

Production Of Word Stress In Children - 3-4 years

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Learning the phonology of a language involves not only segmental aspects, but supra segmental aspects as well. Supra segmental features include intonation, rhythm, and stress. Stress refers to the increased effort and effort is one of the parameters of fluency. It would be important to consider the parameter effort when one wants to understand fluency and its disorders. In this context, the present study was planned. It aims at studying the development of word stress in the age range of three to four years old normal children who were native Kannada speakers.

Initially 27 clauses and 10 sentences (from which 6 clauses and 3 sentences were repeated) were spoken by a 43 year old female Kannada speaker well versed in dramatics. She was instructed to utter these with stress on the word underlined. The items were written on cards and they were visually presented one after other. These were audio recorded. The recorded version was then given to ten listeners who had to identify the stressed word and to indicate the perceptual cues for stress.

Those words which were judged to have the key word stressed by more than 80% of listeners were considered for the study. Totally 22 clauses and 9 sentences were taken (from these 4 clauses and 3 sentences more repeated).

The audio recorded material was audio presented to 12 children in the age range of 3-4 years. There was one boy and one girl each in the interval of two months. The children were instructed to imitate or repeat the recorded version which they heard. The childrens imitation was audio-recorded. This audio-recording of the model and imitation were played to two listeners who had to indicate whether the imitated version was similar to that of the model or not. Then the percentage of correct responses were calculated for each child. Walsh test was applied to find out the difference between males and females and Spearman's rank-correlation test was used to find out the agreement or correlation between two judges.

The perceptual cues for stress identified were - increased duration, raised frequency, increased loudness, stress and better articulation, - of these, increased duration and loudness were the two major perceptual cues.

The results indicated that there was a high correlation between the judges ($r = 0.95$ for /sentences) clauses and $r = 10$ indicating that both the judges agreed on the imitation of children. No significant difference between males and females were observed. The production of word stress increased from 3 years to 4 years in both males and females for clauses and sentences. However, even at 4 years children did not achieve 100% score. Only female children in the age of 3.10 to 4 years obtained 100% score.

The results, though cannot be directly compared to other studies, can be compared for several points. It was evident that, be it contrastive stress or word stress, the capacity of children in producing these increased from 3-4 years. The results also indicate that at 4 years development of word stress was not complete. This development could be attributed to the physiological development in the speech production mechanism, the increasing vital capacity and the increasing intra oral breath pressure in children.

It is recommended that similar clauses could be used as test material for word stress in Kannada and be administered to large population to standardize the test which will be of clinical use in fluency disorders.