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# The effect of Intrinsic and Extrinsic Motivation in L2 Learning amongst engineering college students: An investigation

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## Abstract

*The main objective of this study is to investigate the L2 learners' intrinsic and extrinsic motivation amongst engineering college students in Dharmapuri district in Tamil Nadu. Through simple random sampling method, 150 respondents were randomly selected from various engineering colleges in the study area. The adopted and modified AMTB (Attitude / Motivation Test Battery) questionnaire has been used in this study. Results showed that the male respondents have strong motivation towards intrinsic (integrative) and extrinsic (instrumental) than female.*

**Key words:** *intrinsic, extrinsic, motivation, L2 learning, tertiary learners*

## Introduction

Motivation is one of the most complex factors that used to elucidate individual differences in L2 learning. Learners with integrative motivation have interest in learning a foreign language on their own interest and similarly, learners with instrumental motivation have interest towards job orientation (Gardner et al., 1959). Based on Self-Determination Theory, numerous studies have been carried out on integrative and instrumental motivation by various researchers (Ozur et al., 2013; Engin2009; Ghazvini et al., 2011; Rehman et al., 2014). Self-Determination theory is a framework to understand an individuals' participation in an activity (Deci & Ryan, 1985, 2000). The integrative and instrumental motivations are the major categories in this theory. The Self-Determination theory (Deci et al., 1985) is different from other motivational theories. According to Gagne et al., (2005) Self-Determination theory differs from other motivation theories by means of focusing the strength between autonomous (intrinsic) and controlled (integrative) motivation. But the other motivational theories used to predict the learners' level of motivation. Thus, Self-Determination Theory is very important in integrative and instrumental motivation. The framework of Self-Determination Theory has given in figure1:

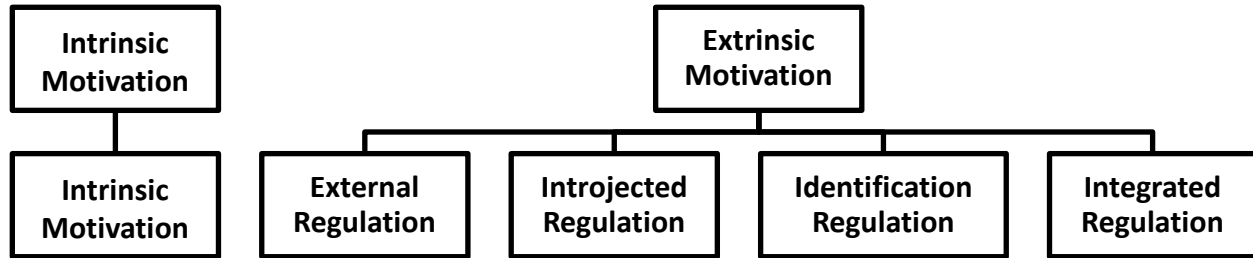


Figure 1

Source: Deci and Ryan (2000)

The given figure 1 represents the classifications of intrinsic and extrinsic motivation. The detailed description has been given below.

**Intrinsic Motivation:** It refers to motivation that arises from the inner feelings of an individual rather than any external force. If learners are motivated intrinsically, they are considered as L2 achievers (Deci & Ryan, 2000). Gardner & Lambert (1972) described that Learners' own interest towards the L2 culture and their language achievement.

**Extrinsic Motivation:** It refers to performing an achievement in order to get external incentives such as rewards, good job, and money. Due to lack of confidence there might be possibilities of negative rewards among L2 learners (Deci & Ryan, 2000). Learners' own satisfaction to achieve their basic need (Gardner & Lambert, 1972) through L2 learning.

There are four factors which affect the extrinsic motivation rather directly or partially,

- External regulation: The most extrinsic type of motivation, performed by learners' for an external demand such as reward or punishment.
- Introjected regulation: Performed by learners' self-esteem, due to individual's ego involvement.
- Identification regulation: Relate to goal valuation, where achievement is considered personally important.
- Integrated regulation: Full assimilation with the self, to include in a person's beliefs about personal needs.

Self-determination Theory (Deci et al., 1985) involves in l2 learners internal and external factors such as integrative and instrumental paradigm. Therefore, it is important to identify L2 learners' integrative and instrumental motivation. This research paper investigates L2 learners' integrative and instrumental motivation among engineering and arts and science college students in Dharmapuri districts, Tamil Nadu.

## Literature review

In the view of the importance of Self-determination Theory, this study seeks to examine the relationship of integrative and instrumental motivation. Even though numerous studies carried out on integrative and instrumental motivation, this study examines the feasible usage of L2 learners' motivation factors in Indian context. Ozur et al., (2013) conducted the study with Turkey L2 learners. The result reveals that the L2 learners are strong towards instrumental than integrative, thus shows the importance learning English for their job sake and they do not have a desire towards L2 learning. Similarly, Rehman et al., (2014) conducted a quantitative study on Pakistani learners' level of motivation in L2 learning. The result shown that most of the learners were interested to get good marks and good job. So the learners were highly motivated by instrumentally rather than integrative motivation. In addition, Rahman & Amin (2019) carried out a study to recognize the impact of integrative motivation among male and female students in Malay Language. A questionnaire was used to collect the data amongst the students. The result showed that most of the male students were influenced by integrative motivation. Moreover, Liu & Chen (2019) suggested that intrinsic motivation keeps the learners with the identical spirit and makes the teaching learning process happy.

In contrast, Ghazvini et al., (2011) observed that female students are motivated by Integrativeness whereas male students have high instrumental motivation in the context of Iranian ESL. Engin (2009) examined the relationship between integrative and instrumental with Atatuk University L2 learners'. Due to pragmatic approach, the male and female learners' have same levels of integrative and instrumental motivation. Also a study was conducted by Xu et al., (2015) among Mainland Chinese students to identify the age difference in L2 learning motivation. It is observed that the elementary students begin with unbiased motivations toward English learning. When the students enter into middle school, they start develop their instrumental motivation. Teh et al., (2018) conducted a study on integrative and instrumental motivation among 103 Diploma students. Respondents were involved in the study and the result showed that the students were interested towards integrative motivation rather than instrumental orientation. In the same way, Kashefian-Naeeni et al., (2018) investigated integrative and instrumental motivation with 54 Iranian Post graduate students at university level. The result revealed that both investigation and instrumental motivation plays a major role but instrumental level is higher than the integrative. Liu et al., (2019) examined the long-term effect of intrinsic motivation in the different domains. The result showed that there is a significant progression occurred in academic performance and self-efficacy, furthermore long lasting in real life learning.

Ter et al., (2018) carried out a study on integrative and instrumental motivation among 407 Malaysia Chinese Language teacher training students between Undergraduate and Postgraduate. Bachelor students are more interested that the Masters similarly, Undergraduate students are more interested towards instrumental and integrative motivation. Furthermore, Othman et al., (2019) carried out a study on intrinsic and extrinsic motivation amongst postgraduate students in Afghanistan. The data has been collected from thirty one students by using AMBT questionnaire. The result showed that students are motivated extrinsically than intrinsically and there is no

significant difference found among gender. In the same way, Firat et al., (2018) carried out a study to recognize the intrinsic motivation amongst 1639 distance education students in 22 courses by using questionnaire. The level of intrinsic is high in the e-learning milieu, moreover there is significant difference by gender, courses and structure of the course. Likewise, Nielsen (2018) carried out a study on intrinsic and extrinsic motivation by using “Motivated Strategies for Learning Questionnaire” in higher education context amongst 590 participants. Both intrinsic and extrinsic motivation is negatively correlated whereas the reliability of each subscales are good. In addition, young students were motivated extrinsically than instrumentally. Based on the above review it was found that no comparative study had been conducted on integrative and instrumental motivation in Indian context.

## Research Question

What is the level of intrinsic and extrinsic motivation factors towards L2 learning amongst engineering students?

## Methodology

Through simple random sampling method, 150 undergraduate students were voluntarily involved in this study. Adopted AMTB (Attitude and Motivation Test Battery) questionnaire was used to collect the quantitative data. The questionnaire used for this study consists of two parts:

- a) The first part provided background details of the respondents and
- b) The second part contains adopted AMTB questionnaire by using level of agreement scale

The collected data were analyzed through STRATA 13.1 software. A correlation was run to investigate the relationship between two metric variables of this study.

## Results

150 questionnaires were randomly distributed to engineering college students. Out of them 113 (75.3%) respondents were male and 37 (24.7%) were female respondents. To know the internal reliability of the questionnaire, Cronbach’s alpha has been analyzed. The internal consistency of the Cronbach’s alpha is 0.910 (Table 1), which is excellent in reliable.

**Table 1: Internal reliability**

Cronbach’s alpha	No. of items
0.910	64

In order to find the results of the research question, mean differences with gender among L2 engineering college students has been analyzed. As the result shown in Table 2, the factors such as attitude towards learning English, integrative orientation, and instrumental orientation have highest mean value of above 4. Thus, it showed that both male and female respondents have high level of motivation among engineering students in L2 learning.

**Table 2: Mean differences with gender among engineering students**

Factors	Gender	N	Mean	S D
Interest in foreign languages	Male	113	3.69	.627
	Female	37	3.68	.688
Motivational intensity	Male	113	3.71	.471
	Female	37	3.90	.453
English class anxiety	Male	113	3.60	.705
	Female	37	3.70	.540
English teacher evaluation	Male	113	3.77	.826
	Female	37	3.83	.700
Attitude towards learning English	Male	113	4.17	.704
	Female	37	4.52	.523
Attitude towards English-speaking people	Male	113	3.59	.719
	Female	37	3.95	.614
Integrative orientation	Male	113	4.11	.718
	Female	37	4.42	.647
Desire to learn English	Male	113	3.47	.820
	Female	37	3.94	.545
English course evaluation	Male	113	3.62	.769
	Female	37	3.95	.732
English use anxiety	Male	113	3.41	.799
	Female	37	3.45	.750
Instrumental orientation	Male	113	4.13	.791
	Female	37	4.46	.534

To identify the relationship between integrative orientation and instrumental orientation among engineering college students, Pearson's correlation was run. From Table 4, it is found that there was a significant strong positive correlation among male respondents ( $r=0.597$ ,  $N=150$ ,  $p<0.01$ ) than female respondents ( $r=0.304$ ,  $N=150$ ,  $p>0.01$ ). The findings indicated that the male L2 learners are more interested towards integrative and instrumental motivation than female respondents.

**Table 4: Correlation between factors among engineering college students**

Sl. No	Factors	N	Gender	Pearson (r)
1	Integrative orientation & Instrumental orientation	150	Male	.597**
			Female	.304

\*\* Significant at the level 0.01

## Discussion

Based on the results researchers found that the integrative and instrumental motivation factors are influenced by the L2 learners. According to the research question, the detailed discussion has been given below:

Research question: What is the level of intrinsic and extrinsic motivation factors towards L2 learning amongst engineering students?

The result shown in Table 4 showed that there was a significant strong positive correlation among male respondents ( $r=0.597$ ,  $N=150$ ,  $p<0.01$ ) than female respondents ( $r=0.304$ ,  $N=150$ ,  $p>0.01$ ). Because of cultural context (Anderman & Anderman, 1999; Ghazvini et al., 2011) the male students are more instrumentally motivated than the female students. However instrumental is not as effective as integrative motivation, which deals with the personal willingness (Engin, 2009). In particular students are aware of instrumental than integrative motivational factor (Rehman et al., 2014). Conversely intrinsic motivation is strongly correlated with L2 success (Ozgur et al., 2013).

The findings of this study revealed that intrinsic and extrinsic motivations are very important for L2 learners. Thus, the study resulted in engineering male students have positive attitude towards integrative and instrumental motivation in L2 learning. Thus motivation becomes the most dependable predictor of language ability. Therefore, gender has significant difference in the choice and overall use of integrative and instrumental motivational factor.

## Conclusion and Suggestion

The findings of this study help to provide clear insight on intrinsic and extrinsic motivation in L2 learning. The results exposed that language instructor's teaching method is varied. So the language instructor could create a pleasant classroom atmosphere, promote learners autonomy and increase the L2 learners' goal orientation (Dornyei et al., 1998). For better success in L2 learning, motivation depends on teachers' quality, relaxed and pleasant atmosphere inside the classroom, present activities in appropriate method, stimulation of learners' innovative ideas and so on. Language instructor could use constant positive feedback and they have to build L2 learners' self-confidence (Saranraj et al., 2014). For L2 success, learners have to be motivated by both internal and external factors, so that teachers could create motivational awareness in their classroom.

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