understand Saudi's different cultural groups.	1	2	3	4	5
I am not interested in understanding Saudi society through learning Arabic.	1	2	3	4	5
I am not interested in learning Arabic to study Saudi heritage.	1	2	3	4	5
I am not interested in learning Arabic so I can better understand Saudi locations and geography.	1	2	3	4	5
I am not interested in studying Arabic to better comprehend Saudi's different cultural groups.	1	2	3	4	5
I would like to meet Saudi people.	1	2	3	4	5
Saudi people are very sociable.	1	2	3	4	5
I would like to know more about Saudi people.	1	2	3	4	5
Studying Arabic can be important to me because it will allow me to be more at ease with Saudis.	1	2	3	4	5
Saudi people are very warm-hearted.	1	2	3	4	5
Saudi people are very creative	1	2	3	4	5

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Danya A. Shaalan is currently an Assistant Professor in the Applied Linguistics Department in the College of Languages at Princess Nourah bint Abdulrahman University (PNU) in Riyadh, Saudi Arabia. She recently completed her doctoral studies in linguistics at Sussex University in the United Kingdom. Her doctoral research focused on the connection between female Saudi higher education students' motivation and second language acquisition (SLA) and identity, and used sociolinguistic methods. Her research interests include improving SLA in Saudi women in higher education through the optimization of curriculum and improvement of teacher training and knowledge.