

Reinforcement of Learner's Perception with Cognitive Interactive Pedagogy – An Empirical Study

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Abstract—In the realm of second language acquisition (SLA), various factors significantly influence learners' perceptions of interactive pedagogy when acquiring English as a second language (ESL). This paper aims to explore the role of motivation and personal background of the learners in shaping their perceptions towards interactive pedagogy in ESL learning, with a specific focus on the Indian context via an empirical study on 200 university level students. The study reflects the comparative analysis of all the independent variables (Native language, Native state, Gender, Cultural background and age) on dependent variables (Interactive pedagogy and learner perception) by offering description on their impact on the dependent variable which is observed as Insignificant except one variable which shows significant inverse relationship i.e. de- motivation. The instrument reflects motivation variable as a prime cause for learning English as second language and underlies the perception of the student toward Interactive Pedagogy as tool to enhance their Language skills within and outside the language classroom. Through Wald Chi-square test the relationships has been analyzed and calculated. By examining the factors, we can better understand the diverse needs of ESL Learners and design effective Pedagogical approaches in further upcoming researchers.

Index Terms— English as second language (ESL), Interactive pedagogy (IP), Motivation, Learner perception, Non- Native speakers.

I. INTRODUCTION

Learning English as a second language (ESL), is an important skill in today's globalized world. However, it is a complex and dynamic process where educators face the challenge of selecting effective pedagogies to facilitate language acquisition for non-native English speakers. Different teaching methods such as Grammar-Translation Method (GTM), Direct method, Audio-Lingual, Communicative Language Teaching (CLT) and Task-Based Language Teaching (TBLT) have been commonly adopted as language teaching tools. CLT and TBLT are learner centered methods whereas the others are more traditional teacher centered approaches. Recently, Interactive Pedagogy (IP), characterized by learner-centered activities, interactive tasks, and collaborative learning, has become a popular approach in ESL classrooms due to its efficacy in enhancing learners' communication skills and promoting language proficiency.

This active participation in interactive pedagogy further enhances learners' language skills, confidence, and overall engagement in the learning process. However, the success of interactive pedagogy heavily depends on learners' perceptions and attitudes towards the teaching method. Various factors such as motivation, parent's

education, previous learning experiences, gender, and cultural background highly influence learners' perceptions of interactive pedagogy.

English plays a significant role in education, employment, and social mobility and there is a large population of English language learners. However, the linguistic diversity poses challenges for English language learning. Students often face the interference of their first language in pronunciation, grammar, and vocabulary (Goyal et. al. 119-230). De- motivation towards learning English also hampers the ability of learners in acquiring ESL. Additionally, cultural factors such as societal attitudes towards English and regional language dominance may impact learners' confidence in using English (Mahanta & Mahanta, 20). This paper aims to explore these factors and their impact on learners' perceptions of interactive pedagogy in learning ESL, in Indian context

II. LITERATURE REVIEW

A. Overview of Learner Related Factors

Motivation

Motivation is a fundamental aspect of second language acquisition and has been extensively studied in the field of language education. According to the socio-educational model of motivation proposed by (Gardner, 1-15), (Dornyei, 15-25), integrative and instrumental motivations are two significant factors that influence language learning motivation. Integrative motivation refers to the desire to connect with the target language culture and develop relationships with speakers of the language (Doley, 152-173). Instrumental motivation, on the other hand, is driven by practical benefits, such as career advancement and accessing global opportunities.

While there are various factors that motivate Indian students to learn English, there are also factors that may contribute to their de- motivation. The lack of perceived relevance and contextualization of English learning can lead to de- motivation among Indian students. The incorporation of meaningful and relevant content can help students connect English learning to their own experiences and goals.

Cultural Background

Culture has different perspectives and has been conceptualized into various forms as values, beliefs, representations, knowledge, rituals as well as other symbolic practices within a particular social group. Diverse and socio- cultural background always impact the language of the communities (Atkinson & Sohn, 669-693). Learners' cultural backgrounds and educational contexts can shape their perceptions and attitudes towards IP. Cultural values and traditions also influence learners' preferred teaching methods and their expectations of classroom dynamics, including teacher-student interactions and student-student interactions. Teachers need to be aware of these cultural influences to effectively implement IP in culturally diverse classrooms.

Parent's Education

Parents' education level is also an important factor that can influence learners' perceptions and attitudes towards instructional approaches, including Interactive Pedagogy (IP), in the context of learning English as a Second Language (ESL). Higher levels of parental education are often associated with higher expectations for academic success and engagement in the educational process (Davis-Kean, 294-304. Parents with higher education may be more open to progressive educational practices and may value interactive and learner-centered approaches that encourage critical thinking and communication skills (Desimone, 11-30). Exposure to a linguistically rich environment and frequent communication with educated parents can contribute to learners' confidence and competence in using English. It is notable that as the learners transit into higher education, parent's education may have a diminishing direct influence on learners' preferences for teaching methods. Instead, learners' perceptions are shaped by their personal experiences, academic goals, and peer influences

Age

Age is a significant factor that can influence learners' perceptions and attitudes towards instructional approaches, in the context of learning English as a Second Language (ESL). Adult learners have distinct characteristics and motivations compared to younger learners. They often have specific language learning goals, such as improving professional prospects or integrating into a new culture. Interactive Pedagogy can be effective for adult learners as it provides opportunities for real-life communication, promotes learner autonomy, and encourages self-reflection (Breen & Littlejohn, 55-72). However, adult learners' perceptions of IP may also be influenced by their previous educational experiences and cultural backgrounds. Thus, age plays a crucial role in shaping learners' perceptions of Interactive Pedagogy in ESL contexts.

Gender

Gender is a social construct that shapes individuals' identities, roles, and expectations within society. In the context of language learning, gender can also influence learners' perceptions and attitudes towards instructional approaches. Gender stereotypes can shape learners' expectations and behaviors in the classroom, including their responses to IP. For example, studies have found that female learners may perceive IP as more suitable for their learning style, as it aligns with stereotypical expectations of females as cooperative and nurturing (Eckert, 17-90).

III. RESEARCH METHODOLOGY

The research is based on Empirical Research with quantitative description. The data has been collected through Google form shared through smart social networking applications. The survey has been done on Likert- scale scored on the range from 1-5 with the score of 1 being the lowest as strongly disagree response and 5 as highest i.e. strongly agree responses. Data has been analyzed through SPSS into frequencies, descriptive statistics.

The sample size of population taken into consideration is 200 from UG and PG students of different colleges and universities of India. Initially a sample questionnaire was piloted on selected volunteers to check the response rate. Participants have been analyzed on grounds of their perceptions and experiences as non- natives in higher education. The students sample size was the mix of adolescents with the age group of 18-25. Out of the data of 200 students 163 students have responded well; whereas 37 students have been non- responders. The main reason to select the population from North India specifically as there is no research done within this field. Random sample Technique has been implied to collect the data results.

The questionnaire has demographic section; the scale was designed to gather student's own perceptions on English Language Development. Questions have complete target on the impact of student's need of language in support to academic success. The scale includes overall modules of English Language; Listening, Speaking, Reading and Writing. Questionnaire has been designed to bring different attitudes of learners in learning Language i.e. whether they have a positive or a negative approach to adapt the foreign language. To avoid certain confusions, the questions have been designed more comprehensive with close- ended questions. The respondents have been observed while filling their responses by their respective faculty members. The complete database has been collected within the duration of six months.

The aim of the study is to study the perceptions of students in acquiring language with the impact of the influence of motivation. Through this paper we examine the self-efficacy of the students between the language related variables and the scope of satisfaction in learning the same. This procedure paved us to get the clarity and measure the questionnaire with fruitful outcomes and completion of achieving our targets.

IV. DATA ANALYSIS & INTERPRETATION

A. Descriptive Statistics

TABLE 1: DESCRIPTIVE STATISTICS

VARIABLES	MIN.	MAX.	MEAN	S.D.
IP Perception Scores	27	95	71.42	11.122
Demotivation Score	13	36	21.36	4.685
Marks*in Eng. in 10th	1	6	4.63	1.144
Marks*in Eng. in 12th	2	6	4.55	1.118
Father's Education*	1	5	3.66	1.172

Source: Author's Calculations

Table I shows the descriptive statistics for the variables under study. The table present the mean and standard deviation for the variables under study.

B. Statistical Model

Az- score of -1.326 is obtained for the IP perception scores which lies between -1.96 and 1.96. Hence, these scores are normally distributed. Therefore, multiple linear model is selected to fit these data.

Multiple linear model equation is given by

IP perception score = $\alpha + \beta_1$ (DM score) + β_2 (Marks in 10th) + β_3 (Marks in 12th) + β_4 (Father's Education) + β_5 (Mother's Education) + β_6 (Gender) + β_7 (Native State) + β_8 (Native Language) + ϵ (1)

Where, β 's measure the effects of the predictors, α is the constant and ϵ follows normal distribution with constant standard deviation.

C. Model Information

The Table 2 represents the model information

TABLE II. MODEL INFORMATION

Dependent Variable	Interactive Pedagogy Perception Scores
Probability Distribution	Normal
Link Function	Identity
Scale Weight Variable	Scale Weight

Source: Author's Calculations

D. Significant Testing

Dependent Variable: Interactive Pedagogy Perception Scores

Model: (Intercept), Gender, Native State, Native Lang, DM Score, Marks10th, Marks12th, F.Edu. and M Education.

- Set to zero because this parameter is redundant.
- Maximum likelihood estimate.

TABLE III. TEST OF MODEL EFFECTS

TYPE III			
SOURCES	WALD CHI-SQUARE	D.F.	P-VALUES
(Intercept)	137.078	1	0
Gender	0.111	1	0.739
Native State	10.927	12	0.535
Native Lang	9.223	5	0.1
DM Score	12.437	1	0
Marks10th	0.717	1	0.397
Marks12th	0.084	1	0.773
F Edu	0.349	1	0.555
M Edu	1	1	0.317

Source: Author's Calculations

Dependent Variable: Interactive Pedagogy Perception Scores

Model: (Intercept), Gender, Native State, Native Lang, DM Score, Marks10th, Marks12th, F Edu, M Education. From the results, it is remarked that only the DM Score has a significant impact on IP Perception Scores.

Scaled deviance is 163 with 133 degrees of freedom giving a ratio of 1.2 which indicates that model is of good-fit.

Estimated Marginal Means 1: Gender Estimates

Covariates appearing in the model are fixed at the following values: DM Score=21.36; Marks10th=4.63; Marks12th=4.55; F Edu=3.66; M Edu=3.60

TABLE IV. ESTIMATED MARGINAL MEANS FOR GENDER ESTIMATES

95% Wald Confidence Interval				
GENDER	MEAN	STD. ERROR	LOWER	UPPER
Female	69.15	2.382	64.48	73.82
Male	69.74	2.116	65.59	73.88

Author's Calculations

Estimated Marginal Means 2: Native States

TABLE V: ESTIMATED MARGINAL MEANS FOR NATIVE STATES

95% Wald Confidence Interval				
PARAMETERS (NATIVE STATES)	MEAN	STD. ERROR	LOWER	UPPER
AP	62.77	10.656	41.88	83.65
Bengal	77.26	7.596	62.37	92.14
Bihar	67.6	3.921	59.92	75.29
Delhi	67.78	10.542	47.11	88.44
Haryana	62.66	3.333	56.13	69.19
HP	65.11	3.588	58.07	72.14
Jharkhand	66.6	6.087	54.67	78.52
JK	69.74	9.726	50.68	88.81
Kerala	72.6	6.358	60.14	85.07
Maharashtra	63.5	10.382	43.15	83.84
Manipur	76.01	9.807	56.79	95.23
MP	71.32	10.853	50.05	92.59
Orissa	74.27	10.414	53.86	94.69
Punjab	69.9	2.975	64.07	75.74
Rajasthan	59.89	5.605	48.91	70.88
Tamilnadu	79.2	10.439	58.74	99.66
Telangana	74.95	7.585	60.08	89.81
UP	63.61	3.613	56.53	70.69
Uttarakhand	74.64	7.747	59.46	89.82

Source : Author's calculations

Covariates appearing in the model are fixed at the following values: DM, Score=21.36; Marks10th=4.63; Marks12th=4.55; FEdu=3.66; MEdu=3.60
 EstimatedMarginalMeans3: Native Language.

TABLE VI. ESTIMATED MARGINAL MEANS FOR NATIVE LANGUAGE

95% Wald Confidence Interval				
NATIVE LANGUAGE	MEAN	STD. ERROR	LOWER	UPPER
Bengali	68.72	3.176	62.5	74.95
Dogri	73.24	10.629	52.4	94.07
English	69.17	5.294	58.79	79.54
Hindi	76.77	2.524	71.83	81.72
Malayala	68.72	3.176	62.5	74.95
Manipuri	56.8	10.912	35.41	78.18
Marathi	68.72	3.176	62.5	74.95
Odia	68.72	3.176	62.5	74.95
Paharil	76.29	10.581	55.55	97.03
Punjabi	68.72	3.176	62.5	74.95
Tamil	68.72	3.176	62.5	74.95
Telugu	68.72	3.176	62.5	74.95

Source: Author's Calculations

Covariates appearing in the model are fixed at the following values: DM Score=21.36; Marks10th=4.63; Marks12th=4.55; FEdu=3.66; MEdu=3.6

TABLE VII. RESULTS OF SIGNIFICANCE

VARIABLES UNDER STUDY	RESULT OF SIGNIFICANCE
Native Language	Insignificant
Native State	Insignificant

10th Score	Insignificant
10+2 Score	Insignificant
Father's Education	Insignificant
Mother's Education	Insignificant
Gender	Insignificant
Demotivation	Significant

Source : Author's compilations

V. RESULT AND DISCUSSION

The study examines the role of motivation underlying learner's perception towards interactive Pedagogy in acquiring English as second language where we have randomly sampled 163 students from different Universities of INDIA. The data has been calculated in tabulated manner with proper frequency and percentage. The respondents have submitted their responses in the form of 5-point likert scale as Strongly disagree as 1, Disagree 2, Neutral as 3, Agree as 4 and strongly Agree as 5 and vice versa for the negative responses. In addition to this the data descriptive analysis is done on the independent variables as well as dependent variables, where the percentage of minimum and maximum range of responses is checked and their Mean value. To check the impact of the responses the Standard Deviation is done. We have applied Chi- Square to check the association between the variables. The result helps us to calculate that which factor exerts an influence on the learning of language by the individuals. As per the findings, the different variables taken into consideration like parental education, the score of matriculation, secondary Education, Gender as independent variables and Interactive Pedagogy as dependent variable we have implied multiple linear model Equation where the result reveals that all the independent variables have insignificant impact on Interactive pedagogy perception except de-motivation which shows Negative significant impact on the dependent variable. It shows significant but inverse relationship between de-motivation and Interactive pedagogy perception. It means that the dependent variable, Interactive pedagogy perception is only influenced with the factor of de-motivation. According to the data, the students get impacted with de-motivation and are not able to grip English as second language and face inability to speak and understand language. Learners delve into significant learning only when they get motivated they develop good comprehension and significance of language which further improve their proficiency

VI. THEORETICAL AND PRACTICAL IMPLICATIONS

The implication of the study reveals that the students need to be dealt with positive motivation with interactive pedagogy i.e. practical manner of engaging students into the English converse zone where gradually they develop their spoken language (Baan, 192- 204). It even assists the teachers to prepare their practical pedagogies in simplified manner with the approach to enhance language which may include mock role plays, conversations on day- to- day routine, common concepts of daily use language phrases which may add luster to the language. This will modify and improve the language instruction and will support the curriculum specially to integrate English as second language. As future research direction, the results clearly indicates that independent variables cannot impact the learning of the learners i.e. there is individual perception of the student if one wants to learn he/ she has to be self-motivated towards learning the language. The other variables like Rank, Age, and level of exposure may be integrated for future investigations as it matters with due course of practice the learner may get more command on the language skills.

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