The Development and Validation of Language Learner Beliefs Scale in the Iranian EFL Context

Parviz Birjandi [1]; Mojtaba Mohammadi [2*]
[1] Department of Foreign Language, Science and Research Branch, Islamic Azad University, Tehran, Iran
[2] Department of Foreign Language, Science and Research Branch, Islamic Azad University, Tehran, Iran

Abstract

Unlike teacher beliefs, there has been a dearth of study regarding EFL learner beliefs. The reason can be that Horwitz (1987) and the existing literature has predominantly been in an ESL context. The present study reports the development and validation of a scale to measure the learner beliefs about language learning in Iranian EFL contexts. Using a combination of verbal creativity method, interview-based method, and previously-established questionnaires to draw up the item pool for the scale, a 45-item scale was finally developed. It was administered to 319 randomly-selected students studying English at Islamic Azad University Roudehen Branch. The internal consistency was calculated to be 0.78 through Cronbach's Alpha Formula. The results of factor analysis yielded five factors with 33 items: mediatory beliefs, self-beliefs, attributive beliefs, traditional beliefs, and epistemological beliefs. Results indicated that self-belief among others is the strongest dimension of beliefs among Iranian undergraduate students.

Keywords: Learner belief, validation, English language learning, mediatory belief, self-belief, attributive belief, traditional belief, epistemological belief.

INTRODUCTION

Applied linguists have been intrigued by the concept of beliefs about language learning since mid-80s. Second language acquisition literature, since then, has witnessed multifarious definitions for beliefs about language learning pioneered by the works of Horwitz (1987) and Wenden (1987) and then continued with Wenden (1998), Sakui and Gaies (1999), Barcelos (2000), Borg (2001), Barcelos (2003), Gao (2010), Mercer (2011), Negueruela-Azarola (2011), each tapping the issue from his/her own perspective. This multifaceted nature of the belief is due to the complexities of the human mind.

Overview of Leaner Beliefs

Since 1970s, when cognitive approach to language learning became prevalent, learners have been seen as more actively involved in the process of language learning. A line of research dealt with good language learners pioneered by Rubin (1975) and Naiman, Frohlich, Stern, and Todesco (1978). They identified a set of strategies which facilitate their learning. The results of these studies and many others were underlining the learners' personal beliefs they held as their experience in the process of language learning. Omaggio (1978) summarized these studies as indicating that good language learners have "insight into the nature of the task [of learning]" (p.2). Hosenfeld (1978) also referred to "mini-theories" of second language learning that form the way they learn language. These theories are the beliefslearners hold and can be regarded as a variable since they can vary from learner to learner. Much of the research since then has been concerned with providing new classification for the learner beliefs.

* Corresponding Author's Email: m.mohammadi@nau.ac.ir

Horwitz (1987) was the leading figure in developing and administering a questionnaire to measure beliefs by developing Beliefs About Language Learning Inventory (BALLI) in two versions for both teachers and students. Wenden (1986, 1987) also proposed a classification of language learning beliefs with three categories: 1) use of language, 2) beliefs relating to learning of language, and 3) the importance of personal factors.

Benson and Lor (1999) also distinguished two different categories: higher-order conceptions and lower-order beliefs. They defined conceptionsas "concernedwith what the learner thinks the objects and processes of learning are' whereas beliefs are 'what the learner holds to be true about these objects and processes" (p. 464).

Ellis (2004) divided the construct into two general levels: higher-order conceptions (epistemology) and lower-order beliefs. A number of studies including Benson and Lor (1999) and Tanaka (2004) have proposed that learners have certain conceptions regarding what language is and how it is learned. These conceptions are of three categories: quantitative/analytic, qualitative/experiential,and self-efficacy/confidence. Table 1 summarizes the kinds of belief related to each of these categories according to Benson and Lor (1999, p. 464):

Table 1.
Types of Learner Beliefs

Conception	Nature of language	Nature of language learning
Quantitative/analytic	Learning an L2 is mostly a matter of learning grammar rules. In order to speak an L2 well,it is important to learn vocabulary.	To understand the L2 it must be translated into my L1. Memorization is a good way for me to learn an L2.
Qualitative/experiential	Learning an L2 involves learning to listen and speak in the language. To learn a language you have to pay attention to the way it is used.	It is okay to guess if you do not know a word. If I heard a foreigner of my age speaking the L2 I would go up to that person to practice speaking.

Note. From The Study of Second Language Acquisition (p. 700), by R. Ellis, 2008, Oxford: Oxford University Press. Copyright 2008 by Oxford University Press.

Methods to develop a questionnaire

According to Sakui and Gaies (1999), questionnaires on language learning beliefs have been constructed and analyzed in two different ways. The first way, adopted by scholars such as Horwitz in developing Beliefs About Language Learning Inventory (BALLI), "involves groupingitems a priori into *logically-derived categories*, with the analysis of data focusing onsimilarities and differences in response patterns to items within a category" (p. 475). The second way, on the other hand, "is to collect responses to a large setof itemspresumably tapping different beliefs and then to identify, on the basis of astatistical procedure such as factor analysis, a set of*empirically-derived categories*. The questionnaires developed by Yang (1992), Kuntz (1996), Mori (1997), and Sakui and Gaies (1999) are cases in point.

Dornyei (2010) also suggested three ways to draw up an item pool for a questionnaire. In the first way, *verbal creativity*, which is generally recommended by survey specialists, the item designer is to let the imagination go free and create as many items as he thinksof the topic without restricting himself to any limited number of items. The next way is "*qualitative, exploratory data*gathered from informants, such as *notes* taken during talks and brainstorming in focus or discussion groups; recorded unstructured/semi-structured *interviews',* and *student essays* written around the subject of the enquiry" (p. 40). Finally, designers can directly *borrow questions* from established questionnaires. Here, the researcher can scrutinize into the previously designed surveys and single out items appropriate for the purpose of the itempool.

Learner Beliefs Instruments: An Overview

Unlike teacher beliefs, the investigation of learner beliefs has not been the backbone of so many studies. In the literature on beliefs, the majority of the quantitative data on language learnerbeliefs has been collected through closed-ended questionnaires. Horwitz (1987),in her 34-item belief inventory called BALLI, was the first who suggested five general areas of beliefs including: 1) the difficulty of language learning, 2) aptitude for language learning, 3) the nature of language

learning, 4) learning and communication strategies, and 5) motivation and expectations. To gather data on learner beliefs about language learning, Cotterall (1995) constructed a 34-item questionnaire. The results of the factor analysis revealed six factors: role of the teacher, role of feedback, learner independence, learner confidence in study ability, experience of language learning, and approach to studying. Kuntz (1996) also developed a belief questionnaire which was expanded from Horwitz's BALLI. The survey, called Kuntz-Rifkin Instrument (KRI), "was designed to identify beliefs and underlying belief structures" (p. 7). It contained 47 statements in closed-ended format.

In another study, Mori (1999) examined the structure of language learners' beliefs about language learning by developing a belief questionnaire with 132 items. It consisted of three parts: a forty item epistemological belief questionnaire, a ninety two item language learning belief questionnaire, and a student information questionnaire. The first part, mostly comparable to those reported by Schommer (1990), was generated based on the five hypothesized beliefs: fixed ability, simple knowledge, quick learning, certain knowledge, and omniscient authority. The second part of the questionnaire was 92 items constructed on the basis of 17 hypothesized beliefs: Innate ability, quick learning, simple knowledge, avoid ambiguity, avoid integration, certain knowledge, dependence on authority, language learning is the same, Japanese is difficult, Kanji is difficult, vocabulary is important, effort is a waste, focus on the whole, memorization is important, risk taking, cannot learn from mistakes, and learn the natural way.

Wen & Johnson (1997) also investigated the relationship between L2 learner variables and their English achievement. They developed The Language Learner Factors Questionnaire with three parts one of which (Part B) included statements of beliefs about language learning. The underlying dimensions of learner beliefs were attribution belief, management belief, form-focused belief, meaning-focused belief, and mother-tongue-avoidance belief. Sakui and Gaies (1997) validated a questionnaire, developed for the Japanese context and written in Japanese, on a variety of beliefs (e.g. person, task, strategy, achievement) about language learning. Their questionnaire primarily consisted of 45 items. However, the results of analysis of the subjects'

responses yielded a four-factor solution which included 25 of the 45 items of the questionnaire. These four factors are: Beliefs about a contemporary (communicative) orientation to learning English, beliefs about a traditional orientation to learning English, beliefs about the quality and sufficiency of classroom instruction for learning English, and beliefs about foreign-language aptitude and difficulty.

The scope and the focus of the study

Like most of the other studies in the literature, this study did not have a single definition of the belief in mind and the conceptualization was not restricted to certain dimension(s) since we espouse the idea that human belief and attitude is multi-faceted due to the complexity of the humannature. It is not only the personal factors but also the environmental and contextual factors which shape the students' beliefs and attitudes. Proposing a broad framework for the concept of belief, the researchers intended to measure the overall belief, like that of contextual approach, of the Iranian university students which, to us, is more reliable than a narrowly defined framework for the concept of belief. The study attempts to answer the following questions:

1. What is the reliability of the Language Learner Beliefs Scale?

2. Does the scale have appropriate construct validity?

3. What beliefs do Iranian learners of English have about language learning?

METHOD
Participants

The participants of the study were 319 students randomly selected from among the freshmen, sophomores, juniors, and seniors at the faculty of Persian literature and foreign languages in Islamic Azad University Roudehen Branch. They were all undergraduate students in English language teaching, English language and literature, and English language translation. Their age ranged from 18 to 51 with the average age of 23.

Instrumentation

The item pool of the Language Learner Beliefs Scale (LLBS) was provided through different ways. Primarily, we reviewed the articles on beliefs about language learning to get acquainted with the concept and the related issues. A number of items were written through verbal creativity

method. A review of the established question-naires on learner beliefs was another source of the items designed. Few statements were also extracted from a set of interviews with a number of students. The first draft was also reviewed by a few of our professional colleagues after which some alterations were made. Having reviewed and edited the total number of the first draft of the item pool, 45 items remained to make the scale. All the items were originally designed in English; however, they were translated into Persian in order to ensure the accuracy, appropriate-ness, and acceptability of the responses. The translated version was reviewed by an expert panel to compare the English and Persian version of the scale. Also, the response was in Likert Scale with "strongly disagree" coding 1, "disa-gree", 2, "agree", 3, and "strongly agree" was set to have the value of 4.

Procedure

The questionnaire was administered three times. As the first touch, it was administered to a group of 48 to alter the items which were not clear enough by rewording or totally omitting them. The second administration was held to a target-like group of 141 students to collect data to measure the internal consistency of the items of the scale. Having been ensured of its reliability, the scale was administered to 319 students based on which the data were analyzed .

Data Analysis and Results

Having been collected from the students, the raw data were subjected to a series of analyses using SPSS version 16. To estimate the reliability of the measure, the Cronbach's Alpha coefficient was calculated for the 45-item Language Learner Beliefs Scale. It was measured to be 0.70. To seek for a stronger Alpha coefficient, the items with negative item-total correlation were deleted (i.e., items 1, 8, 30, 42, and 45). The coefficient enhanced to be 0.76. To have an improved index of internal consistency, the items with item-total correlation below 0.1 were deleted as well (i.e., items 4, 7, 23, 33, and 43). The coefficient showed an increase to 0.78 which seemed to be acceptable.

To investigate the construct validity, the 33-item Language Learner Beliefs Scale was sub-jected to principle component analysis (PCA) using SPSS version 16. But the suitability of the data for factor analysis had to be assessed. The

inspection of the correlation matrix revealed the presence of many coefficients of 0.3 and above. The Kaiser-Meyer-Oklin (KMO) measure of sampling adequacy was 0.74 which indicates that "patterns of correlations are relatively compact and so factor analysis should yield distinct and reliable factors" (Field, 2009, p. 684). Bartlett's Test of Sphericity was also significant which tells us that our correlation matrix is significantly dif-ferent from an identity matrix. The results, shown in Table 2, clearly support the suitability of the data set for factor analysis.

Table 2
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.744
Bartlett's Test of Sphericity	Approx. Chi-Square	1974.846
	df.	528
	Sig.	.000

The free factor solution was carried out to identify the number of factors. The assumption was to extract the factors with the Eigenvalue above 1. The results determined eight factors. One way to limit the number of factors is to look at the Screeplot since the sample size exceeds 300. As it is shown in Fig. 1, there is a slight curve up to the fifth component and there is quite a clear break between the fifth and the sixth com-ponents. This would recommend retaining five components.
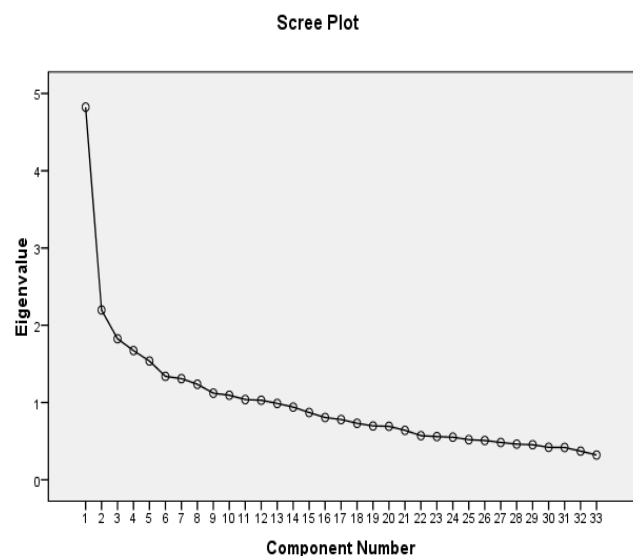

Figure 1.Screeplot for the extracted components

The results of the screeplot interpretation would suggest that only five factors were to be considered for the scale. Therefore, five-factor solution was carried out. Table 3 illustrates the Eigenvalue and the variance explained for the factors separately and the total amount for all fivefactors. According to Table 2, the five-component solution explained a total of 36.52% of the variance, with components 1, 2, 3, 4, and 5 contributing 14.61%, 6.67%, 5.53%, 5.06%, and 4.65% respectively.

Table 3
Total Variance Explained

Factors	Eigenvalue	% of Variance	Cumulative %
1	4.85	14.616	14.61
2	2.19	6.675	21.27
3	1.82	5.531	26.80
4	1.67	5.068	31.87
5	1.53	4.657	36.52

Table 4 indicates the results of varimax rotation which identified factor loadings of each variable. There were two assumptions here: first, all loadings below .35 were suppressed in the output and second, any factor should have at least three loadings to be accounted for. As shown in the Table 3, the main loadings on component 1 are items 34, 22, 32, 35, 21, 29, 26, 19, 6. The main items in component 2 are 3, 5, 6, 9, 17, and 18. Component 3 has items 20, 24, 26, 28, 29. Items 10, 12, 14, 15, 19, 38, and 39 are loaded under component 4. Component 5 has also items 13, 27, 40, 41, and 44.

Table 4
Factors and the loaded items

Factors	Items
1	2, 21, 22, 31, 32, 34, 35, 36
2	3, 5, 6, 9, 17, 18
3	20, 24, 26, 28, 29
4	10, 12, 14, 15, 19, 25, 38, 39
5	13, 27, 40, 41, 44

DISCUSSION
In order to identify the Iranian language learner beliefs, Factor Analysis was conducted. Principle components analysis, followed by varimax rotation resulted in a five-factor solution. These five factors included 32 out of the 45 items originally designed in the first draft of the scale.

Factor 1: Mediatory Beliefs
Mediatory belief is comprised of beliefs about the role of mediators in language learning. Eight items loaded on factor 1. Items 2, 22, 31, 32, 34, and 36 refer to the human mediation of their classmates, teachers, and the officials in the immediate educational environment. Items 21 and 35 involve non-human mediators such as tasks and the instrumental mediation of future occupation as a learning motivator.

Factor 2: Self-beliefs
Self-beliefs refer to the beliefs about self-worth, self-concept, and self-efficacy in language learning context. Six items loaded on factor 2. All items 3, 5, 6, 9, 17, and 18 denote the learner's interest, effort, aptitude, aspiration, and goal.

Factor 3: Attributive beliefs
Attributive beliefs are beliefs about the causes of language learning. This factor included 5 items. Items 26 and 29 attribute language learning to the role of teachers. Items 20, 24, and 28 attribute the drive for learning to factors such as course books, one's satisfaction, and familiarity with the foreign language culture.

Factor 4: Traditional beliefs
Traditional beliefs refer to all the learning beliefs which are deeply rooted in the traditional English language learning/teaching methodology. Factor four included 7 items. Any one of the items designates a belief inherited from the principles of traditional education which are still practiced by the students. Item 10 underlies the role of translation in language learning. Item 12 refers to the idea of teacher-centeredness. Item 14 is the indicator of the tradition of "one method for all". Items 15 and 39 ask about the exaggerating emphasis on learning/ teaching of one or two of the English skills /subskills. Item 19 reminds us of the age of burdening homework for students. Item 35 also denotes the faculty psychology through which learners required to have special talent and capability to be able to learn anything.

Factor 5: Epistemological beliefs
Epistemological beliefs refer to the beliefs about the nature of knowledge of language and learning. Five items loaded on this factor. All the items under this factor (13, 27, 40, 41, and 44) have, in one way or another, a theoretical or academic basis. Some of them are theories themselves (e.g., item 27 and 40). Others are the topic of a host of research studies (e.g., items 13 and

44) all around the world.

One last point to mention is that out of these five factors, self-belief is the one which, with our large sample size of 319 students, has the highest mean score (3.75 out of 4). At the same time, items which have the lowest mean index are those crossed out in the first round of the factor analysis.

CONCLUSION

This study aimed at developing and validating Language Learner Beliefs Scale (LLBS) in Iran. The development of the item pool had three sources: reviewing the related literature and creatively designing items, selecting a few statements as a result of the interviews with target-like students, and taking some statements from established learner belief questionnaires. A battery of 45 items was finally decided on. After being administered to students in three times, the items were modified, the reliability index was calculated, and the actual data for factor analysis were collected. The results of factor analysis indicated that there are five underlying factors loaded by 33 items. The Iranian learner beliefs are mediator beliefs, self-beliefs, attributive beliefs, traditional beliefs, and epistemological beliefs. The identification of the learner belief can be of benefit in two ways: awareness and bewareness. Since the nature of the beliefs dictates that one is not fully aware of his/her beliefs even though he has it, this scale can be used to collect data based on which a language learner can be aware of the type(s) of belief one has. Along with its mission to make students aware of their existing beliefs, the scale can beware them of all the inappropriate beliefs about language learning he might have. Belief is said to be the essence of any behavior; therefore, any improper belief can lead to a set of educational behaviors which can hinder the learners' success. The instrument developed and validated here can be adopted by teachers and the syllabus designers to evaluate the status of learners' belief about language learning and investigate the possible changes to their beliefs across time.

References

Benson*, P., &Lor*,W. (*1999*).Conceptions of language and language learning.*System, 27*, 459–472.

Barcelos, A. M. F. (2000). *Understanding teachers' and students' language learning beliefs in experience: A Deweyan approach.*Unpublished PhD dissertation, University of Alabama.

Barcelos, A. M. F. (2003). Researching beliefs about SLA: A critical review. In P. Kalaja,& A.M.F. Barcelos (Eds.), *Beliefs about SLA: New research approaches* (pp. 7-34). Dordrecht: Kluwer Academic Publishers.

Borg, M. (2001).Teachers' beliefs.*ELT Journal, 55*(2), 186 – 188.

Cotterall, S. (1995). Readiness for autonomy: Investigating learner beliefs. *System, 23*(2), 195-205.

Dornyei, Z., & Taguchi, T. (2010).*Questionnaires in second language research: Construction, administration, and processing* (2nded.). New York: Routledge.

Ellis, R. (2004).Individual differences in second language learning. In A. Davies, & C. Elder (Eds.), *The handbook of applied linguistics* (pp. 525-551). Oxford, Blackwell.

Ellis, R. (2008). *The study of second language acquisition* (2nded.). Oxford: Oxford University Press.

Field, A. P. (2009). *Discovering statistics using SPSS* (3rded.). London: Sage.

Gao, X. (2010). Autonomous language learning against all odds.*System, 38*(4), 580-590.

Horwitz, E. K. (1987). Surveying student beliefs about language learning.In A.Wenden, & J. Rubin (Eds.), *Learner strategies in language learning* (pp. 119-129). London, UK: Prentice-Hall International.

Hosenfeld, C. (1978). Learning about learning: Discovering our students' strategies. *Foreign Language Annals, 9*, 117-129.

Kuntz, P. (1996). *Students of 'easy' language: Their beliefs about language learning*. [ERIC Document Reproduction Service No. ED397658]

Mercer, S. (2011). Language learner self-concept: Complexity, continuity and change. *System, 39*(3), 335-346.

Mori, Y. (1999). Epistemological beliefs and language learning beliefs: What do language learners believe about their learning? *Language Learning, 49*(3), 377-415.

Naiman*, N.,*Frohlich*, M.,*Stern*, M. M., &*Todesco*, A. (*1978*).*The*good language learner*.*Toronto*: Ontario Institute*for*Studies*in*Education. Reprinted in 1996*by *Multilingual Matters*, Clevedon, UK.

Negueruela-Azarola, E. (2011). Beliefs as conceptualizing activity: A dialectical approach for the second language classroom. *System, 39*(3), 359-369.

Omaggio, A. C. (1978). Successful language learners: What do we know about them? *ERIC/CLL News Bulletin*, May, 2-3.

Rubin, *J.* (*1975*). What the "*good language learner*" *can teach us*.*TESOL Quarterly, 9*, 41-51.

Schommer, M. (1990).Effects of beliefs about the nature of knowledge on comprehension.*Journal of Educational Psychology, 82*, 489 – 504.

Sakui, K., &Gaies, J. (1999). Investigating Japanese learners' beliefs about languageLearning. *System, 27*, 473-492.

Tanaka, K. (2004). *Changes in Japanese students' beliefs about language learning and English language proficiency in a study-abroad context*.Unpublished PhD dissertation .University of Auckland, New Zealand.

Wen, Q., &Johnson, R.K. (1997). L2 learner variables and English achievement: A study of tertiary-levelEnglish majors in China. *Applied Linguistics 18*, 27-48.

Wenden, A. (1986). What do second-language learners know about their language learning? A second look at retrospective accounts.*Applied Linguistics,*7, 186-205.

Wenden, A. (1987). How to be a successful language learner: Insights and prescriptions from L2 learners. In A. Wenden, & J. Rubin (Eds.), *Learner strategies in language learn ing* (pp. 103-17). Englewood Cliffs, NJ: Prentice-Hall.

Wenden, A. (1998). Metacognitive knowledge and language learning.Applied Linguistics, *19(4), 515-537.*

Yang, N. D. (1992).*Second language learners' beliefs about language learning and their use of learning strategies: A study of college students of English in Taiwan*. Unpublished PhD dissertation, The University of Texas, Austin, TX.

Parviz Birjandi is holding an MA in Applied Linguistics from the Colorado State University and a Ph.D. in English Education, Research Methods and Statistics from the University of Colorado. He is the head of English Language Department in the Islamic Azad University, Science and Research Branch, Tehran. He has published more than 30 articles in the area of TEFL. He is also the author of English textbooks for high school and pre-university level, used nationwide, and 10 university textbooks.

Mojtaba Mohammadi is a Ph.D. candidate of TEFL at Islamic Azad University (IAU) Science and Research Branch Tehran. He held his M.A. in TEFL in 1999 from IAU Central Tehran Branch. He is a faculty member of ELT Department at IAU Roudehen Branch. He has been teaching English for about 18 years in English Institutes and universities. His areas of interest include teacher and learner cognition, Computer Assisted Language Learning