

# Exploring an Innovative Method of Syllable Identification (IMSI): An Action Research Study

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**Abstract:** Syllabification plays a critical role in literacy development and phonemic awareness among students. This strategy is used commonly by special educators too while teaching children with special needs. This action research study aims to investigate the efficacy of a new method designed to enhance syllable identification among teacher trainees pursuing B.Ed Special Education. The study evaluates the effectiveness of IMSI ( Innovative Method of Syllable Identification) over traditional or intuitive syllable counting techniques used by teacher trainees. Results indicate improved score in syllable identification by using IMSI among B.Ed Special Education teacher trainees, highlighting the potential to use IMSI while imparting education to children with disabilities.

**Keywords:** Action research, Syllable identification, Innovative Method of Syllable Identification, teacher trainees, special education.

## 1. INTRODUCTION:

Syllabification, the process of dividing words into syllables, plays a significant role in education, especially in literacy development and language instruction. The ability to recognize syllables is foundational in developing reading and writing skills. Some key uses of syllabification in special education and inclusive education are, teachers for the deaf often use syllabification when they are introducing new words to the students with hearing impairment. Generally, special educators clap or tap to show the number of syllables to their students. This cue helps the child with hearing impairment to be aware of the pronunciation of the word and also supports literacy skill development for children with learning disabilities also syllabification strategies are found to be very beneficial. Breaking words down into smaller units makes reading and writing less overwhelming for them. In general, syllabification strategy facilitates reading skills development, spelling proficiency, gives some leads about pronunciation, assists in word recognition and enhances writing skills. Overall, incorporating syllabification into educational practices can significantly enhance language and literacy learning across diverse student populations.

Challenges faced by teacher trainees in learning and teaching syllabification:

Prior to using this strategy for children with special needs, it is crucial that teacher trainees pursuing special education should learn the skill of syllabification correctly. The methods generally used for syllabification by teacher trainees are varied. Some of the methods used are breaking down words into their individual phonemes, counting vowels in the words, clapping or tapping for each vowel sound, chin method that is placing hand underneath the chin and saying the word loudly (Yamasaki, 2023). Teacher trainees may use dictionaries that provide syllabification of words or rely on intuitive methods which rely on listening and pronunciation.

However it has been observed that teacher-trainees often face several challenges when trying to break words into syllables. It could be due to teacher trainees not grasping the concept of a syllable correctly or poor phonemic awareness. Some words may have complex structures or may be very long which can confuse them. Regional accents and dialects of the teacher trainees may also interfere with the correct judgment.

## **2. RATIONALE :**

The commonly used method to identify syllables by teachers is clapping /tapping. This has one of the biggest disadvantages as experienced by the researcher who works as a faculty in a college of special education. The commonly seen challenge in applying this method is the teacher trainee does not tap or clap as per the syllables or the way the word is pronounced. They fail to understand when to clap and what is represented by the clap. Hence, they often make a wrong judgment about the number of syllables present in the word.

To teach the correct way of syllabification to children with disabilities puts a lot of onus on budding special educators. In order to solve this challenge the author tried many different ways to help her teacher trainees master the skill of accurate syllabification. This action research is a product of some real life challenges faced in teaching learning process. This action research has tried to investigate the effectiveness of a new instructional method named Innovative Method Of Syllable Identification (IMSI). IMSI primarily uses the technique of counting of hums while saying the word to identify the syllables in that word.

### **The IMSI method:**

In the innovative method of syllable identification (IMSI), the user is supposed to identify the syllables in the word by using the following steps.

Step 1: Say the word loudly this is to get the feel of how the words are generally pronounced in that language.

Step 2. Close the mouth and try to utter the same word. By doing this one will not be able to articulate all the consonants and vowels in the words but closing the mouth and saying the word will lead to phonation of the vowels and the person will be able to hear it as a hum.

Step 3: Number of hums the person hears while saying the word with the closed mouth will be the number of syllables.

### **Need for the study**

Syllabification is an important teaching strategy used in the field of special education especially while teaching new words to children with special needs. The author felt the challenge faced by her teacher trainees pursuing degree in special education in identifying syllables themselves, which in turn imposed hardship during their teaching practices. Various permutations and combinations were tried by the author for her students to perfect the skill of syllable identification and finally IMSI was developed. Since there is no mention about this method or studies conducted on this method in the literature, the researcher felt the need to test IMSI in a more systematic and scientific manner.

**Objective** of the study was to compare the scores of syllable identification task with and without using IMSI

Hence the following hypothesis was constructed .

**Null Hypothesis:** There is no significant difference in the syllable identification task scores of participants between the pretest and posttest using IMSI.

## **3. REVIEW OF LITERATURE:**

Syllabification entails determining how sounds combine to form syllables, which are the building blocks of spoken language. Selkirk (1984) has highlighted the intricate role of syllables in structuring phonological representations. Gerken (1994) examined how infants use prosody to segment speech into syllables, indicating that syllabification is a fundamental step in language acquisition.

Syllabification, the process by which syllables are formed from sounds (phonemes), has implications for language acquisition, literacy, and the understanding of phonological processes. The relationship between syllabification and spelling systems has also been explored. Studies show that understanding syllable structure is crucial for literacy, as effective syllabification can improve reading and writing skills. According to Moats, L, & Tolman, C (2009) familiarity

with syllable patterns helps students to read longer words accurately and fluently and to solve spelling problems — although knowledge of syllables alone is not sufficient for being a good speller. The study by Melby-Lervåg et al. (2012) conducted a meta-analysis of 71 studies to investigate the relationship between phonological skills and learning to read. The results showed that phonological skills, such as phonemic awareness, phonological memory, and rapid naming, are strong predictors of reading skills in children. Müller et al. (2020) examined the effects of a syllable-based reading intervention for German second graders who demonstrated difficulties in the recognition of written words. The results provide evidence that a syllable-based reading intervention is a promising approach to increase struggling readers’ word recognition skills, which in turn will improve their reading comprehension.

However, Diliberto, J. A., et al. 2009 have documented that there was not a lot of “hard-core” scientific research focused on syllabification, even though interest in teaching the technique dates back many years to when textbook writers and researchers contended that the methods dictionary makers used to divide words would help students learn to read and spell.

The gap in research specifically addressing syllable identification framework needs to be filled. This study aims to fill this gap by applying an innovative instructional method in an educational setting. Documenting such type of action research is crucial as it reflects on the process and findings of such action research may directly contribute to improvisation of teaching learning practices.

**4. METHODOLOGY:**

This was a quantitative cross-sectional action research study. This experimental study design was carried out with purposive sampling. This action research was conducted on semester II and semester IV teacher trainees of a college of special education. In the pretest, 30 teacher trainees were asked to identify syllables of 25 words with any syllabification method of their choice. Prior to pretest, it was confirmed that all the participants had the basic concept about syllables. 25 commonly used words in English were selected. The words selected were commonly used words in English which had one syllable, two syllables, three syllables and four syllables or more. The pretest was administered individually via google form. After the responses to the pretest were received the teacher trainees were explained the IMSI (Innovative Method of Syllable Identification). Upon verbal confirmation by teacher trainees about understanding IMSI, a five word trial was given to all. Post test was administered also individually via google form only after the trainee teacher had attempted the trial. The comparison between pretest and posttest was done by paired T test.

**5. RESULTS AND DISCUSSION :**

Table 1 : Paired t-Test for Means:

	<i>Pre-test score</i>	<i>Post Test score</i>
Mean	17.8667	21.5333
Variance	31.3609	14.7402
Observations	30	30
Pearson Correlation	0.3547	
Hypothesized Mean Difference	0	
df	29	
t Stat	-3.6158	
P(T<=t) one-tail	0.0006	
t Critical one-tail	1.6991	

Since -p-value is less than 0.05, the null hypothesis was rejected. Given that the null hypothesis is rejected it can be concluded that there is strong evidence to suggest that there is a statistically significant difference between the means of the two paired groups. Furthermore, since this is a one-tailed test, it can be concluded that the mean of post test score is significantly greater than the mean of pretest score. The results clearly indicate that the IMSI significantly improved syllable identification skills among the teacher trainees pursuing special education.

## 6. CONCLUSION :

This action research study demonstrated the effectiveness of a new instructional method IMSI for syllable identification among teacher trainees.

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