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Emotional Stimuli and Diphthongs: Perspectives from Saudi EFL Female Students

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ABSTRACT : This study investigates the perspectives of Saudi EFL students on the effects of emotional stimuli—specifically positive, negative, anād neutral texts—on their pronunciation of diphthongs. The research employed a quantitative design, analyzing questionnaire responses from 183 female students across three levels of language proficiency within the English language skills department. Participants gave their perspectives on how reading emotional texts affect their accuracy of diphthong pronunciation by filling out a questionnair. The statements of the questionnaire were organized into three sections: Reading positive texts and reading negative texts and neutral texts allowing for a comprehensive analysis of how emotional tone affects language learning. The results indicate that the majority of participants recognize the positive impact of reading emotional texts on their vowel pronunciation, reporting improvements in both their understanding and production of vowels, as well as enhancements in English intonation and stress. On the other hand, reading negative emotional texts may hinder various aspects of pronunciation and language proficiency, with a notable portion of respondents maintaining a neutral position on several points. Furthermore, findings reveal a prevailing sense of neutrality regarding the effects of neutral emotional texts on pronunciation skills, suggesting these texts do not significantly impede language proficiency. Overall, the data underscore the complex relationship between emotional content in reading materials and their implications for pronunciation capabilities.

KEYWORDS : *EFL students' perspectives, emotional stimuli, pronunciation, diphthongs*

I. INTRODUCTION

The ability to pronounce words correctly is essential for effective language use. Despite being an essential language skill, practitioners have paid little attention to it. Speaking and listening are significantly impacted by pronunciation (Ahmad et al., 2023). However, the proficiency in foreign language pronunciation is difficult, and students view it as a complex issue (Suzukida & Saito, 2022).

The study of how speech sounds are produced various sounds in various languages is known as phonetics. The International Phonetic Alphabet (IPA) is used by linguists to describe sound systems. Every sound that has been identified in human languages is represented by a symbol in this alphabet (Delahunty, 2010). The study of sounds utilized by speakers of a particular language is known as phonology. A phoneme is a sound that has a specific meaning in a language. Different phoneme sets are used in many languages throughout the world to convey ideas (Freeman, 2004). In English, for example, there are forty-four phonemes, comprising 20 vowel sounds and 24 consonants. One type of phoneme that is generated with a particular form of barrier or obstacle is a consonant. Following such articulator occlusion, the airflow is freed (Syed et al., 2017). Consonant sounds are created with some resistance or blockage as air moves from the larynx to the lips, whereas vowel sounds are a type of phoneme that are produced without any obstruction by the articulators. It is evident that restriction of the air flow occurs when such sounds are produced (Roach, 2009).

Beyond the mechanics of pronunciation, a variety of psychological elements influence how students experience language acquisition (Zhang & Lai, 2023). The influence of emotions on oral language acquisition has garnered attention in studies over the past few decades (Yu 2022; Szyska & Lintunen 2023). Our lives are greatly impacted by our emotions, and language research has focused a lot of attention on how these emotions function in language classrooms. Khajavy et al. 2017: 3 state that emotions may have a big influence on students' performance and success in language classes, thus it's critical to recognize them.

In the context of language acquisition, negative emotions are frequently linked to speaking a foreign language in the context of language acquisition. Numerous research on anxiety related to learning a foreign language demonstrate this (see, MacIntyre 1995). Speaking a foreign language can cause anxiety and tension for many learners, particularly in a language learning context (Horwitz et al., 1986). Foreign language enjoyment was presented as a positive counterpart of foreign language anxiety as positive psychology gained traction in

language studies. Foreign language enjoyment is one of the most researched emotions in language studies, along with foreign language fear. Anxiety and enjoyment are both included in several earlier investigations (see, for example, Bielak 2022).

This paper explores the perspectives of Saudi EFL female students regarding emotional stimuli and their impact on the pronunciation of diphthongs, which aims to provide deeper insights into the relationship between emotions and pronunciation skills.

1.1 Statement of the problem

Previous studies have shown that while positive emotions has a favorable effect on achievement (Jin & Zhang 2018), negative emotions frequently results in worse performance (Horwitz 2001). But when speaking a foreign language, a students' perspective in mispronouncing words while reading because of the tone of the emotional text is lacking. The students would determin wherther or not there is a relationship between the tone of the emotional text; positive, negative or neutal with their pronunciation of vowel sounds. This study aims to examine the emotional responses of students during pronunciation practice by gathering qualitative insights into their experiences with emotional stimuli in language learning.

1.2 Purpose of the study

This study aims to contribute to the existing literature on the intersection of emotions and language acquisition, particularly in the context of EFL. By focusing on the emotional factors that influence pronunciation, this research seeks to enrich the fields of both psycholinguistics and phonetics regarding how emotions shape learning pronunciation processes. The students' perspectives will show how their feelings can either hinder or facilitate learning outcomes. To explore the implications of emotional engagement on the acquisition of phonetic skills, particularly with diphthongs, which would bridge the gap between theoretical research and practical applications in language teaching.

1.3 Significance of the study

The study's findings can give language teachers important insight into how emotions may impact students' speking skills. This study will also provide insight into the factors that educators can consider when organizing their lessons to help improve students' pronunciation skills. This would help make sure that their learning material, which contains emotional texts, is suitable for their students' learning progress. This is to inform educators and practitioners on how to incorporate emotional considerations into teaching pronunciation.

Research Question

This research paper tends to answer the following research question:

1. What are the Saudi EFL students perspectives regarding the effects of emotional stimuli on their accuracy of diphthong pronunciation?

II. LITERATURE REVIEW

The review of the literature below reflects on EFL prnunciation skills, classification of diphthongs, how emotions were defined in previous studies as well as how emotions affect language learning.

2.1 EFL pronunciation skills

Teaching and accurately pronouncing foreign words is one of the crucial areas that has to be looked into in order to speed up the learning process. But learning how to pronounce words correctly is frequently seen as less important. The procedure might appear tedious and challenging at times (Khusenova , 2025). It is crucial to pronounce each word correctly and appropriately in order to guarantee good communication. Sound mispronunciation can cause messages to be misunderstood. To promote successful language acquisition, pronunciation training must be incorporated into the curriculum together with other language components and abilities (Thongsongsee & Watanapokakul, 2023).

Moreover, Mohammed (2016) examined the challenges Sudanese English language learners faced when pronouncing English vowel sounds. The findings indicate that mother tongue (L1) interference and variations in sound systems are the two main causes of these difficulties. However, poor pronunciation, vocabulary underdevelopment, and low student motivation are just a few of the issues that higher level English as a Foreign Language (EFL) training in Indonesia continues to face (Gusti et al., 2021). Pronunciation is frequently one of the most difficult things for EFL learners to master, even though it is an essential component of language proficiency (Abdalla et al., 2020). Pronunciation remains a persistent issue for EFL learners because of a lack of practice opportunities and personalized feedback (Sun, 2023a).

Studies on speech perception training have shown that adult EFL learners can effectively learn to perceive non-native consonant contrasts, but research on non-native vowels is limited, with previous studies typically training only a few vowels. In a study conducted in Japan, native Japanese listeners were trained to identify American English vowels, with one group trained on all nine monophthongs and another on three more

challenging vowels. The results revealed that those trained on the full set improved their vowel identification by 25% and maintained this improvement after three months, while the subset group did not show progress on untrained vowels. This suggests that for EFL Saudi students learning English, comprehensive training that includes all vowel sounds rather than just the difficult ones is essential for effective pronunciation and comprehension (Khusenova , 2025).

Correct sound articulation, speech rhythm, and meaningful intonation patterns are all components of pronunciation (Ridho Khualid et al., 2024). These components may differ significantly from the learner's mother tongue, making it challenging for them to produce sounds that are absent from their mother tongue (Wahyuningsih & Afandi, 2020). For instance, learners whose native languages have more consistent vowel sounds may become confused by the wide variation in English vowel sound pronunciation depending on context (Cebrian et al., 2021).

2.4 English diphthongs

According to Sharma (2019), diphthongs are sounds that are produced by smoothly transitioning from one vowel sound to another. Jones (1972) stated that diphthongs are phonetically represented by sequences of two letters, the first of which indicates the beginning point and the second the direction of movement. Vowels that combine two vowel sounds in a continuous, gliding motion are called diphthongs. Gliding vowels is a common term used to describe them. Although the quantity varies greatly, most languages feature a number of diphthongs. When the speech organs move from one point to another by the most direct path, an accidental transitory sound known as a glide is created (Jones, 1975).

Nurhadi (1997) states that there are three main characteristics that define vowels: (1) The tongue's relative location within the mouth.(2). The lips' placement. (3) The physical exertion required to produce them. Vowels can combine to form one syllable or two separate 106revious106. They combine to create what are called diphthongs. The word "mouse" is an example of a diphthong; the ou portion of the word clearly consists of two different vowels, but there is no syllabic break between them (McGuinan, 2003).

Ramelan (1988) claims that there are two types of diphthongs: falling diphthongs and rising diphthongs. A falling diphthong is one in which the first part is louder than the second; a rising diphthong is one in which the second element is syllabic. The tongue shifts from one vowel sound's location to another while creating a diphthong. For example, the tongue shifts from the location where the sound is not necessarily obtained for the diphthong /aI/. The glide is directed toward a vowel with a close position because the vowel /a/ is an open vowel and /I/ is a close vowel. However, a diphthong is considered to be closing when the tongue moves from the position of an open vowel to that of a closer vowel, as in the example above (Ramelan, 1988:77). The diphthong is referred to as a centering diphthong when the tongue moves in the direction of the central vowel /ə/. The following table 1 provides Ramelan's (1988:57) list of diphthongs:

Table 1: *Ramelan (1988:57) provided the following list of diphthongs:*

No.	Phonetic symbol	Keywods in orthography	Phonetic transcription
1	/ei/	l*ay*	/leI/
2	/oU/	n*O*	/noU/
3	/aI/	l*ie*	/laI/
4	/aU/	h*ow*	/haU/
5	/ɔI/	b*oy*	/bɔI/
6	/Iə/	h*ere*	/hIə/
7	/ɛə/	h*air*	/hɛə/
8	/uə/	p*oor*	/puə/
9	/ɔə/	*yours*	/yɔəz/

2.5 Emotional influences on language learning

It is challenging to come up with a consensus definition for the term emotion (Salstola, 2025). According to Fehr and Russell (1984), emotion is a multifaceted notion with behavioral, mental, and physiological components. According to Kokkonen (2017), one of the main purposes of emotions is to direct our behavior. Emotions have their own purposes and cause us to behave in different ways.

Positive and negative emotions are common categories for emotions (Izard, 1977). Positive emotions, like happiness, are typically associated with pleasant circumstances, whereas negative emotions, like melancholy, are associated with undesirable or unpleasant circumstances. According to Kokkonen (2017), research on happy emotions has demonstrated that they support resilience, health, and a feeling of purpose in life. Additionally, positive emotions enhance learning, memory, and focus (Kokkonen, 2017). Additionally, emotions can have a big impact on language acquisition (Salstola, 2025). Thus, researching emotions and how they impact learning helps us understand their function in language classrooms.

Using emotional skills in the classroom improves students' oral production abilities (Pasquier et al., 2022). They investigated the relationship between elementary school linguistic and emotional abilities. This study sought to determine if emotion-focused instruction in the classroom may enhance oral output. The participants were split into two groups: a control group that got a traditional education program and an experimental group that received an oral-based education program that concentrated on the identification and expression of emotions. The findings demonstrated that students from the experimental group considerably improved their emotional and vocal language abilities (Pasquier et al. 2022). The control group's students' oral output level did not significantly alter, although their language abilities did somewhat increase. Both groups had improvements in vocabulary and understanding overall, but only the experimental group's oral output significantly improved. According to Pasquier et al. (2022: 1116), innovative teaching methods can improve students' spoken language, listening, and empathy abilities.

2.6 The effect of emotional stimuli on pronunciation

There are some studies that show the relationship between emotional content and phonological processing. For example, Salehi et al., (2020) studied how emotional processing affects stuttering severity among Persian speking children by using Event-Related Potentials (ERP). They examined the phonological processing of emotional and neutral words by ten children who read aloud 120 words while their brain activity was recorded. The analysis revealed significant differences in both behavioral measures, such as reaction time and accuracy, and electrophysiological responses across emotional valences. Therefore, their findings suggested that emotional content has an effect on the speaker's phonological processing, facilitating word recognition by reducing activity in certain brain regions.

Emotional and phonological factors can interact during individual's speech production. According to White et al., (2016), in picture-word interference activity, emotion and phonology had a crucial role in affecting the results.There were two experiments where the participants named target pictures featuring either taboo, negative, positive, or neutral words as distractors. The study's results showed that taboo distractors significantly slowed participants naming the picture. Conversely, the distractors that were phonologically related enhanced the naming of target pictures. This shows that emotional words can cause distractions and interfere with phonological encoding during speech production.

Polzin & Waibel (1998) state that pronunciation varies while giving an emotional speech. Emotional states like happiness, sadness, anger, and fear had a significant impact on speech recognition, according to their modeling of acoustic and prosodic pronunciation variations. When processing emotional speech, these four emotions that were highly distinguished improved the performance of speech recognition systems.

After reviewing the 107revious studies, this paper examined the perspectives of undergraduate students in an English language skills department in Saudi Arabia on whether or not emotional stimuli effect their pronunciations.

III. METHODOLOGY

3.1 Research Design and Approach

This study utilizd a quantitative approach to investigate students' perspectives of the impact of emotional stimuli on diphthong pronunciation. It calculated the questionnaire responses of their experiences during reading emotional texts. This intervention involved direct comparisons of how reading emotional texts (positive, negative and neutral) are pronounced across three conditions, allowing for a thorough examination of how emotional context influences diphthong production.

A. 3.3 Population and Sample

The data for this study was collected from 183 EFL Saudi female undergraduates at King Saud University (KSU) in Riyadh, Saudi Arabia. The were from 19 to 21 years old. The students were categorized into three levels of language proficiency: beginners (A), intermediate (B), and advanced (C). Level A, corresponds to Level 1 of the 6-level Foreign Language Competency Framework (Nga et al., 2023). There were three tracks for the students to choose from; medical, science and humanities, which was all included in this paper as shown in table 1. Moreover, this study would take place in the first academic semester of 2025.

Table 1

Description of the Participants

Proficiency level/ Tracks	Medical	Science	Humanities
A	21	21	21
B	20	20	20
C	20	20	20

B. 3.4 Instruments

The questionnaire used for this study is designed to assess participants' perceptions of the emotional expressions in reading and their impact on English pronunciation. The participants will evaluate various statements related to their experiences with both positive, negative and neutral texts, focusing on how these texts influence their pronunciation accuracy. The statements are organized into three sections: Reading positive texts and reading negative texts and neutral texts allowing for a comprehensive analysis of how emotional tone affects language learning. The Participants will indicate their level of agreement with each statement using a five-point Likert scale that ranges from "Strongly Disagree" to "Strongly Agree". By comparing responses across all sections, the questionnaire seeks to highlight the contrasting effects of emotional content on language acquisition, providing valuable data for understanding the emotional dimensions of learning pronunciation.

C. 3.5 Procedure

To collect and analyze the data, the participants will fill in a consent form before participating in the study. After that, they were handed a questionnaire to fill out. The questionnaire consists of three parts on whether or not reading positive, negative, and neutral texts affected their pronunciation. The questionnair was done using Google forms, and it took them five minutes to complete.

3.6 Proposed Analysis

The proposed analysis of the questionnaire will focus on quantitative methods due to the use of a Likert scale. This will include calculating descriptive statistics, such as means and standard deviations, for participants' ratings on how positive, negative, and neutral texts affect their pronunciation of diphthongs. Frequency distributions will be examined to identify trends in participants' responses, providing a structured understanding of their perceptions.

3.7 Validity and Reliability

The questionnaire's validity and reliability were important principals in ensuring accurate and consistent measurement of emotional and phonological constructs. Validity assesses whether the questionnaire accurately reflects the intended occurrences, validating that the questions align with the study's aims. These elements helped improve the credibility of this study to draw meaningful conclusions from the data collected. To establish reliability, split-half reliability was utilized. This involved dividing the questionnaire into two halves and comparing the scores to evaluate internal consistency. High levels of agreement between the two sets of responses would suggest strong reliability. This showed that the questionnaire effectively measured the intended constructs without being influenced by external factors or random error.

IV. RESULTS AND DISCUSSION

4.1 Analysis of students' responses of a questionnaire

This section presents key findings from the questionnaire responses regarding phonological performance among first-year undergraduate students learning English at King Saud University. The analysis focused on identifying common diphthong pronunciation errors and emotional texts inteference. The most frequent kind of emotional stimuli that affects pronunciation, reported by the students, as well as the statistical measurea are outlined below.

Table 2: *Statistical measure sfor different emotional text types*

Emotional Text Type	Mean	Median	Range	Standard Deviation
Positive	20.2	18	51	20.4
Negative	20.2	24	33	12.9
Neutral	20	22	27	10.8

Table3: *The benefits of reading positive emotional texts*

	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I find that reading positive texts helps me become familiar with the correct pronunciation of vowel sounds.	2.2%	6.6%	20.8%	53%	17.5%
2	Reading positive texts helps me develop better fluency and rhythm in my pronunciation of vowels.	2.7%	6.6%	18%	54.6%	18%
3	Reading positive texts helps me improve my ability to understand and produce vowels.	4.9%	3.8%	18.6%	53.6%	19.1%
4	When I read positive texts, it helps me improve my English intonation	3.8%	3.3%	19.7%	48.6%	24.6%

	and stress.					
5	Reading positive texts has helped me increase my confidence in pronouncing English words and phrases.	3.8%	5.5%	14.2%	52.5%	24%
6	Reading positive texts helps me to be more aware of the pronunciation differences between English and my native language	3.8%	5.5%	21.9%	47%	21.9%

The table presents the perceived benefits of reading positive emotional texts among the participants, focusing on how these texts influence their pronunciation of English vowels. For the first statement, a significant majority (70.5%) either agreed or strongly agreed that reading positive texts aids in familiarizing them with the correct pronunciation of vowel sounds, while only 8.8% disagreed. Similarly, the second statement indicates that 72.6% of participants believe that reading positive texts contributes to better fluency and rhythm in vowel pronunciation, with a minimal disagreement rate of 9.3%. Overall, the majority of respondents recognize the positive impact of reading emotional texts on their vowel pronunciation abilities.

In examining the remaining statements, the trend continues, with a notable percentage of participants acknowledging improvements in their understanding and production of vowels (72.7% agreed or strongly agreed) and enhancements in English intonation and stress (73.2%). Additionally, 76.5% of the participants reported increased confidence in pronouncing English words and phrases, while 68.9% felt more aware of pronunciation differences between English and their native language. These results underscore the agreement among respondents that engaging with positive emotional texts is beneficial for developing various aspects of pronunciation and overall language proficiency. These are shown in the following figure 1.

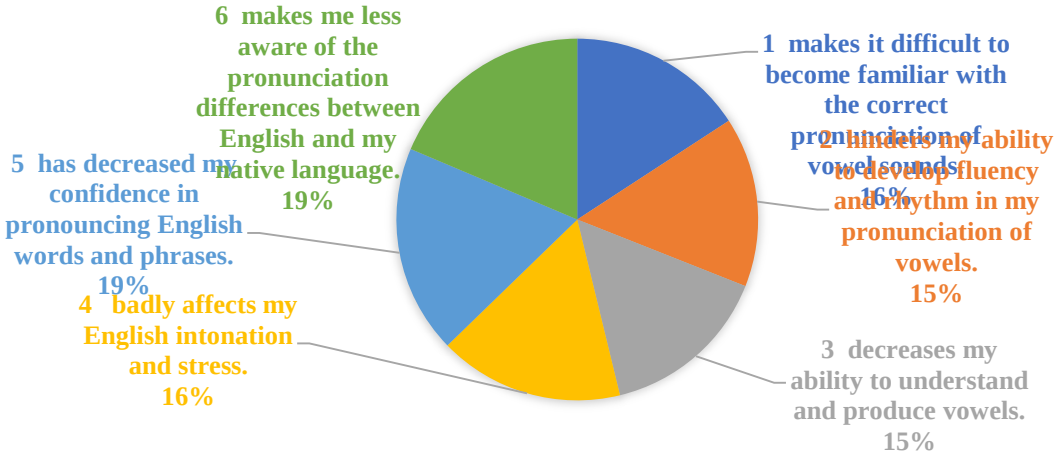

Fig: *Affects of reading positive texts on pronuncuation*

Table 3 *The benefits of reading negative emotional texts*

Statement		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I find that reading negative texts makes it difficult to become familiar with the correct pronunciation of vowel sounds.	6.6%	23.5%	36.1%	30.6%	3.3%
2	Reading negative texts hinders my ability to develop fluency and rhythm in my pronunciation of vowels.	7.1%	32.8%	26.8%	27.9%	5.5%
3	Reading negative texts decreases my ability to understand and produce vowels.	7.1%	26.8%	34.4%	26.8%	4.9%
4	When I read negative texts, it badly affects my English intonation and stress.	6%	25.7%	32.8%	30.6%	4.9%
5	Reading negative texts has decreased my confidence in pronouncing English words and phrases.	9.8%	24%	33.9%	24.6%	7.7%

6	Reading negative texts makes me less aware of the pronunciation differences between English and my native language.	10.4%	30.6%	31.7%	20.8%	6.6%

The table outlines the perceived drawbacks of reading negative emotional texts among respondents, specifically regarding their English vowel pronunciation. For the first statement, 36.1% of participants remained neutral, while 33.9% agreed or strongly agreed that reading negative texts makes it difficult to become familiar with the correct pronunciation of vowel sounds, indicating a notable level of uncertainty and concern. Conversely, a combined 30.1% disagreed with this statement, suggesting that while some recognize the challenges posed by negative texts, there is still a considerable portion of the participants who do not feel affected.

In the subsequent statements, similar trends emerge. For instance, 33.4% of the respondents agreed that negative texts hinder their fluency and rhythm in vowel pronunciation, while 34.4% felt that these texts decrease their ability to understand and produce vowels. Additionally, 35.5% expressed concerns that reading negative texts negatively impacts their English intonation and stress. Confidence in pronouncing English words was also said to be affected, with 32.3% agreeing that negative texts have decreased their confidence. Overall, the data reflects a general consensus that reading negative emotional texts may hinder various aspects of pronunciation and language proficiency, though a significant portion of respondents remains neutral on several points. These are explained the figure below.

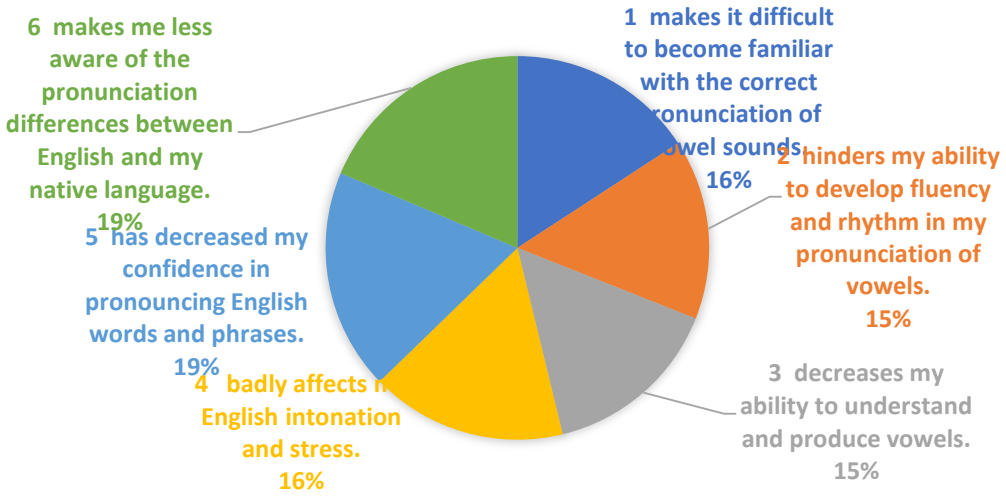

Fig: *Affect of reading negative texts on pronuncuation*

Table 4: *Student's perception on whether or not reading neutral emotional texts affect their pronunciation*

Statement		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I find that reading neutral texts makes it difficult to become familiar with the correct pronunciation of vowel sounds.	12.9%	28.1%	32%	21.9%	5.1%
2	Reading neutral texts hinders my ability to develop fluency and rhythm in my pronunciation of vowels.	12.4%	31.5%	32.6%	20.2%	3.4%
3	Reading neutral texts decreases my ability to understand and produce vowels.	12.4%	28.7%	33.1%	20.8%	5.1%
4	When I read neutral texts, it badly affects my English intonation and stress.	13.5%	29.8%	33.7%	20.2%	2.8%
5	Reading neutral texts has decreased my confidence in pronouncing English words and phrases.	15.2%	33.7%	29.2%	16.9%	5.1%
6	Reading neutral texts makes me less aware of the pronunciation differences between English and my native language.	15.2%	29.2%	32.6%	20.2%	2.8%

The table presents the perceived impacts of reading neutral emotional texts on respondents' pronunciation of English vowels. For the first statement, a significant portion (32%) of participants remained

neutral, while 27% agreed or strongly agreed that reading neutral texts makes it difficult to become familiar with correct vowel pronunciation. Conversely, 41% disagreed or strongly disagreed, indicating that a substantial number of respondents do not feel negatively affected by neutral texts in this regard. This pattern of response suggests a general ambivalence towards the impact of neutral texts on vowel pronunciation familiarity.

In examining the remaining statements, similar trends are observed. For instance, 23.6% of respondents felt that reading neutral texts hinders their fluency and rhythm in vowel pronunciation, while 25.9% indicated that it decreases their ability to understand and produce vowels. Additionally, 23% expressed concerns that neutral texts negatively affect their English intonation and stress. Confidence in pronouncing English words was reported to be decreased by neutral texts, with only 22% agreeing with this statement. Overall, the data highlights a prevailing sense of neutrality among respondents regarding the effects of neutral emotional texts on their pronunciation skills, with many indicating that these texts do not significantly hinder their language proficiency.

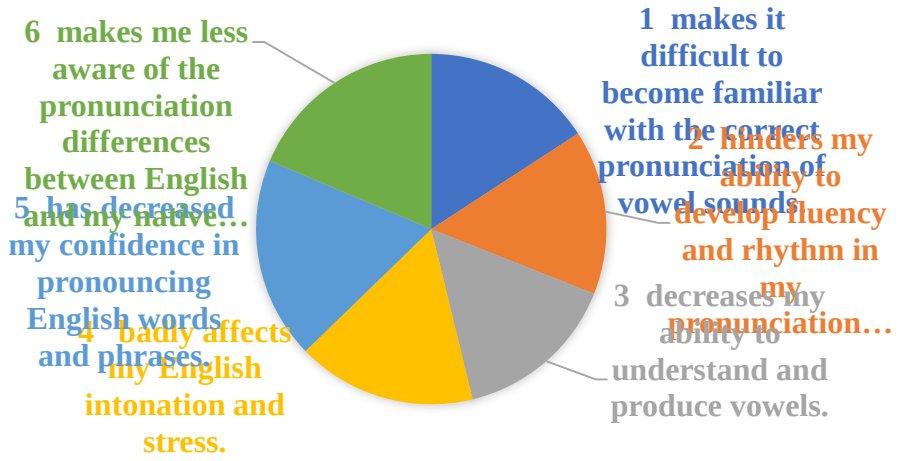

Fig: *Affect of reading neutral texts on pronunciation*

V. CONCLUSION

In conclusion, this study examined the perspectives of Saudi EFL Common First Year undergraduate students on how emotional texts (positive, negative or neutral) affect their diphthong pronunciation. This study had a quantitative research design. It calculated the questionnaire responses of their experiences during reading emotional texts. This study's data involved 183 female students from three levels of language proficiency at the English language skills department. The results indicate that the majority of the participants recognize the positive impact of reading emotional texts on their vowel pronunciation abilities, with many reporting improvements in their understanding and production of vowels, as well as enhancements in their English intonation and stress. Conversely, there is a general consensus that reading negative emotional texts may hinder various aspects of pronunciation and language proficiency, although a notable portion of respondents remains neutral on several points. Additionally, the findings reveal a prevailing sense of neutrality among participants regarding the effects of neutral emotional texts on their pronunciation skills, with many indicating that these texts do not significantly impede their language proficiency. Overall, the data underscores the complex relationship between emotional content in reading materials and its effects on pronunciation capabilities.

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