

Self-Determination Theory And Motivational Orientations Of Arabic Learners: A Principal Component Analysis

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Abstract

Recognizing the value of motivation in language learning, some scholars attempt to gain insights into this abstract psychological state by exploring models of motivation developed by educational and social psychologists. The present study extends an earlier research on motivational orientations for language learning based on the Self-Determination theory. Unlike the previous study which involved the learning of French in a bilingual English-French setting, this study explored the motivational orientations of Muslim learners of Arabic. A 45-item questionnaire was administered to 228 students in a tertiary education institution in Malaysia where Arabic is a requirement. With a total of 28 statistically reliable items, the Intrinsic Motivation-Knowledge, Intrinsic Motivation-Accomplishment, Extrinsic Motivation-Identified Regulation, Amotivation and Religious Motivation components accounted for 64.6% of the variance. Religious motivation emerged as a new statistical subdimension of motivational orientation as Muslim learners in the study showed strong religious motives for learning Arabic, a psychological state which practitioners would want to capitalize on and sustain alongside with other orientations. However, further research needs to be done to study the relationship between the intensity and types of motivational orientations, efforts and learning outcomes, and to compare and contrast the motivational orientations of learners of sacred languages such as Arabic and Hebrew in three different settings: highly religious setting, less religious and non-religious affiliated purposes.

Keywords: second language acquisition, motivation in education, individual differences, language – study and teaching, Arabic.

Introduction

Motivation, or sometimes inadequately labeled as ‘interest’ has long been acknowledged as important for language learning (Gardner & Lambert, 1959; Spencer & Jago, 1951). Language learning motivation is defined as “the dynamically changing cumulative arousal in a person that initiates, directs, coordinates, amplifies, terminates, and evaluates the cognitive and motor processes whereby initial wishes and desires are selected, prioritized, operationalized and (successfully or unsuccessfully) acted out” (Dornyei & Otto, 1998, p. 65). Motivation involves interest, relevance, expectancy of success or failure, belief in forthcoming rewards, decision to be involved, persistence, high activity level (Crookes & Schmidt, 1991) and is thus described as “the engine that drives the system” (MacIntyre et al., 2009, p. 44).

Individuals vary in their level of motivation and in the types or orientations of that motivation (Ryan & Deci, 2000). With growing interest in individual differences and affective influences in language learning, more and more research has been undertaken by scholars in their attempts to gain meaningful insights into this rather abstract but critical construct. In doing so, scholars begun to explore models of motivation developed by educational and social psychologists and link them to language learning motivation (Gardner, 1985; Gardner & MacIntyre, 1993; Gardner & Tremblay, 1994; Noels et al., 2000; Dornyei, 2005). For example, Gardner and Lambert (1959, 1972) drew upon social psychology and postulated that motives for learning a particular language vary ranging from the ‘instrumental’ concrete benefits they expect to reap from proficiency in the language to ‘integrative’ motives. The latter subsumes learners’ positive attitude towards the speakers and culture of the language and their desire to be identified with this culture. However, Noels (2001) argued that this hypothesis is limited in a number of ways. Firstly, neither instrumental nor integrative orientation has been found to consistently predict second language (L2) variables such as amount of learning effort and achievement. In fact, both orientations have been found to support learning efforts. Secondly, integrative orientations may not be relevant to many learners. Thirdly, other scholars have found additional orientations that are not covered by the two orientations. Finally, the learning of a second or foreign language is rarely motivated by only a single motive, rather by the presence of several motives and sometimes by a combination of internal and external regulatory forces. Thus Noels (2001) further argued the need to organize this multitude of orientations in a comprehensive manner and to employ the self-determination theoretical paradigm as a means to systematically investigate language learning motivation.

Self-determination Theory and L2 Motivational Orientations

Motivational orientations is an important beginning in language learning because it determines the choice of language to be learned, the kinds of activities that learners are more inclined to engage in, the types and extent of proficiency that learners expect to attain, the degree of external intervention needed to regulate learning and the extent of engagement in the long run. Furthermore, knowing learners’ motivational orientations is helpful in organizing language learning goals, analyzing the classroom climate in terms

of control or autonomy and subsequently suggesting practical implications for educating autonomous self-regulated learners (Noels, 2001; Ryan & Deci, 2000).

According to the self-determination theory, there are two types of motives: intrinsic and extrinsic. Intrinsically motivated behaviors emanate from the self and are marked by the enjoyment and satisfaction of engaging in an activity. Conversely, extrinsic motivation refers to motivation to engage in an activity in order to achieve some instrumental end, such as earning a reward or avoiding a punishment. Both types of motivational orientations are neither antagonistic nor categorical but instead lie within a line of continuum. In addition, they do not imply the lack of self-determination, but are both useful for generating motivated efforts. However, each type of motivational orientation differs in the degree of self-determination. In addition, the self-determination theory also recognizes the existence of amotivation, which is a state whereby people see an activity and its consequences as completely irrelevant to them. The relation among the different types of orientation and the degree of self-determination in them as well as examples for each type of orientation is summarized in Table 1.

The self-determination theory further posits that intentional behaviors are governed by intentional self regulation that is either self-determined or controlled (Deci & Ryan, 1985). The following excerpt explains the importance of this distinction on the regulatory processes and qualities of behaviors in learners:

When a behavior is self determined, the regulatory process is choice, but when it is controlled, the regulator process is compliance (or in some cases defiance)...When a behavior is self-determined, the person perceives that the locus of causality is internal to his or her self, whereas when it is controlled, the perceived locus of causality is external to the self...The important point in this distinction is that both self-determined and controlled behaviors are motivated or intentional but their regulatory processes are different...the qualities of their experiential and behavioral components are accordingly different.

(Deci et al., 1991, p.327)

Thus, an intrinsically motivated learner would probably continue learning a language even if he is not compelled to or when external incentives are removed. Conversely, an extrinsically motivated learner would probably quit language learning once the minimal or desired expectation is achieved or when the adverse contingency for not learning the language is no longer present.

Intrinsic motivation does not need to be created. Rather it only needs to be catalyzed by activities and circumstances that are conducive. In the absence of intrinsic motivation, proponents of self-determination theory believe that human beings inherently generate extrinsic motivation in order to fulfill their three basic needs: competence, relatedness and autonomy (Deci et al., 1991). Competence refers to understanding how to achieve external and internal outcomes and being efficacious in performing the requisite actions;

relatedness refers to developing secure and satisfying connections with others in one's social milieu; and autonomy refers to self-initiating and self-regulating of one's own actions. It is the opportunity to satisfy these three needs that 'energizes' or maximizes motivation, performance and development in people and thus foster a more self-determined orientation. Deci et al. (1991) further asserted that when the need for autonomy is satisfied, it contributes most to enhancing self-determined behaviors in learners. When people perceive uninteresting activities as useful for effective functioning in the social world, they will internalize and integrate within themselves the regulation of these activities. Optimal internalization is said to have occurred when these regulations have been fully integrated into the self. The social context is responsible for determining the extent to which these internalization and integration processes effectively ensue.

Based on the self-determination theory, Noels et al. (2000) developed a scale to gauge the intrinsic and extrinsic motivational orientations of 159 Anglo-Canadian learners of French in a French-English bilingual university. The purpose of their study was to assess the validity and reliability of the scale. The study found support for the statistical integrity of the measurement scale employed. In addition, the study also found evidence for the hypothesized self-determination continuum, meaning that the scale can be used to distinguish between amotivation, less self-determined forms of motivation and more self-determined forms of motivation. However, the findings also signaled the possibility that intrinsic orientations may warrant a continuum separate from extrinsically motivated orientations. The researchers echoed Clement and Kruidenier's (1983) call for replication of such studies in other cultural contexts and other types of language studies because some constructs could be more reliable in some cultures, but not in others. Hence, it justifies the needs to study the motivational orientations of Arabic learners in a context where Arabic impregnates academic and religious pertinence.

Research Purpose

The purpose of this study was to replicate the 7-factor structure of motivational orientation which characterized Anglo-French learners of English and French to Muslim learners of Arabic. In so doing, it sought to clarify the meaning of the construct itself. Hence, this study was guided by the following research question: Does the 7-factor structure of motivational orientation, which characterized Anglo-French learners of English and French exist among Muslim learners of Arabic?


Method

Participants

Participants were 228 students, who learned Arabic as a foreign language at a university in Malaysia. 77% of the respondents were Malaysians of Malay ethnicity. 21.2% were students of 14 countries in South-East Asia, South Asia, Far-East, Russia and Africa.

1.8% did not state their nationalities. They were all Muslim students. 28.5% were male, 70.6% were female, and 0.4% unstated. 53.2% had attended Arabic classes for at most 5 years, 37.7% had learned Arabic since 6 until 10 years ago and 8.8% had studied Arabic more than 11 years but less than 17 years. Only 6.7% of the participants had ever lived or visited any Arab countries while the remaining, 93.3% had not.

Table 1: Subscales within the self-determination construct of language learning

Intrinsic Motivation: Engaging in an activity for its own sake – for the pleasure and satisfaction derived from the performance without the necessity of material rewards or contingencies. The most internal form of motivation and considered the prototype of self-determination.		Most Self-Determined  Least Self-Determined
Knowledge: Feelings associated with satisfying curiosity, exploring new ideas and developing knowledge.	Because I enjoy the feelings of acquiring knowledge about the second language community and their way of life.	
Accomplishment: Sensations related to attempting to master a task or achieve a goal.	For the satisfaction I feel when I grasp a difficult construct in the second language.	
Stimulation: Sensations stimulated by performing the task such as aesthetic appreciation, fun or excitement.	For the “high” feeling that I feel when hearing foreign languages spoken.	
Extrinsic Motivation: Engaging in an activity in order to achieve some instrumental end, such as earning a reward or avoiding a punishment.		
Identified Regulation Performing an activity as a means to attain a personally valued goal. Somewhat internal and more self-determined.	Because I think it is good for my personal development.	
Introjected Regulation Performing an activity due to some type of pressure that individuals have incorporated into the self. Somewhat external and not quite self-determined.	Because I would feel guilty if I didn't know a second language.	
External Regulation Performing an activity for reasons external to the person, such as tangible benefit. If the incentive is discontinued, so will engagement. External and least self-determined.	In order to get a more prestigious job later on.	
Amotivation Having no intrinsic or extrinsic reasons for performing an activity at all, and expect to quit the activity as soon as possible. Impersonal. e.g. Honestly, I don't know; I truly have the impression of wasting my time in studying a second language.		

Instrument

The Arabic Learning Motivation Instrument used in the present investigation had the following composition of items: (i) 45 items rated on a 7-point scale with 1 indicating 'disagree' and 7 representing 'agree', and (ii) 7 demographic items with different anchor points on information regarding gender, age, nationality, years of learning Arabic, Arabic courses taken and experience of living or visiting Arab countries. The range of possible scores for the motivational items was between 45 and 315 with a high score indicative of high motivation in learning Arabic.

The items were essentially statements representing dimensions underlying learner motivation in learning Arabic on seven *a priori* subscales adopted from Noels et al. (2000). The subscales are Intrinsic Motivation-Knowledge, Intrinsic Motivation-Accomplishment, Intrinsic Motivation-Stimulation, Extrinsic Motivation-External Regulation, Extrinsic Motivation-Introjected Regulation, Extrinsic Motivation-Identified Regulation, and Amotivation. Religious orientations peculiar to the cultural context of the respondents were subsumed under the existing hypothesized constructs.

The instrument was administered in English and not in Malay or Arabic languages. This was due to three facts: 1) The learners were diverse in their mother tongue; 2) Some of the learners were beginners in Arabic and would therefore face difficulty understanding the questionnaire if constructed in the Arabic language; 3) The learners were presumed to be capable of understanding the questionnaire in English because it was the medium of instruction in the institution involved.

Procedure

Data collection was conducted in March 2003. The scale was administered during regular class time to 15 undergraduate classes of Arabic representing various levels of Arabic proficiency at an institution of higher learning in Malaysia where Arabic is a requirement. Respondents (N=228) took not more than 15 minutes to complete the questionnaire. Participation was voluntary and all data were kept anonymous.

Data Analysis

This study mainly employed Principal Component Analysis (PCA), an exploratory factorial analysis useful for investigating dimensions (Hair et al., 2006). Missing data were imputed with the mean of the item. Four classical assumptions of multivariate data analysis namely, normality, linearity, homoscedasticity and independence of observation (Hair, et al., 2006) were tested prior to PCA. Based on descriptive statistics (M and SD), 1 item which did not reach unity of $SD < 1$ ($SD = .92$) was excluded from further analyses (see Table 2).

Subsequently, to explore the dimensions, the remaining 44 items went through data summarization and data reduction followed by oblique and varimax rotation procedures. In oblique factor rotation, the assumption of independent factors is relaxed and the rotated factors are allowed to correlate, therefore producing a better estimate of the true factors and the relation between them. On the other hand, varimax rotation assumes factors are independent and constraints them from correlating with each other. With respect to psychological traits such as motivation, Fabrigar et al. (1999) recommended the use of oblique rotations and if the factors are found to be uncorrelated, varimax rotations can be conducted.

The degree of intercorrelation among these variables justified the use of PCA. The Bartlett's test of Sphericity produced statistically significant results at alpha level 0.05, $X^2(990) = 6261$, $p = 0.001$. The overall MSA of 0.899 and individual MSA ranging from 0.63 to 0.95 (both indicators of $MSA > 0.6$) meet the acceptable requirements for the reasonableness of assumptions, thus warranting the appropriateness of applying factor analysis. In addition, reliability analysis was performed on each factor extracted for evidence on internal consistency and discriminatory reliability. Throughout the analyses, the items to be retained in the constructs were selected on the basis of the following criteria:

- a) the solution was constrained using the criterion of eigenvalue greater than 1.00;
- b) factor loading not less than 0.4 based on the factor loadings guideline for the sample size of 200 (Hair et al., 2006);
- c) the minimum number of items per dimension was four, and any dimensions loaded with three or fewer items would only be retained given high factor loading above 0.60 and
- d) no cross-loading greater than 0.25. In the case of cross loadings, the item content and wording will be scrutinized to see the factor that best describes the item.

To obtain valid and reliable subscales, problematic items which are indicated by item-total correlation were identified and data were reanalyzed to assess the reliability and common variance shared by the items. In each analysis, the total variance explained exceeded 60%. The results suggested that most of the items with factorial complexities needed to be deleted. The results also revealed that when many items were deleted, the communality of a few other items was also affected. The content and contribution of the items were further examined. In general, the results of the preliminary analysis are characterized by a) a chaotic distribution of items across the factors, b) factorial complexities, and c) the existence of items with very high loadings in unreliable factors. Finally, it was decided that 16 more items had to be deleted. The number of factors extracted in the first analysis was 10, and this number was reduced to 6 in the final analysis. Only results from the final PCA are reported in this article.

Results

In the final analysis, 28 items went through PCA with oblique and varimax rotations to extract 6 components. For the retention of variables, the same criteria used in the earlier analyses were adhered to. The results are presented in Table 3.

Results revealed that all the 6 factors had eigenvalues greater than 1. The total variance explained is 64.57%. All the variables loaded significantly with no signs at all of factorial complexity or mixed signals. Communalities ranged from 0.31 to 0.77, nevertheless all factor loadings were above 0.4. With the exception of items 8 and 25, all other items shared over one half of their variance with all the six factors at an accepted level of 0.5. Oblique rotation indicated that there was no correlation among the factors.

Factor 1 explains 34% of the variance. It comprises 6 items that represent a hypothesized subscale of **Intrinsic Motivation-Knowledge**, and they are items 2, 3, 4, 5, 6, and 7. This construct suggests that learners' motivation in learning Arabic is associated with the internal satisfaction or pleasure in exploring new ideas and developing knowledge; i.e. they learn Arabic because they want to learn about the language, thoughts or the culture of the Arabs. This is a highly reliable factor with Alpha = 0.87.

Factor 2 accounts for 8.02% of the variance. It comprises of items 31, 33, 34, 35, 36, and 37. These items are labeled **Extrinsic Motivation-Identified Regulation**. These items attribute learners' motivation in learning Arabic to external reasons that they have identified themselves with for some valued reasons. Alpha for this factor is 0.85.

Items 11, 12, 13 and 16 constitute Factor 3 and explain 6.41% of the construct variance. All these items have in them the sensations related to performing tasks in Arabic. This factor has the highest reliability index of 0.88 and is labeled **Intrinsic Motivation-Accomplishment**.

In Factor 4, items 41, 42, 43 and 44 contribute 6.02% of the variance. These items depict situations in which learners see no reason at all - be it intrinsic or extrinsic - for learning Arabic. This subscale validates the hypothesized component of **Amotivation**. Alpha for this factor is 0.84.

Factor 5 accounts for 5.43% of the variance. The 4 items in this factor are items 1, 8, 27 and 28. All these items share the salient motives of learning Arabic for religiously valued reasons and perceptions such as understanding the Quran and being a Muslim. This factor is thus labeled **Religious Motivation**. The reliability for this factor is 0.73.

Factor 6 explains 4.681% of the variance and comprises 4 items: 22, 23, 24, and 25, all of which depict motives that are determined by external forces such as tangible benefits. The factor is labeled **Extrinsic Motivation- External Regulation**. Alpha for this factor is 0.67.

Where reliability is concerned, constructs 1 through 5 have reliability indices greater than 0.7. However, the reliability for factor 6 is slightly low 0.67. The Standard Deviation for the subscales was all greater than 1, hence rendering some support for their discriminatory ability. The item-total statistics were generally greater than 0.3 with an exception for item 24 (0.28).

Discussion

The results of this study demonstrate a clear distinction between learner motivation subscales and support the assessment of motivation using the intrinsic and extrinsic subtypes outlined by Deci and Ryan (1985). Reflecting a self-determination continuum, the lack of correlation between subscales suggests that one can distinguish between amotivation, intrinsic motivation and extrinsic motivation. However, the types and number of dimensions in the current study are not commensurate with those previously validated subscales derived from Anglo-Canadian learners of English or French in a bilingual setting (Noels et al., 2000). Out of the 7 hypothesized dimensions, this study extracted only 5 valid and reliable components, one of which is totally new: Intrinsic Motivation-Knowledge, Intrinsic Motivation-Accomplishment, Extrinsic-Motivation Identified Regulation, Amotivation and Religious Motivation. The remaining three hypothesized constructs, namely Intrinsic Motivation-Stimulus, Extrinsic Motivation-External Regulation and Extrinsic Motivation-Introjected Regulation failed to emerge as distinctive dimensions. These incongruent findings could be attributed to cultural differences and thus renders support to Clement and Kruidenier's (1983) earlier link between motivational orientations and cultural constraints. With Islam being the religion of these respondents and Arabic being the sacred language of the religion, items from these subscales with 'religious' connotation assumed a separate latent component of motivation in learning Arabic and could no longer be expected to adhere to their originally intended subscales.

It is also intriguing to note that this newly-derived Religious Motivational subscale encompasses both intrinsic and extrinsic orientations. 5 out of the 6 items originally postulated in the Extrinsic Motivation-Introjected Regulation construct are now being interpreted differently as Religious Motivation. In this particular sample, not only are the Muslim learners' introjected and identified regulation so strongly influenced by the religion of Islam, these religious motives with extrinsic origins have been so internalized by the learners that statistically, the items transcend the boundaries between subscales to cluster together with other religious motives irrespective of the items' originally hypothesized origins. This echoes Belnap's (2006) finding that American students of Arab Islamic roots learned Arabic because they wanted to become better Muslims. In line with Deci et al.'s (1991) emphasis on the role of the social context in the internalization of extrinsic motives, it is believed that the social milieu which include parents, family, teachers and other institutions in the society has contributed much to the internalization of these 'religious' motives.

Table 2: Descriptive statistics: Mean, Standard Deviation, and Measures of Sampling Adequacy and Communalities

Item	Item Description	Mean	SD	MS A	Comm.
IMK1	I want to understand the content of Quran and hadith better.	6.30	1.27	.923	.536
IMK2	I have pleasure in knowing what Arab writers write.	4.93	1.74	.923	.616
IMK3	I feel satisfied in finding out new things.	5.32	1.54	.949	.674
IMK4	I am curious about Arab culture.	3.77	1.63	.887	.690
IMK5	I like to learn the linguistic characteristics of other languages.	4.67	1.71	.915	.744
IMK6	I like to know the differences between Arabic and my own language.	4.87	1.75	.915	.777
IMK7	I like to compare and contrast the Arab culture and my own culture.	3.86	1.78	.894	.720
IMA8	For the pleasure that I feel when I can comprehend words in Quran.	6.35	1.02	.890	.637
IMA9	For the enjoyment that I feel when I can grasp the complexity of Arabic grammar.	4.86	1.82	.923	.675
IMA10	For the satisfaction that I feel when I can accomplish difficult exercises in Arabic.	4.83	1.70	.902	.650
IMA11	For the satisfaction that I feel when I can acquire a second language.	5.67	1.40	.919	.688
IMA12	For the pleasure that I feel when I can engage in conversation with native Arabs.	5.09	1.63	.928	.759
IMA13	For the enjoyment that I feel when I can understand TV or radio programs in Arabic.	5.07	1.70	.917	.703
IMS14	For the high feeling that I feel when I hear the Quran recited.	6.29	1.09	.894	.651
IMS15	For the pleasure that I feel when I can decipher the beauty of the Quranic verses.	6.20	1.16	.854	.689
IMS16	For the high feeling that I feel when I can speak in Arabic.	5.27	1.68	.928	.758
IMS17	For the pleasure that I feel when I hear Arabic being spoken.	5.09	1.68	.917	.768
IMS18	I want to be like the Arabs and therefore I like to learn the language.	4.11	1.89	.924	.632
IMS19	For the pleasure that I feel when I hear Arabic songs and poetries.	4.12	1.76	.944	.582
IMS20	Because lessons are interesting.	4.71	1.88	.931	.793
IMS21	Because teachers are interesting.	4.87	1.75	.890	.698

Table 2: *Continued*

EMER22	To get a more prestigious job later on	4.35	1.93	.846	.806
EMER23	To have a better salary later on	3.96	2.00	.826	.818
EMER24	Because it is a university requirement	5.23	2.04	.629	.715
EMER25	To undertake studies in Islamic Sciences	4.24	2.10	.784	.786
EMER26	I might need to travel to Arab countries someday	4.54	1.78	.874	.392
EMINR27	compel myself to understand prayers which are recited in Arabic	6.19	1.33	.834	.688
EMINR28	compel myself to learn the language of the Quran	5.95	1.50	.796	.597
EMINR29	I believe that all Muslims should make the effort to learn Arabic	6.06	1.20	.924	.720
EMINR30	I feel guilty if I don't know the language of Islam	5.76	1.65	.870	.661
EMINR31	To show to myself that I am a good Muslim	4.58	1.97	.934	.659
EMINR32	I feel ashamed if I couldn't speak to Arab friends	3.82	1.95	.918	.748
EMIDR33	choose to speak the language of the Prophet	5.54	1.52	.877	.730
EMIDR34	choose to speak the language of paradise	5.62	1.58	.898	.785
EMIDR35	choose to speak many languages	5.18	1.82	.888	.641
EMIDR36	choose to speak Arabic	4.99	1.88	.890	.727
EMIDR37	Arabic is good for my personal development	5.73	1.47	.929	.629
EMIDR38	To widen my circle of international friends	5.15	1.77	.916	.528
AMOT39	I don't need Arabic to understand Islam better	1.97	1.51	.940	.504
AMOT40	I don't care if I don't pass my Arabic course	1.32	.92	-	-
AMOT41	I have the impression that studying Arabic is a waste of time	1.92	1.44	.857	.656
AMOT42	I can't understand why I am studying Arabic	2.12	1.55	.863	.668
AMOT43	Arabic is irrelevant to my life in the university	2.07	1.74	.851	.693
AMOT44	Arabic has no practical importance for my future	1.93	1.50	.886	.727
AMOT45	I am not at all interested in learning foreign languages	1.64	1.24	.798	.663

Kaiser-Meyer-Olkin MSA .899

Bartlett's Test of Sphericity 6261.576 df 946 Sig. .000

In conclusion, findings from the current study imply that religious motives may form a valid construct of its own entity when investigating the motivation of Muslim learners in learning Arabic. This study also implies that when investigating motivation related to religiously sacred languages and learners with strong affiliation to the religions, religious motivation deserves to be considered and treated as a subscale of its own. Thus, future research should seek to compare and contrast motivational orientations of learners of sacred languages such as Arabic and Hebrew in three different settings: highly religious setting, less religious and non-religious affiliated purposes. In addition, action-oriented research should be conducted and reported in order to generate information on how syllabus designers and teachers can capitalize on such a strong religious motivational orientation in a manner that leads to positive learning outcomes. The field of second language acquisition would also benefit from studies investigating the relationship between the intensity and nature of motivational orientations, efforts and language learning outcomes.

Table 3: Final Rotated Component Matrix with Varimax Rotation, Communalities and Reliability Indices

Factor Label	Items	V1	V2	V3	V4	V5	V6	Comm
Intrinsic Motivation_Knowledge	I have pleasure in knowing what Arab writers write.	.631						.571
	I feel satisfied in finding out new things.	.602						.543
	I am curious about the Arab culture.	.749						.630
	I like to learn the linguistic characteristics of other languages.	.704						.648
	I like to know the differences between Arabic and my own language.	.796						.748
Extrinsic Motivation Identified Regulation	I like to compare and contrast the Arab culture and my own culture.	.748						.619
	To show to myself that I am a good Muslim.		.526					.500
	I choose to speak the language of the Prophet.		.735					.687
	I choose to speak the language of paradise.		.776					.749
	I choose to speak many languages.		.704					.639
Intrinsic Motivation-Accomplishment	I choose to speak Arabic.		.709					.711
	Arabic is good for my personal development.		.537					.587
	For the satisfaction that I feel when I can acquire a second language.			.654				.689
	For the pleasure that I feel when I can engage in conversation with native Arabs.			.819				.773
	For the enjoyment that I feel when I can understand TV or radio programs in Arabic.			.812				.741
	For the high feeling that I feel when I can speak in Arabic.			.761				.160

Table 3: continued

Amotivation	Arabic has no practical importance for my future				.782		.664
	I can't understand why I am studying Arabic.				.784		.661
	Arabic is irrelevant to my life in the university.				.767		.700
	Arabic has no practical importance for my future				.785		.722
Religious Motivation	I want to understand the content of Quran and hadith better.					.546	.555
	For the pleasure that I feel when I can comprehend words in Quran					.428	.314
	I compel myself to understand prayers which are recited in Arabic.					.764	.640
	I compel myself to learn the language of the Quran.					.769	.627
Extrinsic Motivation External Regulation	To get a more prestigious job later on.						.621
	To have a better salary later on.						.712
	Because it is a university requirement.						.727
	To undertake studies in Islamic Sciences.						.549

Eigenvalue	9.52	2.24	1.80	1.68	1.52	1.31
% Variance	34.0	8.02	6.41	6.02	5.44	4.68
Total % Variance	64.572					
Alpha	.867	.852	.884	.836	.730	.650
Kaiser-Meyer-Olkin (M.S.A)	.871					
Bartlett's Test of Sphericity	347.571	df 378			Sig .000	

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