

Influence of Motivational Factors and Gender Differences on Learning English as a Second Language: A Case of Engineering Students from Rural Background

L. Saranraj¹, Zaved Ahmed Khan² and Shahila Zafar^{3*}

¹School of Social Sciences, VIT University, Vellore - 632014, Tamil Nadu, India; saraniyc@gmail.com

²Adesh University, Bathinda - 151009, Punjab, India; khan.zaved@gmail.com

³Central University of Punjab, Bathinda - 151001, Punjab, India; shahela.zafar@gmail.com

Abstract

Objectives: This study investigates the role of motivational factors in second language learning and gender differences between integrative and instrumental orientation among engineering students. **Methods/Statistical Analysis:** An adopted AMTB (Attitude and Motivation Test Battery) was used to collect data from undergraduate engineering students in the study area. The data were analysed using descriptive statistics, Cronbach's Alpha, ANOVA, Pearson Correlation coefficient. **Findings:** The results revealed strong positive correlation observed between desire to learn English and attitude towards learning English. A moderate correlation was found between attitude towards learning English and motivational intensity. Similarly, strong positive correlation was found between integrative and instrumental orientation among male students when compared to female. **Applications/Improvements:** The teacher must boost their learners' interest and create awareness about the importance of studying English both for intrinsic and instrumental reasons. Similarly, language instructors could change their teaching method according to the learners' interest.

Keywords: Gender Difference, Instrumental and Integrative Orientation, L2 Learning, Motivation Factor, Socio-Educational Model

1. Introduction

Motivation is a multifaceted variant among L2 learners. If a person is motivated, he/ she involves or engages in relevant activities, attains his task and achieves his goal. Motivated L2 learners have strong desire to attain their language learning goals. An individual strives to learn L2 language because of their desire to achieve satisfaction in their learning activity¹. In addition, motivation factor is a subset of three different items such as, motivational intensity, desire to learn L2 language and attitude towards learning English. Motivation is considered as the central tendency for the above three subsets. Thus total configuration will be able to identify the learners' L2 achievement. Numerous studies have been conducted on motivation in second language learning²⁻⁵. For the past

two decades, the theoretical work on motivation has been examined within the context of learning second language, first language or mother tongue, and in a foreign language. However, no research has been done on motivation factor and gender difference in second language learning in India, especially among the rural students.

Our study focuses on the STAR students at VIT University, Vellore. STARS stands for Support the Advancement of Rural Students. STARS are rich in knowledge but financially poor because they belong to rural and remote regions of Tamil Nadu. STAR students are selected based on their academic performance in higher secondary education; they are district level toppers in senior secondary examinations. These students are psychologically motivated by the University through the provision of free education and their performance is

* Author for correspondence

constantly monitored. The academic success is identified through their higher secondary marks. However, the motivation factor and reasons for consistency/inconsistency in performance in L2 acquisition are unknown. Therefore, this study aimed to identify how and what kinds of motivational factors influence the STAR students in second language learning. The sub-scales that used to identify L2 learners' motivation in this study were adopted from the socio-educational model¹.

2. Role of English in India

The English language rooted into India because of the educational policies of Lord Macaulay who wanted English-educated Indian clerks for the empire. The English language then gradually spread all over India and gained roots in the educational system. In India, the land of diversity, with different people speaking different languages, the English language has been functioning as a link language. In India, English language has been used in the Constitution, the Supreme Court, the High Courts and in all government offices. Hence, English language plays an important role for the integrity of India. The English language is very essential for the better development of the country.

3. Higher Education in India

Higher education has grown very rapidly in India over the past three decades. Universities and their constituent colleges are the main institutes of higher education in India. According to the Census 2011, there are 227 government-recognized Universities in India (20 central universities, 109 deemed universities and 11 Open Universities and the rest are state universities). For the development of higher education, the government of India has taken many steps to increase students' enrollment and to improve the higher educational institution. Despite that, the higher education in India is facing many problems, such as inadequate infrastructure, low students enrollment rate, outdated teaching methods, unmotivated students, and overcrowded classrooms.

4. Higher and Technical Education in Tamil Nadu

Higher education in Tamil Nadu, a major Indian state, where the population is the age of 18-23, as per 2011 census

was 77.7 lakhs. There are 59 Universities functioning in the state, with 31 Public universities and 28 Private Deemed Universities. Tamil Nadu ranks first among all states in India with 59 Universities. The demand increases for technical capability; the government of Tamil Nadu has been promoting the technical education by setting up new technical institutions and develop the infrastructure facilities to a great extent. So far, there are 572 engineering colleges functioning in this state, 95 % of which are self-financed colleges. Admissions to the under-graduate Engineering courses in these colleges are made on the basis of marks obtained by the students in class XII, through single window counseling system. In most of these colleges, the medium of instruction is English. To develop the infrastructure of a country, the innovative and productive technical education is very important.

Motivational research on the second language is grounded in socio-psychology. For this study, the researchers followed the motivational framework of socio-educational model¹.

5. Socio-Educational Model

Under this model, five affective variables are used to predict the learners' achievement in second language learning. The first variable is motivation factor, which has been viewed through three sub scales. Firstly, the motivational intensity, "a persistent and consistent attempt" to learn L2, either by doing homework, doing extra work or by seeking out opportunities to learn L2. Secondly, the desire to learn English, in which "individual wants to achieve the goal", to express the desire to succeed in L2 learning and strive to achieve success in L2. Lastly, attitude towards learning L2, where "individual's enjoyment of the task of learning the language" is dealt to attain L2 as fun, challenge and enjoyable. The three items mentioned above are essential to L2 learning. The second variable, Integrativeness, reflects the learner's interest in L2 through the emotional identification with another cultural group and favourable attitude towards L2 learning. It contains four subscales such as Integrative orientation, Interest in foreign languages, and Attitude towards the target language community. It reflects the importance of English language (communicate with different people, able to communicate easily with others, understand the native speakers way of life, more comfortable). The third variable is instrumentality, which contains only one subscale i.e.,

instrumental orientation. L2 learners “pragmatic” or “utilitarian” value has been measured in this subscale. However, Integrative orientation could vary from culture to culture and individual to individual. The fourth variable, ‘attitude towards the learning situation’ refers to the classroom climate, teaching materials, curriculum, and teacher’s behavior. It describes the L2 learning environment with two sub scales such as Language teacher – evaluation and Language course – evaluation. The last variable is language anxiety, which arises in many situations and could differ individually. Language anxiety affects the learning by stimulating the feeling of anxiety in a learner. It has been classified into two subscales such as Language class anxiety and Language use anxiety.

6. Optimal Model in L2 Learning

During 1990s, many researchers emerged into the field of motivation in L2/FL learning. They developed their motivational framework in L2 learning. The researcher⁶ framed three different levels of L2 motivation, such as a) language level, b) learner level and c) learning situation level. Later, two factors of motivation in language learning have been framed such as a) internal factor and b) external factor⁷. The extended model of L2 motivation for better achievements includes language attitudes, goal salience, valence, self-efficacy, motivational behavior, foreign language dominance and adaptive attributions⁸. The individual researchers to seek other ways of conceptualizing motivation and suggested that researchers should simply rule out the socio-educational approach⁹. As a result of this statement, the author¹⁰ replied that the socio-educational model is a paradigm that is completely compatible with many of the new research agendas, and it is very useful to devolve new motivational pattern.

Overview of the various frameworks on motivation shows that motivation is a complex aspect, which contains multifactor variant rather than a unifactor variant. When compared to the socio-educational model, most of the other motivational frameworks seem too complicated to measure the L2 learners’ motivational strategies. The main reason for the complication is that there has been no proper construct fixed for each subscale.

7. Motivation in Second Language Learning

To identify L2 learners motivation and attitude, a mixed method approach was carried out amongst petroleum engineering students¹¹. The result revealed that most of the learners had positive attitudes towards English language. Especially, female learners have more attitudes towards learning L2 than male¹². The motivational orientations of Jordanian gifted school students have been investigated¹³, the result showed that the students were motivated towards English language. Eventually, the students with high Grade Point Average had the positive attitudes towards learning English¹⁴. Bangladeshi students learn English for an instrumental reason rather than integrative ones¹⁵. Similarly, there is no difference found between intrinsic and extrinsic motivation, and learners L2 achievement among Jordanian English language learners¹⁶. Whereas, Pakistani L2 learners were found to be highly instrumentally motivated¹⁷. Similarly, the engineering students of Tamil Nadu showed high instrumental motivation than integrative motivation¹⁸.

From the light of the above review, it is found that there is no evident and innovative study on L2 learner’s motivation has been carried out among the Indian students from rural background setting. Thus, initiates the researchers to do investigation on motivation in L2 learning among rural as well as financially backward STAR students in VIT University, India.

8. Objectives

This study investigated STAR students motivation factor towards second language (L2) learning. The objectives are

- To identify correlation difference between motivational intensity, desire to learn English and attitude towards learning English among ESL learners and
- To identify the gender difference between integrative and instrumental motivation towards the L2 learning

9. Research Questions

- Is there is any difference between ESL learners

motivational intensity, desire to learn English and attitude towards learning English?

- Is there is any gender difference between instrumental and integrative orientation?

10. Methodology

10.1 Participants

The participants of this study were undergraduates of STAR (Support the Advancement of Rural) engineering students from various disciplines at VIT University, India. In 2008, VIT University started an innovative STAR (Support the Advancement of Rural) Students program to enrich the rural students through free higher education. Every year VIT University selects sixty-two rural students from all over Tamil Nadu. These students have been the district toppers in the higher secondary examinations conducted by the State Government. Until 2015, 424 students enrolled in the STARS program, so the total population is 424. For this study, the questionnaires were collected amongst 43 undergraduate students from various disciplines, i.e., 10% of the population.

10.2 Instrument

The questionnaire consists of two sections a) Demographic profile and b) adopted AMTB questionnaire. For this study, the researchers adopted five factors from Attitude and Motivation Test Battery¹⁹ (AMTB) questionnaire. The five factors are Motivational Intensity (5 items), Integrative Orientation (4 items), Desire to learn English (5 items), Attitude towards learning English (5 items), and Instrumental Orientation (4 items). Overall, 23 items were used as metric variables in the questionnaire. All the questions, except the demographic profile were placed on five-point Likert scale from “strongly agree” to “strongly disagree.” Table 1 shown the internal reliability of the questionnaire through Cronbach’s Alpha is 0.757, which is acceptable.

Table 1. Reliability

Cronbach’s Alpha	Number of Items
0.757	25

10.3 Data Collection

For this quantitative study, simple random sampling and probability sampling methods were used. The

questionnaire was randomly distributed to volunteer STAR students from various disciplines. The researchers had informed the students that this study would be used for research purpose only.

10.4 Data Analysis

The scores were tabulated using software STATA 13. The statistical tools used for this study were Mean, Standard Deviation, Cronbach’s Alpha, ANOVA, Pearson Correlation coefficient.

11. Results

Table 2 shown the descriptive analysis, the mean frequency of overall factor used was found to be 4.23, which was very close to degree value of 5; it shows the highest mean value. The mean and standard deviation results confirmed that the L2 learners were more aware of and used to motivational factors such as instrumental (4.67) and integrative orientation (4.61) and followed by the attitude towards learning English (4.37). A great difference was found between motivational intensity (3.53) and instrumental orientation (4.67). The result also shows that the students learnt English for instrumental orientation when compared with other factors.

Table 2. Descriptive statistics

Factors	N	Mean	SD
Motivational Intensity	43	3.53	.553
Desire to learn English	43	3.99	.502
Attitude towards learning English	43	4.37	.423
Integrative orientation	43	4.61	.423
Instrumental orientation	43	4.67	.329
Overall	43	4.23	.312

Table 3 shows the results of ANOVA among gender (male and female). It shows that motivational intensity, instrumental orientation, and desire to learn English differed significantly between the two groups. Moreover, the deviation between male and female is the same in all the factors except in instrumental orientation. The deviation found in instrumental orientation among males was .342, and among the females, it was .182, which indicated that females have a very low deviation than male in instrumental motivation. The relatively small standard deviation indicated that female responses clustered closely around the mean.

Table 3. One-way analysis of variance

Factors	Gender	N	Mean	S D	Sig.
Motivational Intensity	Male	27	3.40	.517	.044
	Female	16	3.75	.558	
Attitude towards learning English	Male	27	4.31	.419	.246
	Female	16	4.47	.425	
Instrumental orientation	Male	27	4.55	.342	.001
	Female	16	4.87	.182	
Desire to learn English	Male	27	3.87	.517	.038
	Female	16	4.20	.413	
Integrative orientation	Male	27	4.59	.386	.724
	Female	16	4.64	.491	

11.1 Pearson Correlation Coefficient

Research question 1: Is there is any difference between ESL learners motivational intensity, desire to learn English and attitude towards learning English?

As the results shown in Table 4, there was moderate positive correlation observed between the motivational intensity and attitude towards learning English is .379 with p-value of .012 ($r=.379$, $N=43$, $p<0.05$). Whereas, correlation of motivation intensity and desire to learn English is 0.228 with ap-value of 0.141, which is higher than the significant level at 0.05 and 0.01, respectively, it was found that there is no significant difference observed between these two metric variables ($r=.228$, $N=43$, $p>0.05$). There is a strong positive correlation observed between attitude towards learning English and desire to learn English, which is .653 ($r=.656$, $N=43$, $p<0.01$). The result indicated that there is a strong relationship exists between attitude towards learning English and desire to learn English.

Table 4. Motivation Factors

Sl. No	Factors	N	Pearson (r)	Sig.
1	Motivational Intensity & Attitude towards learning English	43	.379*	.012
2	Desire to learn English & Attitude towards learning English	43	.653**	.000
3	Motivational Intensity & Desire to learn English	43	.228	.141

Research question 2: Is there is any gender difference between instrumental and integrative orientation?

The result shown in Table 5 indicated that there is a positive relationship between integrative and instrumental orientation with gender. A strong positive correlation

observed among male learners ($r=0.686$, $N=27$, $p<0.01$). Subsequently, a weak correlation was observed among female learners ($r=0.395$, $N=16$, $p<0.01$). Among female learners, integrative orientation failed to significantly correlate with the instrumental motivation. Hence, there is a significant gender difference found between instrumental and integrative orientation.

Table 5. Gender difference

Sl. No	Gender	N	Factors	Pearson (r)	Sig.
1	Male	27	Integrative Orientation & Instrumental Orientation	0.686**	0.00
2	Female	16	Integrative Orientation & Instrumental Orientation	0.395	0.13

12. Discussions

The results of this study showed that there was a strong positive correlation between the desire to learn English and attitude towards learning English ($r=.653$) and a moderated correlation observed between attitude towards learning English and motivational intensity ($r=0.379$). Conversely, there is no significant difference found between of motivation intensity with a desire to learn English ($r=0.228$). Hence, the STAR students were affected by various motivational factors. Based on L2 learners internal and external factor, desire and attitude can be changed²⁰. Many factors that affect L2 learner's motivational intensity, so the learners need to become aware of the importance of L2 in the competitive world. If the English class is enjoyable and attention grabbing, then the L2 learners are more successful in learning^{21,22}.

Pakistani learners were highly motivated towards learning L2 language¹⁷. They have a strong desire and aware of importance L2 language. The students were not motivated enough due to lack of learning strategies and goal setting, which mainly influenced in their English learning²³. So the L2 teachers play the most influential role in encouraging them in their learning process; therefore, L2 teachers have to apply various motivational activities, especially organizing various extra activities in English classes. If the teacher gives the same task all the time, the learners feel bored, so it affects motivation negatively. Even though non-English major learners feel that learning English is difficult and stressful, they do not think it is a waste of time, and they even consider continuing to

improve their English. It resembles the learners' strong desire towards to learn English²⁴. Web-based projects encourage students' involvement in challenging and authentic tasks²⁵. Similarly, tasks or language games can help students enhancing self-motivation. Here, learners will not to worry about making errors while learning a second language²⁶. This would enhance motivational intensity

According to motivation theory¹, motivation related directly to the learners set of goal was integrative motivation and the motivation that the learners stimulated for their personal needs as instrumental motivation. In this study, the researchers found a weak relationship between integrative and instrumental motivation among female L2 learners than male. Gender is an important perspective in L2 learning investigations, and females seem to show more interest, positive behavior, and better performance in L2 learning when compared to males^{27,28}.

The motivation field with roots in social psychology, which investigates how an individual is affected and formed by the environment, he or she exists within, and how other persons influence us²⁹. Motivation depends on the social interaction between the teacher and the learners. Language teacher could identify the learners' individual difference, and the teacher could be skilled and willing enough to help the learners to use their advantage in the process of second language acquisition³⁰. Eventually, the teachers should know the importance of gender difference, the characteristics of the male and female students, and their state of mind. So it is advocated that the cooperative learning group of boys and girls in language learning helps for better understanding of L2 learning. The results revealed that the male students reported higher instrumental motivation and integrative motivation when compared to female students^{31,32}.

13. Conclusion

For the success of L2 learning, motivation is one of the essential and personal factors. Hence, this study empirically investigated the L2 learners motivation factors and gender difference in instrumental and integrative orientation. Socio-educational model¹ is very useful to construct the results of this study. The result showed that favorable attitude and desire towards learning English can be found among the STAR students, but they do not have motivational intensity towards the English

language. Thus, the language instructors should modify their methodology according to the learners' interest^{30,33}. Instrumental and integrative motivations were found to be high among male students but to enhance motivation among the female students. The female students are not concerned about qualification and employability, thus, the teacher must boost their interest and create awareness about the importance of studying English both for intrinsic and instrumental reasons. There is no doubt that motivation and language learning can be a complex process because of the 'multifaceted nature' of language. He defines language as a) communication coding system, b) a part of individual's identity and c) an important channel of social organization deeply rooted in the culture of the community who use it³⁴.

This paper highlights the importance of motivation factors among the rural engineering college students in the regional context of India. It would be useful, in any future study, to incorporate more qualitative through interviews with the respondents. In broader range, the research findings reported might be useful for policymaking for regional rural students in India.

14. Acknowledgement

We would like to thank the STAR students for taking part in this Study, VIT University for their explicit support for this study.

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