Causal Relationships between Integrative Motivation, Self-Efficacy, Strategy Use and English Language Achievement

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ABSTRACT

Due to students' poor level of English achievement in Iran and the fact that some language institutes attribute this problem to students' lack of motivation, this study aimed to investigate the effect of motivation on students' English achievement. In this research motivation is considered in relation to certain individual difference variables which may have important effects on motivation and L2 learning but no attention has been given to them in Iranian English learning context. Hence, this study intended to investigate the causal interrelations between the variables namely, attitudes toward the learning situation, integrativeness, motivation, strategy use, self-efficacy, and English language achievement. To this end, an adapted form of Gardner's (2001a) socio-educational model of second/foreign language learning was used. Research participants were 240 intermediate EFL learners at the Iran Language Institute. The participants were administered the Attitude Motivation Test Battery [AMTB], the Self-Efficacy Questionnaire [SEQ], and the Strategy Inventory for Language Learning [SILL]. Results yielded by Structural Equation Modeling showed that motivation had a direct significant influence on English achievement. However, the effect of motivation on English achievement was stronger when it was affected by attitudes toward the learning situation, integrativeness, and self-efficacy. Thus, to improve students' English achievement in Iranian EFL context, it is necessary to consider not only motivation but also self-efficacy and attitudes, on which students' motivation depend.

Keywords: Motivation; Self-efficacy; Attitudes toward the learning situation; Integrativeness; Strategy use; English Achievement

INTRODUCTION

Gardner (2001a, p. 1) asserted that research should focus on "individual difference characteristics of the student" including motivation and attitudes, language learning strategies and self-efficacy. The significance of these factors in the learning process has motivated many researchers (Bandura 1997, Chiang, Yang, Huang & Liou 2014, Domakani, Roohani & Akbari, 2012, Kim, Wang, Ahn & Bong 2015, Zubairi & Sarudin 2009) to examine the effect of the variables on each other as well as on the learning itself, involving various processes and outcomes. In Iran, where the present study is located, for the past several years there has been a heightened sense of dissatisfaction regarding students' poor level of English achievement. According to Sadeghi (2005), learning English appears to be a difficult task for Iranian EFL students and their inability to communicate in English after graduating is one of the most important problems. Some language institutes attribute this problem to students' lack of motivation. Although some studies have been done on English learning motivation in Iran (Chalak & Kassaian 2010, Domakani, Roohani & Akbari 2012), as Gholami, Allahyar, and Rafik-Galea (2012) pointed out, the findings of many of these studies display inconsistencies and contradict one another. Therefore, these require more investigations particularly in a context like language institutes where all skills and sub skills are taught, practiced, and tested.

As stated by different researchers, motivation is one of the main factors affecting students' success or failure in second/foreign language learning (Gardner 2001a) and thus, examining it is of value and significance (Gardner 2007), specifically in EFL contexts (Gholami, Allahyar & Rafik-Galea 2012). However, as stated by Gardner (2007), the effect of motivation on L2 achievement is supported by learner's attitudes and personality variables.

Indeed, in learning another language what seems to be of major importance is to discover how numerous factors (social, psychological, cognitive) act in concert with each other and with learning and achievement. However, less attention has been given to the combination and interaction of particular factors that might potentially affect L2 learning. Therefore, this study intends to determine the relationship between motivation and some other individual difference variables and English language achievement in one new framework based on Gardner's (2001a) socio-educational model. To examine the new framework, structural equation modeling (SEM) is applied. The findings of the present study can raise awareness among teachers of the factors that ease or impede the learning process.

GARDNER'S (2001) SOCIO-EDUCATIONAL MODEL

ATTITUDES TOWARD THE LEARNING SITUATION, INTEGRATIVENESS, MOTIVATION

In his model, which has thus far been considered as the most comprehensive and dominant model of second/foreign language learning, Gardner (2001a) showed that second or foreign language learning is considered as a process in which many variables play a role to determine the final result. The present study will focus on the part in Gardner's (2001a) model called 'individual differences' in which many highly personalised variables such as attitudes toward the learning situation (ALS) and integrativeness (INT), were hypothesised to have a very important role. "Attitudes toward the learning situation includes any aspect of the situation in which the language is learned" (Gardner 2001a, p.8; 2010, p.12) such as the course in general, the teacher, one's classmates, extra-curricular activities and the course materials. Integrativeness refers to actual interest in learning the L2 in order to get nearer psychologically to the target language community and to be identified with that cultural group (Gardner 2001a, 2010). Gardner (2001a, 2005, 2007) and Masgoret and Gardner (2003) showed that these two variables, being mutually related, influenced the learner's motivation (MOT) defined as the interdependency of aim, desire to attain the aim, effort, and positive affect. Therefore, Gardner (2001a, 2005) maintains that L2 learning motivation which has a direct influence on learners' language achievement, is affected by other socio-psychological factors. These three classes of variables, that is, INT, ALS, and MOT, together form a complex of goal-directed, attitudinal, and motivational characteristics called integrative motivation. Therefore it is hypothesised that motivation has a positive effect on English achievement both directly and when it is affected by ALS and INT which themselves have mutual relationship.

Although, Bernaus and Gardner (2008) and Gardner (2000, 2001a, 2001b, 2005, 2007) indicated the effects of ALS and INT on Language achievement through motivation, as mentioned by Gardner (2001a) himself, this does not mean that ALS and INT measures do not directly affect second or foreign language achievement. Bernaus, Wilson, and Gardner (2009), Csizér and Dörnyei (2005), and Masgoret and Gardner (2003) indicated that INT and ALS have significant direct positive effect on English language achievement. So, it is hypothesised in this study that ALS and INT have direct positive effect on students' English achievement.

OTHER MOTIVATIONAL/NONMOTIVATIONAL FACTORS

Two other classes of factors are also presented in the model**.** One is identified as "other motivational variables", for having a possible effect on motivation. These may be instrumental factors such as self-efficacy and all other personal traits which increase motivation. The second classes of factors is identified as "other non-motivational variables" which involve variables like language learning strategy use.

Applying such strategies can affect achievement "by providing schema and techniques to help learn the material and to the extent that they play a role in language learning, it would be expected that they would be used by the motivated individual" (Gardner 2001a, p.10) and thus the potential direct connection between MOT and language learning strategy use.

Although Gardner explained the hypothetical links between these other motivational and non-motivational variables with motivation, he regarded them as being peripheral to motivating and motivation, and proposed that researchers test the relationship in future studies. Hence, this study aims to investigate the possible effect of self-efficacy as other motivational variable on motivation which inturn can affect strategy use.

SELF-EFFICACY

Self-efficacy has been defined as "beliefs in one's capabilities to organise and execute the courses of action required to produce given attainments" by Bandura (1997, p.3). He maintains that when performance determines the outcomes, self-efficacy beliefs are mostly responsible and are regarded as better predictors of academic success or failure than are actual abilities (Bandura 1997). Learners' self-beliefs to learn an L2 are significant determinants of their effort, persistence, and learning behaviors (Bandura & Schunk 1981). Applying the self-efficacy construct to language learning contexts seems to be highly appropriate because language learners' appraisal of their ability to perform language skills affects their motivation as well as the behaviors needed to achieve a learning goal (Wu 2006). Consequently, self-efficacy is an important predictor of learners' motivation and language success. Moreover, as mentioned by Zhang (1995), self-efficacy beliefs have made contributions to motivation in several ways: it can determine the amount of effort individuals put forth, the purposes that they put for themselves, how long they persist when facing difficulties, and their ability to recover quickly from failure. In their studies, Hsieh (2008), Tremblay and Gardner (1995), and Tuckman and Abry (1998) showed that in L2 learning, self-efficacy has a direct positive influence on motivation.

Indeed examining some aspects of a person’s functions like motivation, learning, and academic performance without considering the role of his/her self-efficacy beliefs seems almost impossible (Pajares & Urdan 2006). Based on such evidence, Bandura (1997) concluded that self-efficacy, compared to other self-beliefs and closely related variables, is considered as a more consistent predictor of behavioral outcomes.

However, a review of the literature shows very limited foreign/second language studies on self-efficacy as stated by Dornyei (2005). Tilfarlioglu and Ciftci (2011) carried out an investigation to explore the influence of autonomy and self-efficacy on learners' achievement in English. For these purposes two hundred fifty EFL university students in Turkey completed Autonomous Learner Questionnaire (ALQ) and Self-Efficacy Questionnaire (SEQ). Findings related to multiple regression analyses showed that autonomy and self-efficacy were considered as significant predictors of students' English achievement.

In the same way in Mills, Pajares, and Herron's (2006) study, also results of the regression analyses indicated that reading self-efficacy of the university students studying French in U.S. reported to have a significant positive influence on their reading proficiency.

Rahimi and Abedini (2009) also investigated the relation of learners' self-efficacy to listening proficiency of 61 freshmen undergraduate students. Findings of the study showed that self-efficacy significantly and positively affected students' listening test performance.

In addition to the relationship between self-efficacy and motivation, the important role of self-efficacy has also been shown in some studies which have reported that self-efficacy is strongly related to language learning strategy use.

In separate but similar studies Pintrich and DeGroot (1990) and Wolters and Pintrich (1998) surveyed American junior high school students who were studying English or social sciences to examine the effect of self-efficacy and value on strategy use. Results of the research revealed that self-efficacy and intrinsic value significantly predicted learners' strategy use.

In another study Su and Duo (2012) also carried out a study to examine the relation of reading self-efficacy with reading strategy use among 182 Chinese English students. They were studying at a university in China. It was shown that students' self-efficacy was significantly and positively related to their reading strategy use. The learners who had high judgments about themselves and their abilities were more likely to employ strategies which assist them to learn and use the language they were studying.

Based on the above literature, it is hypothesised in the present study that self-efficacy directly affects motivation, English achievement, and language learning strategy use.

Although self-efficacy can influence such variables, it can be affected by attitudes toward the learning situation.

Masgoret, Bernaus, and Gardner (2001) reported that among the variables influencing the students' self-efficacy, ALS showed to have the most influence. Similarly, Huang and Chang (1996) and Garcia (2007) found that learners' ALS, particularly, students' attitudes toward class assignment topics as well as feeling and perceptions of the teacher's support have great positive influence on their self-efficacy. Therefore, it can be hypothesised in this study that attitudes toward the learning situation relate positively and directly to self-efficacy**.**

LANGUAGE LEARNING STRATEGIES

As related to the socio-educational model, non-motivational factors include variables such as learning strategies, which influence language learning. Among all definitions of learning strategies, Oxford's (1990) is considered as one of the most applicable, comprehensive, and frequently cited definitions given to date. She defined language learning strategies as "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations" (Oxford 1990, p.8).

In the same way Oxford's (1990) Strategy Inventory for Language Learning (SILL) has been considered as the most widely used and comprehensive classification to assess strategies to date (Chamot, 2004). Oxford's (1990) classification of strategy which allows more specificity regarding self-efficacy assessment, is used for the purpose of clarity of discussion in the present work.

According to Oxford (1990), who views strategies as second language learning tools, L2 strategies involve six types of strategies which are divided into two sub-categories of direct and indirect. Direct strategies which need mental processing of language involve memory, cognitive as well as compensation strategies. Indirect strategies on the other hand include metacognitive, affective as well as social strategies. These strategies manage and support language learning indirectly through "planning, evaluating, seeking opportunities, controlling anxiety, increasing cooperation and empathy, and other means (Oxford 1990, p.151).

The research related to second language learning strategy goes back to the year 1975 and was mainly concerned with examining the strategies that good language learners utilised (Grenfell & Macaro 2008). Using learning strategies influences how well students learn another language and helps to promote language achievement (Hsaio & Oxford 2002). In their studies on the effect of language learning strategy use on students' English achievement, Cesur (2011), Dreyer and Oxford (1996) and Yang and Plakans (2012) concluded that compared with less proficient students, more proficient ones utilised more learning strategies. Hence, it is hypothesised in this study that strategy use has a direct effect on English achievement.

However, in more recent studies it has been tried to show how language learning strategies are related to or influenced by individual variables like motivation and attitudes. Bonney, Cortina, Smith-Darden, and Fiori (2008) investigated the relation of motivational structure with the utilization of language learning strategies among 649 Midwestern high school learners of foreign language classes. Multiple regression analyses indicated that integrative motivation showed to be a significant predictor of collaborative and compensatory strategies.

Also, Mohammadi, Moenikia, and Zahed-Babelan (2010) investigated the relation of learners' strategy use with their motivation among 152 Iranian EFL university students. To assess the students' strategy use and motivation, the SILL as well as a motivational questionnaire which was developed by Roohani (2001), were employed respectively. Findings of the study revealed that learners with high motivation reported using more learning strategies, than less motivated learners.

In another study Park (2005) examined the role of motivation in students' learning strategy use. Participants were 209 EFL Korean high school students. It was indicated that learners' overall language learning strategies as well as all six strategy groups as in SILL were significantly affected by language learning motivation. The investigator concluded that motivation can determine the frequency and type of learning strategy use. Hence, it is hypothesised in this research that motivation has a direct positive effect on language learning strategy use and English achievement.

The findings of MacIntyre and Noels' (1996) study on Gardners' socio-educational model affirmed that learner's ALS has a significant positive correlation with strategy use. The important direct effect of attitudes on strategy use is also shown in Kuramoto's (2002) research which showed that as students established more positive attitudes, they used more and more learning strategies. These findings support the hypothesis of this study that motivation and ALS directly affect strategy use.

THE PRESENT STUDY

This study aims to examine the relationships between some individual difference variables namely, integrativeness, attitudes toward the learning situation, motivation, strategy use, and self efficacy and their effects on English language achievement among Iranian EFL students.

The model upon which the present study is based is Gardner's (2001a) Socio-Educational model to which a number of arrows indicating possible relationships are added as depicted in Figure 1 below. New paths have been shown by dashed arrows in the Figure. These paths are added based on the theory and literature covered above.

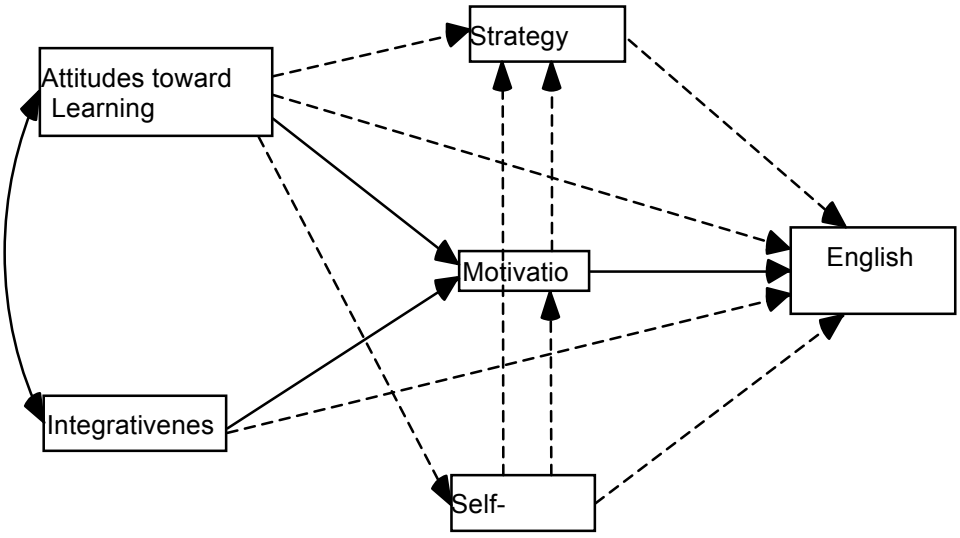

FIGURE 1. Proposed Conceptual Model

Specifically, this study addresses the following research questions.

RESEARCH QUESTIONS

1. What is the structural relationship between the variables, namely, attitudes toward the learning situation (ALS), integrativeness (INT), motivation (MOT), strategy use (STR), self efficacy (SE), and language achievement (ACH), in the proposed model in an Iranian English language learning context?
2. Is motivation affected by attitudes toward the learning situation, integrativeness, and self-efficacy?

The results of such a study could contribute to the existing body of motivational research. Moreover, a careful evaluation of the findings of this study could lead researchers as well as classroom teachers to well-informed decision-making at different levels of educational planning, such as development of curriculum and materials, preferences for classroom activities and techniques, decisions about individualised instruction and the identification of characteristics of students that lead to more efficient teaching and learning.

METHODOLOGY

PARTICIPANTS

The participants of this study were 240 Intermediate learners of English as a foreign language at the Shiraz branch of the Iran language Institute (ILI). The sample consisted of 142 (59%) female and 98 (41%) male students, with an age range of 16-20 years whose various levels of education were high-school (79.6%), high school diploma (12.9%), and university (7.5%).

A separate group comprising 90 16-20 year old intermediate students, 47 (52%) females and 43 (48%) males, were selected through systematic random sampling for the purpose of carrying out the pilot study to see if the questionnaires were suitable for the purposes of this investigation.

DATA COLLECTION PROCEDURES

To measure the students' language learning motivation, The Attitude Motivation Test Battery (AMTB) developed by Gardner (2004), was used. The AMTB includes 72 items intended to measure Attitudes toward the Learning Situation, Integrativeness, and Motivation. The questionnaire consists of statements which the participants respond to, based on a 6 point Likert-type scale ranging from (1) *strongly disagree* to (6) *strongly dagree*.

The reliability and the validity of the AMTB were supported (Gardner 2005, Atay & Kurt 2010). In this study, the AMTB came with a background profile to gather the demographic information of the learners (e.g., age, and gender).

Specifically, for this study, Cronbach alphas were computed for all subscales of AMTB and reported as follows: Attitudes toward English speaking people, .77; Interest in foreign languages, .79; Integrative orientation, .72; English teacher evaluation, .84; English course evaluation, .81; Motivational intensity, .86; Desire to learn English, .83; Attitudes toward learning English, .77. The obtained alphas show that the instrument is internally consistent.

Also, the learners were administered the self-efficacy questionnaire (SEQ), developed by Sedighi, Alavi, and Samani (2004) for intermediate Iranian EFL learners, based on Bachman's (1990) framework of language organizational competence, to measure their self-efficacy. The questionnaire comprises 40 items. All the items were designed on the basis of a Likert-type scale (100 points), with 10-point intervals. The scale ranged from (0) *no chance* to (100) *completely certain*. The validity and the reliability of this questionnaire have been supported (see Sedighi et al. 2004)

Furthermore, the Cronbach alpha was calculated for the SEQ questionnaire and was found to be .74, showing that the instrument is internally consistent.

The Strategy Inventory for Language Learning (SILL), developed by Oxford (1990) was utilised to assess the students' strategy use. The questionnaire includes 50 items and utilises five Likert-scale answers for every strategy described, ranging from (1) *never or almost never true of me*, to (5) *always or almost always true of me.* Learners were inquired to show their response (1, 2, 3, 4, 5) to strategy descriptions according to the extent to which they used each strategy. High reliabilities and validities were reported for the SILL by researchers who had used the instrument (Magogwe & Oliver 2007, Oxford & Ehrman 1995, Oxford & Burry-Stock 1995). In addition, the alpha coefficient was calculated for this questionnaire and was found to be .73 which demonstrates the internal consistency of the SILL.

The participants' accumulative grades in their English course for one semester (final course grades), were considered as the measure of their English language achievement.

DATA ANALYSIS

The descriptive statistics (see Table1) and correlational analysis of the variables were estimated (see Table 2). As it can be seen, results meet the requirements of data for parametric statistical analysis (Kline 2011). The descriptive statistics indicated that the mean scores of the variables of the study ranged from 3.52 to 75.57 and the standard deviations ranged from .58 to 15.84. The correlation between the variables of the study including attitudes toward the learning situation (ALS), integrativeness (INT), motivation (MOT), self-efficacy (SE), strategy use (STR), and achievement (ACH) were all significant. All six variables were significant at the 0.01 level. Then, SEM (Structural Equation Modeling) research method was used to examine the relationships between the variables in the proposed model in which attitudes were regarded as the independent variables, self-efficacy, motivation and strategy

use as mediating varables, and English achievement as the dependent variable. SEM examines interrelated dependence and multiple relations in a single model with path coefficients (Hair, Anderson, Tatham & Black 1998). Indeed, SEM is a multivariate statistical technique used to examine the complex relationships among variables by creating a theoretical model of such relationships (Walker & Maddan 2008). As pointed out by Agresti and Finlay (1997), such a causal modeling is used to provide theoretical explanations for the causal relationships existing between the variables. Causal modeling also determines if the model is theoretically sound and if the model fits or describes the sample data adequately (goodness-of-fit). The software that was used in the present study for SEM was AMOS 5.0.1 which is popular because of its easy interface for the user.

TABLE 1. Minimum and Maximum scores, Means, and Standard Deviations for the Variables

	N	Minimum	Maximum	Mean	Std. Deviation
INT	240	2.32	5.59	4.39	.63
MOT	240	2.93	5.53	4.35	.64
ALS	240	2.15	5.75	4.25	.70
STR	240	2.10	4.84	3.52	.58
SE	240	22.50	95.25	65.15	15.84
ACH	240	45.00	96.00	75.57	11.35
Valid N (listwise)	240				

INT = Integrativeness; MOT = Motivation; ALS = Attitudes toward the Learning Situation; STR = Language Learning Strategy; SE = Self-efficacy; ACH = English Achievement

TABLE 2. Correlation Matrix of the Variables

	INT	MOT	ALS	STR	SE	ACH
INT	1					
MOT	.623**	1				
ALS	.612**	.637**	1			
STR	.305**	.411**	.294**	1		
SE	.309**	.433**	.407**	.561**	1	
ACH	.448**	.458**	.384**	.388**	.423**	1

** $\rho < .01$ (two-tailed)

MODEL FIT

To address the research question of this study, it is essential to ensure that the model fits the sample data adequately. Using AMOS to evaluate the model fit, multiple fit indices were utilised. Results indicates that the model fits the data according to the Chi-square goodness-of-fit (2.828) at 2 degrees of freedom (p= .243, CMIN/DF= 1.414). Chi-square value that is not significant indicates a good fit and normed Chi-square (CMIN/DF) value of less than 5 and less than 2 show appropriate and very good model fit, respectively (Byrne 2001, Hair, Black, Babin & Anderson 2010, Kline 2005). Furthermore, other model fit indices such as root mean square error of approximation (RMSEA)= .042, comparative fit index (CFI)= .998, goodness of fit (GFI)= .996, adjusted goodness of fit (AGFI)= .959, Normed fit index (NFI)= .995, and Tucker-Lewis Index (TLI)= .988 indicated a very good model fit.

The threshold of CFI, GFI, AGFI, TLI, and NFI is larger than .90. For all these indexes unity means 1 on a scale of 0-1.0 shows a perfect fit (Arbuckle 1997). Specifically, CFI and GFI, TLI values greater than .95 show very good model fit; however a RMSEA value of less than .08 indicates acceptable fit and less than .06 shows a good fit (Hu & Bentler 1999, Kline 2005).

RESULTS AND DISCUSSION

The present study used SEM research method to investigate the relationships between the variables namely, integrativeness, attitudes toward the learning situation, motivation, strategy use, self-efficacy, and English language achievement in the proposed model among Iranian EFL students. The focus of the study was the possible effect of motivation on English achievement when it was supported by other individual difference variables of attitudes and self-efficacy.

Results of the SEM analysis are provided in the following table. As Tables 3 and Figure 2 below show, the results of the SEM analysis revealed that except for two of the links, i.e., Attitudes toward the Learning Situation → Strategy use, and Attitudes toward the Learning Situation → English Achievement, that were found to be statistically non-significant, the other hypothesised paths indicating the interrelations between the individual difference variables of the proposed structural model were supported.

TABLE 3. Standardised Estimates

Regression Weights			Standardised Estimate	Standard Error	Critical Ratio	P
SE	←	ALS	.407	2.670	6.893	***
MOT	←	ALS	.347	.082	5.755	***
MOT	←	INT	.356	.078	6.268	***
MOT	←	SE	.184	.001	3.731	***
STR	←	SE	.482	.003	8.218	***
STR	←	ALS	-.053	.144	-.762	.446
STR	←	MOT	.236	.106	3.393	***
ACH	←	SE	.200	.001	2.922	.003
ACH	←	STR	.135	.026	2.030	.042
ACH	←	MOT	.159	.047	2.014	.044
ACH	←	ALS	.018	.062	.240	.810
ACH	←	INT	.237	.060	3.243	.001

By removing the two non-significant links from the hypothesised structural model (Figure 1), the final model with standardised estimates is represented in Figure 2 below and as it is clear the model fit indexes indicate a very good model fit as well.

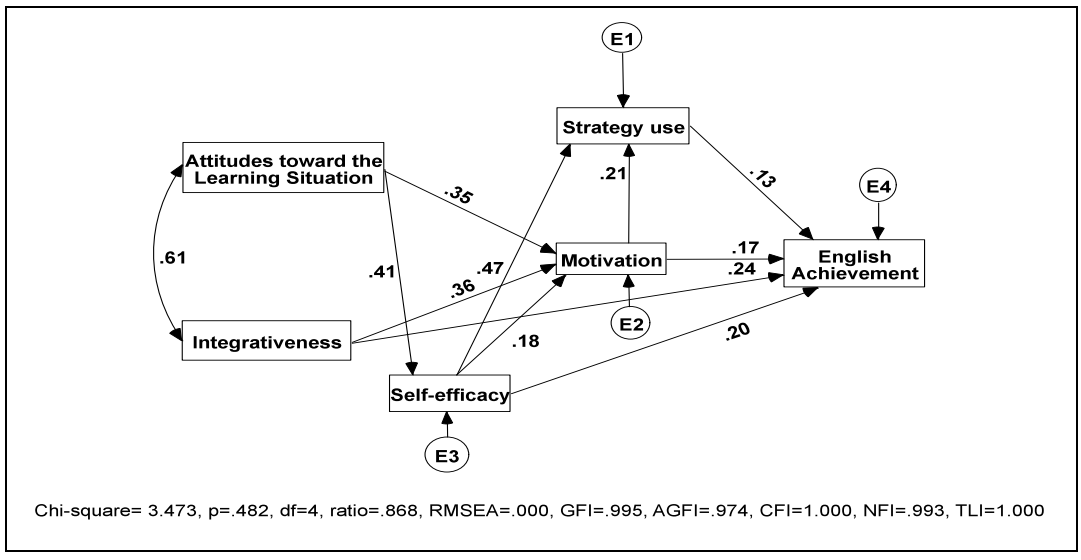

FIGURE 2. The Final Model with Standardised Estimates

Results of the present study show that motivation is significantly affected by ALS and INT which themselves have mutual relationship. Similar results have been reported by Gardner (2001a, 2005, 2007) and Masgoret and Gardner (2003). In addition, motivation has a significant positive effect on English achievement a result that is similarly indicated in various studies (Bernaus & Gardner 2008, Bernaus, Wilson & Gardner 2009, Gardner 2007). However, results revealed that the effect of motivation on English achievement is significantly greater when it is supported by the variables ALS and INT. Similar results have been reported by Bernaus and Gardner (2008) and Gardner (2000, 2001a, 2001b, 2005, 2007). Therefore, results of the SEM analysis confirmed the hypothesis that motivation has a positive effect on English achievement both directly and when it is affected by ALS and INT which themselves have mutual relationship.

The significance of INT is not only shown by its support for motivation but also by their direct significant effect on English achievement. In the present study integrativeness was found to have a direct positive impact on English achievement, a finding which is similarly indicated in numerous studies (Bernaus, Wilson & Gardner 2009, Csizér & Dörnyei 2005, Masgoret & Gardner 2003). In this regard, Gardner (2007) maintained that to achieve or attain true mastery of a second/foreign language, integrative motives are needed. Although Gardner (2005) believed that INT and ALS will not specifically affect L2 achievement highly unless they are linked with motivation, interestingly, integrativeness was found to be the strongest direct cause for English achievement in this study (see Figure 2). Such a relationship could be explained in terms of the fact that currently many Iranian EFL students would like to travel abroad to study and live there. Their interest in English speaking people, their culture, and their lifestyle has increased. Therefore, they make more effort to communicate and learn the target language. As stated by Domakani, Roohani, and Akbari (2012, p. 142), integrative motives like "interest in the English culture, getting more entertainment through English media, communicating with target language people and understanding how they behave can be important for Iranian students" and as a result affect their language achievement. It can be inferred that presenting an acceptable and appealing image of the target language, its speakers and culture to the students could result in better attitudes toward the foreign language and its speakers and hence better achievement. Therefore, students could achieve more autonomy and make the learning process more meaningful. So, the hypothesis of the study that INT has direct positive effect on students' English achievement is confirmed.

However, an unanticipated aspect of the study was the fact that students' ALS was found to have no significant direct effect on their English achievement. This finding is contradictory to current literature (Csizér & Dörnyei 2005, Kam 2006, Masgoret & Gardner 2003), but in line with Gardner (2007) and Bernaus, Wilson, and Gardner (2009). This is surprising since it is believed that negative attitudes prevent the students from learning L2 knowledge (Thang, Ting & Jaafar 2011). As stated by Gardner (2007), it is expected that in classes with good teaching materials, and a skilled and experienced teacher, learners would have more favorable and positive attitudes toward the learning situation and hence would learn more English and as a result, get higher grades. What the teacher does and the materials he or she uses have an important role in the training of learners, but it is the learners who evaluate what the teacher does and what materials he or she recommends, and such attitudes will affect how they react to the task; the teacher's activities can affect the learners' level of motivation which in turn will have an influence on their achievement (Gardner 2007).

It might be argued that ALS will not strongly affect L2 (foreign or second) achievement unless they are linked with motivation (Gardner 2000, 2005). Therefore, as the results of this study also show, motivation mediates the actual influence of the variable ALS on English language achievement (Bernaus & Gardner 2008, Gardner 2007).

Findings of SEM indicated that motivation is not only affected by ALS and INT, but also by self-efficacy. Hence, self-efficacy is considered a significant direct predictor of learners' motivation, a fact also revealed by previous research done in areas of learning including language learning (Hsieh 2008, Tremblay & Gardner 1995, Tuckman & Abry 1998). In these studies, self-efficacy was found to have a direct positive impact on language learning motivation. The reason for such a role is that for learners to be capable of focusing on learning with maximum effort and determination, they must have a sound view of their abilities in achievement and learning (Dornyei 2001). Therefore, by finding such a relationship in this study, teachers could implement methods of teaching, in which cognitive and metacognitive strategies are included, so that student motivation and level of learning would improve.

The important role of sel-efficacy in this study is also shown by its effect on strategy use and English achievement. Results of the analysis revealed that learners' self-efficacy had a direct positive impact on their strategy use, a fact that is also supported by the studies conducted previously (Pintrich & DeGroot 1990, Tuckman & Abry 1998, Wolters & Pintrich 1998). Interestingly, this relationship was found to be the strongest of the path coefficients obtained in the model.

The effect of self-efficacy on strategy use could be explained in terms of the subcategories that make up the variable "strategy use". A closer inspection of the definitions provided by Oxford (1990) can explain why such an effect was found; it appears that these constructs are all related closely to the ability of individuals to do certain actions like storing and retrieving information, understanding, practicing etc. It is in fact their judgment about themselves that they make when they report on the extent of strategy use. On the other hand, the items on the self-efficacy questionnaire ask the participants to judge their abilities to perform different language tasks. It is not unexpected, therefore, that the judgment of the ability to carry out these tasks be causally related to language strategy use.

In addition, the findings indicated that self-efficacy had an indirect effect on strategy use through the mediation of motivation. This finding is also supported by previous work (Dweck & Leggett 1988, Yang 1999).

An additional fact related to self-efficacy is that it was found to have a direct effect on students' English achievement; a result similar to those reported by researchers such as Chiang et al. (2014), Tilfarlioglu and Ciftci (2011), and Zimmerman and Bandura (1994). Therefore, the hypothesis of the present study that self-efficacy directly affects motivation, English achievement, and language learning strategy use is confirmed.

Although it can influence such variables, self-efficacy itself can be affected directly by ALS. The variable ALS is considered a significant direct predictor of students' self-efficacy. This finding is consistent with those of other research (Cheung & Huang 2005, Garcia 2007, Tremblay & Gardner 1995). A possible explanation for such an effect is that since self-efficacy refers to people's judgments about themselves, in terms of success, failure and their abilities to achieve (Bandura 1997) which could be interpreted as a type of personal attitude itself, both constructs are identified as attitudinal. Therefore, it seems reasonable for the two variables to be related. This relationship is the second highest path coefficient of the model which could be of great importance in English language classrooms in Iran, where teachers could create pleasant environments for language learning.

Findings of the study also showed that students' strategy use was not only significantly and directly affected by self-efficacy but also by motivation. However, results of SEM revealed that the direct influence of self-efficacy on strategy use was greater than the direct effect of motivation on strategy use.

The direct positive effect of motivation on strategy use of this study is consistent with that of various research works (Bonney, Cortina, Smith-Darden & Fiori 2008, Gardner, Tremblay & Masgoret 1997, Mohammadi, Moenikia & Zahed-Babelan 2010). The plausible explanation is that the more motivated the learners are, the more likely they are to expend effort and time required for strategy use, because strategies are referred to as behaviors requiring effort (McIntyre & Noels 1996).

Hence, the hypothesis of this study that motivation directly affects strategy use is confirmed. However, no significant direct causal relationship was found to exist between ALS and the learners' strategy use. This finding is contradictory to different studies which have shown that attitudes have played a significant role in the language learners' choice and application of learning strategies as well as successful second/foreign language learning (Gardner 2000, Kuramoto 2002, MacIntyre & Noels 1996). However the finding is in line with that of Gardner, Tremblay and Masgoret (1997). Close examination of the path diagram (Figure 2) indicates that only when the positive attitudes toward the learning situation are connected with motivation or self-efficacy will they end in more frequent use of strategies.

Finally, learners' strategy use provided a positive direct impact on English language achievement and hence, the hypothesis of this study that strategy use has a direct effect on English achievement is confirmed. This finding is supported by a large number of studies conducted previously (Cesur 2011, Dreyer & Oxford 1996, Yang & Plakans 2012). Therefore, using learning strategies should be encouraged in L2 classes.

In sum, findings of the study show that students' motivation has greater effect on Iranian students' English achievement when it is supported by their attitudes and self-efficay. Also, it was shown that Iranian students' language learning strategies were dependent on motivation and specifically on self-efficacy which was shown to have a significant stronger effect on strategy use.

CONCLUSION AND IMPLICATIONS

The role of motivation in English language learning becomes more significant when it comes in combination with or affected by other factors. The motivation of English language learners in Iran is dependent not only on their attitudes but also on their self-efficacy which in turn is strongly affected by students' attitudes toward the learning situation.

The findings of the present study can be utilised in order to enhance English language learning and create a more successful learning environment in English language classes in Iran by concentrating on and emphasizing aspects of language learning such as self-efficacy, attitudes toward the learning situation, and integrativeness to increase students' motivation and strategy use and hence English language learning.

In addition, to improve the use of strategies which have significant effect on English achievement, we can invest on motivation and self-efficacy.

The results of this analysis showed that the significant direct effect of self-efficacy on motivation and strategy use together with its direct and indirect influences on English achievement made this variable more as an independent variable in the model than a mediator factor. The strongest causal relationship of the model was found to exist between self-efficacy and strategy use. It seems plausible to imply that self-efficacy itself is a stronger predictor of strategy use as well as motivation, in addition to being a mediator between ALS and strategy use and between ALS and motivation. Also, the effect of ALS on self-efficacy showed to be the second highest path coefficient of the model. In the present study, the variable motivation was shown to be central to the model (Figure 2). It was shown to be caused by the two exogenous factors, namely, ALS and integrativeness as well as self-efficacy.

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