

# Analysis of Speech Errors in the Impromptu Speech among English Majors: Taking Yantai Institute of Technology as an Example

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**Abstract:** Speech errors refer to the “abnormal” language, which is grammatically or syntactically incorrect, produced by learners during oral communication due to nervousness or pressure. These errors mainly involve pronunciation and sentence construction mistakes. In the context of globalization, where international communication is increasingly frequent, speech errors can lead to communication difficulties or misunderstandings. Although psycholinguistics research has been growing, the number of studies on its branch, speech errors, has been decreasing in recent years. Under the guidance of Clark & Clark’s theory of speech errors, this research takes the corpora of 2024 “FLTRP·ETIC Cup” English Public Speaking Contest held by Yantai Institute of Technology as the research object. It analyses the types, frequencies, and reasons of speech errors in impromptu speech contests of English majors, and attempts to put forward some corresponding solutions. The study found that currently most frequent types of speech errors include filled pauses, silent pauses, and repeats. Negative native language transfer, inadequate comprehensive foreign language abilities, and anxiety about unfamiliar topics are the main reasons for speech errors. Therefore, students should actively learn the culture of English-speaking countries and practice oral output. For teachers, it is essential to create a conducive English learning environment to improve the speaking and oral communication skills of English major students and enhance their language confidence.

**Keywords:** Speech Errors, English Majors, Impromptu Speech.

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## 1. Introduction

A pivotal field of analysis in psycholinguistics involves examining speech production, with the investigation of speech errors marking a significant advancement in this research field. Within this research design, speech errors denoted any grammatically or syntactically erroneous expressions made by language learners in oral interactions, especially during the learning of a secondary or foreign tongue. As Gui (2000) put it, in oral dialogue, speech errors, a term denoting the assorted variations from natural, continuous expression, frequently occur. Such errors can lead to misrepresentations of the original intent or interrupt the flow of sentences, thereby hindering successful communication[1]. Therefore, aiming to develop English skills and improve students’ performance in impromptu contests, under the guidance of Clark & Clark’s theory, speech errors that occur in English speech contests are analyzed with the form of types, frequencies, and reasons.

## 2. Literature Review

### 2.1. Research on Speech Error Abroad

The research on speech errors dates back to the year of 1973. Fromkin published the book in which categorized several types of errors that can occur in natural contexts: lexical errors, grammatical errors, and pronunciation errors[2]. In the year of 1977, Clark & Clark put forward the nine kinds of speech errors, and examined in detail the misunderstandings in communication and how people can correct them; he also suggested a series of correction strategies, such as repetition, clarification, and confirmation, to ensure that the message is delivered accurately[3].

Garnham et al.’s research showed that for normal adults, speech errors occur on average once or twice in every 1,000 words[4]. In the medical field, Schwartz et al. found that people with aphasia have hundreds of times the rate of errors in their spontaneous speech as compared to normal adults[5].

Going back to nowadays, Miles (2014) defined cross-definition interviews by proposing a theory from quantitative analysis, analyzing the connection between qualitative information, codes, and code configurations, and collecting and analyzing a corpus of speech errors through this method[6]. Aljasser figured out the different frequencies of speech errors that appeared in native and Arabic speakers of English (the second language speakers) from the perspective of nonnative phonemic contrasts[7]. Sihombing et al. researched the type of speech errors by analyzing Ellen Degeneres’s series of talk shows, which consisted of 15 videos, from which we found the types and frequencies of speech errors in the field of talk shows. It also showed that filled pauses were the highest type of speech disfluency, while false starts consisted of 0%[8].

### 2.2. Research on Speech Error at Home

The study of speech errors at home was first conducted in 1993. Cao tried to use exemplification to elaborate on the classification of speech errors, and he categorized the types of speech errors into pauses, false starts, repeats and stutters, corrections, and slips of the tongue[9]. Yan attributed the emergence of speech errors to cognitive factors, psychological factors, and social factors[10]. Moreover, Du & Xiang mentioned that the negative transfer from the perspective of cognitive factors and mental mechanisms influences speech[11].

The study of speech errors has become a hot topic in recent

years. Miao held that speech errors are determined by social, cognitive, and psychological factors by analyzing the examples of previous research. Also, based on these three factors, she suggested that teachers should create a favourable learning atmosphere for students and patiently encourage their oral output[12]. Zhang dedicated her efforts to developing a novel automatic recognition system for English speech error correction. Experimental results demonstrate that the system possesses a significant capability in identifying mispronunciations[13]. Bi investigated the errors among non-English majors when they used the request speech and attributed the errors they made to negative language transfer[14].

On the whole, it is found that there are the following major deficiencies in the research on speech errors:

On the one hand, the research object is simple. Most of the domestic studies on speech errors take the repeated corpora as research objects, which lack novelty. At the same time, there is a lack of systematic discourse analysis, context analysis, and background introduction, resulting in a strong sense of division in the research. On the other hand, the research direction is limited. Currently, domestic research on speech errors is divided into four main branches: one is to combine the mechanism of speech errors with medical knowledge to promote the recovery of special diseases, such as the treatment of Alzheimer's. The second is to compare different theories of speech errors and summarize and put forward personal views. Third, combining speech errors with scientific techniques such as artificial intelligence and computers. Fourth, integrating speech errors with teaching methods. However, the above four branches do not focus on areas related to second language competitions.

From this point of view, certain areas in the research on speech errors need to be studied in depth.

### 3. Theoretical Framework

Clark & Clark (1977) put forward a theory of speech errors, which contains silent pauses, filled pauses, repeats, retraced false starts, un-retraced false starts, corrections, interjections, stutters, and slips of the tongue[3]. And they listed some common examples of speech errors, and they used two slashes (/ /) to indicate a pause in a sentence, used one slash (/) to indicate a repeat in a sentence, and used a hyphen (-) to indicate syllable repeats. Examples of different kinds of speech errors are shown in Table 1.

**Table 1.** Common Examples of Speech Errors

Types	Examples
Silent pauses	Turn on the // heater switch.
Filled pauses	Turn on, uh, the heater switch.
Repeats	Turn on the heater / the heater switch.
Un-retraced false starts	Turn on the stove / heater switch.
Retraced false starts	Turn on the stove /the heater switch.
Corrections	Turn on the stove switch, I mean, the heater switch.
Interjections	Turn on, oh, the heater switch.
Stutters	Turn on the h-h-heater switch.
Slips of the tongue	Turn on the sweater hitch.

## 4. Study Design and Methodology

### 4.1. Research Questions

From the above chapter, there are still many shortcomings

existing in the research results on speech errors. Therefore, the research questions are designed to investigate the current situation of English majors' speech errors in impromptu speech competitions, including the types, frequencies, and reasons for speech errors.

Research questions can be listed as follows:

1) What types and frequencies of speech errors usually occur in impromptu speech competitions for English majors under Clark & Clark's theory?

2) What are the reasons for these main speech errors in impromptu speech competitions for English majors?

### 4.2. Source of Corpus

This thesis was done by collecting sound recordings from an impromptu speech contest of the 2024 "FLTRP·ETIC Cup" English Public Speaking Contest held by the Yantai Institute of Technology (from now on referred to as YIT), which consisted of 17 recordings. These speakers were asked to spend 25 minutes preparing a 3-minute presentation on an impromptu topic. These impromptu speech topics include, but are not limited to: What are your thoughts on digital pickle? What do you think of the relationship between cyber violence and freedom of speech? Each corpus was collected by recording, with one recording about 90 seconds on average, so the total time is about 1,800 seconds. All the corpora that the thesis mentioned came from the participants of the School of Foreign Languages, YIT. The general information of each sample of the research is discussed in Table 2.

**Table 2.** The General Information of Each Sample

Number	Age	Level	Corpus Length
Sample 01	19	Freshman	123s
Sample 02	19	Freshman	81s
Sample 03	20	Freshman	118s
Sample 04	20	Sophomore	114s
Sample 05	18	Freshman	118s
Sample 06	19	Sophomore	116s
Sample 07	20	Sophomore	131s
Sample 08	20	Sophomore	117s
Sample 09	20	Freshman	120s
Sample 10	19	Junior	92s
Sample 11	21	Sophomore	109s
Sample 12	18	Freshman	120s
Sample 13	20	Junior	118s
Sample 14	20	Sophomore	98s
Sample 15	19	Freshman	119s
Sample 16	21	Junior	69s
Sample 17	20	Sophomore	120s

As Table 2 illustrates, the participants of this research were aged from 18 to 21; of these, two were 18 years old, five were 19 years old, eight were 20 years old, and two were 21 years old. And speakers' grades ranged from freshmen to juniors. Of these, there were 7 freshman, 7 sophomores, 3 juniors, and no seniors.

### 4.3. Corpus Collection and Processing

This research started by collecting recordings of the 2024 "FLTRP·ETIC Cup" English Public Speaking Contest held by YIT. To protect the just rights of all the students involved in this thesis, all of the speakers signed informed consent forms before collection.

The corpora were collected online. The relevant competition organizers uploaded several impromptu speech topics to the Chaoxing platform and randomly assigned them

to the contestants. Participants were given 25 minutes to prepare, after which they were asked to deliver their impromptu speeches in the form of a video and upload it to the platform. Then, these videos are collected from each participant with their permission. After receiving these videos are selected under the standards of whether the qualification of participants is English majors, whether the video is uploaded within the specified time, whether the video length is more than 1 minute, and whether the content of the video is related to the topic. After that, all the videos were turned into audio, and the recordings were transcribed into text word by word using the Xunfei website. These recordings were converted to text, and after that, they were heard and calibrated four times to ensure that all the transcriptions were accurate.

After the transcription process was completed, a rigorous data cleaning and preprocessing phase began. This involved removing any extraneous noises or irrelevant segments from the audio recordings, ensuring that the transcribed texts were as clean and accurate as possible. Additionally, any personal identifying information was redacted to maintain the anonymity of the participants and comply with ethical standards. Although this thesis is edited concerning the collected corpora, no grammatical, semantic, or pragmatic corrections are made to the corpora to ensure their authenticity.

## 5. Analysis and Discussion

### 5.1. Types and Frequencies for Speech Error

According to the corpora collected before, the types and frequencies of each type of speech error are listed in Table 3.

**Table 3.** The Statistical Census of Different Types of Speech Errors

Types	Frequency	Percentage
Silent pauses	70	23.569%
Filled pauses	125	42.088%
Repeats	42	14.141%
Retraced false starts	26	8.754%
Un-retraced false starts	13	4.377%
Corrections	3	1.010%
Interjections	0	0%
Stutters	13	4.377%
Slips of the tongue	5	1.684%

As Table 3 demonstrates, filled pauses, the type of speech error that appears with the highest frequency in the sample, is particularly evident in sample 8: “Sometimes it will result in the self-death, uh, as to solve the problem. I have some suggestions.” Has a vocal segregate between “self-death” and “as”, and the hesitation word does not have any real meaning. Hence, the sample belongs to filled pauses. Silent pauses, as runner-up, can be found in sample 3: “I always scoring some // video site about Chinese.” There is a noticeable pause in the speaker between “some” and “video”, a phenomenon that is typical of silent pauses. The frequency of repeats ranks latter, taking sample 9 as an example: “I don’t think cyber bullying/bullying/bullying falls into the category of freedom.” The speaker undermines the fluency of the language by saying “bullying” three times when the output that effectively conveys meaning is only once. This phenomenon is part of the repeats. Retraced false starts are in the fourth position. Taking sample 17 as an example: “When we after finishing

work/we after finishing homework.” Obviously, the speaker made a mistake halfway through the sentence and chose to go back to the previous sentence to correct it before moving on to the next sentence. This is typical of retraced false starts. Although un-retraced false starts and stutters occur with the same frequency in the sample, the two are quite different. In the original sample 5: “Everyone/Most of the people will have the/a TikTok APP on their phone.” In this sample, the speaker meant “most of the people” but expressed “everyone” in the relationship of “the” and “a”. This sample is, therefore, typical of un-retraced false starts. In the original sample 3: “It is a good idea to avoid their situation to re-re-response to their racial discrimination.” The syllable /ri/ was repeated, which badly affects the pronunciation of words and may affect others’ understanding of the whole sentence. And this kind of speech error is called stutters. Slips of the tongue are in sixth place, which can be explained by the original sample 2: “The reason why digital pickles is so pupilar is that I think it saves people’s time.” Here, the speaker has confused /'pju:p(ə)/ and /'pɒpjələ(r)/, resulting in the mispronunciation of the word And this is a typical example of slip of the tongue. Corrections are in the penultimate place in terms of frequency of occurrence, which can be reflected by the original sample 5: “Some people maybe not, I think, can’t sigh a bullying to others.” The addition of explanatory discourse “between may be not” and “can’t sigh a bullying to others.” “I think” is a non-effective information output that affects the flow of the sentence. Yet, the words in this category are not vocal segregates but rather corrective cue words. Thus, the sample embodies corrections. It is noteworthy that interjections do not appear in the 17 corpora, which suggests that it has a very low frequency of occurrence in impromptu speeches of English majors.

### 5.2. Reasons and Countermeasures for Speech Errors

There are three reasons why speech students may make speech errors during impromptu speeches.

First, negative transfer of mother tongue. Going back to the corpora, some speakers organized their English sentences in Chinese order and even used Chinese characters in their speeches. For example, speaker 8 used the phrase “self-death” to indicate committing suicide, which was greatly influenced by the Chinese morphological pattern. Moreover, in sample 3, the speaker used the Chinese phrase “不是”, which means “no”, to negate what had been said before. To deal with this kind of problem, as Li put it, to change the negative transfer, instructors and students must implement appropriate measures, such as increasing comprehensible English language input[15]. Also, it is the teacher should provide students with an English-speaking environment, such as using all-English lectures to fully immerse students in an English-only environment.

Second, inadequate comprehensive foreign language skills. By analyzing the corpora, it can be found that some of the English majors cannot use words, phrases, and grammar correctly. For instance, in sample 9, the speaker used “without clear” instead of “without clearing” in the sentence: “Some people without clear the truth of the event will follow the phenomenon.” This group of speakers may lack a certain extent in terms of both English usage ability and English knowledge. To deal with this, for one thing, students are expected to actively acquire knowledge of English and native English-speaking countries to enhance students’ foreign

language culture and knowledge input. For the other thing, students should actively participate in speaking-related competitions and programs to enhance their spoken English output.

Third, anxiety about unfamiliar topics. It is normal for speakers to feel anxious when they need to give an insight into an unfamiliar area where time constraints prevent them from finding enough material to support their ideas, or even accurate definitions. For example, sample 11: “Um, when I see the article first.” “Um” did not have any practical significance. Still, when participants are faced with an unfamiliar topic, the use of such hesitation words can help them extend their thinking time to ease their anxiety about the unfamiliar topic. The best solution to anxiety over unfamiliarity with a topic is to accumulate more relevant material and carry out targeted training on this basis.

## 6. Conclusion

In conclusion, this research mainly investigates speech errors that appeared in impromptu speech for English Majors. The central question goes to the types, frequencies, and reasons of speech errors. What’s more, some countermeasures of speech errors are also put forward to help English majors improve their speaking skills.

Based on the corpora and corpora analysis above, the main findings are summarized as follows: the most dominant type of speech error was filled pauses. Second, based on the corpora collection, analysis, and reading of related literature, this thesis finds that negative transfer of mother tongue, insufficient general English language skills, and anxiety for unfamiliar topics are important causes of speech errors. Lastly, to address the problem, teachers should pay more attention to creating an English learning and output environment, which can help students get rid of the impact of the negative transfer of their mother tongue. Also, encouraging students to communicate in English can develop their courage to speak English both in class and outside of class. Strengthening the transfer of knowledge and cultural background is a good method to provide students with access to more material and ideas. Students should actively input English-related knowledge to enrich their speaking and presentation skills. At the same time, they should take the initiative to communicate in English in order to practice their speaking skills and strengthen their confidence in speaking.

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