

# ACQUISTION OF CASE MARKERS OF HEARING IMPAIRED CHILDREN

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## Introduction

Language is a complex and dynamic system of conventional symbols that is used in various modes for thought and communication.

As mentioned by American Speech and Hearing Association, parameters of language are Phonology, Morphology, Syntax, Semantics and Pragmatics. Phonology deals with the sound system of a language. Morphology includes the rules used to build words; syntax is the grammatical rules used in determining acceptable sequencing, combining, and functional use of words in a sentence. Semantics shows the meaning of words and word relations whereas pragmatics means the use of language in social contexts

The part of morphology that covers the relationship between syntax and morphology is called morph syntax, and it concerns itself with inflection and paradigms, but not with word formation or compounding. The system of the internal structure of words and the way in which words are put together to form phrases and sentences. Morph-syntax encompasses linguistic strategies and operations to symbolic syntactic features via morphological marking as contracting to merely combinatorial or syntactic strategies.

The morpho-syntactical aspects include plural markers, case markers, PNG markers etc.... Blake defined case markers as a system of marking dependent nouns for the type of relationship they bear to their heads. The major type of case markers are normative, accusation, genitive, dative, instrumental, locative and sociative.

**Hearing loss**, also known as **hearing impairment**, is a partial or total inability to hear. A deaf person has little to no **hearing**. **Hearing loss** may occur in one or both ears.

Hearing begins when sound waves that travel through the air reach the outer ear or pinna, which is the part of the ear you can see. The sound waves then travel from the pinna through the ear canal to the middle ear, which includes the eardrum (a thin layer of tissue) and three tiny bones called ossicles. When the eardrum vibrates, the ossicles amplify these vibrations and carry them to the inner ear.

.The most common cause of conductive hearing loss in kids and teens is otitis media, which is the medical term for an ear infection that affects the middle ear. Ear infections cause a buildup of fluid or pus behind the eardrum, which can block the transmission of sound. Even after the infection gets better, fluid might stay in the middle ear for weeks or even months, causing difficulty hearing.

But this fluid is usually temporary, and whether it goes away on its own (which is usually the case) or with the help of medications, once it's gone a person's hearing typically returns to normal. Blockages in the ear, such as a foreign object, impacted earwax or dirt, or fluid due to colds and allergies, can also cause conductive hearing loss.

People also get conductive hearing loss when key parts of the ear — the eardrum, ear canal, or ossicles — are damaged. For example, a tear or hole in the eardrum can interfere with its ability to vibrate properly. Causes of this damage may include inserting an object such as a cotton swab too far into the ear, a sudden explosion or other loud noise, a sudden change in air pressure, a head injury, or repeated ear

infections. Sensorineural hearing impairment results from problems with or damage to the inner ear or the auditory nerve.

It is well known that hearing impaired children have difficulty using case markers in speech and writing. However, few linguistics have been reported which analyze these case markers errors.

In that study, they investigated the case markers errors of hearing impaired children from the following point of view

1. Argument structure and phrase structure
2. Structural case and inherited case
3. Abstract case and morphological case

Malayalam is a language of Dravidian family which is rich morphological suffices of Malayalam verbs and nouns are quite tough task. Hence, morpho-syntactical studies are less in Malayalam. More morpho-syntactical studies in the Indian context would aid in assessment and help in establishment the baseline to set goals for morphological intervention in hearing aid children.

### Review of literature

Language is succinctly defined as human system of communication that uses arbitrary signals such as voice sounds, gestures, or written symbols. But language is far too complicated intriguing, and mysterious to be adequately explained by a brief definition. Contemporary views of human language hold that language hold that language is a rule based behavior which evolves within specific historical, social and cultural context and is described by at least five parameters – phonologic, morphologic, syntactic, semantic and pragmatic. Language learning and use are determined by the interaction of biological, cognitive, psychosocial and environmental factors.

Morphology is the aspect of language concerned with the rule governing change in word meaning. The morpho-syntactical aspects include plural markers, case markers, PNG markers etc...

Blake (1981) defines case markers as a system of marking dependent nouns for the type of relationship they bear to their heads.

The development of literacy skills of deaf and hard of hearing children in Japan (Spencer & Marschark, 2010) The three components of literacy, vocabulary, orthographic knowledge, and grammatical knowledge were assessed by using the subtests of adaptive tests for language ability.

Malayalam is a language of the Dravidian family and is one of the four major language of this family with a rich literary tradition, Malayalam has a rich morphology and identifying the morphological suffices of Malayalam verbs and nouns are quite tough task.

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In Malayalam case systems various suffices are added to noun stem to indicate different relationship between the noun and other constituents of the sentence. The various case markers are nominative, accusative, genitive, dative, instrumental, locative and sociative.

- **Nominative:** usually denotes the subject. There is no specific case marking in Malayalam for denoting nominative case marker

Example : /kutti a:dunnu/ - the child is dancing  
/avalkarayunnu/ - she is crying

- **Accusative case marker:** is used to indicate that a noun is an object of the verb .usually denoted by /e/.  
Examples : /kuttije thalli/ - the child was beaten .
- **Genitive :** indicates possession and is usually marked with /ude/ or /nte/.  
Examples : /gandhijiyudevadi/ - gandhi’s stick  
/ramantechatti/ - rama’s pot
- **Dative case marker :** indicates purpose like when a noun is the goal of a verb of motion or when a noun is the recipient of benefaction such as when something is given to someone or something . usually indicated by /ke/ or /ne/.

Examples : /avanupaniyanu/ - the boy is having fever

/aanaikkarimbuishtamanu/ - elephant likes sugarcane

- **Instrumental case markers :** denotes the agent of action usually indicated by /aal/.  
Examples: /ravanamramanalkollapettu / - ravana was killed by rama
- **Locative case markers :** indicates place or situation . marking done by /il/ and /kal/ .  
Examples : /vathilkalkiliirikunnu /  
/marathilkuruviiirikkunnu/ - the bird is sitting on the tree.
- **Sociative case markers :** denotes social action /od/  
Examples : /kutyammayodpokanparanju/

The significant as well as the morphemes used in Malayalam for representing each case markers is depicted in the below.

Case markers	significance	Malayalam	English
Nominative	Denote subjects		-
Accusative	Denote object	എ /e/	-
Genitive	Denote possession	ഉടെ /ude/	Of, belongs to
Dative	Indicate purpose	ന്റേ /nte/	To, far
Instrumental	Denote agent	കു /ke/,	With , by
Locative 1	Denote place or situation	ന്റേ /ne/	In, on, among , between
Locative 2	Denote place or situation	ആലു് /aal/	In, on, among, between
sociative	Denote social action	ഇലു് /il/	-

## Methodology

### Aim of the study

The aim of the present study is to report the acquisition of case markers in hearing impaired children in Malayalam speaking children of mental age range of 3-8 years.

### Need of the study

Malayalam is a language of the Dravidian family which is rich morphology and identifying the morphological suffixes of Malayalam verbs and nouns are quiet tough task. Hence, morpho-syntactical studies are less in Malayalam. Morpho-syntactical studies in the indian context have focused only on mean length of utterance or syntactical comprehensive probably due to lack of suitable assessment tool.

### Subject selection

The present studies included 50 children, chronological age of 6 – 18 years , diagnosed with hearing impaired according to DSM-IV and ICD-10 as participants belonged to different age range with mental age between 3-8 years.

All the participants had a verbal repertoire of two-words phrases and were monolingual speakers of Malayalam. In clinical groups children were receiving speech, language and psychological intervention at the time of testing

#### Exclusive criteria

- Any other syndrome cases

#### Inclusive criteria

- Mental age 3-8 years
- Hearing impaired children
- Malayalam as first language

### Preparation of material for data analysis

Common case markers in Malayalam were identified and listed as shown in the table:

Case markers	Malayalam	Stimulus
Nominative		കുട്ടിപാടുന്ന്നു /kutti:pa:du:nu/
Accusative	എ /e/	കുട്ടിയതെല്ലി /kutti:jealli/
Genitive	ഉടെ/ude/ ന്റെ/nte/	സിംഹത്തിന്റെവാല് /simhaintava:l/
Dative	ക്ക് /ke/, ന് /ne/	വാവച്ഛപനിയാണ് /vavaikpanijanu/
Instrumental	ആല്/aal/	കുട്ടിപനേയാല്ഏഴുതി /kuttipenaja:lkuoi/

Locative 1	ഇല്/il/	മരത്തില്കിളിഇരിക്കുന്നു /mare ilkiliirikunnu/
Locative 2	കല്/kal/	വാതിലുകള്വിളിക്കിളിരിക്കുന്നു /va: ilkalvilakirikunnu/
Sociative	ഓട്/od/	അമ്മകുടിയോട്പറഞ്ഞു /ammakuttiyo:dparanju/

### Recording environment

The entire session was audio recorded using microphone attached to HUAWAI smart phone. The recording environment was a quiet room in the school building and house.

### Data collection

The data was collected from each individual by presenting picture stimuli via PowerPoint presentation in Dell Vostro 14 3000 series laptop and were instructed to describe the picture in sentence. Responses with appropriate case markers were considered as correct response. Inappropriate case markers as well as omission of case markers were considered as incorrect response.

### Analysis

The study was designed for obtaining an audio taped conversational sample with hearing impaired Malayalam speaking children. The audio taped samples were analysed at syntactic levels primarily focusing on case markers. The presence of unit of analysis was noted and marked as 1 and absence or usage of inappropriate case markers was noted and marked as 0 .The total number of each case markers were tabulated.

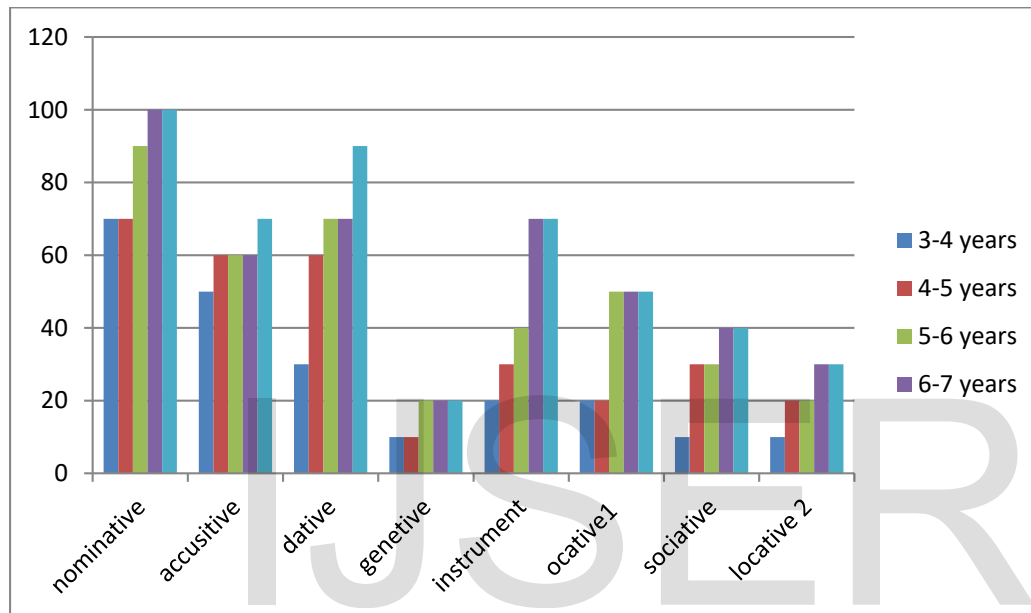
### Results and discussion

#### Aim of the study

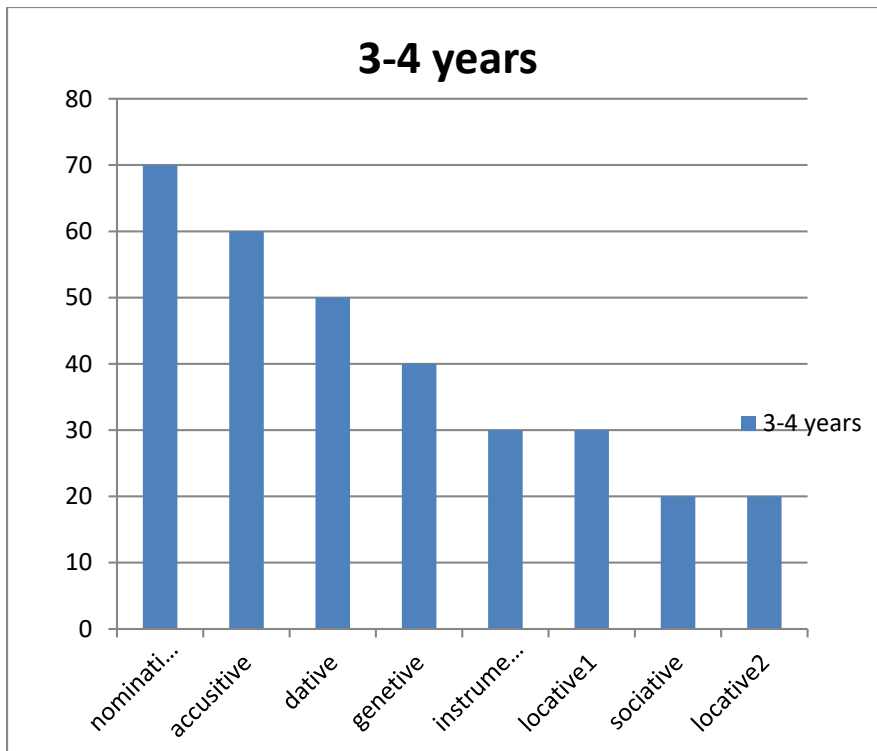
The aim of the present study is to report the acquisition of case markers In hearing impaired in Malayalam speaking children of mental age range of 3-8years .the obtained data was analysed for the presence of case markers and results are discussed below .

Mental age	3-4 years	4-5 years	5-6 years	6-7 Years	7-8 Years
Normative	70%	70%	90%	100%	100%
Accusative	50%	60%	60%	60%	70%
Dative	30%	60%	70%	70%	90%
Genitive	0%	10%	10%	20%	20%

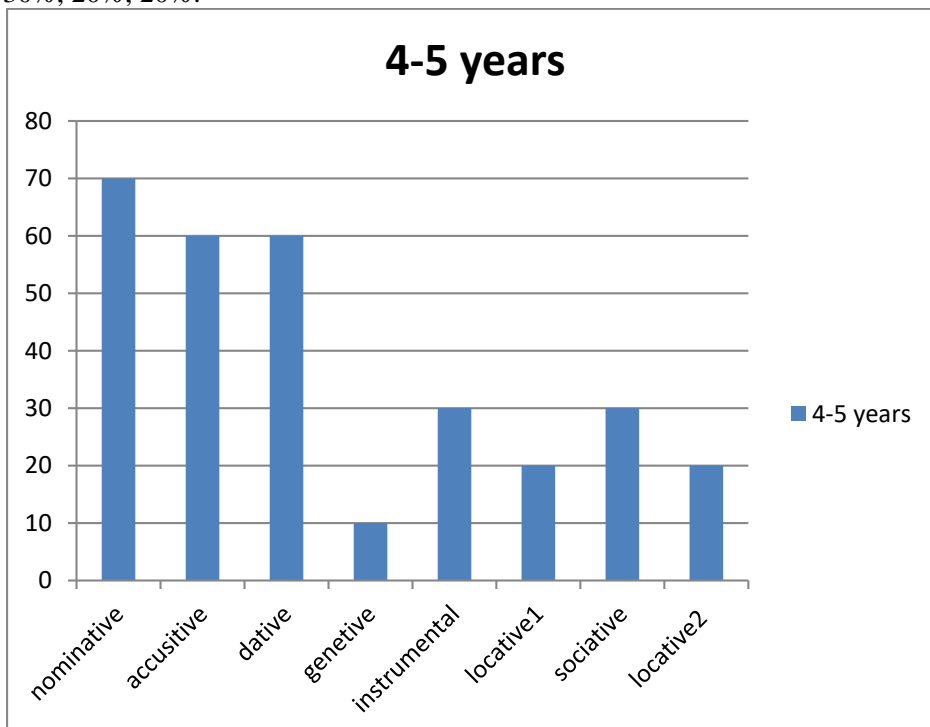
Instrumental	20%	30%	40%	70%	70%
Locative1	20%	20%	50%	50%	50%
Sociative	0%	10%	30%	30%	40%



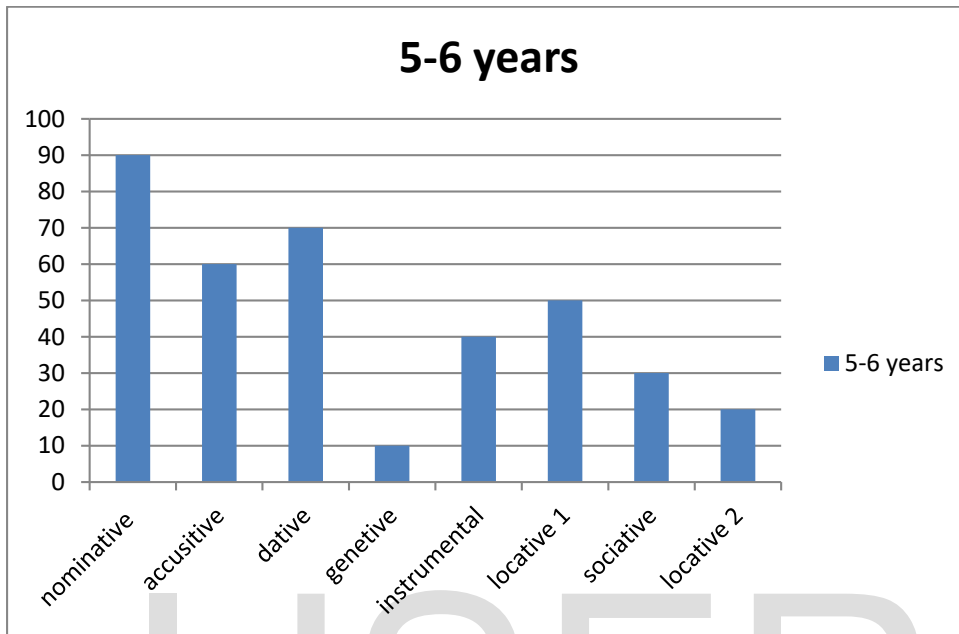
From figure 1, it is clearly observed that the acquisition of each case markers increases with age.



The hearing impaired children with mental age of 3-4 years showed 70% acquisition of nominative whereas all other case markers were present less than 50%. Nominative, Accusative, dative, genitive, instrumental, locative1, sociative, locative2 showed 70%, 60%, 50%, 40%, 30%, 30%, 20%, 20%.

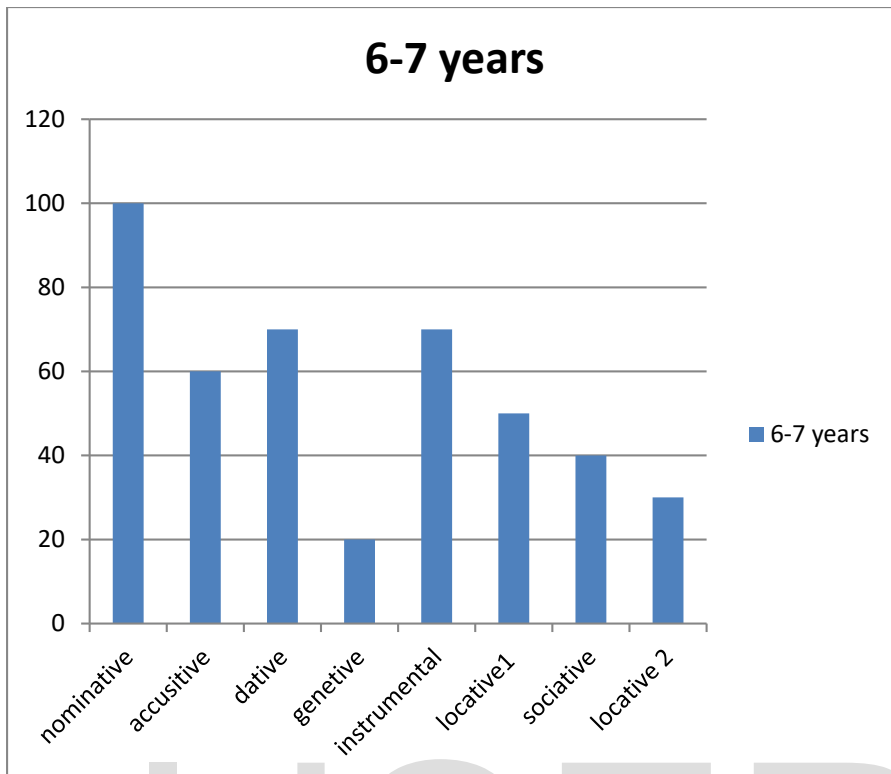


Children with mental age of 4-5 years showed significant acquisition of nominative accusative and dative types with 70%, 60%, and 60% respectively. All other case markers type showed less than 30% acquisition.

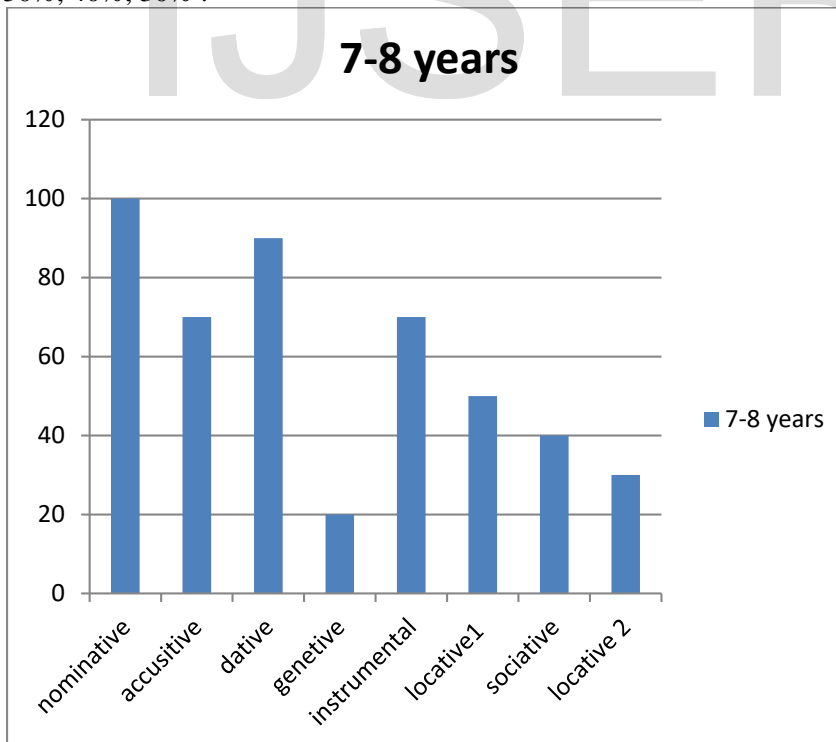


Apart from the group of 3-4 years and 4-5 years, the group of participants with mental age of 5-6 years showed significant increase in the percentage of acquisition of nominative, accusative, dative, instrumental, locative and sociative with 90%, 60%, 70%, 40%, 50%, 30% and 20% respectively.





Children with mental age of 6-7 years showed acquisition of nominative , accusative, dative, genitive, instrumental , locative 1, sociative with 100%, 60%, 70%, 20%, 70%, 50%, 40%, 30% .



Hearing impaired children with mental age 7-8 years were the eldest among the group and showed significant increment in the results comparing to all others groups.

Acquisition of normative showed 100% , accusative as 70% , dative as 90% , genitive as 20% , instrumental as 70% , locative 1 as 50% , sociative as 40% and locative 2 as 30% .

### **Exceptional cases**

An exceptional observation was made from the above figure. This old findings can be due to the fact that this participation case markers is not commonly used even by adults in normal conversation.

### **Discussion**

The present study aimed at reporting the acquisition of case markers in hearing impaired Malayalam speaking children in the mental age range of 3-8 years. The results shows that there is a general increase in the acquisition as well as frequency of usage of some type of case markers with increase in the mental age of the children.

The hearing impaired children with mental age of 3-4 years showed 70% acquisition of nominative whereas all other case markers were present less than 50%. Nominative, Acussative, dative, genitive, instrumental, locative1 , sociative, locative2 showed 70%, 60%, 50%, 40%, 30%, 30%, 20%, 20%.

Children with mental age of 4-5 years showed significant acquisition of nominative acussative and dative types with 70%, 60%, and 60% respectively.

All other case markers type showed less than 30% acquisition.

Apart from the group of 3-4 years and 4-5 years , the group of participants with mental age of 5-6 years showed significant increase in the percentage of acquisition of nominative, acussative, dative, instrumental, locative and sociative with 90% , 60%, 70%, 40%, 50%, 30% and 20% respectively.

Children with mental age of 6-7 years showed acquisition of nominative , acussative, dative, genitive, instrumental , locative 1, sociative with 100%, 60%, 70%, 20%, 70%, 50%, 40%, 30% .

Hearing impaired children with mental age 7-8 years were the eldest among the group and showed significant increment in the results comparing to all others groups. Acquisition of normative showed 100% , accusative as 70% , dative as 90% , genitive as 20%, instrumental as 70% , locative 1 as 50% , sociative as 40% and locative 2 as 30% .

The present study is in accordance with Subbarao

(1995) where he says that children with mental age 4-5 years showed 30% acquisition of all case markers expect dative and locative 50%, whereas children with mental age 5-6 years showed increased usage of case markers more than 80% acquisition of all case markers were observed. Thus, it is concluded that there is a gradual increase in the acquisition of all case markers with increase in mental age.

### **Summary and conclusion**

Malayalam is an agglutinative morphological rich language in which identifying the morphological suffixes of Malayalam verbs and nouns are tougher tasks. Morphology is the aspect of language concerned with the rule governing change in word meaning. The morpho-syntactical aspects include plural markers , case markers , PNG markers etc....

Case markers as a system of marking dependent nouns for the type of relationship they bear to their hands.

The present study aimed at reporting the acquisition of case markers in hearing impaired Malayalam speaking children in the mental age range of 3-8 years.

The results showed that there is a general increase in the acquisition as well as frequency of usage of some type of case markers with increase in the mental age of the children.

Nominative, dative, and acquisition case markers types are the most developed type of case markers in all the age range.

Instrumental, genitive, sociative and dative are not developed in any age compared to other case marker type.

Hence, these case markers should be Taken for intervention only when all other type of case markers has been acquired.

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**APPENDIX**

Case markers	Malayalam	stimulus	Stimulus presented
Accusative	എ /e/	കുടിയതലി /kutije thalli/	 shutterstock.com • 1123916756
Genitive	ഉടെ /ude/ ന്റെ /nte/	സിംഹത്തിന്റെവാല് /simhathinteva:l/ ഗാന്ധിജിയുടെകണ്ണ ണ്ട /gantdhiju de kannada/	 
Dative	ക്ക് /ke/ ന്െ /ne/	വാവച്ഛപനിയായ് /vaivaikpanijanu/	

Instrumental	ആല് /aal/	കുട്ടിപനേയാല്എഴുതി /kuttipenaja:lezhathi/	
Locative 1	ഇല് /il/	മരത്തില്കിളിഇരിക്കുന്ന് /marathilkiliirikunnu/	
Locative 2	കല് /kal/	വാതിലുകളില്വിളിക്കുന്ന് ഇരിക്കുന്ന് /va:thikalvilakirikkunnu/	
Sociative	ഓട് /od/	അമ്മകുട്ടിയോട്പറഞ്ഞു /ammakuttijo:dparanju/	

Nominative	-	കുട്ടിപാടുന്തു /kutti:pa:du:nu/	
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