Underlying constructs of L2 reading motivation of adult L2 learners of English in Pakistan

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Abstract

Reading motivation is not a unitary concept. Various research investigations have showed connection between reading motivation (intrinsic and extrinsic) and reading behaviors. However, there is no agreement among L2 reading researchers about the constructs that characterize reading motivation of L2 learners. Using the revised version of Komiyama`s (2009) MREQ, two hundred undergraduate and graduate level learns of English in Pakistan were investigated. The data was analyzed through factor analysis (Principle Component Analysis with Promax Oblique Rotation). Results indicated that L2 reading motivation of adult L2 learners of English in Pakistan is composed of eight constructs or dimensions i.e. Competition, recognition, grades, social, extrinsic test compliance (factors that characterize extrinsic motivation) and curiosity, preference for challenge and involvement (factors that compose intrinsic motivation). The findings of the study suggest that Wang and Guthrie's (2004) eight-dimensional framework of reading motivation taps and explains L2 reading motivation better and more clearly in Pakistani context.

Keywords: *L2 reading, motivation, intrinsic and extrinsic motivation, underlying constructs, Pakistani L2 English learners*

1. Introduction

English has become the global and predominant language in this era. In this global context, learning English has become a necessity, specifically for success in both academic and professional fields. People do learn English for various reasons both as second language (L2 and foreign language (FL). One of the key reasons of learning English is to excel academically and to achieve better professional skills and abilities. Better reading abilities and higher proficiency in reading ensure academic and professional success. Despite the increased and challenging demands that today's world has put on the citizens of modern global societies with regard to the functional abilities in literacy skills, condition of English language teaching and learning situation, especially instruction regarding

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reading skills in Pakistan; is not satisfactory (Muhammad, 2011 & 2013; Khatoon, 2014).

Different factors do affect and facilitate English language learning. To become skillful and proficient in English, one needs to acquire and develop the basic linguistic skills i.e. writing, speaking, listening and reading. All these skills are important and crucial in learning English. Reading skill is one of the most crucial skills that needs to be developed while learning English as a second or foreign language. The ability to read in English efficiently for academic purposes is widely recognized as a critical skill for all students, especially for students at the more advanced levels.

Reading is a complex process. It is the meaning extraction process from the written text. Different factors contribute to better reading comprehension abilities and proficiency in reading. Skilled reading abilities require many processing skills. Reading researchers in first language (L1) and second language (L2) contexts have been looking into the cognitive neural and psycho-motoric mechanisms and affective or reader-related factors; thus dividing it into cognitive and affective domains, in order to understand how reading works. Cognitive domain of reading has received much attention and affective domain of reading is an under researched area. Affective domain is composed of reading motivation and reading attitude.

Motivation refers to readiness and encouragement to do something or perform an activity. It refers to a set of reasons for behaving or acting in certain way (Ryan & Deci, 2000). Reading motivation denotes the learners` personal beliefs, goals and values about the topics, text, process and product of reading (Guthrie & Wigfield, 2000). Reading motivation has been looked at from different perspectives. Majority of the researchers have explored the nature of reading motivation and its constructs from the perspectives of intrinsic and extrinsic motivation proposed by Deci & Ryan (1985). Intrinsic motivation means “the doing of an activity for its inherent satisfactions rather than for some separable consequence” (Deci & Ryan, 2002a, p.56). On the other hand, Extrinsic motivation refers to “A construct that pertains whenever an activity is done to attain some separable outcomes” (Deci & Ryan, 1985; Ryan & Deci, 2000)

Despite the role of reading in developing linguistic proficiency of learners, specifically in L2 contexts; the nature of reading motivation in L2 has not been properly and adequately explored. Researchers agree that reading motivation

plays a vital role in shaping the learners reading behaviors and motivational processes facilitate text comprehension. It also helps in understanding the nature of reading development in L2 along with how L2 reading works (Grabe, 2009; Grabe & Stoller, 2020; Komiyama, 2013; Pirih, 2015). It is worth pointing out that L2 reading motivation research has just started to get attention. Moreover, research in L2 context has not yet provided strong and adequate evidence into the nature and constructs of reading motivation in L2 contexts and to support or reject the association of reading motivation in L2 with reading development. There is no consensus even among the few researchers about the nature of L2 reading motivation and what characterizes L2 reading motivation because they all identified different motivational constructs. They all also used various research tools to measure reading motivation. Conversely, reading motivation research in L1 settings is extensive. Researchers have reached to conclusive findings about the nature and underlying constructs of L1 reading motivation and identified a close association between reading motivation and reading behaviors (Wang & Guthrie, 2004; Guthrie et al., 2007). This makes it crucial to explore the underlying constructs underlying L2 reading motivation reliably and empirically and to see the extent to which L2 reading motivation associate with reading behaviors and abilities.

Different languages are spoken in Pakistan. National language of Pakistan is Urdu and English is the official language of Pakistan. It is very influential and has been widely used for official correspondence in Pakistan. It is used as medium of instruction in the higher education institutions. What is more alarming regarding the state of English language proficiency of learners in Pakistan is that despite studying for many years in English, these learners lack the very basic skills. Developing better reading skills and helping learners to be better readers is rarely the goal of teaching in majority of the educational institutions in Pakistan. It is a skill that students just pick up on their own in Pakistan as they advance academically in their studies. Although there are still many aspects related to the teaching and learning process of English in Pakistan which call for attention, the role of reading motivation in the developing reading skills and understanding the nature as well as the way L2 reading works is very essential. As it has a close association with reading behaviors and gains, therefore the researcher attempted to study reading motivation of adult L2 learners of English in Pakistan.

Before a brief review of the selected literature, it is important to present some information about the learners who participated in this study and the institutions

from where the data was collected. The reason such information is essential to be presented here is that it will situate this study in a particular context.

1.1 Profile of Pakistani Adult L2 English Learners—Participants and Institutions

The respondents of the study were the undergraduate and graduate students, studying in the departments of English in the selected seven public sector universities in Pakistan and the state of Azad Jammu and Kashmir. A total of 200 male and female learners (undergraduate= 100 and graduate= 100) from the University of Azad Jammu and Kashmir, Muzaffarabad, Hazara University Mansehra, Abdul Wali Khan University Mardan, Islamia College University Peshawar, the University of Peshawar, International Islamic University, Islamabad and National University of Modern Languages, Islamabad participated in this study. The linguistic, cultural, and previous schooling and academic backgrounds of both male and female students in the target population were diverse and varied. The participants of study had different L1s and cultural backgrounds. They also differed in terms of their schooling and academic backgrounds prior to their university education. Mainly they studied in two different kinds of schools and colleges, i.e., government sponsored institutions and private institutions.

The participants belonged to various provinces and regions of Pakistan. Their L1s were Urdu, Gojri, Kashmiri, Hindko, Pashto, Punjabi, Sindhi, Seraiki, and other local languages spoken in the Northern Areas of Pakistan. The ages of these respondents ranged from 20 to 40 years. They all had 12, 14, 16, and 18 years of formal schooling before their enrollment into the different degree programs (i.e., Bachelor, Master of Arts, Master of Philosophy, and Doctor of Philosophy). The seven departments of English, from where the data was collected; enroll students in different degree programs with a focus on either English Literature or Linguistics or a mix of both literature and linguistics. The offerings of these programs differ from university to university because of the requirements for running these degree programs and academic backgrounds of the teachers. Not all these departments enroll students in PhD. As far as the proficiency of the undergraduate and graduate students in English concerned, it varies from institution to institution because of the previous schooling and cultural backgrounds, institutional environments and priorities, and the internal drives as well as academic goals of the students. However, the proficiency levels of students in English range from good to excellent. The graduate students usually

have excellent proficiency in English as compared to the undergraduate level students.

2. Literature Review

This section presents a brief review of the selected research related to reading motivation in the contexts of both L1 and L2. The relevant studies will be grouped into two main strands, i.e. reading motivation research in L1 settings and reading motivation research in L2 contexts. All studies will be reviewed in terms of the guiding concepts, frameworks used to explore reading motivation, its nature and the identified constructs that characterize reading motivation in L1 and L2 contexts.

2.1 Reading Motivation Research in L1 Settings

Research related to motivation and its impact on learning language is a widely discussed topic. First language (L1) reading motivation research has been extensive. Research over the past two decades reveals that motivation to read is multidimensional. The ground-breaking work of Wigfield & Guthrie (1997) with elementary school students in the U.S in a variety of L1 contexts shows that there is close connection between motivation and reading achievement and other reading behaviors such as increased amount of reading and more effective use of reading strategies and that reading motivation is not a unitary concept (Guthrie & Wigfield, 2000; Guthrie, Hoa, Wigfield, Tonks, Humenick, & Littles, 2007).

Wigfield & Guthrie (1997) found that students who had intrinsic motivational drive were relatively good achievers and active readers. For the period of almost fifteen years, they developed a framework for understanding reading motivation and its constructs that has been widely used by large numbers of researchers in a variety of L1 contexts with school children up to K-12 education. The usefulness of these constructs to measure learners` reading motivation has been supported by numbers of researchers. These researchers have found that motivation has a positive influence on learning and improving reading comprehension and reading abilities. Based on their findings, Wigfield & Guthrie (1997) developed a questionnaire for determining reading motivation. This questionnaire (Motivation for Reading Questionnaire-MRQ) was later revised by Wang & Guthrie (2004). They used it in their various studies. Wigfield & Guthrie (1997) determined the following 11 constructs for reading motivation. (a) Reading efficacy (b) curiosity (c) involvement (d) grades (e) recognition (f) compliance (g) competition (h) social (i) work avoidance (j) importance (k) preference for challenge. These constructs were defined and developed in the light of various theories and notions

about human motivation and learning such as expectancy value theory, goal-orientation theory, SDT and self-efficacy theory. Table 2.1 below presents the constructs and their definitions that are provided by Wigfield & Guthrie (1997).

Table 2.1 Wigfield and Guthrie (1997) model of reading motivation

Constructs	Definitions
Reading efficacy	Sense of being successful at reading
Challenge	Preference for reading and mastering difficult texts
Curiosity	Urge to read for learning about new and interesting topics
Involvement	Enjoying being involved in reading a variety of texts
Importance	Subjective task values placed on reading
Work avoidance	Deliberately avoiding text or minimizing effort while reading
Competition	Desire to surpass others in reading
Recognition	Desire for being recognized as a successful reader
Grades	Desire/ pursuit of high reading grades
Social	Desire to read in order to share and feel connected with friends and family
Compliance	Reading for some external task or requirement

The inclusion of these different concepts of motivation based on various theories is one of the greatest strengths of this eleven-dimensional framework. However, later researchers realized this strength to be a weakness in this framework. As there is still great need to know about the way different theories of human motivation relate to each other, researchers realized difficulty in the coherent interpretation of results, using this framework. Thus, this realization led researchers to the need for another model that could precisely tap the two key concepts of motivation i.e. intrinsic and extrinsic motivation and reading motivation.

Wang & Guthrie (2004) later modified this eleven-dimensional model and they suggested another model with eight dimensions by only retaining those composites that were related to the notion of intrinsic and extrinsic motivation as highlighted by Ryan & Deci (2000). The eight constructs that were proposed for exploring L1 reading motivation were (a) curiosity, (b) involvement, (c) preference for challenge, (d) recognition, (e) grades, (f) social, (g) competition, and (h) compliance—the first three composites make intrinsic motivation and the last five dimensions make extrinsic motivation. The eight constructs and their

working definitions given by Wang & Guthrie (2004) are given below in the Table 2.2.

Table 2.2 Wang and Guthrie (2004) model of reading motivation

Constructs	Definitions
Challenge	Preference for reading and mastering difficult texts
Curiosity	Urge to read for learning about new and interesting topics
Involvement	Enjoying being involved in reading a variety of texts
Competition	Desire to do better than others in reading
Recognition	Desire for being recognized as a successful reader
Grades	Desire/ pursuit of high reading grades
Social	Desire to read in order to share and feel connected with friends and family
Compliance	Reading for some external task or requirement

Wang & Guthrie (2004) used eight scales out of the total eleven scales from the original MRQ, the International Association for the Evaluation of Educational Achievement (IEA) Reading Literacy Test, and the 18-item Reading Activity Inventory (RAI) to test a theoretical and structural text comprehension model. They attempted to explore the associations (direct and indirect) among intrinsic motivation, extrinsic motivation, reading amount for school, a reading amount for personal enjoyment, former reading achievement, and text comprehension of 384 fourth grade Chinese and U.S. school children (U.S. 187 and Chinese 197) and the degree to which motivational processes assist text comprehension. After controlling all other extraneous variables, they found that intrinsic motivation positively projected text comprehension and extrinsic motivation predicted negatively text comprehension except when associated with intrinsic motivation. Subsequent research in L1 contexts with consistent results support the findings of Wigfield & Guthrie (1997) and also of Wang & Guthrie (2004) that L1 children's reading motivation has multiple dimensions, the construct variation results in differences in reading motivation, and students' tendencies and motivation to read closely associate with the reading behaviors of L1 learners.

Although Wang & Guthrie's (2004) eight-dimensional framework of reading motivation has its basis in the eleven-dimensional framework, its greatest advantage is that it is based on the notion of intrinsic and extrinsic motivation. This makes it easier for researchers to interpret results in a precise and coherent manner. Another important strength of the eight-dimensional framework is that its

validity has been supported with samples in the L1 and L2 contexts. Both these models have been very influential in that the constructs of reading motivation that were identified by them have a great impact on the reading motivation research in L2 settings.

2.2 Reading Motivation Research in L2 Contexts

Research regarding motivation in L2 contexts has taken a different path and very little attention is paid to motivation and reading comprehension**.** Social–psychological theory and Gardner's (2000) socio-educational model of L2 motivation dominated much of the work on motivation for L2 learning until 1990s. Very few researchers have explored the disposition of L2 reading motivation and its association with reading achievement and reading behaviors. Influenced by L1 reading motivation research, certain researchers have endeavored to explore the nature of reading motivation in L2. Some have tried to explore it either by using the eleven-dimensional model proposed by Wigfield & Guthrie (1997) or the eight-dimensional model provided by Wang & Guthrie (2004). Others explored reading motivation in L2 in the light of other theories and concepts, including those used in L1 reading motivation research.

Like L1, reading motivation in L2 has also been reported to be multidimensional by researchers. Though, many researchers have revealed that reading motivation is multidimensional in nature, there is no agreement among the researchers regarding constructs of L2 reading motivation. Unlike L1 reading motivation, researchers have identified different L2 reading motivation constructs. The main reasons for such varied and inconclusive findings regarding the nature and constructs of L2 reading motivation have been the use of different models, theories, concepts, and measures and attempts to explain L2 learners' reading motivation.

Concerned with the multidimensionality and underlying constructs of second language reading motivation, Mori (2002) attempted to examine L2 reading motivation by adopting theoretical frameworks of Wigfield & Guthrie (1997) and Gardner (2001). Based on the eleven-dimensional framework of Wigfiled & Guthrie (1997) and concept of integrative orientation of Gardner (2001), she developed L2 reading motivation questionnaire consisted of thirty items. Members of the study were 447 Japanese university level students. She designed this study to investigate a hypothesis that there may exist difference to certain level between L2 or foreign language reading motivation and general motivation constructs, but the results did not prove this hypothesis. Results of her study

implied that L2 or FL reading motivation consisted of the four constructs, i.e., (a) Reading Efficacy, (b) Intrinsic Value of Reading, (c) Extrinsic Utility Value of Reading, and (d) Importance of Reading. Moreover, the factor analysis did not yield results reflecting the constructs of the framework that she used, which is major weakness.

Mori (2004) carried another follow up study. In this study the participants were administered a new motivation questionnaire that was based on Eccless & Wigfield's (1995) Expectancy Value Theory. Participants were 110 university students in Japan. The aim of this study was to see whether or not Expectancy Value Theory would reveal an alternative multidimensionality of L2 reading motivation. Her results were not too much different from her previous study, although the factor analysis revealed the following three subcomponents (a) Intrinsic Value, (b) Attainment Value, and (c) Negative Intrinsic Value in Novels.

Tercanlioglu (2001) used the eleven-dimensional model of reading motivation of Wigfield and Guthrie's (1997) to examine reading motivation of Turkish EFL learners. Results of her study revealed that Turkish EFL students were both intrinsically and extrinsically motivated. They demonstrated low level work avoidance. Similarly, Dhanapala (2006) used the eight-dimensional model of Wang and Guthrie's (2004) to explore L2 reading motivation of Japanese and Sri Lankan college level EFL students. She found that EFL learners in Japan and Sri Lanka read for extrinsic reasons with some differences in the two EFL contexts. Compliance was found to be strong motivator for Japanese students and Grades and Competition were favored by Sri Lankan learners. Dhanpala (2006) also supported the use of constructs of reading motivation provided for L1 readers by Wang & Guthrie (2004) in interpreting L2 learners' motivational tendencies.

Komiyama (2009) investigated the L2 reading motivation of Adult English learners enrolled in EAP (English for Academic purposes) programs in the US. She tried to find out the distinct constructs of L2 reading motivation and relationship of reading motivation with text comprehension. She developed a questionnaire (Motivation for Reading in English Questionnaire—MREQ) for L2 reading motivation by including the intrinsic and extrinsic motivation concepts based on the self-determination theory and Wigfield & Guthrie (1997). A total of 2018 learners from 53 English language programs in different U.S colleges and universities were administered this questionnaire and a comprehension test. Results revealed five dimensions of L2 reading motivation of EAP students; one intrinsic and four extrinsic motivation subtypes. Curiosity, involvement and

preference for challenge items combined and emerged as a single construct named intrinsic motivation. Competition and certain items of recognition combined and formed extrinsic drive to excel. Certain items of recognition and certain items of compliance grouped together and formed extrinsic test compliance while certain items of compliance and all grades items combined and formed extrinsic academic compliance. All social items formed component of extrinsic social sharing. Intrinsic motivation showed significant positive connection with text comprehension while all four subtypes of extrinsic motivation correlated negatively with text comprehension. Furthermore, results of this study supported the multidimensionality of L2 reading motivation. The major contributions of Komiyama's (2009) study have been (a) the revision of MRQ and development of MREQ to measure L2 reading motivation, (b) providing additional evidence for the use of the eight-dimensional framework to explain L2 reading motivation and her own suggestions for consideration, and (c) showing the multidimensionality of L2 reading motivation.

Kim (2011) tried to explore the underlying factors motivating L2 learners for reading in a foreign language. An attempt was also made to explore the relationship between L1 reading motivation and L2 reading motivation. Participants of the study were 259 (120 boys and 139 girls) Korean students at a college studying English as a foreign language. Findings identified four factors of L2 reading motivation; learning goal orientation, utility value, intrinsic motivation and reading avoidance. The basic factors for the learners` reading in English desire were learning goal orientation and utility value of L2 reading. Some of the factors of L1 reading motivation correlated with reading motivation in L2 but in a very low range.

It is obvious from the review of the literature, that researchers in the L2 contexts have used different theoretical frameworks and models to find the underlying constructs of L2 reading motivation, resulting in ambiguous and inconclusive findings. It also reveals that there is the lack of agreement among researchers about the constructs of L2 reading motivation. Furthermore, no published study has yet been found in Pakistani context to determine the constructs of L2 reading motivation of adult learners of English. This study tries to fill this gap by using the theoretical framework of self determination theory and eight-dimensional model of reading motivation to understand and explain the nature of L2 reading motivation and the constructs that characterize L2 reading motivation of adult L2 learners of English in Pakistan.

3. Research Questions

This study had many research questions. However, in this paper the researcher focused on addressing only the following major research question:

How many interpretable and reliable factors do characterize L2 reading motivation of adult L2 learners of English in Pakistan?

4. Methods and Materials

The main focus of the present study was to explore the constructs or factors that characterize reading motivation of both undergraduate and graduate level L2 learners of English in Pakistan. Komiyama's (2009) MREQ was used, with some modifications to few items to make it appropriate for use in Pakistani context; to measure L2 reading motivation of the participants. After a series of iterative factor analyses with various options, the eight-factor solution as a result of Principal Component Analysis (PCA) as the extraction method and Promax oblique rotation with Kaiser Normalization yielded the clearest results.

4.1 Population and Sampling Procedures

The target population of the present study was undergraduate and graduate level students who were enrolled in English departments in the public sector universities in Pakistan and the state of Azad Jammu and Kashmir. The linguistic, cultural, and previous schooling and academic backgrounds of both male and female students in the target population were diverse and varied. Despite the national unity in terms of language and culture reflected in the use of Urdu as the national language or lingua-franca and an umbrella term Pakistani culture to refer to the national culture, the participants of study had different L1s and they grew up in their own specific cultural communities.

The researcher used non-random, purposive, and convenience sampling procedures to select 200 participants (i.e., 120 male and 80 female) form seven selected public sector universities. Out of these, 100 undergraduate and 100 graduate (i.e., both M. Phil and PhD) students participated in this study from the University of Azad Jammu and Kashmir, Muzaffarabad, Hazara University Mansehra, Abdul Wali Khan University Mardan, Islamia College University Peshawar, the University of Peshawar, International Islamic University, Islamabad and National University of Modern Languages, Islamabad.

4.2 Instrument

The 53-item revised version of the Motivation for Reading in English Questionnaire (MREQ) was adapted to measure reading motivation of university

level L2 English learners in the selected seven public sector universities in Pakistan. This questionnaire was developed and used by Komiyama (2009) in her study, grounded on the work of Deci & Ryan (1985) and Wang & Guthrie's (2004) Motivation for Reading Questionnaire (MRQ). The MREQ was pilot-tested and modified to ensure its validity. Its internal consistency reliability was computed after the pilot-testing and the actual use which was found to be 0.92 and 0.90 respectively, indication high reliability.

4.3 Data Collection Procedures

The required data was collected using the revised version of MREQ. Various packets were prepared for the two groups of respondents in each of the seven universities and the questionnaires were coded for each respondent in each of the university. The researcher herself and in few places with the help of colleagues administered the data tools and collected the data.

4.4 Data Analysis Procedures

The already coded response data sets were compiled in excel file for further analysis through a registered version of SPSS (IBM Statistics 21). Before data analysis and running statistical tests, suitability of the data for factor analysis was checked.

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity (BTS) were used to check the suitability of the data of the current study for factor analysis and assumptions that the variables should be related to each other in a linear fashion and at least many of the variables should be correlated at a moderate level. As a result, the data was found to be suitable for factor analysis.

After empirically ensuring the fitness of data for running factor analysis, a set of factor analyses with Principal Axis Factoring (PFA) and Principal Component Analysis (PCA) and Promax, Varimax, and other options was conducted on 53 reading motivation items. After all the possible combinations of PCA and PFA with Varimax and Promax rotations to the data set, the data plotted very well and clearly with 8 factors. The PCA as the extraction method and Promax rotation with Kaiser Normalization yielded the best solution and clear and meaningful factors. Kaiser's Criterion and Scree Plot were used for retaining items in each factor. Three Compliance items (item 51-53) were deleted because of their problematic nature. They either had irrelevant loadings or disturbed the best plotting at any combination. Two more items (i.e., item 12 Involvement and item

44 Competition) did not load with any value on any of the 8 factors. In addition, one Involvement item (i.e., item 13) irrelevantly loaded on factor 4 with Social items and one Competition item (i.e., item 40) loaded on factor 5 which consisted of Recognition and Compliance items.

5. Results and Analysis

Applying all the possible combinations of PCA and PFA with Varimax and Promax rotations (i.e., from 4 to 12 and 15) to the data set, the 8-factor solution (PCA with Promax rotation) was found to be best possible solution because it yielded the clearest results. Together these eight factors accounted for overall 48.40 percent of the total variance. The reliability statistics of the factors are represented in the Table 5.1 below.

Table 5.1 Reliability statistic of the derived eight factors

Factors	Number of Items	Alpha Estimates
1	7	0.83
2	7	0.80
3	5	0.74
4	5	0.73
5	5	0.78
6	8	0.70
7	6	0.70
8	5	0.70

The reliability estimates or Alpha values of the derived eight factors in Table 3 show that all the values are either above the desirable level or at least exactly equal to that level. This indicates that all the eight derived factors are reliable. Maximum number of item loading was eight, i.e., at component 6 while the minimum was at components 3, 4, 5, and 8 with 5 items loaded on each respectively.

Two initial preparatory steps were taken to remove those items that were not performing reliably and meaningfully or had irrelevant and problematic loadings. As a result of this, the researcher deleted five items and considered the remaining 48 items in the final stage for factor analysis. After the initial open principle

component analysis which resulted in 15 factors, subsequent rotated factor extractions and analyses were carried out with the procedures set for 4 through 12 factor solutions to find out and obtain the meaningful and interpretable factor solution. The following criteria or requirement was considered for the number of factors as a result of factor extraction, (a) each factor should have Eigen value > 1.0, (b) the slope point of the scree plot altered its trajectory, (c) no factor to be composed of less than three items, and (d) minimum item loading has to be equal to or > 0.35. The eight-factor solution yielded the clearest results and meaningfully interpretable factors.

As stated earlier, among all the possible factor solutions, the Eight-Component solution was found as best solution for the data, accounting for 48.40 percent of cumulative variance. Three items (i.e., Compliance Items-51 to 53) out of the total fifty-three items were deleted because of their problematic nature; as they either showed irrelevant loadings or disturbed the best plotting at any combination. Furthermore, two more items (i.e., 12 and 44) did not load at any factor/component and they were also not considered.

Results of the 8-factor solution with remaining forty-eight loaded items are presented in the Table 4 on the next page. Each factor is unique in its nature based on the eight theoretical constructs. Factor-1 to Factor-5 consisted of all the extrinsic motivation items, except the two items. Factor-6 to Factor-8 comprised of all intrinsic motivation items. No item of extrinsic motivation loaded on these last three factors. This block of the three factors represents intrinsic motivation dimension.

As results indicate, Factor 1 (Competition) comprised of seven items (i.e., 41, 42, 43, 45, 46, 38 and 39) which loaded significantly above 0.35 respectively as the first component. All these seven items were purely Competition items that represent extrinsic motivation dimension, thus confirming the results of Wang & Guthrie`s (2004) model. None of the items from any other theoretical construct interfered with this factor. Seven items (i.e., 23, 25, 26, 28, 27, 22, and 29) loaded as Factor 2 (Recognition). All these items were 'Recognition' items, representing the extrinsic motivation dimension of the eight-dimensional framework of Wang and Guthrie (2004). Factor 3 (Grades) consists of five items (i.e., 32, 47, 33, 31, and 30), having significant loading above the 0.35 level. Among these four items, three items represented the Grades construct of Wang & Guthrie's (2004) framework; one item (i.e., Item 47) belonged to the 'Compliance' construct. It is important to note here that a similar mixing of grades and compliance items was

reported by Komiyama (2009). Six items (i.e., 36, 34, 37, 35, 13 and 44) loaded on factor 4 (Social). The first four items were related to the 'Social' construct of extrinsic motivation construct. The fifth item which belonged to 'Involvement' construct of intrinsic motivation loaded irrelevantly, thus it can be ignored because its loading is unjustified. The sixth item which was a 'Competition' item clustered together with the social items, but did not load with any eigen value, thus it was not considered. Factor 5 consisted of five items (i.e., 24, 49, 40, 50 and 48). These items were the items of three different constructs such as 'Recognition', 'Competition', and 'Compliance'. However, all the items loaded on this factor belonged to the extrinsic motivation dimension. Three items that loaded on Factor 5 (Extrinsic Test Compliance) were Compliance items and one each from Recognition and Competition constructs. This is the only factor whose factor loading only confirms the factor loading of Komiyama (2009) for this construct as she also had the similar mix loading of items from these three constructs.

A total eight items (01, 03, 7, 2, 5, 4, 6, and 8) loaded on Factor 6 (Curiosity). All the items were related to one of the theoretical constructs (i.e., Curiosity) of intrinsic motivation. This factor loading also resembles Wang & Guthrie's (2004) factor loading. Factor 7 (Preference for Challenge) comprised of six items (i.e., 16, 17, 21, 18, 19, and 20), which were purely the items of another construct (i.e., Preference for Challenge) of intrinsic motivation. As all these items were related to a single construct and this factor has the same loading as that of Wang & Guthrie (2004).

Table 5.2 Pattern matrix of the eight factors solution

Items No.	Statement	Theoretical Construct	Factor							
			1	2	3	4	5	6	7	8
41	"I like being the only student who knows an answer about something we read in English".	Competition	0.81							
42	"When I complete English reading assignments for class, I try to get more answers correct than my classmates".	Competition	0.81							
43	"When I read in English, I like to finish my reading assignments before other students".	Competition	0.77							
45	"I am willing to work hard to read better than my friends in English".	Competition	0.63							
46	"I want to be the best at reading in English".	Competition	0.52							
38	"When I read in English, I often think about how well I read compared to others".	Competition	0.51							
39	"When some classmates read English better than me, I want to read more English materials".	Competition	0.37							
23	"I feel happy when my friends ask me for help with their English reading assignments".	Recognition		0.73						
25	"I like my friends to tell me that I am a good English reader".	Recognition		0.72						
26	"I like to get positive comments about my English reading".	Recognition		0.69						
28	"I like my teacher to say that I read well in English".	Recognition		0.66						
27	"I practice reading in English because I feel good when I answer teachers' questions correctly in class".	Recognition		0.57						
22	"I am happy when someone acknowledges my English reading ability".	Recognition		0.45						
29	"I like it when my teacher asks me to read English aloud in class".	Recognition		0.39						
32	"I look forward to finding out my grades in courses."	Grades			0.80					

Items No.	Statement	Theoretical Construct	Factor							
			1	2	3	4	5	6	7	8
47	“I read in English in order to pass my English courses”.	Compliance			0.64					
33	“I work harder on English reading assignments when they are graded”.	Grades			0.62					
31	“It is important for me to receive a good grade in my courses”.	Grades			0.60					
30	“I want to read in English to improve my grades”.	Grades			0.59					
36	“My friends and I like to share what we read in English”.	Social				0.79				
34	“I like talking with my friends about what I read in English”.	Social				0.76				
37	“I enjoy telling my friends about the things I read in English materials”.	Social				0.68				
35	“I like joining class discussions about what I read in English”.	Social				0.49				
13	“I get excited when I understand what is written in English”.	Involvement				0.36				
44	“I try to read things in English so that I can understand what my friends are talking about”.	Competition								
24	“I try to read in English because I like seeing my reading score improve on tests like GAT, HAT, TOEFL, GRE, and IELTS, etc”.	Recognition					0.77			
49	“I try to read in English because I need a good score on standardized national and international tests like GAT, HAT, TOEFL, GRE, and IELTS, etc”.	Compliance					0.70			
40	“I practice reading in English because I want a higher reading score than my friends and classmates on standardized national and international tests like GAT, HAT, TOEFL, GRE, and IELTS, etc”.	Competition					0.57			
50	“I practice reading in English because I need to do well in my future classes”.	Compliance					0.55			

Items No.	Statement	Theoretical Construct	Factor							
			1	2	3	4	5	6	7	8
48	“I read in English because I have been told that I need to practice my English”.	Compliance					0.38			
12	“It is hard for me to stop reading in English when the topic is interesting”.	Involvement								
1	“I read in English to learn more about my hobbies”.	Curiosity						0.59		
3	“I have favorite topics that I like reading about in English”.	Curiosity						0.51		
7	“I feel happy when I read about something interesting in English”.	Curiosity						0.49		
2	“I like reading about new things in English”.	Curiosity						0.46		
5	“When my teacher or friends tell me something interesting, I might read more about it in English”.	Curiosity						0.43		
4	“I like reading in English to learn something new about people and things that interest me”.	Curiosity						0.39		
6	“I like reading in English about the subjects I will study in the future”.	Curiosity						0.37		
8	“I enjoy reading in English to learn what is going on in Pakistan and in the world”.	Curiosity						0.36		
16	“When the topic is interesting, I am willing to read difficult English materials.	Pref. Challenge							0.68	
17	“I enjoy reading when I learn complex ideas from English materials”.	Pref. Challenge							0.60	
21	“I like hard, challenging English readings”.	Pref. Challenge							0.58	
18	“When an assignment is interesting, I can read difficult English materials more easily”.	Pref. Challenge							0.54	
19	“I like challenging myself while reading in English”.	Pref. Challenge							0.45	

Items No.	Statement	Theoretical Construct	Factor							
			1	2	3	4	5	6	7	8
20	"I like it when the topic of an English reading makes me think a little more".	Pref. Challenge							0.44	
11	"When I read something interesting in English, I don't think about grammar rules".	Involvement								0.56
14	"I enjoy reading good, long stories in English".	Involvement								0.50
10	"I like reading a lot of interesting things in English".	Involvement								0.47
15	"It's fun for me to read about something I like in English".	Involvement								0.39
9	"When I am reading about an interesting topic in English, I sometimes lose track of time".	Involvement								0.37

Extraction Method: Principal Component Analysis.
Rotation: Promax with Kaiser Normalization.
Two items i.e. item 12 and 44 did not show loading on any factor at 0.35 or higher, however their contribution to the overall estimated communalities were considered.

Out of the total seven 'Involvement' items, five items (i.e., 11, 14, 10, 15, and 9) loaded on the last factor (Factor 8- Involvement). All these five items belonged to 'Involvement' construct of the intrinsic motivation dimension. Out of the two remaining Involvement items, one item did not load on factor and one loaded irrelevantly with Social construct's items on Factor 4. This factor loading also very closely resembles Wang & Guthrie (2004), except the two items.

Analysis of the results of factor analysis indicate that reading motivation of adult English L2 learners in Pakistan consists of eight constructs and the eight-dimensional framework of this study almost exactly corresponds with Wang & Guthrie`s (2004) eight-dimensional framework of L1 readings motivation. The results of this study present further evidence into the use of eight-dimensional framework of Wang & Guthrie (2004) for studying and explaining L2 reading motivation, especially in Pakistani context. Dhanapala (2006) also suggested the use of this eight-dimensional framework to tap and explain the disposition of L2 reading motivation and understand the nature of motivational tendencies of EFL learners.

6. Discussion and Findings

As the analysis of results reveals, eight factors or constructs characterize L2 reading motivation of Pakistani adult L2 English learners and the two components or antecedents of motivation (i.e., Intrinsic and Extrinsic) are composed of the three and five constructs or factors like that of Wang & Guthrie (2004). These factors are as follows: (a) Recognition, (b) Competition, (c) Extrinsic Test Compliance, (d) Social, (e) Grades (Extrinsic Motivation), (f) Curiosity, (g) Involvement, and (h) Preference for Challenge (Intrinsic Motivation). The eight-dimensional structure of L2 reading motivation corresponds to the eight-dimensional framework of L1 reading motivation, given by Wang & Guthrie (2004); with few exceptions. The concepts of intrinsic and extrinsic motivation within the L2 reading motivation of Pakistani adult English learners support the findings of Tercanlioglu (2001), Wang & Guthrie (2004), and Dhanapala (2006).

In the eight-dimensional model, extrinsic motivation is composed of Recognition, Competition, Compliance, Social, and Grades. In the present study, extrinsic motivation is composed of Recognition, Competition, Extrinsic Test Compliance, Social, and Grades. In the current study, Compliance items did not cluster together on a single factor rather three Compliance items loaded with one item from Recognition and one item from competition. This factor was collectively named as Extrinsic Test Compliance. It is important to note here that this factor

with the same label had almost the same item loading in Komiyama (2009), which is one of the similarities of the current study with it. To be precise, with the exception of the loading of mixed items only on this one factor; the eight dimensional framework of L1 reading motivation of Wang & Guthrie (2004) is largely similar to the L2 reading motivation framework of this study and the empirically identified factors of L2 reading motivation of L2 learners of English in Pakistan. This exception of the current study supports the suggestion of Komiyama (2009) for the revision of some items in the MREQ.

Moreover, as the analysis of the results of this study reveal that L2 reading motivation of adult learners of English in Pakistan is multidimensional. It is based on the concepts of intrinsic and extrinsic motivation, as provided by Wang & Guthrie (2004); like that of L1 readers and is composed of eight constructs. This reveals that L2 reading motivation of adult English learners in Pakistan is not a unitary concept. This aspect of the findings of the present study support the results of Wigfield & Guthrie (1997), Guthrie & Wigfield (2000), Guthrie, et al., (2007), and Komiyama (2009; 2013).

7. Conclusion

To conclude, this study attempted to explore and identify the underlying and interpretable factors of L2 reading motivation of adult L2 learners of English in Pakistan. Analysis of the results of factor analysis (PCA with Promax rotation) indicates that eight reliable and interpretable factors characterize L2 reading motivation of Pakistani adult learners of English. With the exception of mixed items loading on only factor (i.e., Factor 5 Extrinsic Test Compliance) in the present study, the findings of the study reflect the constructs of the original theoretical framework of Ryan & Deci (2000) and eight-dimensional model of Wang & Guthrie (2004). The findings related to this exception of the current study supports the suggestion of Komiyama (2009) for the revision of some items in the MREQ. This study identified that:

- L2 reading motivation of Pakistani adult L2 English learners is not a unitary concept
- L2 reading motivation of L2 learners of English in Pakistan is also multidimensional like reading motivation learners in L1 context
- L2 reading motivation of adult L2 Pakistani English learners has eight constructs namely, competition, recognition, grades, social, extrinsic test compliance, curiosity, preference for challenge and involvement

- These underlying constructs of L2 reading motivation of learners of English in Pakistan largely resembles the constructs identified and provided by Wang & Guthrie (2004) for L1 reading motivation in L1 context
- The item loading on the factor 'Extrinsic test Compliance' (Extrinsic motivation construct) resembles the item loading of Komiyama (2009) on the same factor.

As this study finds the suitability and use of the eight-dimensional model for L2 reading motivation in Pakistani context, the MREQ needs to be revised in the light of findings of this and the original MRQ items. Moreover, the constructs of second language reading motivation in Pakistan still need to be explored further in order to reach an agreement about the L2 reading motivation constructs.

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