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Sentence types in Kannada speaking normal children and with Intellectual Disability

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Abstract
A language is a system of communication which consists of a set of sounds and written symbols which are used by the people of a particular country or region for talking or writing. You can use language to refer to various means of communication involving recognizable symbols, non-verbal sounds, or actions. Language is a system for the expression of thoughts, feelings, etc, by the use of spoken sounds or conventional symbols. .Language is made up of socially shared rules that include what words mean. Components of the language are grouped under the 'form' (phonology, morphology, syntax) 'content' (semantics) and 'use' (pragmatics).Morpho-syntactic operations require a comprehending and use of correct word order and organisation in phrases and sentences like PNG markers, tense markers, plural markers, case markers, predicates etc. The study highlights the need to carry out more research in this area for better understanding of language acquisition among these children in order to develop both assessment and intervention programmes. Presently, the lack of acquisition data has hinged the development of any standardized test in Kannada. Hence, the present study aims to explore Sentence types in Kannada speaking children with the objective of analysing the data among these children across 4 to 6 years of age. The results in general indicate that Kannada sentence types are still developing by 4 to 6 years.

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I. Introduction

Language acquisition is an everyday and yet magical feat of childhood. During the developmental period the language milestones emerge universally as a continuum across all the components in a predictable sequence, with amazing case unless on interference due to any sensory or motor deficits. Intellectual disability is characterized by significant limitations in intellectual functioning and adaptive behavior which covers everyday social and practical skills. Intellectual disability originates before the age of 18. American Association of Intellectual Development and Disabilities (AAID, 2009). Children with Intellectual Disabilities (CWID) present a wide variety of language impairments from mild vocabulary deficits to poorly developed syntactic skills. Language deficits in CWID will affect every day survival skills. Understanding and describing language skills of CWID is crucial in assessment and intervention in the field of speech language pathology. Research efforts in these aspects are growing across the world including India.

Sentence types

Interrogatives- Yes/ No type

An interrogative sentence is **a sentence that asks a question**. Interrogative sentences can be direct or indirect, begin with or without pronouns, and feature yes/no interrogatives, alternative questions, or tag questions.

Wh – interrogatives

An interrogative word or question word is a **function word used to ask a question, such as what, which, when, where, who, whom, whose, why, whether and how**. They are sometimes called wh-words, because in English most of them start with wh-

Tag questions

A tag question is a special construction in English. It is a statement followed by a mini-question. We use tag questions to ask for confirmation. They mean something like: "Is that right?" or "Do you agree?"

Declaratives:

A declarative question is a **yes-no question that has the form of a declarative sentence but is spoken with rising intonation at the end**. Declarative sentences are commonly used in informal speech to express surprise or ask for verification

Affirmative:

We use affirmative word **order in questions in spoken rather** than written English. Declarative questions can be used when the speaker is fairly sure he has understood what has been said, but he just wants to make sure.

Quotative and reported sentences:

Quoted speech uses **quotation marks and the exact words that a person has said**. Reported speech (also called indirect speech) relates what the person said, but does not use the exact words. You often need to change verbs and pronouns to keep the original meaning

Embedded sentence

An embedded clause is **a clause used in the middle of another clause to give the reader more information about a sentence**. ... We separate embedded clauses from the main sentence with punctuation on either side of the clause. This can be commas (,), dashes (—), or brackets (()).

Imperative sentences

An imperative sentence is a **sentence that expresses a direct command, request, invitations, warning, or instruction**. Imperative sentences do not have a subject; instead, a directive is given to an implied second person.

Reduplicative

A reduplicative is a word or lexeme (such as mama) **that contains two identical or very similar parts**. ... The morphological and phonological process of forming a compound word by repeating all or part of it is known as reduplication. The repeated element is called a reduplicant.

II. Review of Literature

Syntax refers to the study of the rules which governs word combination in language. Rules describing acceptable words combination are called syntactic rules. (Grundy, 1995)

Syntax usually does not begin until vocabulary size reaches 50 words (Klee, Carron, Gavin, Hall, Kent, & Reece, 1998), Kessel (1970) and Chomsky (1969) demonstrated that before the age of 10 to 12 years child does not master some syntactic rules, Syntax acquisition in later years is less rapid and dramatic than in early stages of development.

Bartolucci, Pierce and Streiner (1980) conducted a cross-sectional study of grammatical morphemes in children with autistm and children with intellectual disability. The frequency of occurrence of factors in obligatory contexts was studied in verbal autistic and mentally retarded children matched for nonverbal mental age, and the percentages of correct use of factors were rank-ordered. The grammatical complexity of their language was also described using transformational grammar. The data were compared to those obtained in a normal group matched for mental age and to the data presented by Brown (1973); De Villiers & De Villiers (1973) in younger children. The autistic children omitted factors frequently and independently of the grammatical complexity of their language. The rank ordering of morphemes was consistent within both children with autistim and children with intellectual disability groups but showed no correlation between the two groups.

Haynes, Pindzola and Emerick (1993) on an assessment of children with limited language, suggest segregation of two groups, one group is children with limited language (nonverbal, single word, early multiword), and the other group comprised of syntax level clients whose problems are largely grammatical and/or pragmatic. Language has been traditionally fractionalized in one way or another since investigators have theorized about it. The focus on pragmatics has had far-reaching implications for assessment and treatment of both child and adult language disorders. Although pragmatics is ―an area‖ of language, it really permeates all of the other areas of linguistics, and acts as a unifying force.

Marcell, Ridgeway Sewell and Whelan (1995) evaluated Sentence imitation by adolescents and young adults with Down's syndrome (DS) and children with intellectual disabilities (CWID). In each of three annual assessments, the DS group began sentence repetitions more slowly and imitated sentences less accurately than the ID group. Young adult DS‘s sentence repetition accuracy was equivalent to the ID group only for two-word sentences and was poorer for every other sentence length. A significant relationship between sentence imitation and middle-ear functioning was further supported by a categorical analysis in which DS subjects with bilateral abnormal tympanograms tended to perform more poorly on sentence imitation tasks than DS subjects with at least one normal tympanogram.

Clahsen and Almazan (1998) described the syntax and morphology of William‘s syndrome (WS). Authors investigated four cases of English speaking children with WS, and showed that despite their low IQs the WS children‘s performance on syntactic tasks and on regular inflection were not impaired. Irregular inflection, however, was affected causing many errors. These children exhibit a different pattern of impairment, with relatively poor performance on syntactic tasks and regular inflection. Authors have suggested a linguistic characterization of the morphosyntax in WS according to which WS subjects are impaired in accessing (particular kinds of) information from lexical entries, with their computational system for language appearing to be intact.

Grela (2002) examined the lexical verb diversity in children with Down syndrome. The language transcripts of seven children with Down syndrome and seven typically developing children matched for comparable Mean Length Utterances (MLU) levels were compared for several measures of lexical diversity. Results indicated that the children with Down syndrome produced lexical verbs as frequently as their normally

developing counterparts. In contrast, the children with Down syndrome were found to produce a larger variety of lexical verbs. An examination of a subset of verbs indicated that both groups of children produced an equal number of mental state verbs.

Seung and Chapman (2004) examined the sentence memory of individuals with Down syndrome (DS) and typically developing children. The study evaluated the Baddeley model's claiming that verbal short-term memory deficits might arise from slower speaking rates (and thus less material rehearsed in a passive store) by using the sentence memory subtest of the Stanford-Binet. Thirty individuals with DS were compared to two control groups [non-verbal mental age (MA) matched and mean length of utterance (MLU)-matched] on the sentence span and speaking rate for the longest verbatim recalled sentence. Sentence stimuli were presented at a normal speaking rate. Result shows that the DS group had shorter sentence memory span than the MA-matched group and a faster, rather than slower, speaking rate (syllables per second) than the MLU-matched controls.

Ring and Clahsen (2005) studied syntactic binding of reflexive and nonreflexive pronouns and on the comprehension of active and passive sentences in eight adolescents with Down's syndrome (DS), and 10 with Williams Syndrome (WS). Results indicated that at least in these syntactic domains different genetic etiologies are associated with different specifically linguistic patterns of impairment.

Perovic (2006) analyzed syntactic deficit in Down syndrome and result provides evidence that language in DS is not merely delayed, as traditionally described, but also deficient in important respects: the deficit amounts to an inability to establish the syntactic relation between the anaphor and its antecedent.

Pizzutu and Volterra (2007) studied lexical and Morph syntactic abilities in children with Down syndrome. A story description task was used to elicit short stories by 10 Italian children and adolescents with Down's syndrome and 10 normal children matched on mean length of utterance (MLU). The results show that the subjects with Down's syndrome and their normal matches used a similar lexical repertoire. However, the two groups differ with respect to omissions of free morphemes, and some aspects of syntactic and pragmatic abilities. These data on Italian subjects corroborate and extend previous findings on other languages: despite an extensive repertoire of lexical and grammatical items, subjects with Down's syndrome seem unable to use such elements appropriately and consistently across contexts.

Murfett, Powell andSnow (2008) studied the effect of intellectual disability on the adherence of child witnesses to a story grammar framework. The study examined the ability of 78 children (aged 9-12 years) with an intellectual disability (ID) to provide a narrative account of a staged event they had participated in four days earlier. The children were interviewed using open-ended questions. Result indicated that the children with ID and those matched for mental age provided narratives of similar length and used similar proportions of each story grammar element; the ID group was less likely than both control groups to provide a narrative account at all. Among those children with an ID who did provide a narrative account, their accounts included proportionately fewer story grammar elements than those of both control groups.

Leila (2011) examined the reading interest and emergent literacy skills of 31 children with Down syndrome (DS) ages 7 to 13. Parents completed questionnaires on their children's interest in reading, home literacy environments, and parental beliefs about reading. Children were then assessed on their cognitive and emergent literacy skills. Correlational analyses revealed that parental beliefs related to children's receptive vocabulary and comprehension, especially when parents reported asking questions during book reading, encouraging children to ask questions and help tell the story, and guiding them to learn lessons and life skills from books. Home literacy environments predicted children's interest in reading, and children's mental age predicted their emergent literacy skills. A mental age of 3.50 years appears necessary (but not sufficient) for children with DS to achieve beginning literacy skills. Sarah,

Bernstein and Rochelle (2012) studied the Verb Comprehension and Use in Children and Adults with Down Syndrome (DS). Results explain that neither single verb comprehension nor single verb naming differentiated the DS and Typical Children (TD) groups. Individuals with DS performed significantly worse than TD individuals when asked to judge sentence grammaticality. Individuals with DS omitted verbs in elicited narratives significantly more often than TD individuals, specifically when productions of 2-place and 3-place verbs were attempted. Individuals with DS also omitted other necessary elements of argument structure, such subjects, in sentences containing 2-place and 3-place verbs significantly more often than TD individuals.

Bruno, Martin and Roberts (2012) examined cognitive, environmental, and linguistic predictors of syntax in fragile x syndrome and Down syndrome. Result indicated that Diagnostic group, nonverbal cognition, and PWM predicted 56% of the variance in syntactic ability, with approximately three-fourths of the predicted variance explained by group membership alone. The other factors did not contribute any additional significant variance in this final model. There was no evidence that predictor effects differed by group.

Michael, Ratner and Newman (2012) examined the verb comprehension and use in children with Down syndrome. The study examined verb and argument structure retrieval in 18 individuals (9 with DS age 11:11(years: months) to 32:10 and 9 receptive vocabulary age matched typically developing (TD) children, age 3:2 to 13:6. Results indicated that individuals with DS do display a specific expressive deficit in verb and

argument structure retrieval (but not comprehension) that varies as a function of verb type (1 place, 2 places & 3 places).

Facon, Nuchadee and Bolengier (2012) did a Qualitative Analysis to discover whether general receptive vocabulary is qualitatively phonotypical in Down syndrome. Sixty-two participants with Down syndrome (mental age = 16.74 years, SD = 3.28) were individually matched on general vocabulary raw total score with 62 participants with intellectual disability of undifferentiated etiology (mental age = 16.20 years, SD = 3.08) and 62 typical children (mental age = 5.32 years, SD = 0.82). Item analyses using the transformed item difficulties method to detect differential item functioning across groups showed that the groups' rank orders of item difficulty were highly similar.

Lazaro, Garayzabal and Moraleda (2013) studied the differences on morphological and phonological processing between typically developing children and children with Down syndrome. It is widely acknowledged that people with Down syndrome (DS) have less highly developed morph syntactic abilities than typically developing (TD) children. The study was done by carrying out two experiments in which the morphological Base Frequency (BF) effect is explored in both groups. The aim of the experiments is to carry out an in-depth exploration of morphological processing in children with DS and TD children. In the first experiment children performed a definition task; in the second children had to provide a plural form for singular words. The results show a significant BF effect in only the first experiment. In the second experiment this morphological variable does not reach significance, but the variable we called Ending phoneme (a phonological variable that refers to the last phoneme of the bases prior to the addition of plural morphemes) does.

Galeote, Soto and Sebastian (2013) analyzed morphosyntactic development in a wide sample of children with Down syndrome (DS) (n = 92) and children with typical development (TD) (n = 92) with a mental age (MA) of 20 to 29 months. Children were individually matched for gender and MA (Analysis 1) and for vocabulary size (Analysis 2). Information about morphosyntax was obtained using an adaptation of the CDI for children with DS. Analysis 1 showed that children with DS produced shorter utterances, with less morphosyntactic complexity and less morphological suffixes than children with TD, despite having the same mental age.

The developmental pattern was similar, although slower in children with DS. Analysis 2 showed that the performance of children with DS was lower than the performance of children with TD in relation to morphosyntactic complexity and morphological suffixes.

Rondal (2013) explained grammatical difficulties in children with intellectual disabilities. Morph syntactical difficulties are common in congenital syndromes of intellectual disabilities (ID). Explanations have been proposed in terms of global intellectual, explicit memory, and/or inadequacies in linguistic input that are questionable. Author argue that the morphosyntactical limitations in the language development and functioning of these persons stem from a lesser ability in implicit learning, a type of learning arguably largely involved in grammatical development.

Need for the Study

Morpho-syntactical studies in the Indian context would aid in assessment and help in establishing the baseline to set goals for morphological intervention in children with disability. The lack of acquisition data has hinged the development of any standardized test in Kannada. The present study attempts to understand the sentence types in Kannada speaking typical children and children with intellectual disability.

Need for normative data in acquisition of grammar in Kannada language with help of SLP to baseline for assessment as well as rehabilitation.

Aim and objective

The study aims at profiling language in children with intellectual disability speaking Kannada (mental age 4 to 6 years). Analyzing the data at levels of language functioning –Sentence types as compared to mental age matched typical children.

Participants with inclusive and exclusive criteria

Participants included 30 typical children (TD) in the age range of 4 to 6 years and 30 Children with Intellectual disability (CWID) (Mental age 4 to 6 years)

Typical children establishing profiles of TD was found necessary because of the need for comparison with CWID. Currently extensive developmental data in typical children speaking Kannada is not available. Moreover, establishment of norms based on free conversational samples is rare. Hence, a preliminary performance description of normal children in the age range of 4 to 6 years was considered essential.

All the children were suggested by teachers who identified the best suited for the study. Children with history of any speech and /or language deficits, any reading and /or writing problems, any history /complaint of acquired hearing loss, complaints of cognitive deficits such as poor memory, attention deficits, organizational

and /or sequencing issues, any transfer from more than one school, any shift in the medium of instruction and any academic failures were excluded from the study. No formal language testing was administered due to lack of such tests in kannada language. Consent was obtained from the parents of children before data collection

Materials used

Following the guidelines of LARSP (Crystal et.al., 1976 and 1989) and in subsequent Kannada language adaptation (Subbarao, 1995) on sample collection, a set of toys and pictures were selected. Toys and pictures used for sample collection are as shown below.

Toys and play materials– House building set, Toy, jeep, Ball, Toy Utensils, Coins, Travel bagset, Paper-Pencil

List of Pictures –City road, traffic, Village, life-1 City life, VillageLife

Topics for elicited work at school, teachers, response from subjects, Games played with friends, Cinema, Television program, Favorite music, Favorite clothes, Family member.

Procedure

The study envisaged obtaining an audio & videotaped conversational sample with TD and CWID group. Thus, obtained sample was transcribed analyzed and profiled at predicate level. The overall guidelines provided by LARSP (Crystal et. al, 1976 and 1989) and suggestions provided by Subbarao (1995) on the same method in using with CWID speaking Kannada have been used for transcription and analysis of response patterns.

This scan includes interrogative types - yes/no, wh, reduplicated and tag, declaratives, negations, finite, affirmative, quotative, imperative, reflexive and permissive sentence types. Few examples of each type of sentence included for analysis are given below:

Interrogatives – Yes / No type

Any sentence can be made interrogative by adding yes-no question marker

/aa/ generally to the verb. In general intonation rises on /-aa/.

Examples,

/avn na: leu: rghogta:ne/ Tomorrowhe will go to town [he tomorrow to-towngoes]

/avn na:le u:rg ho:gta:na:?/ Is he going to town tomorrow?

/-aa/ can be added to other constituents of the sentence also,

e.g. /avan na: lena: u: rg ho: go: du? / Is he going to town tomorrow?

Wh - interrogatives: In Kannada these question words usually begin with e-, e: - or ya: -,

e.g. /elli? / Where?

/eenu? / what?

/ya:ru? / who?

/estu? / how much?

/ya: vdu? / which one?

These interrogative words then ask questions about the location, time, amount, manner, identity, substance, etc. of things. Every constituent in the sentence can be replaced by an e- word, in asking questions about those constituents.

Example, Avr Nine Nange erdu pustka kotru He yesterday to-me two books Gave ya: ru? ya: va: ga? ya: rge? estu? e: nu? e: n ma: didru yesterday (when?) he (who?) gave (did what?) to me (to whom?), two (how many?) books (what?)

Reduplicated WH - interrogatives:

When e- words are reduplicated, the meaning is distributive _, Examples,

/el-elli?/ Where all?

/e: n- e:nu?/ What all?

/ya: r- ya: ru?/ Who all?

Tag questions:

In tag questions speakers follow a declarative sentence with the equational negative particle /alla/ plus interrogative /-a:/, to form /alva:/. Examples,

/ni: v bandidri, alva? / you came, didn‘t you?

/ni: v shivrao, alva? / you are shivarao, aren‘t you?

Adjectival use of WH-interrogatives:

When e- words are used adjectivally, they impart an exclamatory rather than interrogative meaning.

Example,

/ad est cenna: g -ide! / that how much good is How good (beautiful) that is!

Declaratives:
Statements can be used either positively or negatively.
Examples,
/ya: va: glu barta:ne/ He always comes
/ya: va:glu barolla/ He never comes
Negation:
Commonly, the finite negative is formed by adding the negative markers /illa, alla/ totheverb /illa/ negates propositions, whereas /alla/ negates identity statements.
Examples,
/avarume: stralla/ He is not a teacher
/avan u: rge ho: glilla/ He didn‘t go to the town
/avrkottilla/ They haven‘t given (something)
Affirmative:
Examples, /bart (a :)iro: hudga/ The boy who iscoming /bart (a:)illad hudga/ The boy who isn ‗tcoming /baro: hudga/ The boy whocomes
Quotative and reported sentences: Kannada uses a special verb /annu/ to indicate quoting of some other source. When speakers want to report that some unidentified source has said something, the form /ante/ is used.
Examples,
/avn barti: ni: anda/ He said, ―I will come He I- comesaid
/avn barti: ni: antahelda/ He said, ―I will come He I- comehaving-said
/avrmestr ante/ It seems he is a teacher, he (hon) teacher seems He seems to be a teacher
Embedded sentences:
By the use of anta one sentence can be contained or embedded in another.
Example, /na: n barti:ni:nt he:lde-nt he: l be: ku/ I coming that said-that say-must (You) must say that I said that I am coming Imperative sentences: Generally, second person pronouns are considered to be the subjects of these commands or requests. Polite markers are added when needed.
Examples, /ni: nu ho: gu/ you (sing.) go! /ni: vu ho: gi/ you (plu. polite) go!
Reduplicatives:
Repeating a word more than once is used in Kannada to provide various semantic functions such as emphasis, addition, etc. Examples,
/avn Jo: r Jo: r a: gio: dda/ He ran very fast
/nang be: ke:be: ku/ I just want it, that‘sall
/e: n e: n be:ku?/ what all do you need
/u: tagi:ta/ Food or other edibles
Possession:
/iru/ be may be used to indicate possession; here subject is used with dative case.
Examples, /nangehanaide/ I have money to me money is
/nimge henti-maklidda: ra? / Do you have a family to you wife-children have
Reflexive and permissive types:
Reflexive aspect marker /kollu/ indicates that an action is carried out for the benefit of the agent of action.
Example:
/kay-ka: l tolkolli/ Wash your hands and feet Hands-feet wash yourself Permissive sentences indicate permission to do something for others
/avr ha: duhe: lli/ Let them sing the song they song let-sing. The presence or absence of these sentence types was observed during the analysis.

Analysis

Samples were a combination of conversations with the children and interactive sessions using toys and pictures. Free conversation was encouraged throughout the 30 minutes sessions with each child. The setting was within the familiar environment of the school. The researcher interacted with children before and to become familiar with each other. The first half of the session recording focused on free conversation, while the latter half involved discussions regarding the toys and pictures. The session was recorded using Sony video recorder (Model DCR-3R21E). The Recorder was placed at a distance of three foot from the setting. A quiet room of the special school /school was used for recording. An additional note was taken to indicate accuracy of children‘s response to stimuli for later use in transcription. Thus, the obtained sample was transcribed, analyzed.

The overall guideline provided by LARSP (Crystal et.al., 1976 and 1989) was used for the transcription of the sample and analysis of response patterns. Suggestions and guidelines provided by an earlier study of language analysis in children with Intellectual disability speaking Kannada using LARSP (Subbarao, 1995) were adapted.

Statistical analysis

T' test was used to compare the means of two groups. Z test was used to determine whether two population means are different when the variances are known and the sample size is large, Man Whitney test was used to compare the differences. ANOVA followed by post hoc analysis was done using Bonferroni test. The results are expected to strengthen linguistic profiling of Kannada speaking children with the intellectual disability. Such profiling is expected to increase our understanding of disordered language in this group and also help in planning age appropriate remediation.

III. Results And Discussions

Language delays and disorders amongst children have increasingly attracted attention of practicing Speech Language Pathologists in India. One group has consistently demanded attention is Children with Intellectual Disability (CWID). Language behavior of these children has become an important area of research particularly in the Indian context. The study of several areas of language-phonology, syntax, semantics and pragmatics has generally supported a delayed hypothesis.

However, there are reports of differences between mental age (MA) matched typical children (TD) and children with Intellectual disability (CWID). In fact, it is recognized that the extent of deviance is underestimated (Kiernan, 1985; Subbarao, 1995). The results of the present study also support these views. Although, there is an overall delay in acquiring language, there are differences among the MA matched TD and CWID children. These differences are most noticeable in syntactic aspects as compared to semantic aspects.

Shows the presence of Sentence types in typical children and children with intellectual disability with statistical evidence

	N	Typical children		Children with ID		P value	Significance (at .005 level)
		No. present	%	No. present	%		
Interrogative- yes/no type	30	27	90	22	73	0.050	NS
Wh interrogative	30	25	80	17	56	0.014	Sig
Reduplicated WH interrogatives	30	14	37	0	0	0.000	HS
Tag questions	30	14	47	6	20	0.016	Sig
Declaratives	30	28	97	25	83	0.116	NS
Negation	30	30	100	20	67	0.001	HS
Affirmative	30	22	73	18	60	0.139	NS
Quotative and reported sentences	30	14	47	7	23	0.032	Sig
Embedded sentences	30	20	67	7	23	0.001	HS
Imperative sentences	30	22	73	9	30	0.001	HS
Reduplicated sentences	30	26	87	17	56	0.006	HS
Possession	30	28	97	24	80	0.067	NS
Reflexive and permissive types	30	12	40	16	53	0.152	NS

NS-No Significance, Sig-Significance, HS-Highly Significant

Table shows that the sentence types were varied in their usage by the TD group children, Negation sentences were used by all children. Interrogatives, possessions, declaratives and reduplicated sentences are seen in 80% or more children. Difficult sentence types (used by less than 50%) appear to be reduplicated wh interrogatives (ya:r ya:ru/ (who all), tag questions (alva:) and quotatives (use of / anta/). Other sentence forms are used by around 60% of children. The results in general indicate that Kannada sentence types are still developing by 4 to 6 years. The patterns shown in this study generally agree with Subbarao (1995).

One variation appears to be reduplicated utterances which were not found frequently in that study. A reason for changes could be that language developmental patterns change with time. Similarly, imperatives are seen more compared to Subbarao (1995) study. Developmental trends and data collection variables can be probable reasons. Prema (1979) noted that in children speaking Kannada between 5 to 6 years of age, the basic sentences resemble adult syntax, however, she noted certain types of sentences to be still in the process of developing, e.g.: negative suffixes, conjunctions /athava/ or tag questions. These children were found to use simple interrogative sentences of yes/no and wh' types.

Vijayalaxmi (1981) in her study indicated that by 2.6 years, children used simple transitive and intransitive sentences. By 3 to 4 years adjectival use and _wh' questions were noted between 4 to 5 years. Causatives, past continuous and negative reflexive sentences were also acquired. Uma (1991) found that by the

time children reach 4 to 5 years, they are found to use all negative markers such as /be: da/ (no); /kolde/ (without) and /ba:rdu/ (should not). Overall children of the present study follow the trends seen in previous studies but with exception towards positive developmental trends.

CWID group used a variety of sentences. Sentence types like declarative, possessive, and interrogative yes/no and negation were used by more than 60% of children in the group. Reduplicated _wh' interrogative (0%), Tag questions (20%), quotative/repeated, embedded and imperatives were less used sentences. The results in general agree with the performance of CWID having mental age 5 to 6 years as reported in Subbarao (1995). In that study tag questions and affirmatives were used by larger percentage of children. However, a general trend of most used to least used sentences appears to agree with previous research. The language learning patterns in CWID group appears to be consistent. These patterns can influence intervention. When TD and CWID groups are compared significant differences were observed for interrogative yes/no, declaratives, affirmatives, possession and reflexive types where both the groups have performed strongly and comparably in these sentence types.

High significant differences are seen for other sentence types in which CWID have performed poorly as compared to TD group children. Examples of such sentence types are reduplicated, embedded, negation and wh interrogatives. Reduplicated wh interrogative and tag questions were found to be comparatively difficult. Consistently a smaller number of CWID used the sentence types in the sample confirming delay with deviance development of language.

IV. Discussion

Studies from many diverse disciplines show that as language is a complex structure its use involves many diverse interacting psychological operations (Caplan, 1992). A majority of children acquire this complex system (Language) during their early years. It is generally accepted that interactionist approaches propagated in the late 70's (Bloom & Lahey, 1978; Carrow-Woolfolk & Lynch,1982) explain language development better than any single theory. This integrated view point suggests that both maturation and behavior of society simultaneously influence and determine linguistics and communicative behavior.

In light of this approach, studying children for describing their linguistic communication in naturally occurring day to day interactions becomes important. It is well accepted that understanding of language and communicative development is an underlying force to enable effective language intervention in children with disability. One of the largest groups in India that require attention is children with Intellectual disability (CWID). The present study is focused on oral expression of the children and analyzing the resulting language output. Studies of language development have made some headway particularly in Kannada (Karanth, 1990; Subbarao, 1995 & Rohila, 2015).

V. Summary and conclusion

The present study is an extension of previous studies in language profiling of Kannada speaking children with intellectual disabilities (CWID). Most notably, Subbarao (1995) had obtained natural conversational samples of 4 to 6 years mental aged (MA) children with intellectual disability (CWID) and 4 to 6 years matched typical children (TD). The audio sample obtained thus was transcribed and subjected to analysis based on the overall general guidelines provided by LARSP (Crystal et. al, 1976 & 1989).

The most frequently used sentence types by CWID were possession followed by negation sentences. Comparatively TD group used interrogative, declaratives and reduplicated sentences more frequently. CWID not only used less sentence types but also used incomplete sentences. These incomplete sentences may be considered as deviant or inappropriate use of syntactic markers.

Eg. /ond ga:di irta:re/ for

/ond ga:di irutte/ (one vehicle present) (use of neuter singular marker) (use of III p honorific marker) /avan na:le urge?/ for

/avan na:le u:rge ho:gta:ne/ (he tomorrow town) (missing _going to')

/avaru mae:stra uhun/ for /avru maestralla/ (he is not a teacher) (missing _all' usage)

/nange paisa irutte/ for /nannatra paisa irutte/ (I will money have) (possession marker using)

Interestingly _wh' question forms were not seen in CWID probably reflecting the _respond mainly'type of interaction during sample collection. They were also found to use adjectival words like / swalpa / (little) for less quantity as well as less number. This is probably due to limited cognitive processing in these children.

Several instances of starting a sentence and not finishing were also observed. For e.g. / ivanu ball hodda, Ivalu _____/ (he kicked the ball, she _) reflecting difficulty in recalling words and their PNG markers. CWID were also found to substitute pronominal words /idu/(this), /adu/ (that) and general words like /inge/ (like this) for names of objects or actions during descriptions. Again, these examples reflect either insufficient vocabulary or difficulties in retrieving from the storage.

Inappropriate use of verbslike /kivi odalla/ (ear does not run) were also observed. In general, simple sentences and negatives were the norm. Less used sentences like tag questions, embedded and permissive have also been reported to be less frequent in Kannada in general (Mallkarjuna,1994. cited in Subbarao,1995)

Evidence of poor narration and less spontaneous sentences may reflect lack of conjunctions and other connecting words in CWID. In genral, CWID appeared to use Kannada sentences with less deviance than previously reported by Subbarao (1995). This probably reflects improved training methods available for CWID. The varied performance of CWID group indicates that there may not be any one typical pattern of language in CWID. This observation is supported by Carrow-Woolfolk & Lynch (1982); Haynes et.al, (1993); Subbarao (1995).As observed in this study CWID presented delayed development and this supports the previous observations of Kathyayini (1984); Kamalini (1986) &Subbarao (1995). The present study indicated that CWID used all semantic intentions except for questions and recurrence. CWID differed significantly from TD group, unlike previous studies (Subbarao, 1995) where performance was comparable.

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