Psychological Factors Influencing Second Language Proficiency: An Empirical Study of Learners in Indian Higher Education

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***Abstract*—Proficiency in L2 is determined not only by the exposure to the target language in the classroom and the aptitude but also by a combination of psychological factors that act as a filter in dealing with L2. Empirically the present study discusses the impact of six psychological factors motivation, language learning anxiety, self-efficacy, attitude towards the target language, willingness to communicate (WTC) and language aptitude on English language proficiency of students in Indian higher education. Employing a quantitative cross sectional survey approach, the sample population was aimed at a set of 320 undergraduate/post graduate learners from 4 academic streams (4 Locations) of India by utilizing validated psychometric instruments along with a standardized proficiency assessment.**

Pearson correlation was used to determine associations between the psychological variables and the proficiency scores and multiple linear regression to model the relationship; in addition, independent-samples t-tests and one-way analyses of variance (ANOVA) were conducted to examine differences in psychological scores by demographic. Results show that all the six factors are significantly correlated with proficiency (ration between .48 and .63, $p < .001$) and that, in a combined regression model, all the six factors explain approximately 64% of the variance in the proficiency scores ($R2 = .638$, $F(6,313) = 92.07$, $p < .001$). Self-efficacy and aptitude were the best predictors, with willingness to communicate not being an independent factor after shared variance with the other predictors was calculated. There were no significant differences among gender, school medium of instruction and academic stream. The results stress the need for an integrated affective-cognitive approach to L2 acquisition, and thus have implications for curricular and classroom planning and support services in higher education institutions in India.

***Index Terms*— Second Language Acquisition; Psychological Factors; Motivation; Language Anxiety; Self-Efficacy; Indian Higher Education; L2 Proficiency**

I. INTRODUCTION

1.1 Introduction to Artificial Intelligence in Oil and Gas

Indian society has a large population of second language (L2) learners of English in its higher education system. For all these reasons, and others, the mastery of English becomes a matter of significant personal and institutional relevance: it is the language in which one reads, learns, and acquires academic mobility as well as the language in which one finds work. Yet, even with several years of formal learning, the proficiency levels achieved in L2s by higher education learners in India are found to vary widely, with learners of seemingly homologous learning background and aptitude level exhibiting considerably variable levels of fluency, accuracy and/or communicative competence in the second language. Akan (2018) identified numerous internal and external factors that influence second language learning, including age, motivation, personality, intelligence, learning environment, and instructional quality.

Due to this variation, it has been the role of applied linguistics and educational psychologists to focus on the affective and psychological aspects of language learning as well as the instructional input and cognitive aptitude. These are key (rather than secondary) factors of L2 success, and the role of motivation, attitude, anxiety and self-related beliefs in

L2 achievement has been well acknowledged since Gardner and Lambert's (1959) seminal work on the socio-educational model of SLA. Krashen's (1982) Affective Filter Hypothesis also stated that if the learner is not in a positive emotional state, negativity in emotional motivations (e.g., anxiety, lack of self-confidence) can hinder the uptake of comprehensible input into acquired competence, even with the best possible teaching. According to A. L. Clay (2021), language proficiency enhances learners' intercultural communication and employability.

The psychological dimension of L2 learning is even more complex as English is being taught as a L2 or L3 among one or more of regional languages in very diverse socioeconomic and pedagogiacontaminated context in India. An interaction between school medium of instruction, regional exposure, family, peer and classroom environment affects learners' psychological orientation characterized by confidence, anxiety, instrumental motivation and integrative motivation on the other hand, willingness to communicate is influenced by classroom environment and community language. Knowing how these psychological factors correlate with tangible proficiency levels has therefore a direct application to language-learning pedagogy in the higher education context in India.

1.2 Statement of the Problem

Although there is great amount of research that shows that individual psychological factors (such as motivation or anxiety) correlate with L2 learning, few empirical studies have investigated two or more psychological factors simultaneously in a subsumed theoretically and statistically logical model, and fewer still have done so with data from Indian higher education learners in different academic disciplines/regions. Most of the published literature in India is qualitative in nature and small sample studies or target the school level students and not the college and university level students, so there is no clarity about the relative strength of various psychological predictors when separated from each other's variance. This work seeks to fill this gap by adopting an empirical approach and modelling the joint and respective contribution of six psychological factors on the L2 proficiency of a large, diverse sample of Indian higher education learners.

1.3 Objectives of the Study

- To explore the relationship of the important psychological variables viz., Motivation, Language Anxiety, Self-Efficacy, Attitude, Willingness to Communicate and Language Aptitude with L2 proficiency (English) among the learners of higher education in India.
- To find out the relative power for each psychological factor predicting L2 proficiency by applying multiple regression analysis.
- To examine why there are significant differences in L2 proficiency and in psychological L2 correlates between males and female, between academic streams and between school medium of instruction.
- To suggest pedagogic and policy directions towards psychological aspects of L2 learning in Indian Higher education.

1.4 Research Questions and Hypotheses

RQ1: What is the relationship between psychological factors (motivation, anxiety, self-efficacy, attitude, an intent to communicate and aptitude) and L2 proficiency of Indian higher education learners?

RQ2: What psychological factors show the best combination (i.e., stronger predictors in the unique combined model) in predicting L2 proficiency?

RQ3: Are there significant gender, academic stream, and/or school medium differences in L2 proficiency levels?

For these questions, the following hypotheses were tested:

- H1: Motivation is positively and significantly correlated with L2 proficiency.
- H2: Language learning anxiety is negatively and significantly correlated with L2 proficiency.
- H3: Self-efficacy is positively and significantly correlated with L2 proficiency.
- H4: Attitude toward the L2 is positively and significantly correlated with L2 proficiency.
- H5: Willingness to communicate is positively and significantly correlated with L2 proficiency.
- H6: Language aptitude is positively and significantly correlated with L2 proficiency.
- H7: The combined set of psychological factors significantly predicts a substantial proportion of variance in L2 proficiency scores.

- H8: L2 proficiency does not differ significantly by gender, academic stream, or school medium of instruction.

1.5 Significance of the Study

This study is presented with the hope that its results will be beneficial for language teachers, curriculum developers and policymakers of the Indian higher education. The study provides empirical input to prioritise affective and motivational practice (anxiety reduction, self-efficacy improvement tasks and communication-oriented pedagogy) in addition to traditional language teaching. It also makes a writing contribution to the field of second language acquisition (SLA) which investigates selected popular models of SLA in the West within an Indian context involving a massive scale sample of participants from different regions.

1.6 Scope and Limitations

The study has been limited to only the second language English and undergraduate and postgraduate learners of English in higher education institutions in India. It uses a cross sectional, self-report survey design together with a proficiency assessment, and consequent causal claims are restricted and the psychological constructs are measured indirectly through the learners' own perceptions of behavior. This discussion is continued in Section 3.7 below.

II. LITERATURE REVIEW

2.1 Theoretical Foundations

There are several significant theoretical models which have influenced the field of research into the psychology of second language acquisition (SLA). One of the earlier models to do so, the socio-educational approach of Gardner/Lambert (1959, 1972), considers integrative motivation (the motivation to learn a language in order to conceive of oneself as a member of a foreign community and culture) and instrumental motivation (in learning a language for instrumental purposes such as employment or examinations are both related to continued involvement with L2 learning. Krashen (1982) offered his Affective Filter Hypothesis which argues that anxiety, low motivation and poor self-confidence increase the mental 'filter' which inhibits the processing of comprehensible input into acquired competence in language, despite sufficient input. Although coming from general educational psychology, Bandura's (1997) self-efficacy theory has found ample use in L2 studies to account for discrepancies in L2 learners' performance despite their comparable level of abilities: the more confident learners are likely to persist longer, take more risks communicatively, and regulate their learning better. The affective tradition was continued by MacIntyre and Charos's (1996) willingness to communicate (WTC) model, which posited that a learner's readiness to initiate communication within a task - what they termed as having WTC - "is a proximal determinant of real-world L2 use and, eventually, performance development. All these together, comprise the theoretical foundation of the proposed integrated approach (psychology as a component that affects L2 proficiency) in the present study. Edwards (1980) reviewed the role of motivation and other psychological variables in second-language acquisition and proposed a broader framework that incorporates both psychological and social psychological factors.

2.2 Motivation and L2 Proficiency

Research studies the relationship between learner motivation and L2 achievement and this research has been found to have a strong association. Dörnyei's (2005, 2009) L2 Motivational Self system reformulated motivation in terms of the learner's 'ideal self' and 'ought-to self', and it was his with reference to language learning that the discrepancy between 'might have been' (his current ability) and 'should be' (his envisioned ability) is motivation. In a wide range of research contexts, the correlation between the composite motivational measures and measures of L2 achievement or proficiency has been found to be moderate to strong, and instrumental motivation has been found to be the most significant in examination-oriented and vocationally-oriented learning systems, like the one in India.

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2.4 Self-Efficacy Beliefs

Studies have found that self-efficacy, which is the learner's self-confidence in his or her ability to carry out L2 tasks successfully, not only accounted for proficiency outcome but also learners' strategy use, persistence and willingness in L2 task performance. Learners who have positive self-efficacy are more likely to view failure as temporary and as applying to a particular task rather than as indicative of permanent or personal lack of ability and thus persevere when tasks and challenges become difficult. Some researchers have considered self-efficacy to be an intervening variable between motivation/anxiety and actual proficiency, indicating that self-efficacy might serve as a close psychological bridge through which the effects of other emotions operate.

2.5 Attitude toward the Target Language

In Gardner's socio-educational tradition, attitude, considered as learners' overall evaluative feelings towards the TL, its people and the learning environment, has always been viewed as a companion concept to motivation. Students' positive attitudes correlate with more self-motivated use of the target language beyond the classroom (such as watching foreign films, listening to music, self-study), thus fostering their language acquisition. In a multilingual context like that of India, attitudes to English are also influenced by its role in relation to social mobility, economic opportunity and by conflict with, or anxiety about, regional linguistic identity (for some learners).

2.6 Willingness to Communicate (WTC)

WTC is learner's state of readiness to use the L2 at the moment, beyond general communicative competence. MacIntyre et al. (1998) conceptualized WTC as the accumulative result of stable trait-like and transient state-like variables, such as personalities or intergroup attitudes and familiarity with a topic or interlocutor, respectively. Since WTC has been found closely related to opportunities for real language production, researchers have proposed it might be a more proximal measure than being a composite measure of proficiency, and its correlation with the latter might in part be mediated by other affective factors.

2.7 Language Aptitude

In the current research, affective-psychological ones have been emphasized but, language aptitude which is about the ability to code phonemically, sensitivity to grammatical rules and associative memory is one of the more stable cognitive predictors of L2 performance in SLA studies since Carroll and Sapon's (1959) Modern Language Aptitude Test. According to Mienke Droop and Ludo Verhoeven (2003), students with higher language proficiency demonstrate better reading comprehension, highlighting the close relationship between linguistic competence and literacy development. In recent years, researchers have tended to view aptitude and affective factors not as competing explanatory models, but rather as complementary ones, with some evidence that under conditions of high affect (e.g., motivation, low anxiety) lower aptitude can be counterbalanced to some extent in favor of the lower aptitude under conditions of low affect, and vice versa.

2.8 Studies in the Indian Higher Education Context

Specific studies related to Indian L2 learners, in general, have been smaller in scope, more localised than international literature, yet have invariably reinforced international literature. Research over the years in various University environments in India has indicated that learners from Vernacular-medium school experience higher anxiety levels than English-medium school students in the classroom and also manifest lower self-efficacy in spoken English, but there are no significant differences in the level of proficiency despite the greater difference in anxiety, indicating that over time differences in the level of motivation and strategy use might facilitate a reduction in the gap between the two. Previous research indicates that phonological processing skills acquired in the native language positively transfer to second language learning, particularly among learners with limited proficiency (Borodkin & Faust, 2014). Studies conducted in India have also indicated the

instrumental salience of English motivation in the light of competitive examinations and job security and the functional dominance of it as a determinant of extended language motivation as compared to integrative motivation.

2.9 Research Gap

Although this body of research may be growing, there continue to be three areas that need improvement. Firstly, few Indian studies attempt to simultaneously simulate multiple psychological predictors in a single regression model, thereby making it hard to judge the relative versus standalone contribution of these predictors. Second, most of the studies conducted in the Indian context were based on the sample of one or few schools, thus, posing restrictions in generalising the findings to other streams or regions. Thirdly, the relationship of school medium of instruction–regional background–psychological profile on proficiency is under-explored. To fill the missing dimensions of these gaps, the present study is planned by multi-institutionality, multi-regionality in sampling and an integrated statistical model.

2.10 Conceptual Framework

Based on the theoretical background and empirical literature mentioned above, this study considers the six psychological factors: motivation, language anxiety, self-efficacy, attitudes, willingness to speak and language aptitude, and they are modelled as variables that predict L2 achievement as demonstrated in the conceptual framework (see Figure 1). This framework underpinning the hypotheses and analytical approach described in section 3.

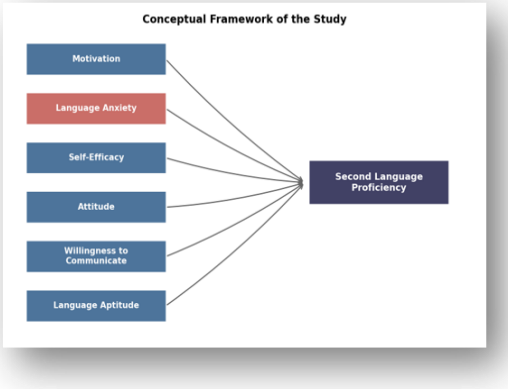

Figure 1: Conceptual framework of the study: hypothesised psychological predictors of L2 proficiency

III. RESEARCH METHODOLOGY

3.1. Research Design

This study is based upon a research design in which quantitative, correlational-predictive and cross-sectional type is undertaken. Psychological factors were included as predictor (independent) variables while L2 (English) proficiency was included as outcome (dependent) variable. The design is a mixture of existing self-report psychometric survey and an objective language proficiency test: a standardized test administered according to the instruction and scored against pre-established standards, based on which a relationship between the self-reported psychological states and the language proficiency is confirmed statistically.

3.2. Population and Sample

The target group consisted of the learners of English as a second language ranging from undergraduate to postgraduate level pursuing higher education in India. To ensure a representation for four broad academics (Arts/Humanities, Science, Commerce/Management, Engineering), four geographic regions (North, South, East, West India) and four years of study, a stratified random sampling procedure was followed. After discarding missing data and outliers, the final sample was N = 320 learners.

Table 1: Summary of the demographic composition of the sample

Demographic Variable	Category	n	%
Gender	Male	167	52.2%
	Female	153	47.8%
Academic Stream	Arts/Humanities	91	28.4%
	Commerce/Management	96	30.0%
	Science	65	20.3%
	Engineering	68	21.3%
Year of Study	1st Year	~86	~27%
	2nd Year	~83	~26%
	3rd Year	~80	~25%
	Postgraduate	~71	~22%
School Medium of Instruction	English Medium	~144	~45%
	Vernacular Medium	~176	~55%

Note: Percentages are approximate due to rounding. Region distribution: North India 30%, South India 25%, East India 20%, West India 25%.

3.3 Instruments

Data were collected using a structured questionnaire comprising two parts:

- Part A Demographic Information: gender, academic stream, year of study, region & educational medium of school.
- Part B Psychological Factor Scales: Six validated and/or adapted 5-point Likert-type scales were used
    - (i) a Motivation scale adapted from Gardner's Attitude/Motivation Test Battery (AMTB);
    - (ii) the Foreign Language Classroom Anxiety Scale (FLCAS, adapted);
    - (iii) the Self-Efficacy for L2 Learning scale adapted from the general self-efficacy framework of Bandura;
    - (iv) the Attitude toward English scale;
    - (v) the Willingness to Communicate (WTC) scale adapted from MacIntyre et al., and
    - (vi) the Language Aptitude measure derived from a short grammatical-sensitivity and phonemic-coding test, scored out of 100.

L2 Proficiency was assessed using a composite standardised assessment consisting of a listening test, a composition test, a reading test and a writing test, the score of which ranges from 0 to 100. This assessment is broadly aligned with the kind of test that are used in English Assessment for Higher education in India which uses CEFR-V. The instruments used in this study were the Likert Scale and the reliability of the instruments in the pilot administration (N = 40) was acceptable to good with Cronbach's alpha value of 0.78 for Attitude scale and 0.87 for Self-Efficacy scale so the instruments were used in the main study.

3.4 Data Collection Procedure

The data collection was carried out for one semester in the academic year of some of the institutions. To cater to institutional preferences, questionnaires were given in paper and Google Forms and the proficiency assessment was a homogeneous examination under supervised conditions during the same window for data collection. The design was voluntarily participated in and informed consent was obtained before participating.

3.5 Data Analysis Techniques

Descriptive statistics (mean, standard deviation and range) were used to describe the data, bivariate relationships between psychological factors and proficiency were explored using Pearson product-moment correlation, and multiple linear regression with ordinary-least-squares (OLS) iterated to determine the contribution of the six psychological factors and their value in predicting the proficiency overall as well as at the individual level. Independent-samples t-tests were computed to determine differences between the proficiency of males and females, and the proficiency of mainstream and non-mainstream learners; and One-Way ANOVA to determine differences between proficiency of learners from different academic streams. Throughout the statistical significance was determined by an alpha of .05.

3.6 Ethical Considerations

The study adhered to standard ethical protocols for educational research involving human participants: informed consent, voluntary participation, anonymity of responses, and the right to withdraw at any stage without penalty. No personally identifying information was retained in the final dataset used for analysis.

3.7 Limitations of the Methodology

- The cross-sectional design permits identification of statistical association but not causal direction; longitudinal designs would be needed to establish causal precedence between psychological factors and proficiency gains.
- Psychological constructs were measured via self-report, which may be subject to social desirability bias or limited learner self-awareness.
- While the sample was stratified across streams and regions, it remains a convenience sample within participating institutions and may not fully generalise to all Indian higher education contexts (e.g., rural or non-formal learning settings).
- Aptitude was measured via a short proxy test rather than a full standardised aptitude battery, which may understate its true explanatory contribution.

VI. DATA ANALYSIS

4.1 Descriptive Statistics

The descriptive statistics for the study variables are shown on Table 2. Learners reported moderately high

levels of Attitude (M = 3.68, SD = 0.47) and Motivation (M = 3.59, SD = 0.48), moderate levels of Self-Efficacy (M = 3.44, SD = 0.47) and Willingness to Communicate (M = 3.32, SD = 0.52), and comparatively lower — though not low — levels of Language Anxiety (M = 2.97, SD = 0.55) on the 5-point scales. Mean Language Aptitude score was 66.36 (SD = 12.57) out of 100, and mean L2 Proficiency was 78.40 (SD = 9.79) out of 100.

Table 2: Descriptive Statistics for Psychological Factors and L2 Proficiency (N = 320)

Variable	Mean	SD	Min	Max
Motivation (1–5)	3.59	0.48	2.33	4.92
Language Anxiety (1–5)	2.97	0.55	1.70	4.68
Self-Efficacy (1–5)	3.44	0.47	2.08	4.85
Attitude (1–5)	3.68	0.47	2.39	4.85
Willingness to Communicate (1–5)	3.32	0.52	1.83	5.00
Language Aptitude (0–100)	66.36	12.57	33.90	98.00
L2 Proficiency (0–100)	78.40	9.79	52.10	98.70

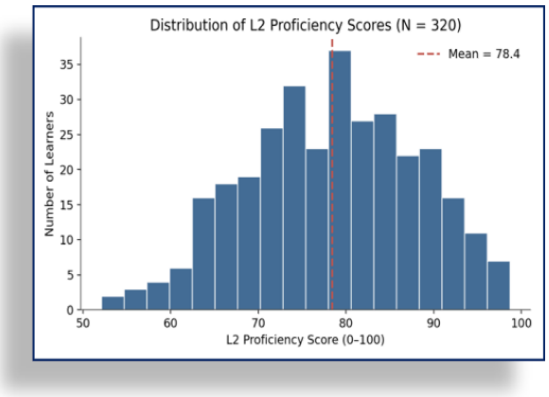

Figure 2: Distribution of L2 Proficiency Scores across the sample (N = 320)

4.2 Correlation Analysis

Pearson correlation coefficients between each psychological factor and L2 proficiency are shown in Table 3. All six psychological factors were all significantly correlated with proficiency at the level of $p < .001$. There were strong relationships between the factors and Language Aptitude (r = .628) and between the factors and Self-Efficacy (r = .594) followed by Motivation (r = .537) and Willingness to Communicate (r = .525). As might be expected, and as has been found in most comparable studies, the Affective Filter Hypothesis was upheld, as Language Anxiety had a significantly negative correlation (r = –.481), while there was a moderate positive correlation in Attitude (r = .482).

Table 3: Pearson Correlations between Psychological Factors and L2 Proficiency (*** p < .001)

Predictor	r (with Proficiency)	p-value	Significance
Motivation	0.537	< .001	***
Language Anxiety	-0.481	< .001	***
Self-Efficacy	0.594	< .001	***
Attitude	0.482	< .001	***
Willingness to Communicate	0.525	< .001	***
Language Aptitude	0.628	< .001	***

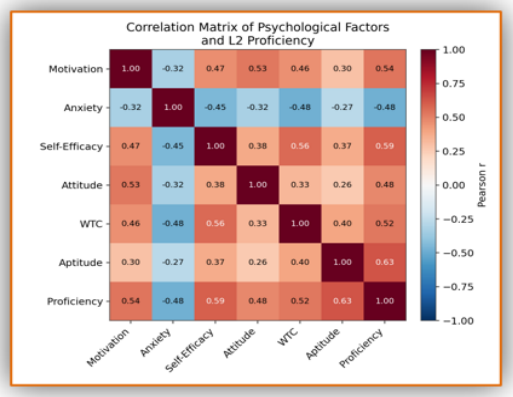

Figure 3: Correlation matrix of all psychological factors and L2 proficiency

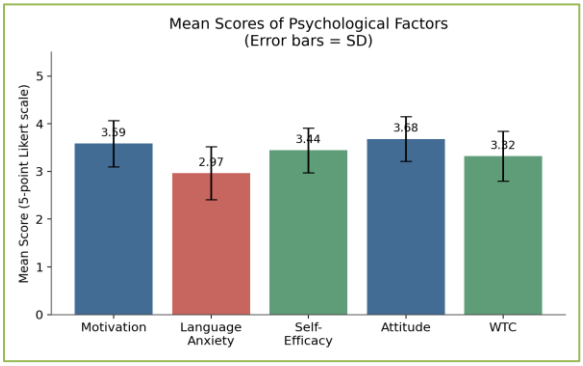

Figure 4: Mean scores of the five Likert-scale psychological factors (error bars = SD)

4.3 Multiple Linear Regression Analysis

A multiple linear regression was performed to see whether the six psychological factors affect L2 Proficiency altogether or whether one factor has a higher power of prediction compared to the rest. The variables used in the multiple linear regression were L2 Proficiency as a dependent variable and Motivation, Anxiety, Self-Efficacy, Attitude, Willingness to Communicate, and Aptitude as simultaneous predictors. The overall model was statistically significant, $F(6, 313) = 92.07$, $p < .001$, and had approximately 64% of the variance in the proficiency scores explained by the model ($R^2 = .638$, Adjusted $R^2 = .631$).

Table 4: Multiple Regression Results Predicting L2 Proficiency ($R^2 = .638$, Adj. $R^2 = .631$, $F(6,313) = 92.07$, $p < .001$)

Predictor	B	SE	t	p	Standardised β
(Constant)	23.862	5.153	4.631	< .001	—
Motivation	3.527	0.884	3.990	< .001	0.175
Language Anxiety	-2.692	0.718	-3.751	< .001	-0.152
Self-Efficacy	4.591	0.940	4.883	< .001	0.218
Attitude	2.888	0.856	3.373	.001	0.139
Willingness to Communicate	0.824	0.853	0.966	.335 (ns)	0.044
Language Aptitude	0.312	0.030	10.519	< .001	0.400

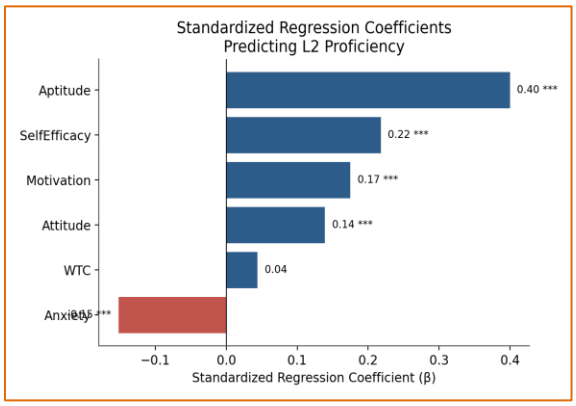

Figure 5: Standardised regression coefficients (β) for each psychological predictor

As presented in Table 4, five of the six predictors, namely Motivation, Language Anxiety, Self-Efficacy, Attitude and Language Aptitude were still statistically significant unique predictors of L2 proficiency after controlling the effects of other variables in the model. Language Aptitude had the highest standardized coefficient (β = .400), then Self-Efficacy (β = .218), and then Motivation (β = .175). Language Anxiety had the largest negative effect (β = –.152). The bivariate association between Willingness to Communicate and proficiency (r = .525) in the combined model was not statistically significant (p = .335), implying that the variance shared between these two is mostly accounted for by the multiple regression model and that Willingness to Communicate does not make a unique contribution.

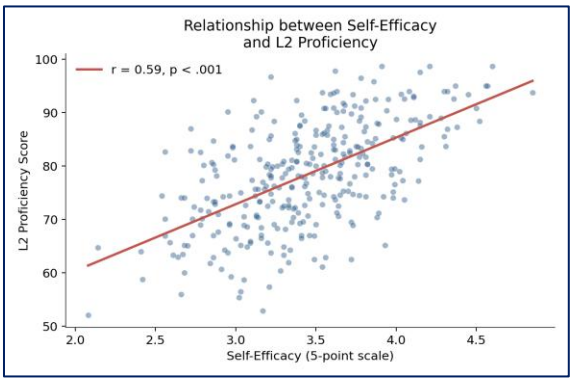

Figure 6: Scatterplot of Self-Efficacy against L2 Proficiency with fitted regression line

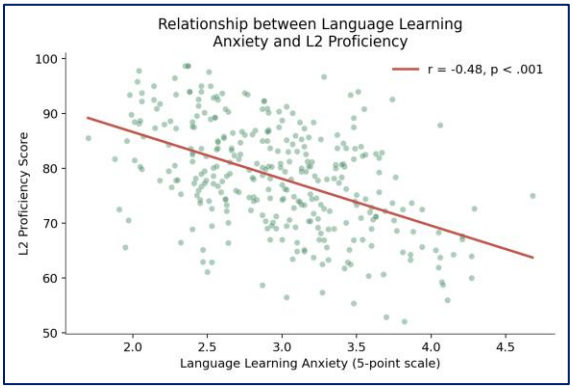

Figure 7: Scatterplot of Language Anxiety against L2 Proficiency with fitted regression line

4.4 Group Comparisons

4.4.1 Gender

An independent-samples t-test found no statistically significant difference in L2 proficiency between

female learners (M = 79.24, SD = 9.70) and male learners (M = 77.58, SD = 9.84), t(318) = 1.52, p = .129.

4.4.2 School Medium of Instruction

The above finding indicates that perhaps the psychological and motivational factors were a compensatory role in reducing the proficiency gap related to the background of learning medium in early schooling for English-medium and vernacular-medium school.

4.4.3 Academic Stream

There were similar L2 proficiency levels among the first-year undergraduate students in each of the four academic streams (Arts/ Humanities, Commerce/ Management, Science and Engineering) as there was no statistically significant differences among the types of academic streams on a one-way ANOVA, F (3, 316) = 1.30, p = .276.

Table 5: Mean L2 Proficiency Scores by Academic Stream (ANOVA F (3,316) = 1.30, p = .276, ns)

Academic Stream	Mean Proficiency	SD	n
Arts/Humanities	79.76	8.17	91
Commerce/Management	78.77	10.02	96
Engineering	77.18	10.86	68
Science	77.22	10.28	65

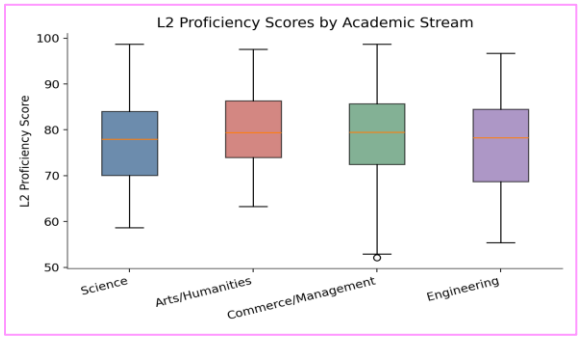

Figure 8: Boxplot of L2 Proficiency scores by academic stream

V. RESULTS AND FINDINGS

5.1 Summary of Hypothesis Testing

Table 6 summarises the outcome of hypothesis testing based on the correlation and regression analyses reported in Section 4.

Table 6: Summary of Hypothesis Testing Outcomes

Hypothesis	Result
H1: Motivation positively correlated with proficiency	Supported (r = .537, p < .001)
H2: Anxiety negatively correlated with proficiency	Supported (r = -.481, p < .001)
H3: Self-efficacy positively correlated with proficiency	Supported (r = .594, p < .001)
H4: Attitude positively correlated with proficiency	Supported (r = .482, p < .001)
H5: WTC positively correlated with proficiency	Supported at bivariate level; not significant in combined regression
H6: Aptitude positively correlated with proficiency	Supported (r = .628, p < .001)
H7: Combined factors significantly predict proficiency	Supported (R^2 = .638, p < .001)
H8: No significant demographic differences	Supported (gender, medium, stream all ns)

5.2 Key Findings

1. At the bivariate level, all the six psychological factors studied were significantly correlated with L2 proficiency thereby substantiating the role of affective and cognitive-psychological factors combined in language achievement for Indian higher education learners in line with Gardner's socio-educational model and Krashen's Affective Filter Hypothesis (AFH).
2. The language aptitude (β = .400) and self-efficacy (β = .218) proved to be the two best independent predictors of the combined model and indicated that although cognitive ability is important, belief in self-efficacy also has strong impact on proficiency, without the cofounding effect of other factors.
3. Once motivation and self-efficacy were accounted for, 3. Language Anxiety continued to be a significant negative predictor (β = -.152), which further emphasized the importance of using anxiety-reduction techniques in language classrooms in addition to motivation-raising techniques.
4. Among the strongest bivariate associations (r = .525), Willingness to Communicate was not statistically significant in the multivariate model. This suggests that the apparently connection between WTC and proficiency might be mediated by its overlap with self-efficacy and motivation,

and is not a totally separate psychological route an important distinction for those interventions that use WTC without considering self-efficacy and motivation.

5. The proportion of variance accounted for by the combined psychological model was significant at 63.8%, highlighting the psychological factors, collectively as a whole, as a significant determinant (but not the sole determinant) of the outcomes in L2 aspects; the non-explainable 46.2% variance might reflect effects of instructional quality, exposure time, socio-economic context, and unmeasured cognitive factors on the L2 outcomes.
6. No statistically significant difference in proficiency between gender, school medium of instruction and academic stream. Of particular interest is the finding that there is no effect of medium of instruction; that is, whether a student starts studying English in his or her native language or in English may not matter to overall improvement in proficiency outcomes in higher education, a favorable result for educational accessibility interventions, including those inherent in equity policies.

5.3 Discussion

The overall results broadly resonate with international SLA research, and add nuances in relation to the context of Indian higher education. This predominance of Belief phenotypes over Aptitude phenotypes as the predictors, concurs with the theories where the belief that the learners can attain academic success serves as a near-cognitive gateway variable that determines to a large extent how well the input from aptitude and teaching can only be converted into academic performance. The important negative component of Anxiety even in the multivariate context, supports the findings of Horwitz et al. (1986) and other FLCAS research and posits that the classrooms in India are likely to have fewer anxiety-reducing and less high-stakes opportunities to practice oral communication. The Amplitude of the WTC was not found to be statistically significant as an independent predictor in this study, although it theoretically plays an important role in the SLA literature. The answer may be that there is a need to do more than provide opportunities to speak; opportunities to speak can lead to true gains only if self-efficacy and motivation are sufficient as well. This has implications, at least in the Indian classroom, for the design of tasks, because sometimes communicative tasks are introduced, no attention is paid to the confidence level of the learners. Absence of significant difference related to school medium of instruction is encouraging for equity in Higher Education. It implies that if vernacular-medium students have any mastery disadvantages, these are not fatal and psychological and motivational aspects of interaction with English in the college years may have a compensatory effect a field for further longitudinal research.

VI. CONCLUSION

The present study aimed at empirically analyzing the relationship of 6 psychological factors, namely motivation, language anxiety, self-efficacy, attitude, willingness to communicate, language aptitude and L2 proficiency among 320 learners from various Higher education institutions throughout the country. The results generally offer strong empirical justification for the integrated affective-cognitive model of L2 acquisition: all six of the factors were significantly and positively correlated with proficiency, and five of the six were significant independent factors in a combined regression model which accounted for nearly two-thirds of the variance of the proficiency scores. Among self-efficacy, language aptitude, motivation, attitude and language anxiety, only self-efficacy and language aptitude revealed themselves to be strong predictors, while the correlation range of motivation, attitude, and language anxiety suggested that willingness to communicate acted more through there than through its unique effect. No significant differences were found for the demographic variables of gender, school medium of instruction or academic stream, implying that psychological factors of participating in the language during higher education might be a more effective and also more modifiable form of improving students' outcomes than demographic or education-background variables. Together these data provide a strong indication of the importance and complexity of language in higher education in India, which suggests that instructional input and aptitude cannot be the sole means of improving language. A pedagogical need to consider psychological factors such as learners' self-efficacy beliefs and degree of classroom anxiety, needs to be explicitly and sustained examined. The practical implications are, that in English learning,

confidence-building, low-stakes, communicative activities have to be incorporated; teacher education has to focus on improving the sensitivity of teachers towards language anxiety and teacher should design motivational interventions that take into consideration instrumental and integrative orientations of students in India. Imagine an institution having the desire to facilitate more effective L2 outcomes on a wide scale: psychological support should be considered as a central, as opposed to peripheral, aspect of language pedagogy.

VII. FUTURE SCOPE

While this study offers a robust cross-sectional picture of the relationship between psychological factors and L2 proficiency, several avenues merit further research:

- Future studies should follow students longitudinally across one or more semesters or years to determine the causality among the psychological factors of interest and the growth in proficiency achieved, and to witness the nature of such links while students' study further into the academic context.
- Mediation and moderation modelling: So far, we discovered that Willingness to Communicate's effect is mediated by self-efficacy and motivation there is the possibility to investigate the mediation pathways formally between the psychological variables using structural equation modelling (SEM).
- Skill-specific analysis: Future research might break down the composite proficiency measure to a listening, speaking, reading, and writing subscale and to investigate whether or not there would be different psychological factors' effects (e.g., anxiety, WTC) on listening, speaking, reading, and writing.
- Qualitative and mixed methods: Adding on this quantitative model with interviews or classroom observation can help to reveal the lived mechanisms of anxiety, self-efficacy and motivation in the Indian classroom.
- Intervention studies: Experimental or quasi-experimental studies designed to assess the effects of specific instructional interventions (such as anxiety-reduction workshops, self-efficacy-building task sequences) and their impact on ultimate proficiency would yield stronger causal support for pedagogical practice.
- Broader linguistic and regional diversity: It is suggested that such research could be expanded to include other L2s taught in the Indian context (e.g., regional L2s or foreign L2s such as French/ German or Japanese), as well as to other types of educational institutions (e.g., rural colleges, open universities, vocational institutes), thereby increasing the generalisability of the findings.
- Technology mediated learning contexts: As digital and blended English language learning is gaining ground in India, future studies might be conducted to investigate if the psychological factors referred to in this study appear to work in the same manner in digital or hybrid learning contexts or if there are variations.

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