

# Measuring Nonverbal Immediacy Scale (NIS) and its Applicability in Academics: A Cross Cultural Survey

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## ABSTRACT

In this study, we are showing the non-verbal immediacy variables, such as an instructor's posture, facial expressions, distance when interacting with students, touch and gestures, vocal expression, and intents, have a favourable and significant impact on this relationship. The study also showed that across students in Under-Graduate and Post-Graduate programmes, the intention of relationships changes according on gender.

**Keywords:** nonverbal immediacy scale(nis), culture, academic

## I. INTRODUCTION

India is known "as a tower of veritable languages" or a "Museum of languages" that's why in the year 1950 the states were acknowledged on the basis of linguistic (Prabhudev, 2019). These multilingual natures of the states have both positive as well as negative effects on the life of these states' people. However, English acted as a connection language over the past ten years (Mallikarjun, 2002). India is separated into 5 geographical regions. East, Central, North, and South. The North East part of India is famous from the name of "Seven Sister" because it consists of seven states. These states are: Assam, Meghalaya, Manipur, Tripura, Nagaland, Mizoram and Arunachal Pradesh with one more state Sikkim which is considered as brother of seven states (Singh & Bhattacharjee, 2020). These 8 states of North East India are surrounded by 5 countries i.e. Bhutan, Bangladesh, China, Nepal & Myanmar. This means they are sharing 98% of their border line with these countries. (Chatterjee, S., Saikia, A., Dutta, P., Ghosh, D., Pangging, G. and Goswami, A. K. (2006). That's why the people of North East use multilingual for communication.

The word communication has been derived from the Latin word "commūnicāre" which means "to share". It is the act of transmission meanings from one person to another person or group through the use of mutually understood signs and semiotic rules. (Reca, 2007).

In education industry academics play a key role in providing the quality education to the students by using verbal as well as non-verbal communication (Sonmez, 2007). A communication which makes use of words or language is known as verbal communication whereas nonverbal communication is done through eye contact, smiling, touching, standing in close (distance to other person), being more active and energetic, gestures. Calm body postures, walking around in the class and using different voice tones while speaking, smiling, approval behaviour, allowing time to students, good clothing etc. (Balta v Balta, 2001). Hence, it is important for effective learning that academics must have both verbal and nonverbal communication (Tutar, 2003; Bal, 2008).

In the Sikkim state, the first government private initiative University Manipal University which was established in the year 1995. In the past 25 years, a good number of universities are established in the state.

**Table 1:** Type of Universities In The State With Their Establishment Year & Number Of Courses Offered

University	Type	Estd. Year	Total No. Of U.G. Programs Offered	Total No. Of P.G. Programs Offered	Ph.D & M.Phil	Total No. Of Courses Offered
Sikkim University	Central University	(2006)				
National Institute Of Technology	National Importance Institute	(2010)				
Icfai University	Private University	(2004)	12	04	-	16

<b>Vinayaka Missions University</b>	<b>Private University</b>	<b>(2008)</b>	<b>05</b>	<b>04</b>	<b>M.Phil</b>	<b>09</b>
<b>Srm University</b>	<b>Private University</b>	<b>(2013)</b>	<b>14</b>	<b>10</b>	<b>Ph.D</b>	<b>24</b>

(Sources: [www.ugc.ac.in](http://www.ugc.ac.in), [www.cus.ac.in](http://www.cus.ac.in), [www.nitsikkim.ac.in](http://www.nitsikkim.ac.in), [www.iusikkim.edu.in](http://www.iusikkim.edu.in), [www.vmsuniversity.in](http://www.vmsuniversity.in), [www.srmus.ac.in](http://www.srmus.ac.in))

## II. REVIEW OF LITERATURE

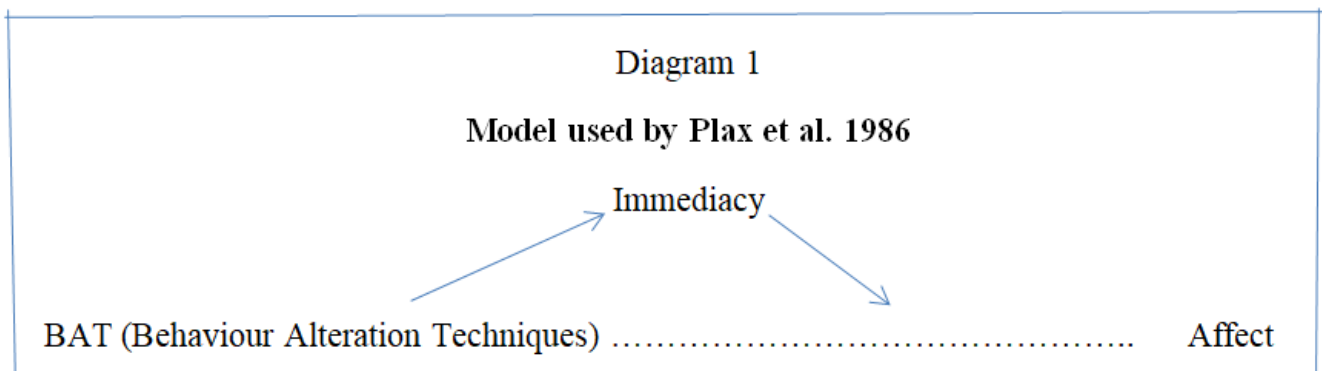
In the year 1872, Charles Darwin has published one book on – “The Expression of the Emotions in Man and Animals”. With this book he has opened the door of scientific research on nonverbal immediacy (as cited by Pease B; Pease A, 2004). After this number of researcher has done on Nonverbal immediacy by taking different different variables. According to White 2000, nonverbal communication is consists of seven variables: eye contact, posture, facial expressions, distance, touch, vocal intonation and gesticulations (gestures).

Kendon et al. (1955), had analysed a film by using an analytic method called context analysis (Hecht & Ambady, 1999). Ralph V. Exline has studied the patterns of looking while listening and speaking (Hecht & Ambady, 1999). Robert E. Kraut (1981) studies have proved that nonverbal cues have a significant impact on the outcomes and the subtle of the expectations made by faculties in a class room. Albert Mehrabian research has given three findings which he has mentioned in his book entitled-“Nonverbal communication (1972). These are: 7% of message pertaining to feelings and attitudes is in the words that are spoken, 38% of message pertaining to feelings and attitudes is the way the words are said and 55% of message pertaining to feelings and attitudes is in facial expression.

Fast (1967) has discussed in his book entitled – “Body Language” how to attract people through nonverbal immediacy. In another book entitled – “How to Read a person like a book” (by Nierenberg & Calero, 1990) has identified human nonverbal behaviour when they are in negotiation situation.

On the basis of following studies, it has been analysed that nonverbal communication in classroom has a significant impact on student’s level of understanding.

Plax et al. (1986) had used a model in their studies. From the finding it was found that the Model showed that academics nonverbal immediacy mediates has an effect on student’s attitudes towards their learning environment. The findings also revealed that students attitude towards learning is also depend on academics nonverbal immediacy method. And students are highly influenced by those academics that opt selective nonverbal immediacy behaviour in their classroom.



Pedrosa (1990) finding revealed that academics and students shared an strong interpersonal relationship with the nonverbal immediacy factors such as hand and body language as well as head gesture.

Valadez (2001) studies said that those students whose first language is not an English (ESL), with them nonverbal immediacy has showed an significant impact in better adoption of their class-room surroundings and they gather more information through nonverbal immediacy.

Roviello (2004) has proved in his research that those academics that are using nonverbal immediacy in their day to day exercises are giving better directions and focused class attention than those who are not using.

Bagci (2008) studies revealed that students interpretate their academics nonverbal communication signals which they used in the class-room and it have a significant impact on the learning process and on the better understanding of the subjective content ( as cited in the Parulekar, 2017).

### III. RATIONALE AND NOVELTY OF THE STUDY

The concept of Nonverbal immediacy is not a unique one even in the education field. A good number of works is already done in this line. But the prime reason for choosing the present research was that Sikkim is the only state in the North East India which has officially 11 multilingual languages (Source: 50th Report of the Commissioner for Linguistic Minorities in India, 2014). The State has unique issues on account of geographic locations. Sikkim is sharing its border area with Nepal in the west, Tibet in the north and northeast, Bhutan in the east and West Bengal in the south. Sikkim is also located close to India's Siliguri Corridor near Bangladesh. (Source: Sikkim Government Gazette, 1977). Sikkim is a hub of multilingual with officially 11 languages: Nepali, Sikkimese, Lepcha, Tamang, Limbu, Newari, Rai, Gurung, Magar, Sunwar and English (Source: 50th Report of the Commissioner for Linguistic Minorities in India, 2014). English is taught in schools, colleges and used in government documents. And in Sikkim state, every year a good number of students came from neighbouring countries to study at these universities. SRM University is the only private university which is offering a maximum number of courses in 3 disciplines as compared to other private university of the state for both under graduate as well as post-graduate level. (Source: www.iusikkim.ac.in, www.vmsuniversity.ac.in, www.srmus.ac.in). SRM is the only private university which have various distinguished academics from all around the country (Source: H.R. Dept. of www.iusikkim.ac.in, www.vmsuniversity.ac.in, www.srmus.ac.in). And it is the only private university of the state which have a good number of students from other parts of the country and from the neighbouring countries like Bhutan and Nepal. (Source: SRM, Sikkim University H.R. Dept.) However, there is a perception developed by other students who came from neighbouring countries as well as from other parts of the India that there is a communication problem which often influence their professional understanding and the subject content. This reason has a direct association with the acceptance power of nonverbal immediacy behaviour of the students. However, this research work is an attempt to testify such assumption. Moreover, no research study has been undertaken reflecting the nonverbal immediacy of students and faculties in the SRM University of Sikkim State without categorising according to the Multilanguage.

**Table 2:** Students In Under Graduate Courses In SRM University

STUDENTS	INDIA	BHUTAN	NEPAL	Total
SCIENCE	24	24	24	72
SOCIAL SCIENCE	24	24	24	72
HUMANITIES	24	24	24	72
Total	72	72	72	216

(Source: SRM University, Admission cell)

**Table 3:** Total Number Of Students From Each Discipline With Year Wise In There U.G. Program With Respect To Gender And Country

Discipline/ year	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	Total Students
Science	Total 8 students, 4 male and 4 female.	Total 8 students, 4 male and 4 female.	Total 8 students, 4 male and 4 female.	Total 24 students. 12 male and 12 female.
SOCIAL SCIENCE	Total 8 students, 4 male and 4 female.	Total 8 students, 4 male and 4 female.	Total 8 students, 4 male and 4 female.	Total 24 students. 12 male and 12 female.
HUMANITIES	Total 8 students, 4 male and 4 female.	Total 8 students, 4 male and 4 female.	Total 8 students, 4 male and 4 female.	Total 24 students. 12 male and 12 female.
Total	Total 24 students. 12 male and 12 female.	Total 24 students. 12 male and 12 female.	Total 24 students. 12 male and 12 female.	Total 72 students. 36 male and 36 female.

(Source: SRM University, Admission cell)

**Table 4:** Students In The Post-Graduation Courses In Srm University

STUDENTS	INDIA	BHUTAN	NEPAL	Total
SCIENCE	24	24	24	72
SOCIAL SCIENCE	24	24	24	72
HUMANITIES	24	24	24	72
Total	72	72	72	216

(Source: SRM University, Admission cell)

**Table 5:** Total Number Of Students From Each Discipline With Year Wise In There P.G. Program With Respect To Gender

Discipline/ year	1 <sup>st</sup> Year	2 <sup>nd</sup> year	Total students
Science	Total 36 students, 18 male and 18 female.	Total 36 students, 18 male and 18 female.	Total 72 students, 36 male and 36 female.
SOCIAL SCIENCE	Total 36 students, 18 male and 18 female.	Total 36 students, 18 male and 18 female.	Total 72 students, 36 male and 36 female.
HUMANITIES	Total 36 students, 18 male and 18 female.	Total 36 students, 18 male and 18 female.	Total 72 students, 36 male and 36 female.
Total	Total 108 students, 54 male and 54 female.	Total 108 students, 54 male and 54 female.	Total 216 students, 108 male, and 108 female.

(Source: SRM University, Admission cell)

#### IV. OBJECTIVES OF THE STUDY

The study tries to measure the impact of using nonverbal immediacy by faculty members in their classroom transactions on undergraduate students based on gender. The study also tries to measure the impact of using nonverbal immediacy by faculty members in their classroom transactions on post-graduate students based on gender. And the applicability of the Nonverbal Immediacy tool in the SRM University, Sikkim.

#### V. RESEARCH METHODOLOGY

This part of the research covers the detailed research methodology which is applied by the researcher in this particular research work. It comprises of the Research area, population and sampling scheme, data and its sources, research instrument, reliability and validity testing, and tools/techniques used to analyse the data.

**1. Research Area and Data Collection:** The research area covers SRM University of Sikkim State which is a part of North-East India. At present university is offering a total of 24 programs. 14 programs in under-graduation and 10 programs in Post-graduation in three disciplines, viz., Sciences, Humanities, and Social Sciences.

**Table 6:** Students strength of SRM University, Sikkim

Discipline / program	Under graduation	Post-graduation	Total
Sciences	7	3	10
Humanities	4	4	8
Social Sciences.	3	3	6
Total	14	10	24

**2. Population:** Students of SRM University, Sikkim who are studying in three disciplines, viz., Sciences, Humanities, and Social Sciences in under-graduation and post-graduation.

**Table 7:** Students strength of SRM University, Sikkim  
Academic year 2016-2019

Academic year	Total number of students enrolled
2016-17	360
2017-18	324
2018-19	516
Total number of students	1200

A total of 1200 students is studying in the various courses under 3 major disciplines.

#### 3. Population and Sampling Scheme:

The sample size has been selected using the following formula forwarded by Zar (1984):

$$\text{Sample size} = \frac{\frac{z^2 \times p(1-p)}{e^2}}{1 + \left(\frac{z^2 \times p(1-p)}{e^2 N}\right)}$$

Where,

SS = Sample Size

Z = Z value (99% confidence level)

p = percentage picking a choice expressed as a decimal (.5 used for sample size needed)

e = margin of error, expressed as decimal (5 = 0.05)  
N = Total Population = 1200

#### 4. Sample Size and Estimation of Sample Units:

To calculate the sample size researcher has used the above formula which is given by Zar (1984). And the total sample size came to 428 with a confidence level of 99 percent and a margin of error of 5 percent, thus researcher has used the total sample units of 432 as a final sample size for the aim of primary data collection. For data collection, the researcher has used the probability method d aandevery<sup>3rd</sup> student Under graduation as well as Post Graduation werwasntacted personally by the researcher to get the questionnaire filled up. These students are from different disciplines and years. Hence the final data has been collected from the 432 students of the SRM University, Sikkim who are studying both under graduation and post-graduation in all three disciplines i.e., Science, humanities, and social science

#### 5. Data Collection:

For the present study, data has been collected from the students of SRM University, Sikkim. These students are studying both under graduation and post-graduation in all three disciplines i.e., Science, humanities, and social science.

#### 6. Research Instruments for the Primary Survey:

The Nonverbal Immediacy scale- self-report (NIS-S) is used in the study which was developed by Richmond, V. P., McCroskey, J. C., & Johnson, A. D. in 2003. Likert 5 point rating scale has been used in the study to measure the impact of Nonverbal Immediacy impact on the students. According to Likert's scale; ' : 1 = Never; 2 = Rarely; 3 = Occasionally; 4 = Often; 5 = Very Often.

#### 7. Procedure:

The test consists of twenty-six behaviors that you must rate on how often your academics used in their day-to-day dealing. The test should take 4 - 8 minutes to complete.

#### 8. Technique Used:

Step 1: Add the scores from the following questions: 1, 2, 6, 10, 12, 13, 14, 16, 17, 19, 21, 22, and 25.

Step 2: Add the scores from the following questions: 3, 4, 5, 7, 8, 9, 11, 15, 18, 20, 23, 24, and 26.

Total Score = 78 plus Step 1 minus Step 2.

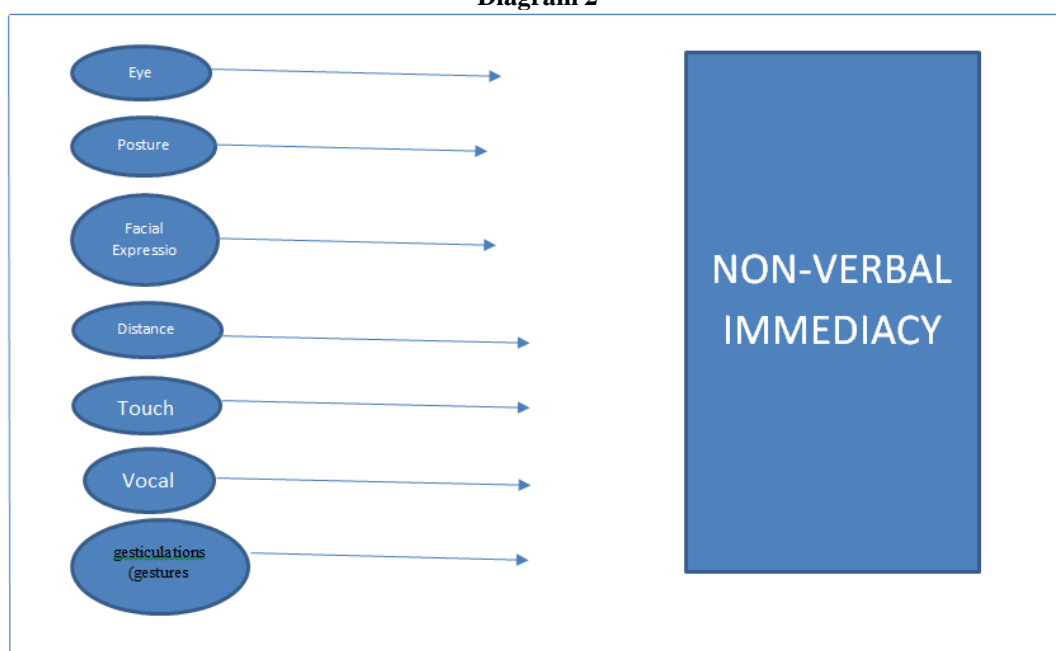
#### 9. Norms for the Instrument Used:

Females score should be, where Mean = 102.0, S.D. = 10.9, High = >112 Low = <92

Males score should be, where Mean = 93.8, S.D. = 10.8, High = >104 Low <83.

#### 10. Conceptual Model:

Diagram 2



The following hypotheses have been formulated and tested during the current study:

Null Hypothesis 1 (H01): There is no significant impact of using nonverbal immediacy by faculty members in their classroom transactions on undergraduate students based on their gender.

Null Hypothesis 2 (H02): There is no significant impact of using nonverbal immediacy by faculty members in their classroom transactions on post-graduate students based on their gender.

## VI. DATA ANALYSIS

By using the Nonverbal Immediacy scale, Procedure, Techniques to use the scale and Norms for the instrument used following results have been achieved.

**Table 8:** Analysis Table

Courses	Male	Female
U.G.	Mean : 103.3 Standard Deviation: 27.6	Mean : 108.8 Standard Deviation: 55.1
P.G.	Mean : 95.7 Standard Deviation: 9.8	Mean : 99.2 Standard Deviation: 10.9

From the analysis, it has been depicted that the NIS tool has a positive and statistically significant relationship between instructors' nonverbal immediacy behavior and students' perception of cognitive learning on the basis of nonverbal immediacy with the instructors. It signifies that NIS tool has been successfully applied in academics and has a variable relationship between the students' understanding with the nonverbal immediacy with that of their instructors. The finding shows that the mean value of Under-Graduate male students is found to be 103.3 whereas the female students are 108.8 with a difference of 5.5. Whereas the Standard Deviation of Under-Graduate male students is found to be 27.6 and for female students is 55.1 with a difference of 27.5. It shows Non Verbal communication have more significant impact on the female students of the Under-Graduate Program.

While with the Post-Graduation male students, the Mean value is found to be 95.7 and with female students, it is 99.2 with a difference of 3.5. The Standard deviation of Male students is found to be 9.8 whereas for the female students is 10.9 with a difference of 1.1. It shows Non Verbal communication have more significant impact on the female students of the Post-Graduate Program also.

## VII. CONCLUSION

From the above study, it has been concluded that Non-Verbal immediacy variables i.e., Eye expressions of the instructor, His/ Her Posture, Facial Expressions, Distance while interacting with the students, Touch and gesticulations, Vocal expression and intentions play a positive and significant relationship between the students and the instructors. The study also revealed, the intention of relationship also varies between the students on the basis of gender and the program i.e., Under –Graduate and Post-Graduate.

## FUTURE SCOPE OF THE STUDY

The study is limited to only Students of SRM University, Sikkim. It can be extended to the global level where students from all over the world are studying under one roof.

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## Questionnaire

Questionnaire Number

Questionnaire completed?

Sir/Madam,

This questionnaire is forwarded to you to elicit information for my research endeavor for my research work at SRM University, Tadong, Gangtok, Sikkim. The topic is entitled “.....”. I shall be grateful to you if you kindly spare a few minutes of your time in dispensing your responses to my research queries. The responses so availed shall be kept purely confidential and will be exclusively used for academic/research purposes only.

### Section A

Please encircle the appropriate number of the answer or option that corresponds to your situation.

1. Gender
  - Male
  - Female
2. Nature of the course/ Branch of the study & Department wise: (Please specify)
  - Science
  - Humanities
  - Social science
3. Course type-wise:
  - Only Post Graduation
  - Only Under- Graduation
4. What was your age on your last birthday?
  - less than 17
  - 18-20
  - 21-23
  - 24-26
  - 27-30
5. Primary Language/ community belongs to:
  - Lepcha and Bhutia
  - Nepali
  - Bhutan
  - Hindi
  - other



### Section B

The following statements describe the ways faculty members behave while talking with students. Please indicate in the space at the left of each item the degree to which you believe the statement applies to you. Please use the following 5-point scale: 1 = Never; 2 = Rarely; 3 = Occasionally; 4 = Often; 5 = Very Often

S.NO	CONTENT	1	2	3	4	5
1	Faculties use hands and arms to gesture while talking to students.					
2	Faculties touch students on the shoulder or arm while talking to students.					
3	Faculties use a monotone or dull voice while talking to students.					
4	Faculties look over or away from others while talking to students.					
5	Faculties move away from us when we touch them while we are talking.					
6	Faculties have a relaxed body position when they talk to students.					
7	Faculties frown while talking to students.					
8	Faculties avoid eye contact while talking to students.					
9	Faculties have tense body positions while talking to students.					
10	Faculties sit close or stand close to students while talking with us.					
11	Faculties' voice is monotonous or dull when they talk to students.					
12	Faculties use a variety of vocal expressions when they talk to students.					
13	Faculties gesture when they talk to students.					
14	Faculties are animated when they talk to students.					
15	Faculties have bland facial expressions when they talk to students.					
16	Faculties move closer to students when they talk to us.					
17	Faculties look directly at students while talking to them.					
18	Faculties are stiff when they talk to students.					
19	Faculties have a lot of vocal variety when they talk to students					
20	Faculties avoid gesturing while they talk to students.					
21	Faculties lean toward students when they talk to students.					
22	Faculties maintain eye contact with students when they talk to them.					
23	Faculties try not to sit or stand close to students when they talk with them.					
24	Faculties lean away from students when they talk to them.					
25	Faculties smile when they talk to students.					
26	Faculties avoid touching students when they talk to them.					