A Developmental Protocol for Pragmatics

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Abstract

The study aimed to develop a protocol for pragmatics, which would help to identify sequential pragmatic milestones; help in identification and diagnosis of pragmatic disabilities and allow intervention based on a developmental schedule. Hence, the review constituted a vital part of the study. Based on the review, different pragmatic skills were pooled, a hundred items questionnaire along the domains of perlocutionary, locutionary and illocutionary was developed by the investigator and was subjected to content validation by ten Speech-Language pathologist's (SLP's). Questions that were in 60 percent agreement across SLP's were taken in the final protocol. The validated protocol was administered across 130 normally developing children from birth to eight years by means of parental interview. Each item was scored on an ordinal scale for the degree of presence of the behavior. The mean pragmatic scores of the children within and across groups were compared and analyzed. In addition, the age of acquisition of the pragmatic skills was derived and the normative data for the same was established. The results indicated that the mean pragmatic quotient scores increased linearly with increase in age, thereby indicating a developmental trend. Results also indicate that pragmatic development reaches a plateau after three years of age up to eight years of age and pragmatic development after eight years of age needs further exploration. There exists no significant difference in the pragmatic abilities across gender, in the Indian context. Mastery of pragmatic abilities was also explored and the same is discussed with respect to cultural variations.

Introduction

Pragmatics is a term originally used by Pierce (1932) and further elaborated by Morris (1946) who defined it as "the relationship between signs and their human users". A child acquires language because the usefulness of communication becomes apparent even before he can say any word. Learning to communicate begins with the first social exchange between the infant and the caretaker and continues until the nuances and subtle rules governing polite forms, humor and sarcasm are finally mastered late in the school years (Woolfolk & Lynch, 1982).

The use of language begins, as Leopold (1939) noted, with the intention to communicate. Such intention may be clearly identified in children between birth and eight to ten months. Pointing plus vocalization constitutes a common first step. Halliday (1975) studied the functions of language in a child prior to onset of words. These included: demanding ("give me), regulating ("do that"), interacting ("I see you") and personal ("that's nice). Child's language progressed through three identifiable phases. The first was preverbal; the next marked the transition to true verbal language at about 16 to 18 months. In this stage, child learned to use grammar and began to engage in verbal dialogue. As this phase progressed the child learned to recite rhymes and social routines, tell stories, and provide

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information. The last phase is essentially the adult system, wherein the speaker controls devices for humor, sarcasm and indirect requests.

Woolfolk & Lynch (1981) trace the development of pragmatics in child language

1. Between 2 and 10 months: Eye contact and gaze exchange used to regulate joint attention on an activity - a prerequisite to learning reference. Eye contact, smiling and attention indicate that the child takes notice of someone or something. Pointing and vocalization suggest demand for someone or something.
2. Between 10 and 16 months: The regulatory function of language is strong at this stage. Gestures of giving, pointing and showing draw attention to what is wanted. Nonverbal turn taking in play lays the foundation for conversation. Early words are used to express instrumental ("I want"), regulatory ("Do what I'll tell you"), interactional ("hi") and several other functions.
3. Between 18 and 30 months: In this time period symbolic play, use of imaginative speech, beginning of discourse, answering questions, use of description, expressing some feeling, deictic use of pronouns and ability to change topics are present.
4. Between 3 and 4 years: Switches code when speaking to a baby; increases ability to maintain conversation beyond several turns, especially if monitored by an adult.
5. Between 4 and 5 years: Can give antonyms, synonyms and rhyming words; meta-linguistic use of language emerges; uses indirect requests.
6. Grade-School age: Uses at least three language codes. Can tell puns and stories; follows most rules of discourse.
7. High-School age: Artistic use of language begins; understands jokes, sarcasm and social etiquette but not necessarily debate and parliamentary rules.

Muma (1978) gave the developmental stages in proxemics, an important aspect of pragmatics. It is the proximity or physical distance one has while interacting with another. The developmental stages are as follows:

1. From birth to three years: Intimate stage where children learn the closeness of communication with their mothers, other members of their family and caretakers. They touch, desire hugging and profit from "close" communication.
2. Between 3 years to 7 years: Personal stage - where children talk, but much of their activity is self-centered (egocentric), and they have not acquired an understanding of socialization largely.
3. From 7 years and above: Social and public stage - where children become more social, learn how to behave in social settings and can understand social relationship. Older children acquire an awareness of a "public" type of communication, particularly if the school settings offer the opportunity for performing in a public situation.

James and Seebach (1982) investigated the pragmatic function of preschool children's spontaneously produced questions. Twenty-four normal children between and ages of two and five years were observed in a variety of situations at their day care centers. Questions produced during these observation periods were categorized by pragmatic function. The three functional categories were information seeking, conversational and directive. Results indicated that the three pragmatic functions differed with age. The major function of the questions produced by the two and three year old subjects was clearly information seeking

but in the four and five year olds, questions were more evenly distributed among the functional categories. The 4 years olds used a higher percentage of conversational questions in comparison to the other age groups. The children's questions use appeared to follow the principle of using new forms for old functions and old forms for new functions.

Brinton, Fujiki, Loeb and Winkler (1986) investigated repair strategies employed in conversation by children at four age levels (2;7 to 3;10, 4;10 to 5;10, 6;10 to 7;10, and 8;10 to 9;10 years; months), subjects at all four age levels seemed to recognize the obligatory nature of neutral requests for clarification. The children demonstrated sensitivity to this type of listener feedback by employing strategies to provide conversational repairs in response to the requests. Results indicated that subjects at all age levels complied with the initial request for clarification majority of the time. However, with increasing age, subjects became more adept at handling the sequence of requests for clarification. Older children were more responsive to the request. Varieties of repair strategies (repetition, revision, addition and cues) were elicited and the use of these strategies differed according to subjects' age. While a variety of repair strategies was elicited, the use of these strategies differed according to subject's age and the position of request within the sequence; it seemed likely that the position of the request was extremely important. Younger subjects had increasing difficulty providing repairs as the sequence progressed, while older subjects usually responded appropriately to all the requests in a sequence. In addition, the 9-year-old subjects demonstrated a wide variety of repair strategies. In some cases the older subjects attempted to identify the source of breakdown and selected repair strategies accordingly.

Alexander, Wetherby and Prizant (1997) studied the emergence of repair strategies in infants and toddlers in terms of emergence of communicative intentionality, the development of socio emotional perspective taking and the acquisition of effective communication means. Due to limited research in the emergence of preverbal communicative repairs, the authors conducted a cross sectional study on the ontogeny of repair strategies using the normative samples from the communication and symbolic behaviour scales. Patterns of early repair behaviors of typically developing children as well as those of small groups of children with hearing impairments and pervasive developmental disorders were presented. The findings suggest that the ability to repair communicative breakdowns develops at the same time as intentional communication and that gesture are integral to pre conversational repairs.

This study also provided information about the types and patterns of repair behaviors utilized by children in the pre-linguistic, early one-word, late one word and multiword stages of language development. The percentage of repair attempts ranged from 88% in the pre-linguistic stage to 93% in the multiword stage. The use of repetition as a repair strategy increased from the pre-linguistic to the early one-word stage and then decreased. The use of modification was predominant in the pre-linguistic stage and increased in frequency through the multiword stage. Repetition, as an overall repair strategy, was used by 49% of the total subjects. Thus, repetition as the only primary repair strategy appeared to decrease with development; exclusive use of modification to repair increased with development.

A comparison of these findings with those reported by Golinkoff (1986) and Gallagher (1977) reveals the following developmental patterns of repair strategies for typically developing children. Preverbal communicators frequently attempted to repair failed communicative messages.

1. Children's vocal and verbal repairs were more likely to contain modifications than repetitions.
2. Children were more likely to repeat than modify gestures to repair.

3. With increasing development children have at their disposal increasing number of strategies for repair.
4. Increase in children's coordination of gestural plus vocal and then verbal repairs with advancing language skills were seen.

Lloyd (1991) studied the strategies used to communicate route directions by telephone; he compared the performance of 7 year olds, 10 year olds and that of adults. Standard outcome measures used in a referential communication (route finding) task showed that 7 year olds were inferior to 10 year olds and adults in terms of adequacy of messages provided (as speakers) and selection of referents (as listeners). Because the task involved negotiation of route directions by a telephone, a richer dialogue resulted than usual referential communication studies. This made possible an analysis of the strategies used and revealed differences untapped by the standard measures. The results indicated that the types of strategies used (components, numbering, directional, minimal) varied as a function of age, with the adults using much directional information than children. Much of the younger children's description was either minimal or used, inadequately specified mature strategies.

Adults frequently used dual strategies (e.g. directional and numbering). Older children showed little evidence of these individually but achieved them, in practice, through dialogue with their partners. Age differences in quantity of communication (number of turns) were linked to strategy use.

An overview of all these studies thereby indicates that pragmatics follows a developmental trend of increasing linguistic sophistication with increasing age. Assessment in the area of pragmatics is still in infancy and knowledge of normal developmental sequence is far from complete. Concerns rose about a child's functioning in one or more areas should attempt to identify the underlying difficulties that may be contributing to the communication problems observed. Thus the pragmatic ability of the child must be evaluated within the context of linguistic, cognitive and the social development. There are not many studies available on pragmatics in Indian languages. Even in western countries standard assessments are very few. Prutting & Krichner, 1987 gave a pragmatic protocol, which gives good information and has been widely used in western countries. Others include:

- "Test of pragmatic skills" by Schulman (1985).
- "Assessment of pragmatic abilities in young children" by Roth & Spekman, 1984.

Though plenty of research literature is available for western population, there are hardly any reported studies on pragmatic abilities along a developmental continuum; however milestones with respect to pragmatics do exist.

In the Indian context no such attempts have been made to enumerate the development of pragmatic skills. Hence the need for the study arose.

Aims

The present study endeavors to develop a developmental protocol for pragmatics which

- Helps to identify sequential milestones.
- Helps in identification and diagnosis of pragmatic disabilities.
- Allows intervention based on the developmental schedule.

Method

As this study endeavors to construct a developmental protocol for pragmatic skills, the review constituted a vital part of the study. Based on the review, the following methods were employed.

Item Pooling

This encompassed a review about different assessment scales/tools/protocols/ journal articles and web based search. All the items from the above mentioned data were classified under different domains viz. speech acts, topic maintenance, initiation, turn taking, discourse and verbal or paralinguistic, etc.,

Procedure

Phase I

The items in the pool were subjected to content validation by ten experts. The criterion for selection of the experts was that they should be holders of a degree in speech language pathology. The experts were asked to rate the items on its relevance in measuring pragmatic abilities. They were asked to rate the items on a two point rating scale: 0 indicating not relevant and 1 indicating that the item is relevant. Items with 60% agreement across experts were taken for the next phase of the study and the items that did not meet this criterion were dropped.

Phase II

The items selected based on phase I were administered across a group of normally developing children.

Subjects

A total of 130 subjects were selected in the age range of 0 to 8 years and all of them had no history of any speech, language, cognition or hearing disturbances, the same were ensured based on reports by the pediatrician and by history taking. The subjects were grouped into 6 months intervals up to 5 years of age and 1 year intervals from 5 years to 8 years for convenience.

In the administration of these items, the ordinal scale was used to rate the presence of the symptom for each individual as follows:

0 - almost never/not present

1 - very rare/25% present.

2 - sometimes/50% present.

3 - often/75% present.

4 - almost always/100% present.

The scores of each item across the 130 subjects was tabulated under each sub domain and subjected to appropriate statistical analysis.

Phase III

The items that are selected from phase II were incorporated and drawn up into the final checklist in a development sequence.

Results

The data obtained through parental interview were analyzed and the parental ratings were rated on a five point Likert's scale (i.e. 0- indicating absent; 1- indicating 25% present; 2- indicating 50% present; 3- indicating 75 % present and 4- indicating 100 % present). These scores were summed up to arrive at a total score for each child under study and this was labeled as the pragmatic quotient.

Table 1: Mean pragmatic scores across age

Sl. No.	Age group in years	N	Mean pragmatic quotient
1	0.0 -0.6	10	38.9
2	0.7 – 1.0	10	52.6
3	1.1 – 1.6	10	114.1
4	1.7 – 2.0	10	146.6
5	2.1 – 2.6	10	210.7
6	2.7 – 3.0	10	287.9
7	3.1 – 3.6	10	310.4
8	3.7 – 4.0	10	328.4
9	4.1 – 4.7	10	347.9
10	4.7 – 5.0	10	353.5
11	5.1 – 6.0	10	356.2
12	6.1 – 7.0	10	376.0
13	7.1 – 8.0	10	387.6

Table 2: Pragmatic skills comparison at six months - age intervals.

Sl.No.	Age in years	Group	Group comparison	t- value	Significance
1	0.0 – 0.6	1	-	-	-
2	0.7 – 1.0	2	1 & 2	0.127	NS
3	1.1 – 1.6	3	2 & 3	2.162	S
4	1.7 – 2.0	4	3 & 4	0.409	NS
5	2.1 – 2.6	5	4 & 5	0.009	NS
6	2.7 – 3.0	6	5 & 6	0.008	NS
7	3.1 – 3.6	7	6 & 7	0.178	NS
8	3.7 – 4.0	8	7 & 8	0.438	NS
9	4.1 – 4.6	9	8 & 9	0.298	NS
10	4.7 – 5.0	10	9 & 10	0.627	NS
11	5.1 – 6.0	11	10 & 11	0.680	NS
12	6.1 – 7.0	12	11 & 12	0.001	NS
13	7.1 – 8.0	13	12 & 13	0.017	NS

NS – not significant; S – significant.

The mean pragmatic scores were found to increase as a function of age, indicating that pragmatic abilities follow a developmental continuum. Table 1 represents the mean pragmatic scores versus age. Figure 1 illustrates the same graphically.

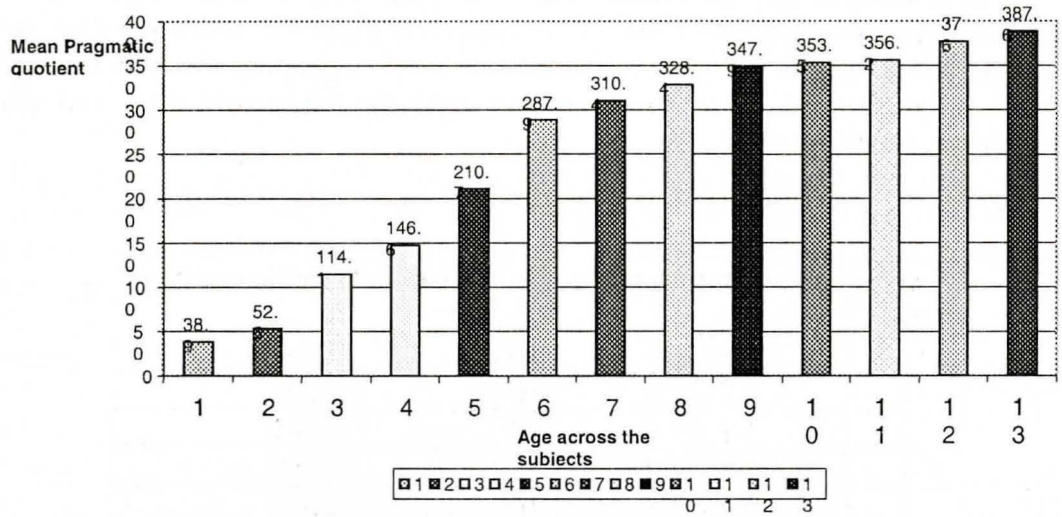

Figure 1: Mean pragmatic scores across age

The 13 groups were subjected to statistical analysis using paired t-test to find if there is a significant difference between them. (i.e. at 6 month age intervals). The results revealed significant group differences between group 2 and group 3 (i.e. between the ages 7 months to 1 year and 1 year 1 month to 1year 6 months) at 0.5 level of significance, for a two-tailed distribution. There was no statistically significant difference between other groups as shown in Table 2.

Table 3: Pragmatic skills comparison at 1-year intervals

Sl.No.	Age in years	Group	Group compared	t- value	Significance
1	0.0 – 1.0	1	-	-	-
2	1.1 – 2.0	2	1 & 2	2.492	S
3	2.1 – 3.0	3	2 & 3	5.271	S
4	3.1 – 4.0	4	3 & 4	0.000	NS
5	4.1 – 5.0	5	4 & 5	0.0217	NS
6	5.1 – 6.0	6	5 & 6	0.451	NS
7	6.1 – 7.0	7	6 & 7	0.001	NS
8	7.1 – 8.0	8	7 & 8	0.017	NS

NS – not significant; S – significant

Table 4: Pragmatic skills comparison across two years.

Sl.No.	Age in years	Group	Group's compared	t - value	Significance
1	3.1 – 5.0	1	-	-	-
2	5.1 – 7.0	2	1 & 2	0.000	NS
3	7.0 – 8.0	3	2 & 3	0.000	NS

NS – not significant

Therefore statistical comparison was performed across one – year age intervals (i.e. o months to 1 year; 1 year one month to 2 years; 2 years 1 month to 3 years etc.,). Statistically significant differences were present between 0 months to 1 year of age and 2.1 to 3.0 years of age, at 0.5 level of significance for a two–tailed distribution. Table 3 shows the statistical significance for groups at age intervals of 1 year, using the paired t test.

As the data up to three years of age were significant when compared to intervals at one year of age; statistical analysis was done using the paired t test from three years to eight years grouped at age intervals of 2 years but there was no statistically significant difference. The results are illustrated in table 4.

Table 5: Age vs. Gender comparison

Sl.No.	Age in years	No of male subjects	No. of female subjects	t-value	Significance
1	0.0 – 1.0	8	10	0.101	NS
2	1.1 – 2.0	12	6	0.200	NS
3	2.0 – 8.0	45	44	0.000	NS

NS – not significant

Table 6: Standardization of the protocol

Sl. No.	Age in years	Mean	SD	2SD	Normative – 2SD	Normative +2SD
1	0.0 – 0.6	38.9	18.83	37.66	1.3	76.5
2	0.7 – 1.0	52.6	15.03	30.16	22.44	82.76
3	1.1 – 1.6	114.1	26.99	53.98	60.30	168.08
4	1.7 – 2.0	146.6	38.76	77.52	69.08	224.12
5	2.1 – 2.6	210.7	67.91	135.82	74.88	346.52
6	2.7 – 3.0	287.9	57.80	115.60	172.30	403.50
7	3.1 – 3.6	310.4	54.0	108.00	202.40	418.40
8	3.7 – 4.0	328.4	48.45	96.90	231.50	425.30
9	4.1 – 4.6	347.9	28.24	56.48	290.52	404.38
10	4.7 – 5.0	353.5	24.98	49.96	303.54	403.46
11	5.1 – 6.0	356.2	12.20	24.4	331.8	380.6
12	6.1 – 7.0	376.0	16.03	32.06	343.94	408.06
13	7.1 – 8.0	387.6	11.71	23.42	364.18	411.02

A comparison was made on the results of statistical data obtained from the paired t test, administered in three different conditions, that is, between 6 months age intervals, between 1-year age intervals, and between 2 years age intervals. It was clear that there were significant between group differences at 0.5 level of significance, for two-tailed distribution between the following age groups:

1. 0 – 1 year
2. 1.1 – 2 years
3. 2.1 – 3 years

Therefore, these three age groups exhibited statistically significant between-group differences, that is, there existed a significant improvement in pragmatic abilities in these three groups with advancing age, birth to three years respectively.

In essence, the present study reveals that the three empirical groups form hallmark in the sequence of development of pragmatic abilities, after which there is a plateau until 8 years of age. Figure 2 shows the graphical representation of the development of pragmatic abilities at these three age levels. In addition, the data was analyzed to find out if there existed differences in pragmatic abilities across gender both within groups and across the groups. Table 5 shows the results of statistical analysis using the paired t test across the different age groups and gender. The findings revealed that there exists no significant differences across

groups and gender, that is, male and female subjects performed in a similar fashion with respect to the pragmatic skills studied.

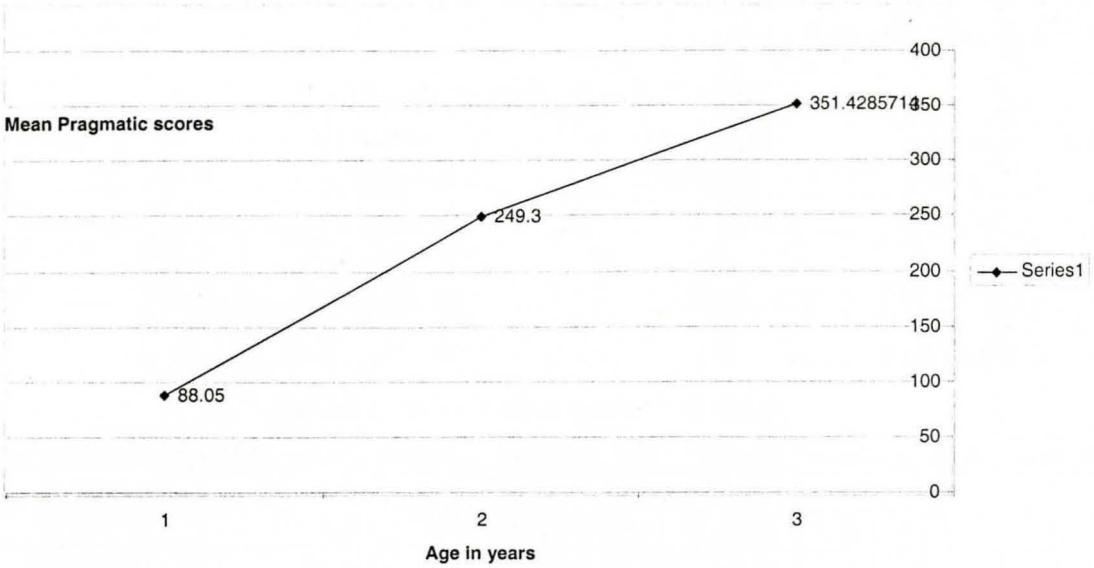

Figure 2: Pragmatic quotient – 3 empirical groups

Standardization

The standard deviations of the scores were computerized and the norms were established at the level of two standard deviations. Table 6 shows the standard deviation and the normative range of +/- 2 SD, which can be used as a norm for administering this data to clinical population, across different ages. While administering to clinical population, any score which falls below -2SD as per the established norms may be taken as an indicator of pragmatic disability for that particular age range.

From the data, the age of acquisition of the pragmatic skills can be interpreted. For such mastery, a fifty percent criteria was used, that is within the empirical group, for each question, the mean value was obtained and if that value equals '2', then, that particular skill is said to be acquired. Table 7 shows the acquisition of different pragmatic skills across age. Combining the results from table 7 and the questionnaire which was developed and used in this study, an age wise checklist for testing pragmatic skills was framed and incorporated specific questions, which can be used with clinical population.

This is termed as the "Developmental Pragmatic Protocol" which can be used in assessment and identification of pragmatic disabilities by using the normative (i.e. – 2SD) established in this study. This would also help the speech language pathologist to provide intervention services along the developmental continuum which could be implemented by selecting age appropriate pragmatic abilities as goals in the intervention process.

Discussion

The results revealed several points of interest; the mean pragmatic quotient was found to increase with increase in the subject's age. This is very important, simply because it proves

the basic assumption of the study indicating that the pragmatic abilities follow a developmental continuum. This finding is in consonance to the studies conducted by Woolfolk and Lynch (1982); wherein the pragmatic abilities increased gradually from two months of age to the high school age level. Studies by Gallagher (1977) Golinkoff (1986); Brinton, et al (1986); Alexander, Wetherby & Prizant (1994), wherein the conversational repair strategies increased gradually with age support this finding. James & Seebach (1982) found that older children (4.5 years) performed better than 2.3 years olds in terms of information seeking and conversational directives. Lloyd (1991) reported gradual improvement in the nature of referential communication skills in children between 7 and 10 years of age. Also, in the present study, there was an increment in the mean pragmatic quotients as a function of age in each of the thirteen groups studied. The mean pragmatic scores however, were not statistically significant for comparison across all the age groups (at intervals of 6 months of age). A significant difference was present between the age intervals of 0.7 months to 1 year versus 1.1 to 1.6 years. Such a finding is interesting as it indicates significant transition from 6 months to 1 year with respect to the emergence of pragmatics when compared with existing western studies (Woolfolk & Lynch, 1982).

In elaboration, the present findings reveal pragmatic skills like physical proximity, communicative intent, eye contact, gaze exchange, body posture, smiling, attention and facial expression to develop within *one year of age*. Skills like communicative intent, joint attention, giving, visual gestures, non verbal turn taking, requesting, greeting, communicative games and intelligibility, develop between *one and two years* of age; all the other parameters studied emerge between *two and eight years* of age. The present finding clearly reveals the acquisition of pragmatic abilities along a developmental continuum with increasing maturity of the pragmatic skills.

There is a considerable amount of overlap in the acquisition of pragmatic abilities noticed between the current study and the one conducted by Woolfolk and Lynch (1982), although they differ in terms of chronological manifestation. For example, skills like pointing, visual gestures (are developed between 1 to 2 years in the current study and between 10 to 16 months in Woolfolk and Lynch's study and narrative discourse abilities are developed after 2 years in the current study, whereas between 18 and 30 months in Woolfolk and Lynch's study. Therefore, it may be assumed that these skills develop much later in Indian children (at least of the current investigation) than western children. It may also be observed that this variability may be throwing light on the cultural variations and child rearing practices during the developmental period. Within the Asian context, children are expected to be seen and not heard and they are not supposed to talk during meals and in school, children are discouraged from interrupting teachers generally and therefore may appear passive when compared to the western data.

Comparison of the mean pragmatic scores at age intervals of one year revealed some interesting findings like the perlocutionary skills (e.g. physical proximity, eye contact, smiling., etc.) are developed by one year of age and speech acts (e.g. requesting, greeting, commenting., etc.) begin to develop although not completely, between one and two years of age. This clearly indicates a significant and noticeable transition between the first and second year of development. Similarly, significant difference was present between the second and third year of development. This finding is in agreement with that of Woolfolk and Lynch (1982) where the pragmatic abilities differ between ten and sixteen months and between eighteen and thirty months of age, with respect to speech acts, turn taking and discourse skills.

Another comparison of pragmatic abilities at age intervals of two years revealed no significant difference among children of three and five years of age, five and seven years of age, as well as six and eight years of age. This is in consonance to that of Muma (1978), where the study revealed differences only between three and seven years versus behaviors above seven years.

Such a comparison indicates that pragmatic abilities probably show culture related hallmarks in their development specific to the Indian context and these steps occur at one-year age intervals up to three years of age. After the age of three years, although major/ significant triggers do not take place, there is a linear increase in pragmatic maturity. There exists a qualitative difference in the mean pragmatic quotients across six-month age interval with respect to various discourse abilities.

This finding throws light on the fact that there is a smooth blending in the developmental maturity of pragmatic abilities after three years of age up to adolescence though with steady linear increase. For instance perlocutionary skills emerge within one year of age and within this one-year interval children above six months show better performance than children below six months; like wise speech acts are acquired between one and two years and narratives and discourse abilities emerge between two and eight years and correspondingly older children perform better than younger ones gradually. Probing into the details of social and discourse abilities these phenomena explain lags in pragmatic emergence in Indian children. Skills like bedtime story reading do not generally exist in the Indian context, but in western counterparts, such routines receive emphasis, such experience probably enriches the meta-linguistic maturity earlier in western children. In addition, Indian children attend schooling at a very young age which may have a bearing on the child's socialization and discourse abilities within the social milieu (non-peer groups and social groups). This finding can be correlated with the south Indian culture and its practices, where, children are expected to be passive, indicating culture has a major influence on pragmatic language functions.

The present study finds that there is no difference in pragmatic abilities across gender, up to eight years of age but there may be gender differences beyond that period and it needs to be explored in the future. Such differences may exist, owing to societal differences such as, giggling which may indicate shyness for female children, but for male children, inhibition for example may be an indication of shyness. Such differences may occur in the adolescent and pre adolescent stages too but need to be explored in the future.

The obtained results, with respect to the acquisition of pragmatic skills, would be useful in assessing children with pragmatic language impairments (PLI). In this perspective, the present study standardized the mean pragmatic quotient using –2SD criteria, therefore any child performing below –2SD from the mean pragmatic scores can be labeled as pragmatic language impaired. Literature on the assessment of pragmatic abilities, till date has failed to correlate developmental sequence in assessment especially so, in the Indian context. In the western data, the checklists intend to identify presence or absence of pragmatic behaviors rather than identifying developmental sequences. The current study is the first of its kind to integrate developmental sequence in assessing pragmatic abilities. However, the findings require further empirical clinical support to administering the protocol across different varieties of clinical population, paving way for further research investigations.

The results also provide stages or milestones of pragmatic skills across the age groups investigated in the present study. This by itself would serve as a preliminary or screening tool to identify PLI. In addition, the skills enlist a developmental order which would help speech-

language pathologists to frame appropriate goals in planning intervention for children with PLI.

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Table 7: Acquisition of Pragmatic skills

Sl. No.	Age in years	Pragmatic skills
1.	0.0 – 1.0	Physical proximity. Communicative intent. Eye contact. Gaze exchange. Body posture. Smiling. Attention. Facial expression.
2	1.1 – 2.0	Communicative intent Joint attention. Giving. Pointing (visual gesture cues) Nonverbal turn taking. Requesting objects, actions and information. Refusing / Rejection / Denial. Greeting Communicative games & Intelligibility.
3	2.1 – 8.0	Commenting objects and actions. Communicative games. Informing. Acknowledging. Answering questions. Topic initiation. Topic maintenance. Change. Selection / Choice making. Continuation Adding new information. Response. Clarification. Repairs / Revisions. Pause time. Interruption / Overlap. Feedback to speakers. Adjacency. Contingency. Quantity and Conciseness. Presupposition. Code switching. Politeness. Reciprocity. Anticipation. Proxemics. Permission directives. Indirect responses. Stylistic variations. Narratives. Perspective taking. Persuasion. Opining. Referential communication.