SCREENING CHECKLIST FOR EARLY DETECTION OF LANGUAGE DELAY IN MANIPURI LANGUAGE

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CHAPTER 1

INTRODUCTION

Human communication is the active process of exchanging information and ideas and this process involves encoding, transmitting, and decoding intended messages. There are many means of communicating. Communication involves both understanding and expression. Forms of expression may include personalized gestures, movements, objects, vocalizations, verbalizations, signs, pictures, symbols, printed words and output Augmentative and Alternative (AAC) devices.(Beukelman & Mirenda, 2013).

Communication appears to be present at birth. The newborn and mother begins communicating almost immediately. The newborn will search for the human voice and demonstrate pleasure or mild surprise when she finds the face that is the sound source. Both child and the mother will do almost anything to attend to the other's face and voice. The degree of caregiver responsiveness appears to be positively correlated with later language abilities. In addition, such responsiveness forges an attachment bond between mother and child that fosters communication. Mothers are able to identify consistently infant behaviours that they perceive to be communicatively important. (Meadows, Elias & Bain, 2000).

Language is a social tool, defined as a socially shared code or conventional system for representing concepts through the use of arbitrary symbols and rule-governed combinations of those symbols. Each language has its own symbols and rules for symbol combination. Furthermore, language development starts from the first cry until a child is able to speak a word. Speech is defined as the audible manifestation of language. Speech is the result of the co-ordinated and sequential movements of the respiratory, laryngeal and articulatory systems.

Assessment and diagnosis plays an important role in the management of communication disorders. Identifying language disorders early is one of the keys to successful outcome in speech and language therapy. The need of language assessment is to identify children who need assistance in developing language skills. It is important to identify delay in speech and language in a standard way either by administering standardized tests or checklists. Traditional methods of assessment are not feasible with

the youngest clients. Most toddlers will not attend to the static formal tests that are commonly used with older children. Instead, information gathered on a case history form, questionnaire, checklist and through parent interview are primary sources of data. The young child's parents are active participants in the assessment process. They are the best source of information about a child's history and present skill level.

Administering checklist by a medical professional other than a Speech language pathologist would be easier, than administration of a standardized test to detect speech and language delay. Since many of the hospitals and health centres don't have a speech language pathologist to detect children with speech and language disorders, a checklist would be easy to administer in the absence of a speech language pathologist.

Cultural-linguistic background must be taken into consideration during an assessment. There are so many screening materials available in different languages. Some of the screening materials in Indian languages includes Com DEALL - Karanth, (2007), Language Evaluation Scale of Trivandrum, LEST (0-3) - Nair, Mini, Indulekha, Letha & Russell, (2013), and Trivandrum Development Screening Chart (TDSC) - Chauhan, Vilhekar & Kurundwadkar, (2016).

For a language like Manipuri language, the checklist available for detecting language delay in early childhood is not available. Manipuri language, Manipur Meiteilon, also called Meitei (Meetei), a Tibeto-Burman language spoken predominantly in Manipur, a northeastern state of India. The language family of Manipuri language is sino-Tibetan languages. There are around 1.5 million speakers of Manipuri, which is used as lingra franca among the 29 different ethnic groups of Manipur. In 1992, it became the first Tibeto-Burman (TB) language to receive recognition as an official, or "scheduled," language of India. Development of language varies among children grown up with different cultural and linguistic background due to their difference in phonology, morphology, semantics, syntax and pragmatics of different languages. So assessing the children of different cultural and background by using the same checklist is not always applicable and reliable because of the language differences. So it is necessary to develop screening checklist in Manipuri language to assess native Manipuri speaking children.

Nair, Mini, Indulekha, Letha and Russell (2013) developed and validated a simple screening tool that can be used in a community to identify delays in language development among children of 0-3 years of age and concluded that Language Evaluation Scale Trivandrum (LEST) is a simple, reliable and valid screening tool for use in the community to identify children between 0-3 years with delays in language development, enabling early intervention practices.

Chauhan, Vilhekar, and Kurundwadkar (2016) developed and validated a simple screening tool for detecting developmental delay in children aged 0 to 3 years in the community and concluded that the Trivandrum Developmental Screening Chart (TDSC) 0-3y is a simple, convenient, and valid screening tool for detecting developmental delay in children aged 0 to 3 years in the community.

Khodeir, Hegazi, and Saleh (2017) standardized an Egyptian Arabic Pragmatic Language Test (EAPLT) with linguistically and socially appropriate questions and pictures to address specific language deficits and concluded that the EAPLT is a valid and reliable Egyptian Arabic test that can be used to detect pragmatic language delay.

Shafie, Omar, Mahmoud, Bashir, Basma, Hussein, Mostafa and Bahbah (2020) developed and validated the Egyptian Developmental screening chart (EDSC) an easy and culturally appropriate and applicable screening chart for early detection of developmental delay among Egyptian children from birth to 30 months and concluded that this specific screening tool are rapid and easy to use in Egypt for early detection of developmental delay and enabling early intervention practices.

Delays in language are the most common types of developmental delay. One out of every five children will learn to speak or use words later than their peers. Language delays are one of the most common problems encountered in many young children, even in small states like Manipur. It's critical to assess a child's language development as soon as possible in order to discover developmental language delay and provide early intervention to avoid complications that could damage the child's communication and social well-being. To assess developmental language delay, a variety of test materials are

available. It is crucial to develop test material that can be used accurately for evaluating native Manipuri children's language development. Srivatshan (2002) developed screening checklist for early detection of language delay in English language. The primary goal of the current study is to adapt screening checklist of early identification of language delay in Manipuri language and administered it in native Manipuri children so as to assess and detect developmental language delay of native Manipuri children.

CHAPTER 2

REVIEW OF LITERATURE

Speech and language are considered as the primary means of communication. We are communicating in many ways, however language is our primary means of communication and speech is the most common expression of language. Communication can be done orally through spoken language and non-orally by using signs, gestures and symbols. Linguistically defined "Language is a system of symbols and codes that are use in communication". Language is any means of communication either oral or gestural to convey information, thoughts, ideas and feelings. Speech is defined as the audible manifestation of language. Speech is the result of co-ordinated and sequential movements of the respiratory, laryngeal and articulatory activities.

Language can be divided into receptive language and expressive language. Receptive language is the understanding of information provided in a variety of ways such as sounds and words; movements and gestures; and signs and symbols. Children often acquire elements of receptive language faster than the expressive language. Because of this, our receptive language vocabulary is generally larger than that of our expressive language (Wallace, 2020).

Expressive language is our ability to communicate our thoughts and feelings through words, gestures, signs and/or symbols. It can be as simple as pointing to a desired objects or as complex as writing a book about an area of interest (Wallace, 2020).

Babies are born with limited ability to communicate. By the time they reach their fifth birthdays, normally developing children achieve nearly adult-like communication skills. Their language growth is dramatic from one year to the next. The first three years of life are extremely important for setting the foundation for later development; therefore intervention for very young children who are struggling is critical. Traditional methods of assessment are not feasible with the youngest clients. Most toddlers will not attend to the static formal tests that are commonly used with older children. Instead, information gathered on a case history form, questionnaire, checklist and through parent interview are primary sources of data. The young child's parents are active

participants in the assessment process. They are the best source of information about a child's history and present skill level.

There are certain factors that are special importance in the development of speech and language in children, such as conceptual development, neuromotor maturation, structural development, child's information processing skills and social interaction.

Pre-requisites for speech and language development:

Normal development of communication requires the interaction of an intact mechanism with a favourable environment (Carter, Musher, Augustyn & Torchia, 2021).

1. Normal auditory skills
2. Normal cognitive development
3. Nurturing stimulating environment
4. Intact vocal tract
5. Adequate physical and emotional health
6. Neuro-motor maturation.

Development of language:

Language development in humans is a process starting early in life. Infants start without knowing a language, yet by 10 months, babies can distinguish speech sounds and engaged in babbling. Typically, children develop receptive language abilities before their verbal or expressive language develops. Receptive language is the internal processing and understanding of language. As receptive language continues to increase, expressive language begins to slowly develop.

Infant Pre-language: Through exposure to their native language, infants begin to recognize regularities, patterns that occur, some frequently, some less. The ability to detect patterns and to make generalizations is extremely important for symbol and rule learning. Babies learn the prosodic or flow patterns and phonotactic organization of their native language and use these skills to help to break into words and analyze the relative unbroken speech stream of mature speakers. Young infants are sensitive to

stress and to rising and falling intonational patterns and can recognize their native language from languages with different patterns (Nazzi, Bertoncini, & Mehler, 1998).

The ability to comprehend words develops gradually and is highly context-dependent initially. By their first birthday, most infants recognize that words refer to common features across objects, such as different types of cups; can extend words to new examples; and can retain new labels for up to 24 hours (Waxman & Booth, 2003).

Major Milestones of Language Acquisition in Children:

0-1 month:

startle response to sound are seen in infants and quieted by human voice.

2–3months:

Cooing; production of some vowel sounds; response to speech; babbling are seen.

4–6 months:

Babbling strings of syllables; imitation of sounds; variations in pitch and loudness.

7–9 months:

Comprehension of some words and simple requests; increased imitation of speech sounds may say or imitate “mama” or dada.”

10–12 months:

Understanding of “No”, response to requests; response to own name; production of one or more words.

13–15 months:

Production of 5 to 10 words, mostly nouns; appropriate pointing responses.

16–18 months:

Following simple directions; production of two-word phrases; production of “I” and “mine.”

2.0 to 2.6 years: `

Response to some yes/no questions; naming of everyday objects; production of phrases and incomplete sentences; production of the present progressive, prepositions, regular plural, and negation “no” or “not.”

3.0–3.6 years:

Production of three- to four-word sentences; production of the possessive morpheme, several forms of questions, negatives “can’t” and “don’t"; comprehension of “why,” “who,” “whose,” and “how many”; and initial productions of most grammatical morphemes.

3.6–5.0 years:

Greater mastery of articles, different tense forms, copula, auxiliary, third- person singular, and other grammatical morphemes; production of grammatically complete sentences.

Toddler Language Development: Early language development is characterized by single-word utterances and by early multiword combinations. Learning strategies may differ from children who produce individual words, mostly nouns, to those who produce unanalyzed phrases, such as I don’t know. These phrases, called formulas, represent a whole-to-parts strategy of learning that seems to be less efficient than a parts-to-whole strategy of learning words and building to longer utterances (Hickey, 1993). Language fulfills the intentions of the child’s earlier non-linguistic communication. First words fill the roles previously served by gestures and/or vocalizations. It is important to note that toddlers don’t just imitate others or name objects. They use their language to influence others, to obtain information, to give information, and to engage in conversational give-and-take. Within the stream of speech directed at the child are individual words. (Golinkoff, Mervis, & Pasek, 1994).

Delayed speech and language:

Speech and language delay is one of the most commonly found communication dysfunctions seen in children. Delayed development of speech and/or language is one of the commonest reasons for parents of preschool children to seek the advice of a paediatrician (Bishop & Leonard, 2000).

The chief characteristics exhibited by children with language delay are a late onset of speech, disturbance in the comprehension of speech and a restricted mean length of utterance. Many children with delayed language are not so impaired, but the flavour of telegram with its omitted words is always present. The syntax is also limited. Some children may not possess the use of question words, the appropriate pronouns, plurals or the use of the verb tense.

Speech and language delay in children is associated with increased difficulty with reading, writing, attention, and socialization. Types of primary speech and language delay include developmental speech and language delay, expressive language disorders and receptive language disorder. Secondary speech and language delays are attributable to another condition such as hearing loss, intellectual disability, autism spectrum disorder, physical speech problems, or selective mutism (McLaughlin, 2011).

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There are some screening tests/tools that are available in Indian context to detect developmental speech and language delay. It includes com DEALL by Karanth (2007), Language Evaluation Scale Trivandrum for children aged 0-3 years (LEST) 0-3 by Nair, Mini, Indulekha, Letha & Russell (2012), Trivandrum Developmental Screening Chart (TDSC) 0-6 by Nair, George, Suma, Neethu, Leena, Swamidhas & Russell (2013), Trivandrum Developmental Screening Chart (TDSC) 0-3 by Chauhan, Vilhekar & Kurundwadkar (2016), etc.

Incidence and prevalence:

To evaluate the prevalence of speech and language impairment in early children, researchers used data from a variety of sources. 25.2 percent of parents were concerned about how their child spoke and made speech sounds, and 9.5 percent were concerned about how well their child understood language, according to parent reports. Teacher-reported prevalence: 22.3 percent of children were deemed less competent than others in their expressive language ability, and 16.9% were judged less competent than others in their receptive language ability, according to teacher reports. When it came to expressive speech and language concerns, the match between parent and teacher identification was better than when it came to receptive language concerns (Sharynne McLeod, Linda & Harrison, 2009).

Norbury, Gooch, Baird, Charman and Simonoff (2016) on their studies found that the prevalence estimate of language disorder was 9.92%. The prevalence of language disorder of unknown origin was estimated to be 7.58%, while the prevalence of language impairment associated with intellectual disability and/or existing medical diagnosis was 2.34%. Children with language disorder displayed elevated symptoms of social, emotional and behavioural problems relative to peers.

Mondal, Bhat, Plakkal, Thulasingnam, Ajayan and Poorna (2016) used the Language Evaluation Scale Trivandrum (LEST 0-3) to assess the prevalence and risk factors of speech and language delay in children under the age of three and found that the prevalence of speech and language delay is high (27 %) in children under the age of three, and that a negative home environment and family history are significant risk factors.

Risk factors of speech and language delay:

There are multiple reasons which leads to delayed speech and language.

Family based risk factors

It includes multilingual family environment, high birth order, consanguinity, family history of speech and language disorders, large family size, family discord, low paternal education, maternal occupation, mother child separation, etc. And one studies found

that multilingual family environment, consanguinity, positive family history of speech and language disorder, low paternal education to be significant factors associated with speech-language delay. A multilingual home environment, commonly seen in India, could confuse the child during the early stages of learning a language. (Sunderajan & Kanhere, 2019).

Environmental factors

Environmental factors includes trauma, chronic noise exposure, television viewing for more than 2 hrs and inadequate stimulation. (Sunderajan et al., 2019).

Sensory deprivation

a) Hearing impairment
b) Visual problems

Most of speech and language skills are learnt by auditory and visual problem are deprived of all the inputs through those senses. Children with impairment in both visual and auditory sense are more prone to delayed in speech and language development.

Hearing impairment is one of the most common disabilities globally. Worldwide, 60% of cases are thought to be preventable and fewer than 10% globally have access to the hearing support they need. Childhood hearing impairment can impact on developmental, speech, language, auditory processing, listening skills, behaviour, self-esteem, quality of life and learning. (Brown, 2020).

Cognitive deficiency

- Intellectual disability
- Autism spectrum disorder

The social deficits associated with autism spectrum disorders (ASD) have been implicated in the language delays and deficits of children with ASD. (Naigles, 2013).

Tan, Mangunatmadja and Wiguna (2019) investigated the link between delayed speech in children aged 1 to 2 years and potential risk factors such as gender, gestational age, birth weight, asphyxia during birth, head circumference and anterior

fontanelle closure, gross motor development, breastfeeding duration, caregiver identity, number of siblings, exposure to gadgets and television, and social factors and concluded that delay in gross motor development, exclusive breastfeeding for fewer than 6 months, daily media exposure of more than 2 hours, and poor social contact are all risk factors for delayed speech development in toddlers, according to the researchers.

Sunderajan and Kanhere (2019) investigated the prevalence and risk factors of speech and language delay in children aged 1 to 12 years and discovered that the prevalence was 2.53 percent, with medical risk factors including birth asphyxia, seizure disorder, oro-pharyngeal deformity, and familial causes including low parental education, consanguinity, positive family history, and multilingual environment and inadequate information.

Assessment:

The goal of assessment is to identify if a child has a language difficulty and, if so, to figure out what's causing it as well as the areas where the child is deficient.

Language assessment can be done by various methods. They are:

(1) Informal Assessment
(2) Formal Assessment

1. **Informal Assessment**

Informal evaluation is an important part of a comprehensive language assessment. It allows the clinician to assess certain aspects of language more deeply than formal assessment allows, and it provides the opportunity to view a client's functional use of language in natural contexts. Relevant cognitive abilities can also be considered. In some situations, informal assessment data are the primary source of diagnostic information. Informal tasks can be receptively or expressively based.

They often require a certain amount of creativity on the part of the clinician to assess targeted behaviours. A small sampling of activities some clinicians use to assess language skills informally is presented in the following list. The techniques used will depend upon many things, including the age of the child, his or her current linguistic abilities, and the specific behaviours to be evaluated.

The informal assessment have the advantage of being quick and flexible. But the informal assessments are unpublished procedure, with no normative data. There is no standardized procedure, which may not be familiar to other clinicians, so that the findings of an informal assessment cannot be easily communicated to others.

Screening checklist:

Screening for language disorders may seem like an overwhelming task. All of the components of language need to be screened in both receptive and expressive contexts quickly and efficiently. The purpose of a screen is to determine whether an in-depth assessment is necessary. Various tests and scales are commercially available for screening purposes.

It is defined as the list of designated skills in which the evaluator checks whether the child can or cannot be able to carry out the task successfully. Here the clinician records the presence or absences of pre-selected behaviours. The judgements of the clinicians are based on whether certain skills are present either by asking parents to report the child's skills or by observing directly the child's speech.

Few screening checklists of language assessment available in Indian context includes

1. Screening checklist for early detection of language delay - Srivatshan (2002).
2. Com DEALL - Karanth, (2007).
3. Language Evaluation Scale Trivandrum for children aged 0-3 years (LEST) 0-3 - Nair, Mini, Indulekha, Letha and Russell (2013).
4. Trivandrum Developmental Screening Chart (TDSC) 0-6 - Nair, George, Suma, Neethu, Leena, Swamidhas and Russell (2013).
5. Trivandrum Developmental Screening Chart (TDSC) 0-3 - by Chauhan, Vilhekar and Kurundwadkar (2016).

Screening checklist assessments are very quick measures and the clinician doesn't require intensive training to administer and is easy to record more frequently. If case reports are used, the clinician can gain insight into the patient's behaviour in contexts outside the clinic. The scoring is easy for the clinician. The clinician can find out whether the child has speech and language disorders or not in a relatively short period of time. Inspite of the advantages that are secondary to the diagnostic tests, this test is not comprehensive, doesn't yield information on etiology predisposing factors and prognosis.

Profiling:

The results of language analysis are displayed on a profile chart, that is why this method of assessment is known as profiling. Profiles are often based around levels of linguistic organization- phonology, semantics and grammar. The profile system has advantages over speech and language tests in that it avoids the bizarre and unnatural interactions of the test context.

Since both screening test and checklists measures only a pre-determined set of skills or behaviours, the data yielded by a profile is more comprehensive. Because the situation is not constrained by the test materials, patients may display a much wider range of their behavioural repertoire.

Some of the disadvantages of profiling are this process is time consuming and also it requires the clinician to have in-depth knowledge so that he doesn't miss any behaviour while profiling.

The most commonly used profile in Indian context is Linguistic profile test (LPT) by Karanth, 1980.

2. Formal assessment:

There are many commercially available speech and language assessment tools that are standardized. Standardized tests, also called formal tests, are those that provide standard procedures for the administration and scoring of the test.

Formal tests are designed to be administered in a formulaic manner. It requires to read the accompanying manual before administering any test. Each is unique in administration protocols and scoring. Formal assessment procedure is one in which an individual is asked to perform a specific task in which specific behaviours are sought. It includes formal language tests. This is a popular and widely used technique of assessment. These tests are described as standardized assessment procedures. Because these tests often include normative data and also the typical pattern of scores obtained by groups of disordered subjects, it is essential that the patient who is being compared to the norms is administered the test in an identical manner to the subjects from whom the normative data is drawn. Here there is a strict control of materials and the administration procedure. Once a test is administered, scores can be calculated and findings can be interpreted.

Some advantages of formal assessment tests are the administration and scoring of tests is relatively straightforward. This assessment aids in the accurate diagnostic and treatment planning procedure.

There are very limited disadvantages. For some patients, test performance is not a good indicator of performance in other non-text contexts. Second, prior to testing, the behaviours to be tested are chosen. This may cause other behaviours observed during the exam to be overlooked, which could be crucial in the diagnosis. This test necessitates the use of qualified professionals.

There have been various tests and scales in order to measure specific aspects of language. Three dimensional language acquisition test (3DLAT) – Harlekhar and Karanth, (1986) is one of the formal assessment tools that are available in Indian context.

Each assessment procedure has its own merits and demerits. Considering the disadvantages of the various assessment procedures, the checklist is superior to its other counterparts in assessing a child with a communication disorder.

Checklists are quick assessment procedures, easy to administer, don’t require any prior training to administer, and also can be administered by any individual and the

interpretation is simple. Hence screening checklist are most favoured by many clinicians as assessment tools.

Western studies:

Rescorla, Ratner, and Jusczyk (2005) investigated the concurrent validity of the Language Development Survey (LDS), a 310-word parent-report screening tool for language delay in toddlers, by comparing it to the MacArthur-Bates Communicative Development Inventories: words and sentences (CDI:WS), a 680-word parent-report instrument, and found that the studies indicates the LDS about rank ordering of toddlers in terms of their reported higher vocabulary and mean length of phrases is equivalent to that obtained from the longer CDI:WS.

Westerlund, Berglund, and Eriksson (2006) evaluated the effectiveness of a screening instrument (the Swedish Communication Screening at 18 Months of Age; SCS18), derived from the Swedish MacArthur-Bates Communicative Development Inventory, in identifying 18-month-old children who will be severely language disabled by the age of three, and concluded that SCS18 has strength, and the age 18 months seems to be too early for identification of sever language disability.

Ketelaars, Cuperus, Daal, Jansonius, and Verhoeven. (2009) examined the validity of the Dutch children's communication checklist (CCC) for children in kindergarten in a community sample, in order to assess the feasibility of using it as screening instrument in the general population and the results suggested that screening for pragmatic language impairment (PLI) is indeed possible using the CCC.

Cepanec and Simlesa (2012) determined mother-father response differences on the Communication and Symbolic Behavior Scales Developmental Profile Infant-Toddler Checklist, a screening and evaluation tool, that is commonly used in many countries to identify developmental delays in infants and toddlers and also the relationship between the parental concern and the score a child achieved was also examined and concluded that the level of parental concern is not a very reliable indicator of delayed or deviant childhood development and furthermore, in 10-15% of cases, parents differ in the extent to which their responses placed a child in different clinical groups.

Safariyan, Jalilevand, Kamali, Ebrahimipour and Mehri (2017) designed a verbal and non-verbal communication screening instrument and determining its validity and reliability in Persian speaking children aged between 12 and 24 months and found that this checklist has reasonable validity and reliability.

Almekaini, Zoubeidi and Albustanji (2017) used Arabic versions of the Language Development Survey and the Child Behavior Checklist for ages 1.5 to 5 years to screen preschool Emirati children for delayed expressive language and associated socio-emotional/behavioural problems and found that many toddlers with potential delayed speech-language were identified using these two tests.

Braverman, Dunn, and Vyshedskiy (2018) developed a parent-reported Mental status evaluation checklist (MSEC) to assess mental synthesis acquisition in children with language delays and concluded that because MSEC does not rely on productive language, it could be a particularly useful tool for assessing the development of nonverbal and minimally verbal children.

Vehkavuori and Stolt (2018) analyzed the specificity and sensitivity of Finnish versions of the short-form version of the MacArthur Communicative Development Inventories (FinCDI-SF) and the communication and the communication and Symbolic Behavior scales (FinCSBS) based on the result of Reynell Developmental Language Scales III and concluded that both screening methods had high specificity but only moderate sensitivity and also the results implied that it is important to take into consideration receptive language development in early screening.

Faldt, Nordlund, Holmqvist, Lucas and Fabian (2018) investigated nurses' experiences and sense of competence when using the infant-toddler Checklist (ITC) communication Screening at the 18-month health visit and found that using the ITC helped nurses assess communication at 18 months and that the nurses' sense of competence was higher when using the ITC, both in their assessment and in communicating with parents.

Chen, Ko, Li, Chiu and Hung (2020) studied on the prevalence of developmental disabilities and verify a useful developmental screening tool in a community setting in Taiwan and concluded the prevalence arte of developmental disabilities in northeastern Taiwan was 11.36% and they also found that low economic status, prematurity and/or small for gestational age and a history of underlying medical disorders were the main risk factors correlated with developmental disabilities and also found that Taipei II is an easy-to-use and effective developmental surveillance for Taiwanese children.

Chung, Yang, Kim, Shin and Yoo (2020) aimed to independently develop, standardise, and validate the Korean Developmental Screening Test for Infants and Children (K-DST) for screening infants for neurodevelopmental disorders in Korea and discovered that the K-DST is reliable and valid, implying that it has great potential as a screening tool for infants and children with neurodevelopmental disorders.

Clark, woods, Alofi, Sides, Buchanan, Hauschildt, Alford, Courson and Venable (2021) developed the spoken language checklist (SLC) to monitor and identify developmental milestones in a user friendly checklist formats that includes norms and concluded that the availability of SLC will help parents and professionals to monitor the spoken language development of DHH children and provide interventions.

Indian studies:

Nair, George, Suma, Neethu, Leena, Swamidhas, and Russell (2013) developed and validated a screening tool for identifying developmental delay in children aged 0 to 6 years old in the community and concluded that the TDSC (0-6y) is a simple, reliable, and valid screening tool for use in the community between 0 and 6 years old with developmental delay, allowing early intervention and practises.

Nair, Princly, Leena, Swapna, Kumari, Preethi, George, Swamidhas and Russell (2014) conducted a community survey to understand the prevalence and type of developmental delay/disability among a representative state wide community sample of children below 3 years by using simple community screening tools like Trivandrum

Developmental Screening Chart (TDSC) 0-3 and Language Evaluation Scale Trivandrum (LEST) 0-3 and the results showed 3.4% prevalence of developmental delay using TDSC and/or LEST by trained anganwadi workers or ASHA workers could be replicated in other states of India, under Rashtria Bal Swasthya Kariyakram.

Mishra (2015) used a screening battery that included the Risk Factor Assessment Questionnaire for socio demographic profile, Home Screening Questionnaire (HSQ), and Language Evaluation Scale Trivandrum (LEST) to assess a group of 0-3 year old children who appeared to be at higher risk for speech and language disorders and the results indicated a higher prevalence of speech and language delay in children with negative home environment compared to the general population prevalence and also this study support the simultaneous use of more than one screening tests in order to increase screening sensitivity.

Need of the study:

Delays in language are the most common types of developmental delay. One out of 5 children will learn to talk or use words later than other children of their age. Even in small state like Manipur, language delays is one of the most common problem seen in many young children. There are several test materials available to detect developmental language delay. It is essential to develop test material in Manipuri language that can be used accurately for evaluating native Manipuri children's language development.

CHAPTER 3

METHOD

Aim of the study:

The aim of the present study is to translate and adapt the screening checklist for early detection of language delay in Manipuri language then administered in native Manipuri children.

Method

The study were carried out in two phases

Phase I - Translation of checklist.

Phase II – Adapting the translated checklist.

Phase I

The screening checklist for early detection of language delay developed by Srivatshan M.V. in (2002) in English language was translated into Manipuri language by professors in Manipuri language. The translated checklist was then given to group of Manipuri language graduate students and general public who were asked to rate the translated checklist based on intelligibility, ambiguity and language level. The suggestions given were necessarily incorporated in the checklist. The suggestions and the corrections advised by evaluators were incorporated and the final translated and validated material was ready for the next stage of the testing.

The stimuli consists of 45 questions, 9 from each age ranges which was translated into Manipuri language. The screening checklist is comprises of a set of questions targeting speech and language skills for each age group. The questions carry information about the speech and language skills that a normal language developing children should have attained at the respective age group.

The developer framed the questions in the checklist after carefully analyzing tests like REELS, 3D-LAT, developmental schedules and information documented in literature.

The checklist checks for expressive skills in a child which includes cry patterns, onset of words, non-verbal communication, semantics and syntax. No specific training is required to administer the test or interpret the results. The checklist will be administered by the health professional.

The checklist also includes information about the child's identity such as name, age and sex.

Participants:

Normal children without any sensory and/or motor handicap in the age range from 6 months-3 years served as the subjects for the study. A total of 225 children, 45 from each age group, with a 6 months interval from 6 months – 3 years were included.

Inclusion criteria:

1. Children with normal intellectual, motor and speech development.
2. Children with normal sensory and motor development.
3. Children with normal oral peripheral mechanism.
4. No history of any major illness.

Exclusion criteria:

1. Children with history of any delay in intellectual, motor and speech development.
2. Children with sensory and/or motor handicap.
3. Children with structural Oro-motor abnormality.
4. Children with history of any major illness.

Phase II

The testing was carried out in a quiet environment with a one to one interaction between the examiner and the child's parent/caregiver. Each parent were interviewed individually and it took an average of 15-20 minutes to complete the entire test.

The responses to questions were either “YES” or “NO” or “yes but not consistent”.

A “yes” response is one which states that the child had attained the skill. This is represented as ‘1’.

A “No” response is one which states that the child has not achieved that skill. This is represented as ‘0’.

A “yes”, but not consistent” is one which states that the child has attained the skill, but is not consistent and is represented by ‘0.5’.

Frequency and percentage of “yes”, “No” and “yes but not consistent” response for each item in each age group were found out. Five crucial questions, which receive majority scores are selected from the group of 9 questions from each age group. The final checklist were short listed to 25 questions with 5 questions for each age group.

CHAPTER 4

RESULTS AND DISCUSSION

The aim of the study was to adapt a screening checklist for early detection of language delay in children aged between 6 months to 3 years in Manipuri language from the checklist originally developed by Srivatshan (2002) in English language.

A. Responses in the age group 6 months – 12 months and significant association.

Table 4.1:

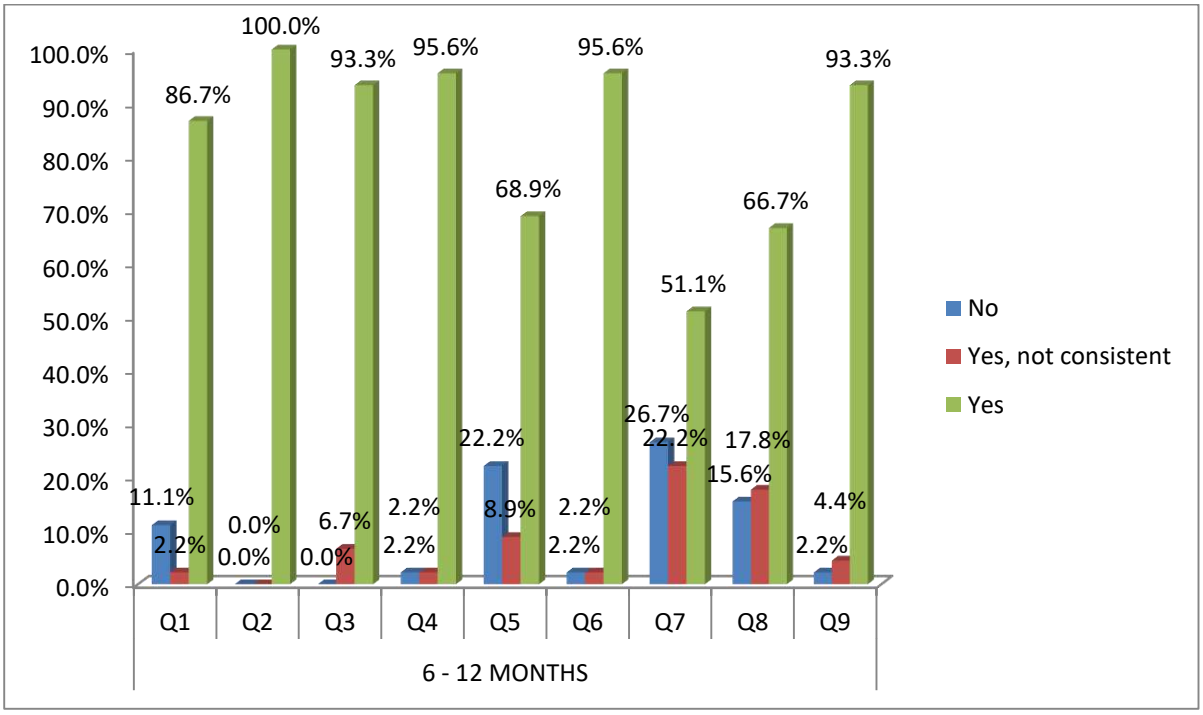
Showing the frequency and percentage of responses of children in the age group 6 months – 12 months and the significance of questions and responses.

Questions		Yes	No	Yes but not Consistent	Total	mean	SD	Median	Friedman Test p value
1	Frequency	39	5	1	45	0.9	0.3	1.0	0.000, HS
	Percentage	86.7%	11.1%	2.2%	100%				
2	Frequency	45	0	0	45	1.0	0.0	1.0	
	Percentage	100%	0.0%	0.0%	100%				
3	Frequency	42	0	3	45	1.0	0.1	1.0	
	Percentage	93.3%	0.0%	6.7%	100%				
4	Frequency	43	1	1	45	1.0	0.2	1.0	
	Percentage	95.6%	2.2%	2.2%	100%				
5	Frequency	31	10	4	45	0.7	0.4	1.0	
	Percentage	68.9%	22.2%	8.9%	100%				
6	Frequency	43	1	1	45	1.0	0.2	1.0	
	Percentage	95.6%	2.2%	2.2%	100%				
7	Frequency	23	12	10	45	0.6	0.4	1.0	
	Percentage	51.1%	26.7%	22.2%	100%				
8	Frequency	30	7	8	45	0.8	0.4	1.0	
	Percentage	66.7%	15.6%	17.8%	100%				
9	Frequency	42	1	2	45	1.0	0.2	1.0	
	Percentage	93.3%	2.2%	4.4%	100%				

B. Responses of the age group 6 – 12 months.

Figure 4.1

Showing the percentage of responses in the age group 6 - 12 months.



From table 4.1 and figure 4.1 we can infer that there is an inconsistent responses for children of 6 – 12 months and the percentage of 'yes' response was more for items 2, 3, 4, 6 and 9 and other items yielded 'no' or 'yes but not consistent' which might be attributed to the stimulation level that is happening at the home environment but still high significant association was found between the test items and the responses indicating by the p value of 0.000 which is obtained by statistical analysis.

C. Responses in the age group 13 months – 18 months and significant association.

Table 4.2

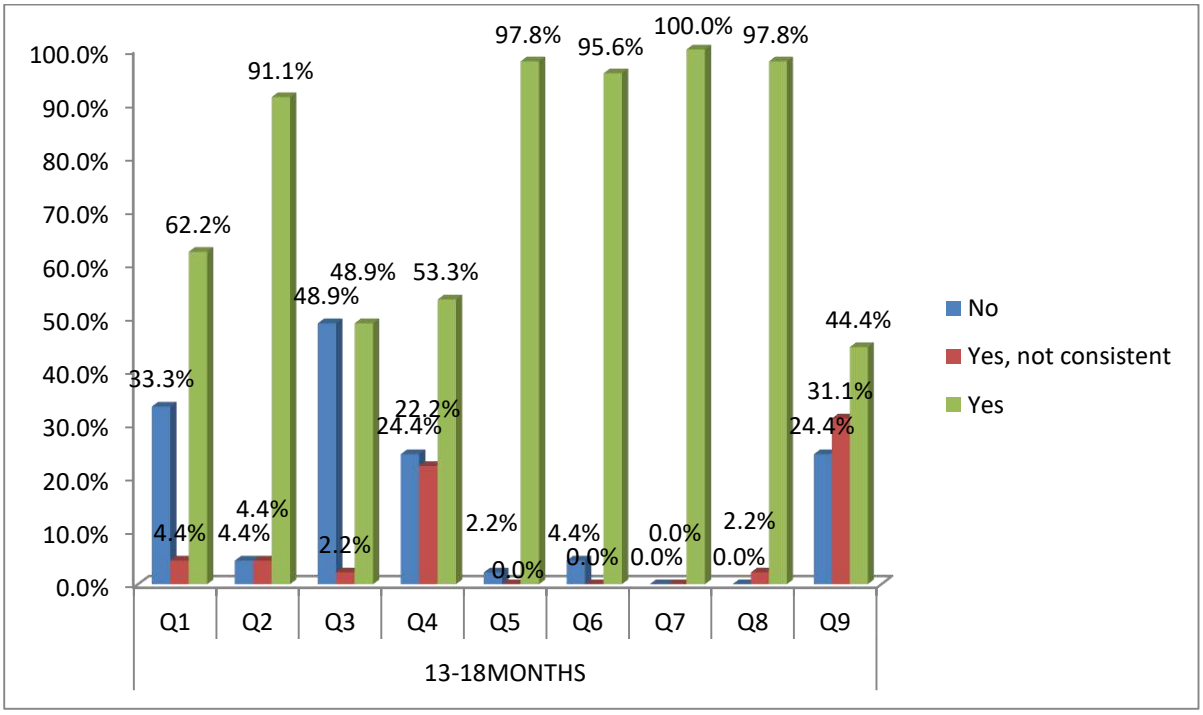
Showing the frequency and percentage of responses of children in the age group 13 months – 18 months and the significance of questions and responses.

Questions		Yes	No	Yes but not consistent	Total	Mean	SD	Median	Friedman test p value
1	Frequency	28	15	2	45	0.6	0.5	1.0	0.000, HS
	Percentage	62.2%	33.3%	4.4%	100 %				
2	Frequency	41	2	2	45	0.9	0.2	1.0	
	Percentage	91.1%	4.4%	4.4%	100%				
3	Frequency	22	22	1	45	0.5	0.5	0.5	
	Percentage	48.9%	48.9%	2.2%	100%				
4	Frequency	24	11	10	45	0.6	0.4	1.0	
	Percentage	53.3%	24.4%	22.2%	100%				
5	Frequency	44	1	0	45	1.0	0.1	1.0	
	Percentage	97.8%	2.2%	0.0%	100%				
6	Frequency	43	2	0	45	1.0	0.2	1.0	
	Percentage	95.6%	4.4%	0.0%	100%				
7	Frequency	45	0	0	45	1.0	0.0	1.0	
	Percentage	100.0%	0.0%	0.0%	100%				
8	Frequency	44	0	1	45	1.0	0.1	1.0	
	Percentage	97.8%	0.0%	2.2%	100%				
9	Frequency	20	11	14	45	0.6	0.4	0.5	
	Percentage	44.4%	24.4%	31.1%	100%				

D. Responses of the age group 13 – 18 months.

Figure 4.2

Showing the percentage of responses in the age group 13-18 months.



From table 4.2 and figure 4.2 we can infer that there is an inconsistent responses for children of 13 – 18 months and the percentage of 'yes' response was more for items 2, 5, 6, 7, and 8 and other items yielded 'no' or 'yes but not consistent' which might be attributed to the stimulation level that is happening at the home environment but still high significant association was found between the test items and the responses indicating by the p value of 0.000 which is obtained by statistical analysis.

E. Responses in the age group 19 months – 24 months and significant association.

Table 4.3

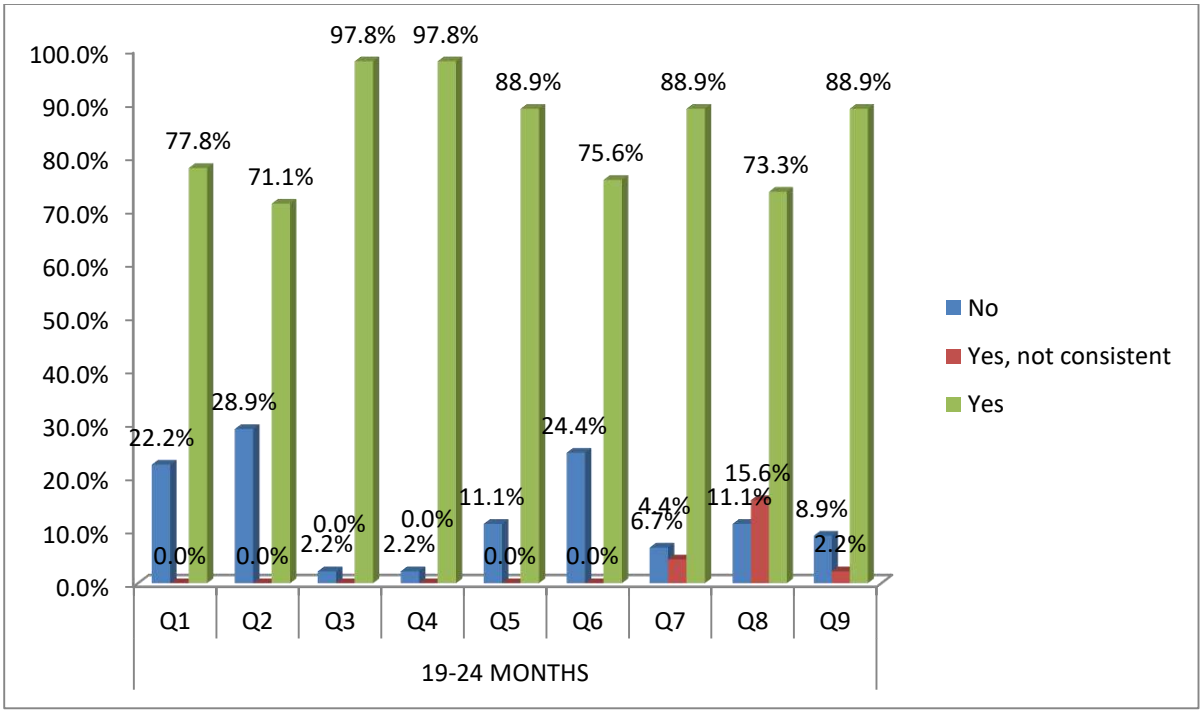
Showing the frequency and percentage of responses of children in the age range 19 months – 24 months and the significance of questions and responses.

Questions		Yes	No	Yes but not consistent	Total	mean	SD	Median	Friedman test p value
1	Frequency	35	10	0	45	0.8	0.4	1.0	0.000 HS
	Percentage	77.8%	22.2%	0.0%	100%				
2	Frequency	32	13	0	45	0.7	0.5	1.0	
	Percentage	71.1%	28.9%	0.0%	100%				
3	Frequency	44	1	0	45	1.0	0.1	1.0	
	Percentage	97.8%	2.2%	0.0%	100%				
4	Frequency	44	1	0	45	1.0	0.1	1.0	
	Percentage	97.8%	2.2%	0.0%	100%				
5	Frequency	40	5	0	45	0.9	0.3	1.0	
	Percentage	88.9%	11.1%	0.0%	100%				
6	Frequency	34	11	0	45	0.8	0.4	1.0	
	Percentage	75.6%	24.4%	0.0%	100%				
7	Frequency	40	3	2	45	0.9	0.3	1.0	
	Percentage	88.9%	6.7%	4.4%	100%				
8	Frequency	33	5	7	45	0.8	0.3	1.0	
	Percentage	73.3%	11.1%	15.6%	100%				
9	Frequency	40	4	1	45	0.9	0.3	1.0	
	Percentage	88.9%	8.9%	2.2%	100%				

F. Responses of the age group 19 – 24 months

Figure 4.3

Showing the percentage of responses in the age group 19-24 months.



From table 4.3 and figure 4.3 we can infer that there is an inconsistent responses for children of 19 – 24 months and the percentage of 'yes' response was more for items 3, 4, 5, 7 and 9 and other items yielded 'no' or 'yes but not consistent' which might be attributed to the stimulation level that is happening at the home environment but still high significant association was found between the test items and the responses indicating by the p value of 0.000 which is obtained by statistical analysis.

G. Responses in the age group 25 months – 30 months and significant association.

Table 4.4

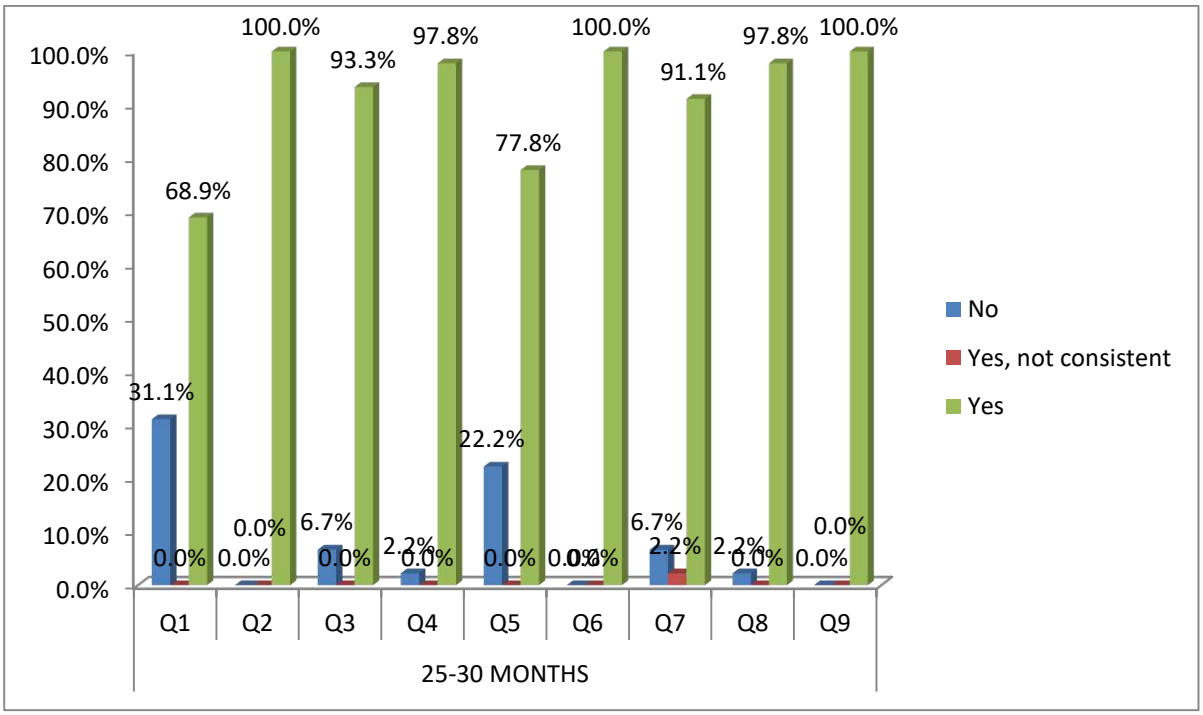
Showing the frequency and percentage of responses of children in the age range 25 months – 30 months and the significance of questions and responses.

Questions		Yes	No	Yes but not consistent	Total	mean	SD	Median	Friedman test p value
1	Frequency	31	14	0	45	0.7	0.5	1.0	0.000 HS
	Percentage	68.9%	31.1%	0.0%	100%				
2	Frequency	45	0	0	45	1.0	0.0	1.0	
	Percentage	100.0%	0.0%	0.0%	100%				
3	Frequency	42	3	0	45	0.9	0.3	1.0	
	Percentage	93.3%	6.7%	0.0%	100%				
4	Frequency	44	1	0	45	1.0	0.1	1.0	
	Percentage	97.8%	2.2%	0.0%	100%				
5	Frequency	35	10	0	45	0.8	0.4	1.0	
	Percentage	77.8%	22.2%	0.0%	100%				
6	Frequency	45	0	0	45	1.0	0.0	1.0	
	Percentage	100.0%	0.0%	0.0%	100%				
7	Frequency	41	3	1	45	0.9	0.3	1.0	
	Percentage	91.1%	6.7%	2.2%	100%				
8	Frequency	44	1	0	45	1.0	0.1	1.0	
	Percentage	97.8%	2.2%	0.0%	100%				
9	Frequency	45	0	0	45	1.0	0.0	1.0	
	Percentage	100.0%	0.0%	0.0%	100%				

H. Responses of the age group 25 – 30 months.

Figure 4.4

Showing the percentage of responses in the age group 25-30 months.



From table 4.4 and figure 4.4, we can infer that there is an inconsistent responses for children of 25 – 30 months and the percentage of 'yes' response was more for items 2, 4, 6, 8 and 9 and other items yielded 'no' or 'yes but not consistent' which might be attributed to the stimulation level that is happening at the home environment but still high significant association was found between the test items and the responses indicating by the p value of 0.000 which is obtained by statistical analysis.

I. Responses in the age group 31 months – 36 months and significant association.

Table 4.5

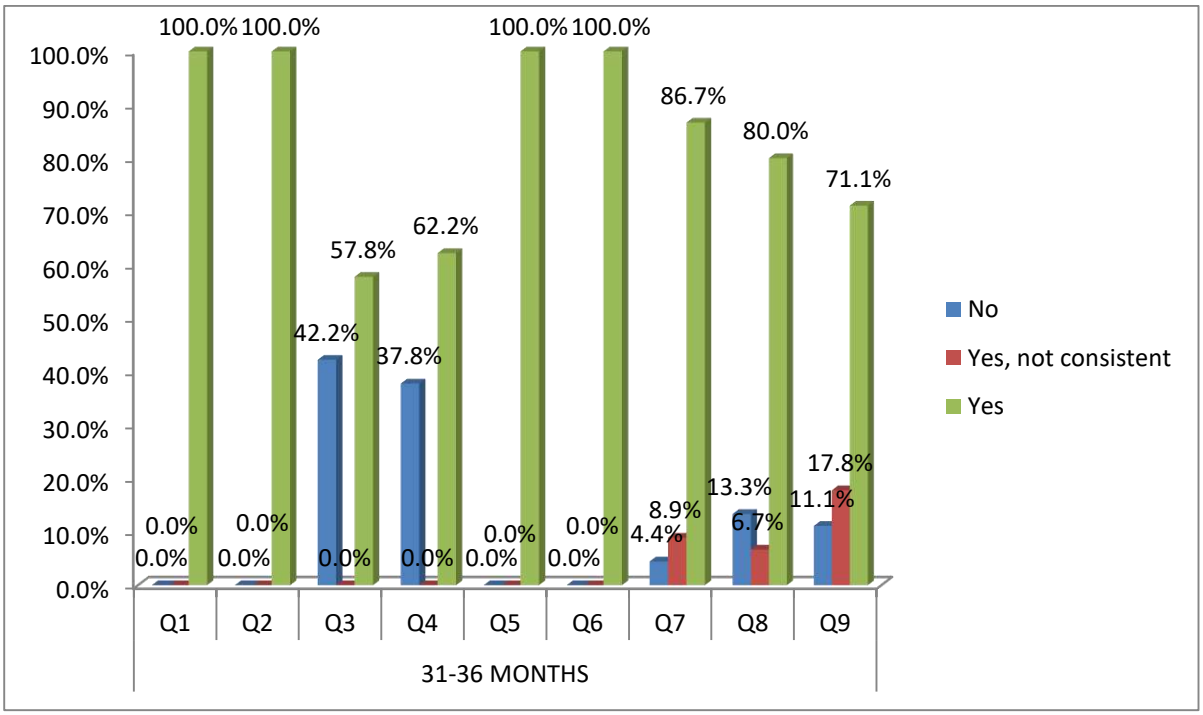
Showing the frequency and percentage of responses of children in the age range 31 months – 36 months and the significance of questions and responses.

Questions		Yes	No	Yes but not consistent	Total	mean	SD	Median	Friedman test p value
1	Frequency	45	0	0	45	1.0	0.0	1.0	0.000 HS
	Percentage	100.0%	0.0%	0.0%	100%				
2	Frequency	45	0	0	45	1.0	0.0	1.0	
	Percentage	100.0%	0.0%	0.0%	100%				
3	Frequency	26	19	0	45	0.6	0.5	1.0	
	Percentage	57.8%	42.2%	0.0%	100%				
4	Frequency	28	17	0	45	0.6	0.5	1.0	
	Percentage	62.2%	37.8%	0.0%	100%				
5	Frequency	45	0	0	45	1.0	0.0	1.0	
	Percentage	100.0%	0.0%	0.0%	100%				
6	Frequency	45	0	0	45	1.0	0.0	1.0	
	Percentage	100.0%	0.0%	0.0%	100%				
7	Frequency	39	2	4	45	0.9	0.2	1.0	
	Percentage	86.7%	4.4%	8.9%	100%				
8	Frequency	36	6	3	45	0.8	0.4	1.0	
	Percentage	80.0%	13.3%	6.7%	100%				
9	Frequency	32	5	8	45	0.8	0.3	1.0	
	Percentage	71.1%	11.1%	17.8%	100%				

J. Responses of the age group 31 – 36 months.

Figure 4.5

Showing the percentage of responses in the age group 31-36 months.



From table 4.5 and figure 4.5 we can infer that there is an inconsistent responses for children of 31 – 36 months and the percentage of 'yes' response was more for items 1, 2, 5, 6, and 7 and other items yielded 'no' or 'yes but not consistent' which might be attributed to the stimulation level that is happening at the home environment but still high significant association was found between the test items and the responses indicating by the p value of 0.000 which is obtained by statistical analysis.

K. Responses seen in all 5 age groups

Table 4.6

Showing the Percentage of 'yes' responses of children of all 5 age groups.

Questions	6-12 months	1 3-18 months	19-24 months	25-30 months	31-36 months
1	86.7%	62.2%	77.8%	68.9%	100.0%
2	100.0%	91.1%	71.1%	100.0%	100.0%
3	93.3%	48.9%	97.8%	93.3%	57.8%
4	95.6%	53.3%	97.8%	97.8%	62.2%
5	68.9%	97.8%	88.9%	77.8%	100.0%
6	95.6%	95.6%	75.6%	100.0%	100.0%
7	51.1%	100.0%	88.9%	91.1%	86.7%
8	66.7%	97.8%	73.3%	97.8%	80.0%
9	93.3%	44.4%	88.9%	100.0%	71.1%

The percentage of 'yes' response for each item of all the 5 age groups are shown in table 4.6.

From each age group, five questions out of 9 questions which has the highest frequency and percentage of 'yes' responses are chosen for the final checklist. The questions chosen for each age group represents the speech and language skills of normally developing native Manipuri children in that respective age group.

L. Significance of question no. 1 between different age groups.

Table 4.7

Showing significant association of question 1 between different age groups.

Age groups	P value	Significance
6-12 vs 13-18	0.040	S
6-12 vs 19-24	1.000	NS
6-12 vs 25-30	0.193	NS
6-12 vs 31-36	1.000	NS
13-18 vs 19-24	0.977	NS
13-18 vs 25-30	1.000	NS
13-18 vs 31-36	0.000	HS
19-24 vs 25-30	1.000	NS
19-24 vs 31-36	0.060	NS
25-30 vs 31-36	0.001	HS

The S, NS and HS shown in the above table represents; S = significant, NS = not significant and HS = highly significant.

From table 4.7, we have seen that there is highly significant relationship between question no.1 of 6-12 vs 13-18 months, 13-18 vs 31-36 months and 25-30 vs 31-36 months.

M. Significance of question no. 2 between different age groups.

Table 4.8

Showing significant association of question 2 between different age groups.

Age groups	P value	Significance
6-12 vs 13-18	1.000	NS
6-12 vs 19-24	0.000	HS
6-12 vs 25-30	1.000	NS
6-12 vs 31-36	1.000	NS
13-18 vs 19-24	0.000	HS
13-18 vs 25-30	1.000	NS
13-18 vs 31-36	1.000	NS
19-24 vs 25-30	0.000	HS
19-24 vs 31-36	0.000	HS
25-30 vs 31-36	1.000	NS

The S, NS and HS shown in the above table represents; S = significant, NS = not significant and HS = highly significant.

From table 4.8, we have seen that there is a significant relationship between question no. 2 of 6-12 vs 19-24 months, 13-18 vs 19-24 months, 19-24 vs 25-30 months and 19-24 vs 31-36 months.

N. Significance of question no. 3 between different age groups.

Table 4.9

Showing significant association of question 3 between different age groups.

Age groups	P value	Significance
6-12 vs 13-18	0.000	HS
6-12 vs 19-24	1.000	NS
6-12 vs 25-30	1.000	NS
6-12 vs 31-36	0.000	HS
13-18 vs 19-24	0.000	HS
13-18 vs 25-30	0.000	HS
13-18 vs 31-36	1.000	NS
19-24 vs 25-30	1.000	NS
19-24 vs 31-36	0.000	HS
25-30 vs 31-36	0.000	HS

The S, NS and HS shown in the above table represents; S = significant, NS = not significant and HS = highly significant.

From table 4.9, we have seen that there is significant relationship between question 3 of 6-12 vs 13-18 months, 6-12 vs 31-36 months, 13-18 vs 19-24 months, 13-18 vs 25-30 months, 19-24 vs 31-36 months and 25-30 vs 31-36 months.

O. Significance of question no. 4 between different age groups.

Table 4.10

Showing significant association of question 4 between different age groups.

Age groups	P value	Significance
6-12 vs 13-18	0.000	HS
6-12 vs 19-24	1.000	NS
6-12 vs 25-30	1.000	NS
6-12 vs 31-36	0.000	HS
13-18 vs 19-24	0.000	HS
13-18 vs 25-30	0.000	HS
13-18 vs 31-36	1.000	NS
19-24 vs 25-30	1.000	NS
19-24 vs 31-36	0.000	HS
25-30 vs 31-36	0.000	HS

The S, NS and HS shown in the above table represents; S = significant, NS = not significant and HS = highly significant.

From table 4.10, we have seen that there is a significant relationship between question no. 4 of 6-12 vs 13-18 months, 6-12 vs 31-36 months, 13-18 vs 19-24 months, 13-18 vs 25-30 months, 19-24 vs 31-36 months and 25-30 vs 31-36 months.

P. Significance of question no. 5 between different age groups.

Table 4.11

Showing significant association of question 5 between different age groups.

Age groups	P value	Significance
6-12 vs 13-18	0.002	HS
6-12 vs 19-24	0.178	NS
6-12 vs 25-30	1.000	NS
6-12 vs 31-36	0.001	HS
13-18 vs 19-24	1.000	NS
13-18 vs 25-30	0.024	S
13-18 vs 31-36	1.000	NS
19-24 vs 25-30	0.894	NS
19-24 vs 31-36	0.894	NS
25-30 vs 31-36	0.008	HS

The S, NS and HS shown in the above table represents; S = significant, NS = not significant and HS = highly significant.

From table 4.11, we have seen that there is a significant relationship between question no. 5 of 6-12 vs 13-18 months, 6-12 vs 31-36 months, 13-18 vs 25-30 months and 25-30 vs 31-36 months.

Q. Significance of question no. 6 between different age groups.

Table 4.12

Showing significant association of question 6 between different age groups.

Age groups	P value	Significance
6-12 vs 13-18	1.000	NS
6-12 vs 19-24	0.000	HS
6-12 vs 25-30	1.000	NS
6-12 vs 31-36	1.000	NS
13-18 vs 19-24	0.000	HS
13-18 vs 25-30	1.000	NS
13-18 vs 31-36	1.000	NS
19-24 vs 25-30	0.000	HS
19-24 vs 31-36	0.000	HS
25-30 vs 31-36	1.000	NS

The S, NS and HS shown in the above table represents; S = significant, NS = not significant and HS = highly significant.

From table 4.12, we have seen that there is a significant relationship between question no.6 of 6-12 vs 19-24 months, 13-18 vs 19-24 months, 19-24 vs 25-30 months and 19-24 vs 31-36 months.

R. Significance of question no. 7 between different age groups.

Table 4.13

Showing significant association of question 7 between different age groups.

Age groups	P value	Significance
6-12 vs 13-18	0.000	HS
6-12 vs 19-24	0.000	HS
6-12 vs 25-30	0.000	HS
6-12 vs 31-36	0.000	HS
13-18 vs 19-24	1.000	NS
13-18 vs 25-30	1.000	NS
13-18 vs 31-36	1.000	NS
19-24 vs 25-30	1.000	NS
19-24 vs 31-36	1.000	NS
25-30 vs 31-36	1.000	NS

The S, NS and HS shown in the above table represents; S = significant, NS = not significant and HS = highly significant.

From table 4.13, we have seen that there is a significant relationship between question no. 7 of 6-12 vs 13-18 months, 6-12 vs 19-24 months, 6-12 vs 25-30 months and 6-12 vs 31-36 months.

S. Significance of question no. 8 between different age groups.

Table 4.14

Showing significant association of question 8 between different age groups.

Age groups	P value	Significance
6-12 vs 13-18	0.002	HS
6-12 vs 19-24	1.000	NS
6-12 vs 25-30	0.003	HS
6-12 vs 31-36	1.000	NS
13-18 vs 19-24	0.037	S
13-18 vs 25-30	1.000	NS
13-18 vs 31-36	0.109	NS
19-24 vs 25-30	0.064	NS
19-24 vs 31-36	1.000	NS
25-30 vs 31-36	0.180	NS

The S, NS and HS shown in the above table represents; S = significant, NS = not significant and HS = highly significant.

From table 4.14, we have seen that there is a significant relationship between question no. 8 of 6-12 vs 13-18 months, 6-12 vs 25-30 months and 13-18 vs 19-24 months.

T. Significance of question no. 9 between different age groups.

Table 4.15

Showing significant association of question 9 between different age groups.

Age groups	P value	Significance
6-12 vs 13-18	0.000	HS
6-12 vs 19-24	1.000	NS
6-12 vs 25-30	1.000	NS
6-12 vs 31-36	0.099	NS
13-18 vs 19-24	0.000	HS
13-18 vs 25-30	0.000	HS
13-18 vs 31-36	0.010	S
19-24 vs 25-30	0.960	NS
19-24 vs 31-36	0.960	S
25-30 vs 31-36	0.010	S

The S, NS and HS shown in the above table represents; S = significant, NS = not significant and HS = highly significant.

From table 4.15, we have seen that there is a significant relationship between question no. 9 of 6-12 vs 13-18 months, 13-18 vs 19-24 months, 13-18 vs 25-30 months, 13-18 vs 31-36 months, 19-24 vs 31-36 months and 25-30 vs 31-36 months.

DISCUSSION

Based on the findings, the Manipuri version of the screening checklist for early detection of language delay can be used to examine native Manipuri children between the ages of 6 months and 3 years to detect developmental language delay. This tool can be used by SLPs and other professionals to tract developmental language delays as early as possible. This checklist will assist in identifying native Manipuri speaking children who are at risk of developmental language delays.

This checklist is divided into five age groups: 6 - 12 months, 13 - 18 moths, 19 - 24 months, 25 - 30 months and 31 - 36 months. Each age group has nine questions, the questions carry information about the speech and language skills that a normal language developing children must attained at the respective age group. The results infer that there is an inconsistent responses, which might be attributed to the stimulation level that is happening at the home environment. Out of the nine questions, the five questions which has the highest frequency and percentage of yes responses were chosen.

The results revealed that in group 6 -12 months, items no. 2, 3, 4, 6 and 9 have the highest percentage of yes responses with 100%, 93.3%, 95.6%, 95.6%, and 93.3% respectively. In group 13 – 18 months, the results revealed that items nos. 2, 5, 6, 7 and 8 have the highest percentage of yes responses with 91.1%, 97.8%, 95.6%, 100.0% and 97.8% respectively. In group 19 – 24 months, the results revealed that items nos. 3, 4, 5, 7 and 9 have the highest percentage of yes responses with 97.8%, 97.8%, 88.9%, 88.9% and 88.9% respectively. In group 25 – 30 months, the results revealed that items nos. 2, 4, 6, 8 and 9 have the highest percentage of yes responses with 100.0%, 97.8%, 100.0%, 97.8% and 100.0%. In group 31-36 months, the results revealed that items nos. 1, 2, 5, 6 and 7 have the highest percentage of yes responses with 100.0%, 100.0%, 100.0%, 100.0% and 86.7% respectively.

The Friedman test p value of 0.000 were found out for all the five age groups, indicating that there is a highly significant association between the questions and the responses. The 5 questions chosen from each group represents the speech and language skills of the normally developing native Manipuri children in that age group. The

chosen questions can now be used to accurately assess the linguistic abilities of native Manipuri speaking children and hence can detect the developmental language delay.

And the post hoc analysis of across the group shows that there is highly significant association between question no.1 of 6-12 vs 13-18 months, 13-18 vs 31-36 months and 25-30 vs 31-36 months, question no. 2 of 6-12 vs 19-24 months, 13-18 vs 19-24 months, 19-24 vs 25-30 months and 19-24 vs 31-36 months, question no. 3 of 6-12 vs 13-18 months, 6-12 vs 31-36 months, 13-18 vs 19-24 months, 13-18 vs 25-30 months, 19-24 vs 31-36 months and 25-30 vs 31-36 months, question no. 4 of 6-12 vs 13-18 months, 6-12 vs 31-36 months, 13-18 vs 19-24 months, 13-18 vs 25-30 months, 19-24 vs 31-36 months and 25-30 vs 31-36 months, question no. 5 of 6-12 vs 13-18 months, 6-12 vs 31-36 months, 13-18 vs 25-30 months and 25-30 vs 31-36 months, question no.6 of 6-12 vs 19-24 months, 13-18 vs 19-24 months, 19-24 vs 25-30 months and 19-24 vs 31-36 months, question no. 7 of 6-12 vs 13-18 months, 6-12 vs 19-24 months, 6-12 vs 25-30 months and 6-12 vs 31-36 months, question no. 8 of 6-12 vs 13-18 months, 6-12 vs 25-30 months and 13-18 vs 19-24 months and question no. 9 of 6-12 vs 13-18 months, 13-18 vs 19-24 months, 13-18 vs 25-30 months, 13-18 vs 31-36 months, 19-24 vs 31-36 months and 25-30 vs 31-36 months.

CHAPTER 5

SUMMARY AND CONCLUSION

Language is a social tool, defined as a socially shared code or conventional system for representing concepts through the use of arbitrary symbols and rule-governed combinations of those symbols.

Speech and language delay is one of the most commonly found communication dysfunctions seen in children. Delayed development of speech and/or language is one of the commonest reasons for parents of preschool children to seek the advice of a paediatrician (Bishop and Leonard, 2000).

The chief characteristics exhibited by children with language delay are a late onset of speech, disturbance in the comprehension of speech and a restricted mean length of utterance. Many children with delayed language are not so impaired, but the flavour of telegram with its omitted words is always present. The syntax is also limited. Some children may not possess the use of question words, the appropriate pronouns, plurals or the use of the verb tense.

The current study aimed to adapt screening checklist for early detection of language delay in Manipuri language and administered in native Manipuri speaking children. Normal children without any sensory and/or motor handicap in the age range from 6 months – 3 years who is a native Manipuri were served as the subjects for this study. A total of 225 children, 45 from each age group, with a 6 months interval (6 – 12 months, 13- 18 moths, 19 – 24 months, 25 – 30 months and 31 – 36 months). Each age group was administered by asking 9 questions and out of the 9 questions, five questions were selected based on the frequency of “yes” response. The testing was carried out by the examiner asking the parent/caregiver of the normal developing children and marked response by ticking ‘Yes’, ‘No’, and ‘Yes but not consistent’. Children with a history of any delay in intellectual, motor and speech development, sensory and/or motor handicap, structural oro-motor abnormality and children with history of any major illness were excluded for this study.

The results infer that there is an inconsistent responses, which might be attributed to the stimulation level that is happening at the home environment.

The results revealed that in group 6 -12 months, items no. 2, 3, 4, 6 and 9 have the highest percentage of yes responses with 100%, 93.3%, 95.6%, 95.6%, and 93.3% respectively. In group 13 – 18 months, the results revealed that items nos. 2, 5, 6, 7 and 8 have the highest percentage of yes responses with 91.1%, 97.8%, 95.6%, 100.0% and 97.8% respectively. In group 19 – 24 months, the results revealed that items nos. 3, 4, 5, 7 and 9 have the highest percentage of yes responses with 97.8%, 97.8%, 88.9%, 88.9% and 88.9% respectively. In group 25 – 30 months, the results revealed that items nos. 2, 4, 6, 8 and 9 have the highest percentage of yes responses with 100.0%, 97.8%, 100.0%, 97.8% and 100.0%. In group 31-36 months, the results revealed that items nos. 1, 2, 5, 6 and 7 have the highest percentage of yes responses with 100.0%, 100.0%, 100.0%, 100.0% and 86.7% respectively.

The Friedman test p value of 0.000 were found out for all the five age groups, indicating that there is a highly significant association between the questions and the responses. The 5 questions chosen from each group represents the speech and language skills of the normally developing native Manipuri children in that age group. The chosen questions can now be used to accurately assess the linguistic abilities of native Manipuri children and hence can detect the developmental language delay.

And the post hoc analysis of across the group shows that there is highly significant association between question no.1 of 6-12 vs 13-18 months, 13-18 vs 31-36 months and 25-30 vs 31-36 months, question no. 2 of 6-12 vs 19-24 months, 13-18 vs 19-24 months, 19-24 vs 25-30 months and 19-24 vs 31-36 months, question no. 3 of 6-12 vs 13-18 months, 6-12 vs 31-36 months, 13-18 vs 19-24 months, 13-18 vs 25-30 months, 19-24 vs 31-36 months and 25-30 vs 31-36 months, question no. 4 of 6-12 vs 13-18 months, 6-12 vs 31-36 months, 13-18 vs 19-24 months, 13-18 vs 25-30 months, 19-24 vs 31-36 months and 25-30 vs 31-36 months, question no. 5 of 6-12 vs 13-18 months, 6-12 vs 25-30 months, 13-18 vs 25-30 months and 25-30 vs 31-36 months, question no.6 of 6-12 vs 19-24 months, 13-18 vs 19-24 months, 19-24 vs 25-30 months and 19-24 vs 31-36 months, question no. 7 of 6-12 vs 13-18 months, 6-12 vs 19-24 months, 6-12 vs 25-30 months and 6-12 vs 31-36 months, question no. 8 of 6-12 vs 13-18 months, 6-12 vs 25-30 months and 13-18 vs 19-24 months and question no. 9 of 6-12 vs 13-18

months, 13-18 vs 19-24 months, 13-18 vs 25-30 months, 13-18 vs 31-36 months, 19-24 vs 31-36 months and 25-30 vs 31-36 months.

The Manipuri version of screening checklist for early detection of language delay can now be used as a screening checklist to detect developmental language delay in native Manipuri children between 6 months to 3 years of age.

Limitation of the study:

- Limited sample size.

Future direction:

- Sample size can be increased.
- Screening checklist for early detection of language delay in Manipuri language can be used to assess the speech and language abilities of the native Manipuri children between 6 months to 3 years of age.

CHAPTER 6

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CHAPTER 7

APPENDIX 1

Name:

Age/ Gender:

6 MONTHS – 12 MONTHS

1. Does your child cry differently for hunger and discomfort?
2. Does your child make pleasure sounds during playtime or after food?
3. Does your child shout or vocalize to get attention?
4. Does your child say “Ba-Ba”, “Ma-Ma” while communicating with parents or while playing alone?
5. Does your child try to communicate by actions and/or by gestures?
6. Does our child talk to persons or dolls/toys with intonation without using true words?
7. Can you understand the meaning of your child’s vocalization?
8. Does your child mimic sounds made by family members and by others?
9. Does your child use a true word to communicate, for example, “Amma” or “Appa”?

13 MONTHS – 18 MONTHS

1. Does your child use speech more than gestures for communication?
2. Does your child imitate words overheard in conversation?
3. Does your child use 2 word combinations to form a small sentence?
4. Does your child express verbally for his/her needs?
5. Does he/she have a speaking vocabulary of 5-20 words?
6. Does your child make animal sounds and vehicle sounds when asked?
7. Does your child name atleast 2 everyday objects, animals and food items?
8. Does your child use gestures along with vocalization?
9. Does our child repeat words when asked to repeat?

19 MONTHS – 24 MONTHS

1. Does your child have a vocabulary of approximately 50 words?
2. Does your child use 3 words combination?
3. Does your child use verbs like sitting, eating?
4. Does your child use words referring to relatives other than parents like aunty, uncle?
5. Does your child label pictures?
6. Does your child ask questions regarding names of objects involved in action?
7. Does your child initiate conversation to draw attention?
8. Can your child imitate 2 word and 3 words combination?
9. Does your child ask common foods by name?

25 MONTHS – 30 MONTHS

1. Does your child have a vocabulary of 200-300 words?
2. Does your child use pronouns like I, Me, Mine and You?
3. Does he/she use plurals in his/her speech?
4. Can he/she name atleast 6 objects based on their use?
5. Does he/she use past tense to describe events?
6. Does your child use prepositions like up, down and behind?
7. Does your child combine nouns and verbs for example, cat sitting?
8. Can he/she repeat 2 or more numbers correctly?
9. Does he/she use “No”, “Not” frequently in his/her speech?

31 MONTHS – 36 MONTHS

1. Can he/she name one colour correctly?
2. Can your child tell a simple story or sing a rhyme?
3. Does your child use 4-5 word to express a sentence?
4. Does your child have a vocabulary of 500-600 words?
5. Can your child tell his/her name and address?
6. Does your child tell his/her gender when asked “Are you a boy or a girl”?
7. Does your child ask “why” questions?
8. Does your child use the correct verb form when shown a picture?
9. Does your child express toilet needs verbally?

APPENDIX 2

Name:

Age/ Gender:

<u>ꯁꯦ ꯶- ꯁꯦ ꯱꯲</u>

꯱. ꯑꯗꯣꯝꯒꯤ ꯑꯉꯥꯡꯅꯥ ꯃꯇꯝ ꯈꯔꯥ ꯈꯨꯗꯣꯡ ꯆꯥꯕꯒꯤ ꯃꯇꯝꯗꯥ, ꯈꯨꯗꯣꯡ ꯂꯩꯕ ꯅꯠꯇꯕꯒꯤ ꯃꯇꯝꯗꯥ, ꯅꯨꯡꯉꯥꯏ ꯑꯣꯏ ꯑꯃꯨ ꯅꯪꯍꯩꯕ ꯇꯧꯕꯔꯥ?

꯲. ꯑꯗꯣꯝꯒꯤ ꯑꯉꯥꯡꯅꯥ ꯈꯨꯗꯣꯡ ꯊꯦꯡꯅꯕ ꯂꯩꯔꯤꯕ ꯈꯔꯥ ꯑꯃꯁꯨ ꯈꯨꯗꯣꯡ ꯁꯥꯕ ꯈꯔꯥ ꯀꯣꯟꯕ ꯅꯥꯡꯁꯤꯡ ꯑꯃ ꯇꯧꯁꯤꯡꯕꯔꯥ?

꯳. ꯑꯗꯣꯝꯒꯤ ꯑꯉꯥꯡꯅꯥ ꯈꯣꯟꯖꯦꯜ ꯈꯟꯅ ꯑꯣꯔꯤꯕ ꯆꯠꯅ ꯍꯩꯕꯥ ꯃꯔꯤ ꯅꯥꯡꯁꯤꯡ ꯅꯕ ꯇꯧꯁꯤꯡꯕꯔꯥ?

꯴. ꯑꯗꯣꯝꯒꯤ ꯈꯨꯗꯣꯡ ꯂꯩꯔꯕꯒꯤ ꯈꯔꯥ ꯑꯃꯁꯨ ꯈꯨꯖꯤ ꯈꯨꯗꯣꯡ ꯆꯥꯕꯒꯤ ꯈꯔꯥ “ꯕ-ꯕ”, “ꯈ-ꯈ” ꯍꯥꯌꯕ ꯍꯥꯏꯔꯝꯗꯥ ꯍꯦꯛꯇꯕꯔꯥ?

꯵. ꯑꯗꯣꯝꯒꯤ ꯑꯉꯥꯡꯅꯥ ꯃꯔꯤ ꯅꯥꯡꯁꯤꯡ ꯈꯔꯥ ꯂꯩꯕ ꯂꯩꯇꯕꯒꯤ ꯑꯗꯣꯃꯕ ꯀꯥꯔꯤꯕ ꯍꯦꯛꯇꯕꯔꯥ?

꯶. ꯑꯗꯣꯝꯒꯤ ꯑꯉꯥꯡꯅꯥ ꯃꯔꯤ ꯅꯥꯡꯁꯤꯡ ꯈꯔꯥ ꯈꯣꯟꯖꯦꯜ ꯅꯠꯔꯒꯥ ꯆꯥꯡꯕꯤ/ ꯂꯩꯇꯥꯏ ꯂꯩꯕꯥ ꯅꯥꯡꯁꯤꯡ ꯅꯕ ꯅꯠꯔꯒꯥ ꯑꯗꯨꯁꯨ ꯁꯦꯝꯕ ꯃꯇꯝ ꯅꯕ ꯂꯩꯇꯕ ꯍꯦꯛꯇꯕꯔꯥ?

꯷. ꯑꯗꯣꯝꯒꯤ ꯑꯉꯥꯡꯅꯥ ꯇꯧꯁꯤꯡꯕ ꯅꯥꯡꯁꯤꯡꯕꯤ ꯑꯃꯒꯤ ꯑꯗꯨꯁꯨ ꯑꯗꯣꯃꯆꯨ ꯀꯔꯤꯅꯥ ꯃꯕꯤ ꯉꯝꯕꯔꯥ?

꯸. ꯑꯗꯣꯝꯒꯤ ꯑꯉꯥꯡꯅꯥ ꯍꯥꯏꯕ ꯈꯨꯗꯣꯡꯒꯤ ꯈꯤ ꯅꯠꯔꯒꯥ ꯑꯃꯥꯡꯗꯥ ꯈꯤꯂꯤꯕꯒꯤ ꯈꯃꯥ ꯃꯈꯨꯗꯥ ꯉꯝꯉꯝꯗꯥ ꯍꯦꯛꯇꯕꯔꯥ?

꯹. ꯑꯗꯣꯝꯒꯤ ꯑꯉꯥꯡꯅꯥ ꯃꯦ ꯉꯝꯆꯕꯒꯤ ꯈꯔꯥ ꯑꯃꯨꯕ ꯃꯦꯍꯥ ꯅꯕ “ꯈ-ꯈ” ꯅꯠꯔꯒꯥ “ꯕ-ꯕ” ꯍꯥꯌꯕ ꯂꯩꯇꯥꯏꯕꯔꯥꯗꯥ ꯍꯦꯛꯇꯕꯔꯥ?

<u>ꯄꯣ ꯱꯳-ꯄꯣ꯱꯵</u>

꯱. ꯑꯗꯣꯝꯒꯤ ꯏꯃꯨꯡꯗ ꯑꯣꯏꯔꯤꯕ ꯃꯤꯑꯣꯏ ꯀꯌꯥ ꯃꯅꯨꯡꯗ ꯁꯤꯖꯤꯟꯅꯔꯤꯕꯒꯤ ꯃꯇꯦꯡ ꯄꯥꯡꯒꯅꯤ ꯁꯤꯖꯤꯟꯅꯕꯅꯣ?

꯲. ꯑꯗꯣꯝꯒꯤ ꯏꯃꯨꯡꯗ ꯑꯃ ꯑꯣꯏꯅꯕ ꯃꯤꯑꯣꯏ ꯀꯌꯥ ꯁꯤꯖꯤꯟꯅꯔꯤꯕ ꯃꯇꯦꯡꯗ ꯀꯣꯟ ꯂꯩꯀꯥ ꯍꯦꯟꯅ ꯍꯥꯌꯕꯅꯣ?

꯳. ꯑꯗꯣꯝꯒꯤ ꯏꯃꯨꯡꯗ ꯑꯃꯥ ꯃꯇꯦꯡ ꯀꯟꯕ ꯑꯣꯏꯕ ꯃꯤꯁꯤꯖꯤꯟꯅꯕꯒꯤ ꯃꯇꯦꯡ ꯃꯇꯃꯗ ꯀꯟꯕ ꯅꯕꯥ ꯁꯤꯖꯤꯟꯅꯕ ꯍꯥꯌꯕꯅꯣ?

꯴. ꯑꯗꯣꯝꯒꯤ ꯏꯃꯨꯡꯗꯒꯤ ꯀꯔꯤꯒꯨꯝꯕ ꯑꯃꯁꯨꯡ ꯈꯣꯡꯗꯥꯡꯗ ꯃꯇꯦꯡ ꯑꯣꯏꯕ ꯁꯤꯖꯤꯟꯅꯕꯅꯣ?

꯵. ꯑꯗꯣꯝꯒꯤ ꯏꯃꯨꯡꯗꯒꯤ ꯄꯨꯛꯅꯤꯡ ꯈꯜꯂꯕꯒꯤ ꯍꯧꯔꯛꯄ ꯍꯧꯖꯤꯛ ꯑꯣꯏꯕ ꯑꯁꯤꯕꯥ ꯁꯥꯕ
ꯍꯧꯖꯤꯛ ꯃꯇꯦꯡꯗ ꯑꯃꯥ ꯵-꯲꯰ ꯈꯜꯂꯕꯒꯤ ꯃꯇꯝ ꯇꯧꯕꯅꯣ?

꯶. ꯑꯗꯣꯝꯒꯤ ꯏꯃꯨꯡꯗ ꯑꯃꯥ ꯀꯅꯥꯒꯤ ꯄꯣꯛꯄꯒꯤ ꯀꯅꯥꯁꯨ ꯑꯃꯃꯥ ꯃꯤ/ꯇꯤꯕꯤꯗꯒꯤ ꯀꯅꯥꯁꯨ ꯃꯤꯈꯜ
ꯄꯥꯡꯕ ꯀꯟꯕ ꯃꯤꯕ ꯄꯥꯡꯕꯅꯣ?

꯷. ꯑꯗꯣꯝꯒꯤ ꯏꯃꯨꯡꯗ ꯑꯃꯗꯒꯤ ꯆꯥꯡꯂꯣꯛꯀꯤ ꯃꯤꯇꯤꯁꯤꯖꯤꯟꯅꯕ ꯈꯣꯡꯕꯥꯝꯗ, ꯃ ꯑꯃꯥ ꯃꯇꯝ
ꯈꯣꯡꯕꯥꯝꯗ ꯀꯅꯥꯒꯤ ꯀꯀꯤꯗ ꯄꯥꯡꯕ ꯄꯥꯡꯕꯅꯣ?

꯸. ꯑꯗꯣꯝꯒꯤ ꯏꯃꯨꯡꯗꯒꯤ ꯃ ꯍꯧꯗꯕ ꯀꯟꯕ ꯃꯤꯁꯤꯂꯨ ꯀꯅꯥ ꯁꯤꯖꯤꯟꯅꯕ ꯍꯥꯌꯕꯅꯣ?

꯹. ꯑꯗꯣꯝꯒꯤ ꯏꯃꯨꯡꯗꯒꯤ ꯃꯇꯦꯡ ꯀꯅꯥ ꯑꯃꯂꯨ ꯄꯥꯡꯕ ꯀꯣꯟ ꯂꯩꯀꯥ ꯍꯧꯗꯍꯧꯗꯥꯜ ꯄꯥꯡꯕ
ꯀꯟꯕ ꯃꯥꯟ ꯀꯤꯁꯤꯡ ꯄꯥꯡꯕꯒꯗꯥꯟ ꯍꯧꯕꯅꯣ?

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<u>ꯂꯦ ꯱꯸-ꯂꯦ ꯲꯴</u>

꯱. ꯑꯗꯣꯃꯒꯤ ꯌꯨꯃꯗ ꯀꯅꯥ ꯃꯔꯨꯞ ꯑꯃ ꯌꯥꯎꯔꯕ ꯍꯣꯇꯕ ꯍꯣꯠꯅꯕ ꯁꯦꯝꯒꯠꯄ ꯌꯥꯝꯅ ꯁꯦꯝ ꯵꯰ ꯗꯦꯡꯕꯒꯤ ꯁꯦꯡꯕ ꯂꯩꯔꯕꯒꯦ?

꯲. ꯑꯗꯣꯃꯒꯤ ꯌꯨꯃꯗ ꯀꯅꯥ ꯁꯦꯝ ꯌꯥꯝꯅ ꯄꯨꯋꯥꯔꯤꯗꯒꯤ ꯁꯦꯝ ꯄꯥꯡꯗ ꯌꯥꯎꯕ ꯍꯣꯠꯅꯕ ꯍꯣꯟꯈꯕꯒꯦ?

꯳. ꯑꯗꯣꯃꯒꯤ ꯌꯨꯃꯗꯀꯤ ꯌꯥꯎꯕ ꯁꯦꯔꯦꯕ ꯂꯕꯗ ꯁꯨꯗꯄ ꯁꯦꯝꯒꯠꯄ ꯃꯍꯩꯃꯔꯤ- ꯗꯍꯕ, ꯁꯕ, ꯁꯦꯝꯕ ꯀꯅꯥꯒꯤ ꯁꯦꯝꯒꯠꯄ ꯀꯅꯥ ꯀꯤꯗꯤꯅꯕ ꯑꯣꯏꯕꯒꯦ?

꯴. ꯑꯗꯣꯃꯒꯤ ꯌꯨꯃꯗ ꯀꯅꯥ "ꯃꯦꯃꯦ", "ꯕꯦꯕꯦ" ꯆꯦꯡꯁꯕ ꯀꯅꯥꯄꯥꯄꯥ ꯃꯩ-ꯃꯁꯤꯒꯤ ꯍꯣꯠꯅꯕ ꯃꯤꯁꯤꯒꯤ ꯑꯣꯏꯕꯃꯤ- ꯆꯆ, ꯍꯦꯍꯦ ꯀꯅꯥꯒꯤ ꯃꯤꯁꯤꯒꯤ ꯀꯅꯥ ꯀꯤꯗꯤꯅꯕꯒꯤ ꯍꯣꯠꯅ ꯑꯣꯏꯕꯒꯦ?

꯵. ꯑꯗꯣꯃꯒꯤ ꯌꯨꯃꯗ ꯀꯅꯥ ꯆꯦꯅ ꯅꯪꯌꯥꯄꯥ ꯑꯣꯏꯕꯒꯦ?

꯶. ꯑꯗꯣꯃꯒꯤ ꯌꯨꯃꯗ ꯀꯅꯥꯒꯤ ꯌꯥꯎꯕ ꯂꯕꯗ ꯌꯥꯃ ꯁꯦꯕꯃ ꯀꯤꯗꯤꯅꯕꯒꯤ ꯄꯥꯡ ꯌꯥꯝꯒꯤ ꯃꯩꯍꯃ ꯁꯦꯝ ꯑꯣꯕ ꯑꯣꯏꯕꯒꯦ?

꯷. ꯑꯗꯣꯃꯒꯤ ꯌꯨꯃꯗ ꯀꯅꯥ ꯍꯩꯔꯤꯡꯕ ꯃꯁꯍꯃ ꯃꯍꯣꯍꯩ ꯌꯥꯄꯥꯍꯕ ꯗꯥꯗꯃꯥꯆꯕ ꯆꯦꯡꯁꯕꯒ ꯀꯅꯥꯄꯥꯄꯥꯒꯤ ꯄꯨꯌꯥꯆꯗ ꯁꯤꯗꯀꯤꯅꯕ ꯁꯩꯒ ꯀꯦꯅꯕ ꯑꯣꯃꯩꯌꯥꯄꯥ ꯅꯦꯡꯕꯒꯦ?

꯸. ꯑꯗꯣꯃꯒꯤ ꯌꯨꯃꯗ ꯀꯅꯥ ꯁꯦꯝ ꯀꯆꯤ ꯆꯦꯡꯁꯕꯒ ꯌꯥꯝꯍ ꯄꯨꯋꯥꯔꯤꯗꯒꯤ ꯍꯣꯠꯅꯕ ꯁꯦꯝ ꯄꯥꯡꯗꯀꯤꯗ ꯃꯁꯦ ꯁꯍꯕ ꯑꯣꯏꯕꯒꯦ?

꯹. ꯑꯗꯣꯃꯒꯤ ꯌꯨꯃꯗꯀꯤꯗ ꯁꯦꯅꯆꯦ ꯀꯤꯗꯤꯅꯕꯦ ꯄꯥꯡꯌ ꯆꯦꯡꯁꯕꯒ ꯁꯆꯕ ꯄꯥꯡꯌꯆꯍꯀꯤꯗꯒꯤ ꯃꯃꯤꯗ ꯀꯤꯗꯤꯅꯕꯒ ꯄꯥꯡꯌ ꯑꯃ ꯑꯣꯕ ꯅꯦꯡꯕꯒꯦ?

GSJ: Volume 9, Issue 10, October 2021
ISSN 2320-9186

ꯗꯤ ꯲꯵-ꯗꯤ ꯳꯰

꯱. ꯑꯗꯣꯝꯅꯥ ꯑꯩꯈꯣꯌꯒꯤ ꯃꯇꯧꯒꯤ ꯀꯥꯡꯂꯨꯞ ꯑꯃꯁꯨꯡ ꯂꯩꯕꯥ ꯂꯩꯃꯥ ꯁꯦꯡꯂꯕꯥ ꯑꯃꯥ ꯲꯰꯰-꯳꯰꯰ ꯗꯤꯒꯤ ꯁꯩꯕꯥ ꯇꯥꯀꯍꯥꯏꯕꯤꯌꯨ?

꯲. ꯑꯗꯣꯝꯅꯥ ꯑꯩꯈꯣꯌ ꯑꯃꯁꯨ ꯑꯩ, ꯅꯩ, ꯃꯇꯧ, ꯑꯩꯒꯤ ꯇꯧꯕꯤꯕ ꯄꯥꯎꯅꯩꯁꯤꯡꯕꯥ ꯑꯃꯁꯨꯡꯂꯕꯥ ꯂꯣꯅꯁꯤꯡ ꯇꯥꯀꯍꯥꯏꯕꯤꯌꯨ?

꯳. ꯑꯗꯣꯝꯅꯥ ꯑꯩꯈꯣꯌꯒꯤ ꯁꯦ ꯂꯩꯕꯥ ꯃꯇꯝꯗꯥ ꯄꯨꯟꯁꯤꯟ ꯇꯧꯕꯒꯤ ꯑꯩꯕꯥꯒꯤ, ꯃꯔꯩꯕꯥꯒꯤ, ꯄꯨꯝꯅꯃꯛꯀꯤ, ꯃꯕꯥꯒꯤ ꯑꯃꯁꯨꯡꯂꯕꯥ ꯁꯦꯡꯂꯕꯥ ꯑꯃꯁꯨ ꯂꯣꯅꯁꯤꯡ ꯔꯩꯗꯕꯥꯍꯥꯏꯕꯤꯌꯨ?

꯴. ꯑꯗꯣꯝꯅꯥ ꯑꯩꯈꯣꯌꯒꯤ ꯔꯩꯃꯁꯦꯡꯕꯥ ꯄꯨꯊꯣꯛ ꯃꯥꯏꯄꯥꯛꯄꯥ ꯃꯃꯤ ꯑꯃꯁꯨ ꯄꯨꯊꯣꯛꯂꯕꯥ ꯑꯃꯥ ꯂꯣꯅꯁꯤꯡꯗꯥ ꯅꯤꯡꯊꯧ ꯃꯃꯤ ꯇꯧꯕ ꯇꯥꯀꯍꯥꯏꯕꯤꯌꯨ?

꯵. ꯑꯗꯣꯝꯅꯥ ꯑꯩꯈꯣꯌ ꯑꯃꯁꯨ ꯇꯧꯅꯕ ꯗꯤꯡꯍꯤꯟꯒꯤ ꯁꯩꯕꯥ ꯆꯩꯕ ꯇꯥꯀꯍꯥꯏꯕꯤꯌꯨ?

꯶. ꯑꯗꯣꯝꯅꯥ ꯑꯩꯈꯣꯌ ꯑꯃꯁꯨ ꯃꯗꯨ ꯄꯨꯝꯅꯃꯛ ꯁꯦꯡꯂꯕꯥ (ꯃꯗꯨ, ꯃꯅꯥ, ꯃꯃꯤ, ꯃꯆꯤ) ꯑꯃꯁꯨꯡꯂꯕꯥ ꯂꯣꯅꯁꯤꯡ ꯇꯥꯀꯍꯥꯏꯕꯤꯌꯨ?

꯷. ꯑꯗꯣꯝꯅꯥ ꯑꯩꯈꯣꯌ ꯑꯃꯁꯨ ꯅꯩꯁꯤꯡ ꯑꯃꯁꯨꯡ ꯒꯥꯕ ꯄꯨꯁꯤꯡꯂꯣꯅꯁꯤꯡ ꯁꯦꯡ ꯄꯥꯎꯅꯩꯒꯤ (ꯇꯧꯕꯤ ꯗꯝꯃꯤ, ꯃꯃꯤ ꯁꯦꯡꯄ ꯁꯦꯕꯥ) ꯑꯃꯁꯨꯡꯂꯕꯥꯂꯣꯅꯁꯤꯡ ꯑꯃꯁꯨ ꯇꯧꯕ ꯇꯥꯀꯍꯥꯏꯕꯤꯌꯨ?

꯸. ꯑꯗꯣꯝꯅꯥ ꯑꯩꯈꯣꯌ ꯑꯃꯁꯨ ꯃꯂꯣꯅ ꯑꯆꯤ ꯅꯩꯄꯨꯡꯕꯥ ꯑꯆꯤꯒꯤ ꯇꯧꯁꯤꯡꯗꯥ ꯄꯨꯝꯅ ꯇꯧꯆꯤꯡꯅ ꯇꯧꯕ ꯇꯥꯀꯍꯥꯏꯕꯤꯌꯨ?

꯹. ꯑꯗꯣꯝꯅꯥ ꯑꯩꯈꯣꯌ ꯑꯃꯁꯨ ꯁꯦ ꯂꯩꯕꯥ ꯃꯄꯨꯝꯅ- ꯅꯩꯄꯨꯡ, ꯄꯨꯟꯅꯥ, ꯂꯩꯃꯥꯃꯥ, ꯑꯃꯁꯨꯡꯂꯕꯥ ꯁꯦꯡꯂꯕꯥ ꯑꯃꯁꯨ ꯄꯨꯡꯅ ꯂꯣꯅꯁꯤꯡꯕꯥꯍꯥꯏꯕꯤꯌꯨ?

<u>ꯀꯦ ꯲꯱-ꯀꯦ ꯲꯶</u>

꯱. ꯑꯗꯣꯝꯒꯤ ꯑꯉꯥꯡ ꯑꯁꯤ ꯃꯇꯝ ꯑꯃꯍꯣꯡꯗ ꯆꯥꯛ ꯍꯧꯕ ꯍꯥꯏꯕꯤꯌꯨ?

꯲. ꯑꯗꯣꯝꯒꯤ ꯑꯉꯥꯡ ꯑꯁꯤ ꯆꯥꯛ ꯆꯤꯡ ꯄꯨꯋꯥꯏꯗ ꯀꯌꯥ ꯂꯩꯔꯤ ꯍꯥꯏꯕꯤꯌꯨ?

꯳. ꯑꯗꯣꯝꯒꯤ ꯑꯉꯥꯡ ꯑꯁꯤ ꯆꯥꯛ ꯴-꯵ ꯔꯤꯡꯂꯤꯡꯒꯤ ꯆꯥꯛ ꯔꯤꯡꯗ ꯑꯍꯥꯡ ꯄꯤꯕ ꯍꯥꯏꯕꯤꯌꯨ?

꯴. ꯑꯗꯣꯝꯒꯤ ꯑꯉꯥꯡ ꯃꯍꯥꯛ ꯅꯥꯕ ꯑꯃꯁꯨ ꯄꯤꯕ ꯄꯥꯝꯕ ꯆꯥꯛꯂꯤꯕ ꯑꯃꯨ ꯵꯰꯰-꯶꯰꯰ ꯃꯤꯂꯤꯒꯤ ꯆꯦꯕ ꯇꯧꯕꯤꯌꯨ?

꯵. ꯑꯗꯣꯝꯒꯤ ꯑꯉꯥꯡ ꯑꯁꯤ ꯃꯂꯦꯡꯒꯤ ꯃꯃꯤꯕ ꯑꯃꯃꯤ ꯇꯧꯖꯕ ꯍꯥꯏꯕ ꯍꯥꯏꯕꯤꯌꯨ?

꯶. ꯑꯗꯣꯝꯒꯤ ꯑꯉꯥꯡ ꯑꯁꯤꯅ ꯅꯨꯡꯉꯥꯏꯗꯦ ꯅꯨꯡꯉꯥꯏꯗꯦ ꯍꯥꯏꯕ ꯍꯥꯏ ꯃꯁꯛꯅ ꯆꯥꯛ ꯉꯥꯏꯁꯤꯜꯂꯕ ꯉꯥꯏꯗ ꯄꯥꯝꯕꯤꯌꯨ?

꯷. ꯑꯗꯣꯝꯒꯤ ꯑꯉꯥꯡ ꯑꯁꯤ “ꯐꯤꯕꯤꯒꯤꯅ” ꯍꯥꯏꯕꯤꯗ ꯆꯥꯛ ꯑꯁꯤ ꯂꯤꯇꯤꯂꯤꯅ ꯍꯥꯏꯕꯤꯌꯨ?

꯸. ꯑꯗꯣꯝꯒꯤ ꯑꯉꯥꯡ ꯑꯁꯤꯅ ꯉꯥꯏꯗꯆꯕ ꯑꯃ ꯁꯤꯡꯉꯥ ꯃꯁꯛꯅ ꯉꯥꯏꯗꯆꯕ ꯑꯃꯨꯅ ꯁꯤꯡꯇꯤꯕꯨ ꯆꯥꯛ ꯍꯥꯏꯕ ꯍꯥꯏꯕꯤꯌꯨ?

꯹. ꯑꯗꯣꯝꯒꯤ ꯑꯉꯥꯡꯂꯤꯅ ꯃꯉꯥꯜ ꯀꯦꯂꯤꯗꯕ ꯄꯨꯋꯥꯏꯗ ꯃꯆꯥꯡ ꯍꯥꯌꯂꯤꯗꯕ ꯃꯁꯛꯅ ꯆꯥꯛꯅ ꯍꯥꯏꯕꯤꯗꯉꯥ ꯍꯥꯏꯕꯤꯌꯨ?

GSJ: Volume 9, Issue 10, October 2021
ISSN 2320-9186

APPENDIX 3

Name:

Age/ Gender:

<u>ꯗꯦ ꯵- ꯗꯦ ꯱꯲</u>

꯱. ꯑꯃꯪꯁꯥꯒꯤ ꯑꯉꯥꯡꯁꯤꯡꯅ ꯃꯆꯤꯟꯇ ꯄꯨꯉꯥꯡꯖꯇ ꯂꯩꯇꯇꯕ ꯃꯇꯝ ꯑꯃꯃꯤ ꯃꯕꯨꯌ ꯗꯌꯇꯕ ꯃꯇꯝꯃ ꯇꯪꯉꯥꯡꯕ ꯖꯪꯇꯗꯪꯌ ꯑꯃ ꯌꯨꯗꯪꯌꯌ<u>ꯕꯦ</u>?

꯲. ꯑꯃꯪꯁꯥꯒꯤ ꯑꯉꯥꯡꯁꯤꯡꯅ ꯃꯉꯥꯪꯇꯃ ꯃꯦꯖ ꯑꯪꯇꯂꯤꯇꯇꯕ ꯆꯦꯟꯕ ꯇ<u>ꯕ</u>ꯒ ꯄꯕꯤꯒꯨꯁꯕ ꯖꯪꯇꯗꯪꯌ ꯖꯕ ꯌꯨꯗꯪꯌꯌ<u>ꯕꯦ</u>?

꯳. ꯑꯃꯪꯁꯥꯒꯤ ꯑꯉꯥꯡꯁꯤꯡꯅ ꯃꯗꯇꯁ ꯂꯦꯇꯇꯕꯤꯉꯥꯪ ꯃꯇꯝ ꯑꯃꯃꯤ ꯃꯃꯦ ꯃꯌꯦꯒꯦ ꯆꯪꯖꯇꯕꯤꯉꯥꯪ ꯃꯇꯝꯃ “ꯕꯦ-ꯕꯦ”, “ꯃꯦ-ꯃꯦ” ꯇꯖꯇ ꯇꯖꯕꯌꯌ ꯍꯦꯟ<u>ꯕꯕ</u>ꯦ?

꯴. ꯑꯃꯪꯁꯥꯒꯤ ꯑꯉꯥꯡꯁꯤꯡꯅ ꯄꯕꯤꯒꯨꯁꯕ ꯃꯇꯝꯃ ꯃꯤꯉꯥꯪꯇꯃ ꯇ<u>ꯕ</u>ꯒ ꯆꯖꯌꯤꯕꯤ/ ꯂꯦꯌꯦꯪꯛ ꯂꯇꯇꯕꯃ ꯖꯪꯇꯪꯅ ꯖꯕꯦ ꯇ<u>ꯕ</u>ꯒ ꯑꯕꯗ ꯗꯪꯌꯁꯕ ꯁꯦꯇꯪ ꯖꯕꯦ ꯂꯤꯇꯤꯇꯇꯦ ꯍꯦꯟ<u>ꯕꯕ</u>ꯦ?

꯵. ꯑꯃꯪꯁꯥꯒꯤ ꯑꯉꯥꯡꯁꯤꯡꯃꯦ ꯁꯦ ꯉꯥꯡꯇꯤꯉꯥꯪ ꯃꯇꯝꯃ ꯑꯁꯨꯃꯕ ꯁꯦꯇꯪ ꯖꯕꯦ “ꯃꯦ-ꯃꯦ” ꯇ<u>ꯕ</u>ꯒ “ꯕꯦ-ꯕꯦ” ꯇꯖꯇ ꯂꯤꯇꯤꯇꯕꯌꯌ ꯍꯦꯟ<u>ꯕꯕ</u>ꯦ?

<u>ꯗꯦ ꯱꯳-ꯗꯦ꯱꯵</u>

꯱. ꯑꯃꯪꯁꯥꯒꯤ ꯑꯉꯥꯡ ꯑꯃꯤ ꯑꯪꯖꯪꯖꯇ ꯁꯕꯤ ꯂꯦꯇꯕ ꯃꯇꯝꯃ ꯂꯤꯇꯤꯇꯖꯤꯕ ꯁꯦꯇꯪꯂꯤꯌ ꯃꯇꯪ ꯇꯃꯃꯒꯦ ꯉꯥꯌꯉꯥꯌꯌꯦ ꯍꯦꯟ<u>ꯕꯕ</u>ꯦ?

꯲. ꯑꯃꯪꯁꯥꯒꯤ ꯑꯉꯥꯡꯁꯤꯡꯅ ꯇꯪꯇꯤꯌ ꯀꯦꯟꯕꯃ ꯉꯥꯌꯗꯪꯌꯌ ꯉꯥꯃꯕꯦ ꯑꯃꯃꯤ ꯒꯨꯖꯦꯖ ꯁꯕ ꯉꯥꯃꯕ ꯁꯦꯇꯪꯂꯤꯌ ꯑꯃꯨ ꯵-꯲꯰ ꯀꯦꯟꯕꯒꯤ ꯁꯦꯌꯃ ꯆꯪꯕ<u>ꯕ</u>ꯦ?

꯳. ꯑꯃꯪꯁꯥꯒꯤ ꯑꯉꯥꯡ ꯑꯃꯤ ꯒꯕꯤ ꯗꯪꯕꯒꯤ ꯃꯖꯪꯖ ꯑꯃꯃꯤ ꯂꯦ/ꯇꯤꯕꯂꯤꯌꯒꯤ ꯃꯖꯪꯖ ꯂꯦꯟ

ꯇꯖꯕ ꯃꯇꯝꯃ ꯂꯦꯕ ꯇꯪꯕ<u>ꯕ</u>ꯦ?

꯴. ꯑꯗꯣꯝꯒꯤ ꯑꯍꯦꯕ ꯑꯂꯤꯁ ꯄꯨꯟꯁꯤꯒꯤ ꯂꯤꯇꯤꯔꯦꯆꯔ ꯁꯤꯟꯇꯦꯡꯃꯂꯤꯕ, ꯂꯦ ꯑꯀꯝꯄ ꯌꯦꯁꯔ ꯁꯤꯟꯇꯦꯡꯃꯂꯤꯕ ꯌꯥꯒꯤ ꯀꯀꯤꯕ ꯍꯥꯏꯔ ꯍꯥꯏꯕꯤꯌꯨ?

꯵. ꯑꯗꯣꯝꯒꯤ ꯑꯍꯦꯕꯂꯤꯁ ꯌꯦ ꯍꯦꯕꯔ ꯀꯟꯃꯝ ꯂꯦꯁꯥꯂꯨ ꯌꯥꯏ ꯂꯤꯇꯤꯔꯦꯆꯔ ꯅꯦꯡꯔꯌꯨ?

<u>ꯆꯦ ꯱꯵-ꯆꯦ ꯲꯴</u>

꯱. ꯑꯗꯣꯝꯒꯤ ꯑꯍꯦꯕꯂꯤꯁ ꯑꯣꯌꯥꯁ ꯅꯣꯌꯤꯔ ꯆꯔꯄ ꯅꯣꯄꯁꯤꯟ ꯌꯦꯍꯣꯂꯤꯕ ꯀꯂꯨꯝ- ꯓꯃꯔ, ꯌꯦꯔ, ꯅꯨꯃꯔ ꯑꯂꯤꯁꯌꯤꯕꯔ ꯌꯦꯍꯣꯂꯤꯕ ꯑꯂꯤ ꯂꯤꯇꯤꯔꯦꯆꯔ ꯍꯥꯏꯕꯤꯌꯨ?

꯲. ꯑꯗꯣꯝꯒꯤ ꯑꯍꯦꯕ ꯑꯂꯤ “ꯀꯦꯀꯦ”, “ꯔꯦꯔ” ꯁꯤꯡꯅꯔ ꯑꯅꯣꯁꯤꯟ ꯀꯌꯤ-ꯀꯅꯣꯂꯤꯕꯝ ꯖꯣꯏꯁꯔ ꯀꯤꯕꯂꯤꯕ ꯍꯥꯔꯝꯤ- ꯁꯪꯁꯪ, ꯖꯦꯖꯦ ꯑꯂꯤꯁꯌꯤꯕꯔ ꯀꯤꯕꯒꯣꯂꯤꯕ ꯑꯂꯤ ꯂꯤꯇꯤꯔꯦꯆꯌꯄ ꯖꯣꯏꯔ ꯍꯥꯏꯕꯤꯌꯨ?

꯳. ꯑꯗꯣꯝꯒꯤ ꯑꯍꯦꯕ ꯑꯂꯤ ꯇꯦꯍ ꯅꯪꯄꯁꯤꯟ ꯍꯥꯏꯕꯤꯌꯨ?

꯴. ꯑꯗꯣꯝꯒꯤ ꯑꯍꯦꯕ ꯑꯂꯤ ꯖꯌꯤꯒꯨꯃꯔ ꯀꯅꯃꯝ ꯀꯍꯣꯄꯖꯤ ꯑꯁꯤꯃꯔ ꯓꯥꯕꯝꯥꯄꯁꯔ ꯁꯤꯡꯅꯌꯨꯄ ꯑꯅꯣꯁꯤꯟꯒꯤ ꯁꯨꯄꯁꯤꯕ ꯌꯤꯕꯂꯤꯔꯦꯁꯔ ꯌꯦꯌꯤ ꯂꯦꯔꯦꯁꯔ ꯍꯣꯝꯌꯄꯁꯤꯟ ꯅꯦꯡꯔꯌꯨ?

꯵. ꯑꯗꯣꯝꯒꯤ ꯑꯍꯦꯕꯂꯤꯁ ꯅꯣꯍꯦ ꯂꯤꯇꯤꯔꯦꯆꯦ ꯁꯤꯟꯇꯦ ꯁꯤꯡꯅꯌꯨꯄ ꯌꯦꯁꯔ ꯁꯤꯟꯇꯦꯡꯃꯂꯤꯕꯒꯤ ꯀꯀꯤꯕ ꯂꯤꯇꯤꯔꯦꯆꯌꯄ ꯁꯤꯟꯇꯦ ꯑꯀꯨ ꯍꯥꯔ ꯅꯦꯡꯔꯌꯨ?

<u>ꯆꯦ ꯲꯵-ꯆꯦ ꯳꯰</u>

꯱. ꯑꯗꯣꯝꯒꯤ ꯑꯍꯦꯕ ꯑꯂꯤ ꯑꯣ, ꯁꯦ, ꯀꯍꯣꯄ, ꯑꯣꯒꯤ ꯍꯥꯏꯌꯤꯔ ꯁꯨꯌꯨꯁꯦꯅꯦꯡꯂꯤꯕ ꯑꯂꯤꯁꯌꯤꯕꯔ ꯂꯤꯇꯤꯔꯦꯆꯔ ꯍꯥꯏꯕꯤꯌꯨ?

꯲. ꯑꯗꯣꯝꯒꯤ ꯑꯍꯦꯕꯂꯤꯁ ꯅꯦꯃꯀꯨꯌꯔꯝ ꯁꯤꯟꯇꯦꯡ ꯅꯌꯨꯄꯖꯤ ꯀꯀꯤꯕ ꯑꯀꯝꯤ ꯁꯤꯟꯇꯦꯡꯃꯂꯤꯕ ꯑꯀꯨ ꯂꯤꯇꯤꯔꯦꯆꯓꯃ ꯌꯦꯇꯄ ꯀꯀꯤꯕ ꯍꯥꯔ ꯍꯥꯏꯕꯤꯌꯨ?

꯳. ꯑꯗꯣꯝꯒꯤ [illegible] (…, …, …, …) [illegible] ꯀꯔꯤꯅꯣ?

꯴. ꯑꯗꯣꯝꯒꯤ [illegible] ꯀꯔꯤꯅꯣ?

꯵. ꯑꯗꯣꯝꯒꯤ [illegible] ꯀꯔꯤꯅꯣ?

ꯆꯍꯤ ꯳꯱-ꯆꯍꯤ ꯳꯵

꯱. ꯑꯗꯣꯝꯒꯤ [illegible] ꯀꯔꯤꯅꯣ?

꯲. ꯑꯗꯣꯝꯒꯤ [illegible] ꯀꯔꯤꯅꯣ?

꯳. ꯑꯗꯣꯝꯒꯤ [illegible] ꯀꯔꯤꯅꯣ?

꯴. ꯑꯗꯣꯝꯒꯤ [illegible]?

꯵. ꯑꯗꯣꯝꯒꯤ [illegible] "[illegible]" [illegible] ꯀꯔꯤꯅꯣ?