



Problems in Assimilation of English Words for Undergraduate Level Students in Hazara University

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Abstract: *This present study has focused on the problems in the assimilation of English words for undergraduates in Hazara University. A survey descriptive design was used to collect data from fifty undergraduates selected through convenient-non probability sampling technique who were asked to comprehend the assimilation process in certain words in the selected clips from English movies. To measure the problems in assimilation for the students, the students were asked to reproduce the same speech. The statistical analysis of the data shows that undergraduates did not have any major issues in the comprehension of the assimilated sounds in English words as they identified the assimilated sounds from the available lexical items and the speech context itself. The findings of the study show that students had fewer issues regarding the comprehension of the assimilated speech by native speakers than the issues they had while reproducing the same speech in spoken form themselves. In light of the findings of the study, it is suggested that due attention should be given to speaking skills in order to eliminate issues of assimilation in connected speech.*

Key Words: Assimilation, English Phonemes/Words, Undergraduate Students, Comprehension, Production

Introduction

Learning any language as a target language is a skill. It is very difficult for a non-native speaker to get command over all the basic skills of a target language at a time. Some learners may have mastery in writing skills or reading skills; while, others may have command over speaking skills or listening skills of the target language. Some of these skills can be picked up and learned by the target learners

easily and quickly; whereas, there are some skills which need painstaking efforts to learn them. Getting mastery over all the skills simultaneously is almost impossible. The same situations are observed while learning the English language as a target language. There are a lot of problems which are being faced by non-native speakers of the English language while learning it. People have various attitudes and thoughts toward learning a foreign language. According to Roach (2020), some people

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believe that learning speaking and writing skills is actually the real learning of that whole language, others consider listening and reading skills necessary for learning a language as well. Being productive skills, speaking, and writing skills were considered very important for learning a language for a long time. On the other hand, listening and reading skills had been neglected owing to their passive and secondary nature (Nunan, 2019). Besides, out of the four basic skills, speaking skill is the most difficult one to be mastered for the target learners (Zhang, 2009). This research study has tried to identify and find the problems which the non-native speakers of the English language confront when they comprehend and produce the English language. The problems are limited only to the problems of assimilation of undergraduate students.

Assimilation

Assimilation is one of the several problems for the target learners of the English language to correctly perceive and produce any speech in the English language. Assimilation is the process of changing the final sound of a word due to the effect of the first sound of the following word in a speech. It is a phonological phenomenon across languages. Assimilation can either be intra-words or inter words. Assimilation is a common phenomenon in normal speech, and it becomes more general in natural and fluent speech. There are voicing, manner of articulation, and place of articulation involved in the assimilation process (Roach, 2000: 139). It depends on the type of feature that goes from one segment to another segment. This process makes many hurdles for the non-native speakers of the English language to correctly perceive and speak English words.

Being native speakers of the English language, they (native speakers) have no problems during perceiving and comprehending utterances in English. Related to the first problem mentioned above, the learners of the English language must keep the idea in minds that native English speakers' talking is rapid, quick, fluid, continuous, and complicated due to connected speech features like assimilation, weak forms, intrusion, contractions and elision (Cauldwell, 2003; Field, 2003; Brown,

1990; Ur, 1984).

Assimilation can either be in sounds within words or outside across the word boundaries. In case, it occurs in sounds within the word, the only possible standard will be its resultant pronunciation as the pronunciation of /penz/ for the word *pens* (Burleigh, 2011, p.89). The present research tries to analyze the problems for undergraduates in words in terms of assimilation.

Phonology

The field of phonology is often studied differently as compared to other fields of linguistics. Phonology is different from other fields because its relation is only limited to study the sounds of a language either in isolation or clusters. In linguistics, other fields are phonetics, syntax, morphology, historical linguistics and so on. According to Yule (2014), phonetics is the study of overall and general characteristics of speech sounds. It explains that how these sounds are produced or articulated, how the speech sounds travel through the air, and how are they perceived through the ear. Ashby and Maidment (2005) give a lengthy description about the field of phonetics. They discuss various properties of those sounds and their transcription of the International Phonetic Alphabet (IPA).

According to Odden (2005), syntax studies sentence structure or arrangement of lexical items in a sentence; while, morphology studies word structure or word formation. He defines historical linguistics as the study of how do languages change with the passage of time. So, phonology is different from the other fields of linguistics mentioned above. But, it is true that phonology is closely related to the broader field linguistics.

It is difficult to differentiate phonetics and phonology for they both have a concern with the speech sounds. The relationship between them is like the relationship between chemistry and physics. It is a difficult task to have a principled separation between the two disciplines. Though they both deal with speech sounds but they address various aspects of those sounds. Phonetics deals with the study of how actually are sounds produced and manifested in human speech while phonology is the abstract

cognitive design which deals with the rules in the grammar of the mind (Odden, 2005).

To cut the long story short, phonology is the abstract description of speech sound in people's minds which makes them able to know and explain the words meaning due to the actual concrete sounds the users produce and perceive (Yule, 2014). The initial concept which is studied in phonology is the smallest unit phoneme.

Research Objective

To find out the problems of the undergraduate level students in the production of their speech in terms of assimilation.

Research Question

1. What are the problems of the undergraduate level students in the production of their speech in terms of assimilation?

Literature Review

Phoneme: The smallest Syntactic Unit

There is a natural hierarchical relationship in languages. The smallest sounds which are technically known as phonemes build language(s). The phonemes make morph or morphemes in English. In phonology, morph and morphemes are used to mean words. Those words make different phrases. After that, phrases make clauses or sentences and so on. A phoneme is the smallest meaning-distinguishing sound in a language (Yule, 2014). It means that it is a speech unit which is very small and segmental which distinguishes meaningful lexical items (Handbook of IPA, 1999). For example, in British English the words *right* /raɪt/ and *sight* /saɪt/ are only different due to their initial sounds /t/ and /s/ respectively. The rest sounds following /t/ or /s/ are the same. So, /t/ and /s/ are two different phonemes (the smallest syntactic unit). Besides, *right* and *sight* are minimal pairs because there is one phoneme difference in them. They can be used as a test for phonemic distinction.

Other examples of minimal pairs in the English language are bat-cat, sight-side, try-fry, boy-toy,

and so on. It is to be noted that phonemes are language specific. Every language has its own fixed number of phonemes.

Their number varies from language to language. They are enclosed in slashes (/ /). According to Wang (2011) linguists are of the view that phonemes have further distinctive features. A distinctive feature is a new concept which followed the traditional concept i.e. phonological feature.

Traditionally, voice, nasal and stop were being studied under the old term phonological features. These properties are being studied in articulatory and acoustic phonetics. The smallest units (phonemes) are studied in isolation for good understanding. But, phonemes are not in isolation.

Forms of Assimilation

In the previous section, the study covered different manners of assimilation which were progressive, regressive, and coalescent assimilation. In this section, different forms of assimilation are discussed. We have two main forms of assimilation i.e. full or complete form of assimilation and partial or contact form of assimilation (Ofulue, 2010).

Full Assimilation

Full assimilation is the first form of assimilation which is also known as complete assimilation. It is conspicuous from its name. In this form of assimilation, one sound completely changes into another sound because of the sound following it. By complete assimilation, we mean that the latter sound completely affects the former sound and makes it a sound like itself or identical sound. For example, in the phrase (that place) the /t/ in that becomes /p/ due to the influence of the following /p/ in place (Ladefoged, 2006).
(That place) /ðæt pleɪs/ → / ðæp pleɪs/

Partial Assimilation

According to Ali (2012), in most of situations, assimilation is a partial one where the influenced sound becomes nearer or similar in some qualities with its neighbouring sound but it is not identical to it. Partial assimilation can sometimes be referred

to as contact assimilation where the two sounds involved are adjacent. For example, in the phrase ten bananas the /n/ in ten is pronounced as /m/ which is a bilabial sound due to the influence of the following /b/ in bananas which is also a bilabial sound like, (Ten bananas) /ten bəna:nəz/ → /tem bəna:nəz/.

Historical Assimilation

In the above sections, the discussion was about contextual assimilation. This type of assimilation covers many areas in the English language. In this kind of assimilation, consonant sounds are assimilated owing to their adjacent and neighbouring sounds for which they are depended. However, with the development of a language, historical assimilation happens. As languages develop, there are sounds which change their forms and pronunciation into other sounds which have the same manner of articulation, place of articulation or their voicing. Many instances of this type of assimilation can be found in the English language. A linguist, Jones, talked that how the modern word ant came into use after adopting several changes in its spelling and morphology. The whole process of changing the sounds within this word took place during the course of time especially in the 13th and 14th centuries (Jones 1972).

The Review of the Related Literature

For a successful communication and good speaking one needs to listen carefully for the first place. So, it has become a fact that listening skill is more important and essential for better, successful and effective communication. People are unable to communicate well if they have not comprehended or understood what they have heard. There are two reasons to make this claim. Firstly, it is important to have listening skills before having speaking skills (Taylor, 1981, p. 44). Secondly, the listeners must adapt themselves to the vocabulary and tempo of the speakers (Vandergrift, 1999, p. 169). These reasons show the importance of listening skills for effective communication. In addition, speaking a language involves many processes. Listening skill plays an essential role in making a person a better speaker in any language. Listening is very important because

it is the basic input which most of learners are exposed to while learning language. If extensive heed is given to listening skill then the learners can attain native-like and intelligible speaking proficiency. Rost (1994) opines that listening is a very important skill because it serves as a basic input in a classroom. If the learners are not able to get the major sense from what is being said or taught to them then the process of learning will not even begin. Owing to poor ability in listening skill(s), target users of English language face many problems in comprehending and digesting native speakers' speech.

It is very difficult to understand English speech. English words are not spoken in isolation but they run together in a continuous speech. One needs deep attention to comprehend that connected speech. Connected speech is a phenomenon which is commonly known as a reduced form of speech. It is due to elision, contraction form, and reduction, etc. According to (Brown & Kondo-Brown, 2006, p. 2) there are almost nine features which are involved in connected speech including elision, word and sentence stress, assimilation, intrusion, juncture and so on. The nine connected speech features are briefly discussed later under this topic. People do have problems regarding understanding the speech of the English language whose reason is discussed below.

The reason behind these problems is the lack of knowledge of the learners regarding assimilation and other co-articulatory features. Ito (2001) and Rosa (2002) have reported that there is not as much written on connected speech as compare to other issues in applied linguistics. The former linguist further argues that it is really difficult to find actual research on connected speech. Anyway, some other scholars have also contributions in this area. Other contributors in this area are (Brown & Hilferty, 1989, 1995, 1998; Celce-Murcia, Brinton, & Goodwin, 2004; Dauer, 1993; Gilbert, 1984, 1993; Gimson, 1962, 1970, 1989, 2001; Grant 1993; Morley, 1987; Pennington, 1996; Sheeler & Markley, 1991).

The present research is carried out to point out different problems when the learners of the English language use this language both in written and

spoken forms. So, the assimilation process which is a phenomenon in connected speech is the focused in this study. In the following sections, more detail is given regarding this phenomenon.

Research Methodology

As this study focused on the problems for non-native speakers of the English language when they comprehend the connected speech of native speakers; so, both quantitative and qualitative approaches were applied for conducting the present study. By applying the quantitative approach, numerical data was analyzed; whereas, theoretical materials were analyzed by applying a qualitative approach.

Research Design

As the present study was related to investigate certain problems; so, descriptive design was used for this study. This research design was best suited for conducting the present study. The reason of using this research design in the present study was, it perfectly helped the researcher in describing and identifying the problems. There was a proficiency test used in the present study as a research tool.

Population and Sampling Procedure

In the current research work, undergraduate learners of Hazara University were selected as the population. A representative sample of 50 students, aged 18-22, were selected for conducting this study. Convenient sampling technique was used for the selection of those fifty undergraduate students

Research Instrument

For conducting the present study, a proficiency test was used as a research tool and instrument. As the current study was mostly descriptive in a manner which demanded enough quantitative data, so, the proficiency test was the most appropriate and suitable research instrument for conducting this study.

Data Collection Procedure

The data, for this research, was collected from those

students who were undergraduates at Hazara University, Mansehra. There was the use of proficiency test for collecting the data. The test was used as a research tool. The test included words, phrases and sentences in which the process of assimilation was found. This whole process of administering the test was carried out by the researcher himself. The focus of the test was on the assimilated sounds in the words in rapid speeches in the selected movies' clips.

Data Analysis Procedure

Various suitable statistical techniques were used to examine the data which was collected. The highlighted errors were related only to the incorrect or wrong identification of the assimilation of phonemes in English words by undergraduates. The reason why participants gave incorrect responses was that the participants were not able to identify assimilation in words in those clips. But, when the participants were told to reproduce or pronounce those written responses, there was nothing ungrammatical. Only the participants' rate of speech was slower as there was no assimilation in their speech. Whenever there was assimilation possible, it was deemed as incorrect. After listening to the audio tape recording, the participants' responses were noted down with care. The proficiency test used incorrect and correct responds for the coming analysis. The researcher identified the problems with the help of a simple percentage. The percentages of correct and incorrect responses made it easy for the researcher to either accept or reject the conceptions related to various uses of assimilation English sounds in English words. When the data was received, it was calculated and tabulated. In light of the research questions, the results were analyzed and discussed.

Results and Analyses

Results of Assimilation of /t/ Sound in the Production of English Words

The written sentences and phrases were given to students and they were told to produce them in their speaking. Besides, they were asked to phonetically transcribe those sentences and phrases to look for

any assimilated sound(s) in them. The purpose of this activity was checking the students' understanding about the assimilation of the sound /t/ in connected speech. As the students were taught about the concept of assimilation in classes, few

students correctly transcribed that speech; whereas, many students failed to correctly transcribe them. The students pronounced and transcribed those sentences. The following table shows the results of the assimilated /t/ sounds in their speech.

Table 1. Results of Assimilation of /t/ sound in the Production of English words

Production with Assimilation	Production without Assimilation
10%	90%

The above table shows the results of students in percentage when they produced and pronounced the written sentences and phrases. The responses are collected to see if they produced the connected speech with or without assimilation. When the students produced the speech without assimilation, it was deemed as incorrect because the students were told to locate possible assimilation of sounds. Contrary, when the students produced the speech with assimilation, it was considered correct. The results which the researcher got were very surprising as the students pronounced the sentences ninety percent (90%) differently from the original pronunciation in those clips. Only ten percent (10%) students correctly identified the assimilated sounds.

Results of Assimilation of /v/ Sound in Production in English Words

After the comprehension activity of the assimilated /v/ sound, the undergraduate students were asked to reproduce the written statements of the selected movies in their spoken form. The students, along with spoken responses of those selected sentences and phrases, wrote their phonetic transcription as well. They were told to recognize in those words if there have been any sounds assimilated in their speech. The idea behind doing this activity was to find whether the students had any understanding of the assimilation of /v/ sound. After they reproduced and phonetically transcribed those sentences and words, the researcher noted the following results. The following table indicates the results of various undergraduate students for the assimilation of /v/ in English words in their running speaking.

Table 2. Results of Assimilation of sound /v/ in Production

Production with Assimilation	Production without Assimilation
19.3%	8 0.7%

The results in the table show the articulation of /v/ sound by non-native undergraduate students in their speech with and without its assimilation. Those responses in which they assimilated /v/ were taken as correct responses, whereas the responses in which they were unable to assimilate this sound were considered as incorrect responses since the students were told to recognize possible assimilation of sounds. The results were surprising as the students produced the same sentences 80.7% differently from the original speech by native speakers. Only 19.3% students whose background in phonetics and phonology was a little stronger

recognized the assimilated sound /v/. From the data collected about the comprehension and production of the sound /v/, it can be concluded that the undergraduate students had the ability to recognize the /v/ sound despite being assimilated, but in their own production, they could not assimilate that sound.

Results of Assimilation of /d/ Sound in Production in English Words

After the comprehension activity was done, the undergraduate students were asked to reproduce the

selected movies' clips in their written medium. Besides, they were asked to phonetically transcribe those sentences and phrases to identify whether any of the sounds they assimilated in their speech or not. The purpose of carrying out this activity was to find out whether the participants had some clue regarding the assimilation of the sound /d/ or not.

The students first articulated and then transcribed those sentences in written form. The results of this activity by students are listed in the following table. The following table shows the findings for the assimilation of the sound /d/ in students' continuous speech.

Table 3. Results of assimilation of sound /d/ in production

Production of /d/ with Assimilation	Production of /d/ without Assimilation
15%	85%

The results in the above table indicate the production of /d/ sound by undergraduate students in their connected speech with and without its assimilation. The students were asked to identify possible assimilation of /d/ sound. Those responses in which they identified the assimilation of /d/ sound were deemed as correct responses while the responses in which they failed to point out the assimilation of this sound were termed as incorrect responses. A lot of students failed to identify the assimilation of /d/ sound in their written responses. Eighty five percent (85%) responses in pronunciation were different from the original pronunciation of the native speakers in those clips.

Only fifteen percent 15% responses were the ones in which the assimilation of /d/ sound was correctly identified by the students.

Results of Assimilation of /n/ Sound in Production in English Words

After doing the comprehension activity, the students were told to reproduce the speech in those selected movies' clips in their written form. The results of this activity are listed in the table below. The table indicates the findings for the assimilation of /n/ sound in students' connected speech when they produced it.

Table 4. Results of assimilation of sound /n/ in production

Production of /n/with Assimilation	Production of /n/ without Assimilation
12%	88%

The data in the table indicates the results of the articulation of /n/ sound by undergraduate students in their connected speech with and without its assimilation. The students were directed to point out possible assimilation of /n/ sound. The responses in which they pointed out the assimilation of /n/ sound were taken as correct responses whereas the responses in which they failed to identify the assimilation of this sound were deemed as incorrect responses. Lots of students failed to identify the assimilation of /n/ sound in their written responses. Eighty eight percent (88%) responses by the undergraduate students (as non-native speakers of English) varied in pronunciation from the original pronunciation of the native speakers. Only twelve percent 12% responses were correctly given by

them. In these 12% responses, the students, while producing their speech, correctly assimilated /n/ sound in those words.

Results of Assimilation of /z/ Sound in Production in English Words

When the activity of comprehension for the assimilation of /z/ sound was done, the undergraduate students were instructed to reproduce the written statements of the selected clips in their spoken form. The students reproduced those clips and they also phonetically transcribed those selected sentences and phrases. They were told to find the assimilation of any sound in those words in their speech. The

reason behind doing this activity was to find whether the students had any understanding of the assimilation of /z/ sound or not. The researcher

listed the following results after the undergraduate students reproduced and phonetically transcribed those sentences and words.

Table 5. Results of Assimilation of sound /z/ in Production

Production of /z/ with Assimilation	Production of /z/ without Assimilation
4.3%	95.7%

The data in the table above indicates the results of the production of /z/ sound by non-native undergraduate students in their speaking with and without the assimilation of /z/ sound. Those responses in which they assimilated /z/ were taken as correct responses while the responses in which they were unable to assimilate this sound were deemed as incorrect responses for the students were told to identify possible assimilation of sounds. The results were very much astonishing as the students produced the same sentences 95.7% differently from the original speech by native speakers. Only 4.3% students who had a stronger background in phonetics and phonology experienced the assimilation of /z/ sound into /ʒ/ sound. It can be said that the students could easily recognize the assimilated /z/ sound into /ʒ/ sound but they could not assimilate that sound themselves in their own speech.

Table 6. Results of Assimilation of sound /s/ in Production

Production with Assimilation	Production without Assimilation
8.6%	91.4%

The table above indicates the results of the production of /s/ sound by undergraduate students (non-native) in their speaking with and without the assimilation of this sound. Those responses in which they assimilated /s/ were considered as correct responses whereas the responses in which they were unable to assimilate this sound were taken as incorrect responses for the students were asked to identify the possible assimilation of sounds. The results were very much astonishing as the students produced the same sentences 91.4% differently from the original speech by native speakers. Only 8.6% students who had knowledge phonetics and phonology did the assimilation of /s/ sound into either /z/ sound or /ʒ/. Here, one thing must be

Results of Assimilation of /s/ Sound in Production in English Words

After the comprehension activity for the assimilation of /s/ sound, the undergraduate students were directed to reproduce the written statements of the selected clips. The students reproduced those clips and they also phonetically transcribed those selected sentences and phrases as per the researcher's directions. They were told to find the assimilation of any sound in those words in their speech. The purpose of this activity was to find if the students had any understanding of the assimilation of /s/ sound or not. The results were listed in the following table after the undergraduate students reproduced and phonetically transcribed those sentences and words. The following table indicates the results of various undergraduate students for the assimilation of /s/ sound in their speech.

noted that most of the undergraduate students did not have any problem in producing the /s/ sound as /z/ when the /s/ sound was preceded by a voiced sound, like in the words "bags, chairs" etc.

Discussion

Most of the results for various sounds in English words show that the learners (undergraduate students) have significant issues in the assimilation of English phonemes in their production of connected speech just like the natives did. It indicates that the undergraduate students did not have problems in comprehension in assimilation and they were able to digest the native speakers'

connected speech. The findings justify that the undergraduates faced fewer issues in the understanding of assimilation but they faced more issues while producing the speech with assimilation of those selected phonemes which are discussed in chapter four.

The problem was when the second language learners (undergraduate students) tried to produce the same words/phrases; they were unable to assimilate those phonemes in their continuous speech. Assimilation of sounds is one of the reasons we often get differences in speech of first language speakers and second language speakers. Therefore, the learners, in this context the undergraduate students of Hazara University, did have issues in the assimilation of /v/ phoneme in their speech.

The findings show that the learners could understand what the native speakers were saying in those clips despite the assimilated phonemes, but when they started to speak the same words, they were unable to articulate the assimilated phonemes in those words since they uttered the strong and full forms of those words. This problem in comprehension and production of speech can be dealt with if the learners of English language get some training of English phonology. It will help the learners get the quick speech of natives and they will be able to recognize the errors/mistakes in the connected speech of non-native speakers (Firdhani, Indryani & Mahdi, 2018).

In short, the entire study suggests that the undergraduate students confronted no significant issues while comprehending the native speakers' speech but they could not produce those sentences and words the way native speakers did. It was because the non-native students were slower and more watchful in their speech and as a result, few examples of co-articulation effects were recognized (Sierra, 2019).

On the contrary, though the connected speech of natives was fast and rapid but and the examples of assimilation were pointed out by students. As the problems were not that much significant so they did not create any confusion and the undergraduate students were successful in comprehending it (Ibrahim, 2016). Owing to the limited practice of speaking skills of undergraduate students, they did

not assimilate those phonemes which needed to be assimilated during their speech.

Conclusion

The current study was related to the problems in the assimilation of phonemes in English words for undergraduate students. The process of assimilation occurs in a rapid talking or conversation of native speakers. The present study carefully examined the production of the assimilation of certain phonemes in words. First, the undergraduate students, who participated in this study, were told to comprehend the selected speeches. Then, they were asked to reproduce those speeches later on.

The results of the present study indicate that students had problems when they were asked to reproduce speech sounds. They were unable to assimilate the English sounds just like native speakers when they produced their speech.

To sum up, the current study found that the students did not have any significant problems while comprehending the assimilation of the native speakers. They easily understood the speech of the native speakers despite the assimilated sounds by them. But, the students could not produce the speech as same as the native speakers did. In other words, it is confirmed from the findings that undergraduate learners have less problems in comprehending the assimilation than their own production of the assimilated sounds in their speech. The students identified the assimilated phonemes in comprehension from the context of the speech along with the available lexical clues in the speech. To cut a long story short, the current study concludes that for making the speech of non-native speakers just like the native speakers of English, the practice of connected speech for non-native speakers of English must be part in teaching phonology contents and in classrooms. In these courses, a high focus should be given on the assimilation of certain English phonemes where non-native speakers face problems comparatively to native speakers' speech. The students should be trained in both listening comprehension skill and speaking production skill. The problem which non-native speakers face in producing their speech just like native speakers is their lack of practice.

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