THE EFFECT OF TRAINING COURSE ON THE PRODUCTION OF INTONATION AMONG IRAQI EFL STUDENTS

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Abstract This study aims to investigate the effect of a training course on the production of English intonation. The study sought to assess the significance of the intonation-training course in enhancing the mastery of Iraqi EFL learners' use of intonation. The study used pre- and post- intonation production tests to collect the data from Iraqi undergraduate EFL students in Thi-Qar University. Two groups of students were chosen, namely, control and experimental. The research sample consisted of 40 third-year undergraduate students of the English Department of the Faculty of Education of Thi-Qar University. The participants were divided into two groups of control (n=15) and experimental (n=25). However, only 17 members of the experimental group were eligible to be considered in the data analysis. Data were analysed using independent t-test and a significant difference was revealed between the mean score and standard deviation of the pre- and post-tests. The results of descriptive statistics showed that the mean scores of the tonicity test and tone production of the students from the main group were higher compared to students in the control group. In addition, the results of the t-test showed there was a significant difference among the mean scores regarding tonicity, tonality, and tone.

Keywords: Intonation, training, EFL students, production.

Introduction
Halliday (2015) believed that intonation is not merely an issue of having oneself a good pronunciation, but a way of expressing various meanings. In the same vein, Martínez-Castilla, Stojanovik, and setter (2013) emphasized that the goal of intonation in speech is presumed to be of great communicative significance. Shuying and Quan (2017) confirmed that correct intonation is a vital part of being understood; i.e. if foreign speakers try to be understood utterly, they must enhance their intonation. In this regard, Yurtbasi (2107) believed that if the tone of a man's voice contradicts his words, we immediately assume that the intonation more faithfully reflects his real linguistic intentions. With regard to non-natives (NN) studies, the use of English sound patterns by adults has focused on production of sound segments. Among the studies on the issue of second language acquisition, only a few have dealt with the perception and production of the suprasegmental aspects of English phonetics, such as intonation. The area focuses on comprehension, perception, and production of intonation that is less obvious, though not insignificant (Levis& Wichmann, 2015).

As asserted by a large number of effectively construed studies and researches, the production and perception of intonation are related to high degrees of success and accomplishments in the triumphant acquisition of the English language (Graham, & Post 2018). During the study of important aspects of teaching English as a second language, it became clear that students inevitably need to understand the interpretation of intonation. An appropriate instruction model is required to learn effective intonation interpretation (Wichmann, 2014). Thus, in order to achieve the effective goals of learning English as a foreign language, it is important for learners to receive in-depth training on the production of the intonation (i.e. the rise and fall of the pitch). These processes are considered important since intonation is imperative to comprehend what is being said.

Intonation is considered not only more important than grammar but also the decisive component of better communicative skills, which is the ultimate aim of second language learning (Halliday, 2015). Furthermore, the unusual intonation of NN speakers of English results in problems that may prevent them from successful communication with native speakers of the language from different parts of the world. In this regard, a strong and unclear accented speech results in miscommunication problems, misunderstanding, and frustration (Lu, 2002). Poor intonation can have serious negative effects on the pronunciation of EFL learners (Lyster, 2019).

In this light, some researchers stress that intonation is hard to be taught (Taylor,1993 Hamad & Muhammad, 2018). They argue that only some core intonation items should be given to EFL learners. On the other hand, Betti and Ulaiwi (2018)assert that intonation can be taught by introducing a training course for English learners using intonation training supported by "LLS" specific language learning strategies.There are debates about the effect of intonation on successful communication for Iraqi EFL

learners whose mother tongue is Arabic. Most researchers (Al Jubouri 2013) assert that Iraqi EFL learners use the wrong intonation when speaking English since they are unaware of the use and functions of intonation.

On the other hand, in studies such as Al-Jubouri (2013) and Rashid (2019), prosodic features such as intonation were examined and it was found that the main stress is usually placed in the stem of an English word. Moreover, Arabic speakers tend to place the same amount of stress on all words in a sentence, regardless of whether they are functional words (auxiliaries, articles, prepositions, pronouns, wh-words, and conjunctions) or content words (adjectives, verbs, and nouns). Thus, misunderstandings may occur when they do not realize the intended meaning of the speech that is produced by a particular intonation pattern to convey the proposed meaning (Ar-Riyahi, 2006). It seems that Iraqi learners may not be aware of the functions of prosodic features in conveying meaning and their role in producing clear utterances. This could be due to the lack of attention to the learners' perceptions and awareness of the English intonation system and its functions, which are addressed in this study. Interactive teaching of the intonation system is believed to enhance Iraqi learners' awareness of intonation.

Although it is difficult for Iraqi EFL learners to master English intonation, it is rarely taught systematically in Iraq. There is a variety of pedagogical studies on intonation; however, most research in Iraq focuses more on testing intonation proficiency or theoretical foundations (Ar-Riyahi, 2006; Al-Hindawi& Al-Ghazali, 2017). This results in a gap between the intonation used in research and the intonation used in learning. To bridge the literaturegap, the researcher concentrates on how the awareness of English intonation of Iraqi EFL learners can affect their mastery of intonation. Lack of intonation teaching in English language classes in Iraq causes apparent linguistic poverty outside and inside classrooms. The colourless communication or monotonous sounding among learners in the classroom is common in conversations and learners usually express their mood, attitudes, and ideas in the wrong intonation. When Iraqis communicate with native English speakers through a study or business trip abroad, this language weakness may be considered as impolite or apathetic. Furthermore, the unusual intonation in the pronunciation of Iraqi EFL learners results in real difficulties in successfully communicating with English native speakers from around the world.

English learning is very important in most Arabic-speaking countries, and most people begin English classes at some point in primary school, although it is increasingly being introduced to preschoolers. When teaching English to Arabic speakers, teachers should address issues such as the pronunciation of the words, consonant clusters, and intonation patterns. Pronunciation errors do not ultimately cause major communication problems, although sometimes intonation patterns can lead to misunderstandings. Al-Bazi (2012) stated that there are significant differences between Arabic and English intonation, and such differences may make it difficult for an Arabic speaker to understand the intonation of a native English speaker. The most frequently occurred error of Arab EFL learners is wrong falling and rising pitches in wh- and tag questions (Odisho, 2003).

Another important problem of Arab EFL learners is communication. Arab learners find it difficult to communicate freely in the target language. This may be due to poor language teaching methods and the learning environment. This is a noticeable fact in Iraq because the official language of communication is Arabic. The only way to learn English intonation in Iraq is through formal instruction, i.e., inside a classroom where the language teachers are native speakers of Arabic. There is little opportunity to learn English through natural interaction in the target language due to few opportunities to meet English native speakers within the country. Therefore, better use of intonation is achieved as a result of teaching intonation and methods that help L2 learners to convey their intended meanings. Such learning helps learners acquire skills for easy second language comprehension and develop speech production of with functional efficiency.

Methodology

The corpus of the study included 40 third-year undergraduate students from the English Department of the Faculty of Education at Thi-Qar University. The students were selected using purposive sampling. Generally, this type of sampling is a technique in which the researcher relies on his/her judgment when choosing members of the population to participate in the study. This kind of sampling was used because the selected participants also acted as the primary data sources. In order to align and meet the requirements of the study, certain criteria were needed to recruit suitable participants. Hence, students were selected based on features that made them eligible to meet the study objectives (Fraenkel and Wallen, 2009). As mentioned, the accessible population for the present study was 40 for both experimental and control groups. However, only 17 members of the experimental group were eligible to be considered in the data analysis. The criteria and rationale for selecting the sample are as follows: 1) all participants must be students studying English language at the faculty; 2) all the participants should be from the same academic year, i.e., third-year students; and 3) all participants must have

passed two pronunciation courses. In the intonation test, the students were asked to repeat "But how do you want to pay for it?" (Wells, 2006) with different intonation patterns. They were required to mark the borders (tonality), if any, underline the tonic syllable (tonicity) and mark tones (rising, falling, or falling-rising) with appropriate diacritics. In addition, the students were asked to describe the intended meaning of the sentences on the answer sheet.

The recordings and the transcripts produced by the students were collected and anonymised. In addition, the scores were checked twice by a native speaker linguist, i.e., a lecturer at the University of Bangor, England. The referee was asked to assess 8 random recording samples by using the contour approach. Thus, she (the judge) independently transcribed the tones and tonic syllables of the 8 spoken data.

The first step after the data collection procedure is to clear and screen the data. Therefore, the missing data were cleared and the dataset was screened for outliers. Moreover, they were checked for normality using the Statistical Package for Social Science (SPSS 22). In the next step, two types of data analyses were conducted, namely, descriptive and inferential.

Inferential statistics were used to examine the research objective. The inferential statistical procedure used in this study to examine the research objective was the Independent Samples t-test. This type of t-test calculates the differences between the values of the two variables. In the present analysis, a test with a significance level of 0.05 was used to compare the mean scores of the variables. The analysis was used to compare significant differences between the scores of Iraqi EFL learners before and after intonation training.

Results
An independent sample t-test was used to examine the differences between the mean EG, CG scores of the post-test in three tests of intonation production, namely, EG, and CG's tonality, tonicity, and tone mean scores.

Comparison of pre- and post-test production mean scores of EG and CG in three tests
The results of the t-test analysis are presented in Table 1. As shown in the Table, the mean scores of the EG are higher in all three tests (tonality, tonicity, and tone) compared to those of the CG. The results of the t-test analysis revealed significant differences between the EG and CG's mean scores in all the three tests, specifically between the tonality mean scores of the EG (M=17.64, SD=1.93) and CG (M=11.16, SD=4.95); t_{30}=4.99, p=.000; the tonicity scores of the EG (M=16.64, SD=1.41) and CG (M=9.93, SD=5.09); $t_{15.89}$=4.94, p=.000; as well as the tone scores of the EG (M=13.17, SD=4.32) and CG (M=8.20, SD=4.71); t_{30}=3.12, p=.004. In addition, the mean scores in the three tests were significantly higher than those of the CG, indicating better production after intonation training.

Table 1. Comparison of post-test mean scores between EG and CG in three tests of intonation production

	Groups	Mean	SD	Levene's test		t	df	p-value	Cohen's d
					p-value				
Tonality	EG	17.64	1.93	6.46	016	4.99	30	000	1.72
	CG	11.16	4.95						
Tonicity	EG	16.64	1.41	17.65	000	4.94	15.89	000	1.79
	CG	9.93	5.09						
Tone	EG	13.17	4.32	.23	634	3.12	30	004	1.01
	CG	8.20	4.71						

CG: control group, EG: experimental group

Cohen's *d* was calculated as the most common way to estimate effect size for the t-test (Cohen 1998). As proposed by Cohen, t-test conventional effect sizes are as follows:

> 0.2 (small effect)
> 0.5 (moderate effect)
> 0.8 (large effect)

Based on the above-mentioned Cohen's rule, the effect size estimates (d = 1.72, 1.79, 1.01) for all the three aspects of intonation production showed significant differences between EG and CG. These results suggested substantial improvements in all three aspects of intonation production in EG.

Comparison of pre- and post-test production mean scores within the EG
Table 2 displays the results of the t-test analyses and compares the pre- and post-test mean scores on the EG in all three tests of tonality, tonicity, and tone, as well as the t and p values.

Table 2 Comparison of Production Pre- and Post-test Mean Scores in EG

		Mean	SD	df	t	p-value	Cohen's d
Tonality	Pre-test	11.47	3.93	16	12.09	000	2.92
	Post-test	17.64	1.93				
Tonicity	Pre-test	10.01	5.03	16	7.23	000	1.75
	Post-test	16.65	1.41				
Tone	Pre-test	8.18	4.74	16	23.81	000	5.01
	Post-test	3.18	4.32				

As can be seen in Table 2, within the EG, the post-test mean scores for all the three aspects of intonation are higher compared to the pretest scores. Furthermore, the results of paired sample t-test indicate that the differences between the mean scores of pre- and post-test are statistically significant for all three aspects of intonation production: tonality (M=11.47, SD=3.93; M=17.64, SD=1.93; t_{16}=-12.09, p=.000); tonicity (M=10.01, SD=5.03; M=16.65, SD=1.41; t_{16}=-7.23, p=.000); and tonicity (M=15.58, SD=1.93; M=12.33, SD=4.51; t_{16}=-23.81, p=.000). These results provide evidence for the usefulness of the intonation training, since it significantly increased the tonality, tonicity, and tone production mean scores in the EG. In other words, intonation training helped enhance the production of the three intonation aspects by Iraqi EFL undergraduate students.

According to the Cohen's d results presented in Table 4.2, the effect size estimates for the pre- and post-test mean differences of tonality, tonicity, and tone production were d = 2.92, 1.75, and 5.01 respectively. These values exceeded the cut-off point of 0.8, which following Cohen's rule indicates a large difference. This suggests substantial changes in the EG's intonation production scores after the treatment. These results provide sufficient evidence to conclude that the treatment had a significant effect on the improvement of tonality, tonicity, and tone production scores of students in EG.

Discussion
To begin with, it is worth noting that based on the results, the students' mean scores were generally low in most aspects of intonation production and before the treatment. According to Abdul-Abbas, Rashid, and Younus (2021) in the context of Iraqi universities, this could be due to the absence of intonation instruction in English classrooms, which leads to obvious language poverty both inside and outside the classroom setting. The monotonous-sounding or "colorless" communication among students in the classroom is common in conversations, and students often express their ideas, mood, and attitudes in an inappropriate or incorrect intonation.Therefore, in order to communicate effectively with English-speaking people when traveling abroad, they need to improve their tone. Otherwise, their lack of proper English intonation can be interpreted as reluctance or rudeness.

As revealed by the results of the independent sample t-test, the mean scores in the three tests were significantly higher than the control group, indicating better production after the intonation training. The significant improvement shown by the results of the intonation production suggested the effectiveness of the training. According to results presented in Table 4.1, the effect size values were very large for all the significant differences (Cohen's d= 1.72, 1.79, 1.01), indicating a remarkable improvement in all

three aspects of intonation production. The results clearly showed that the training resulted in a positive improvement in participants' ability to produce intonation, a slight improvement across tonicity and tone production was seen in the control group. However, this improvement was not significantly different both within and across each aspect according to the t-test results.

In the experimental group, significant differences were observed in tone, tonality, and tonicity production, specifically between the pre- and post-test tonicity scores. These results are in agreement with the results of previous studies, including Goh's (1994); Gilakjani (2011), Hsieh, Dong, and Wang (2013) where the intonation performance of experimental participants was improved after training. A constant increase of the experimental group in the production scores of the participants was observed in three tests. Furthermore, this result contradicts the assumptions that intonation is unteachable as mentioned (Taylor, 1993), or that it is difficult to teach (Dalton &Seidhofer, 1994; Roach, 2009).

Conclusion
In sum, the aforementioned results clearly affirm that appropriate English intonation can be taught and it is not too difficult to learn. The results of in-group comparison confirm a significant difference in the experimental group in the intonation production, whereas the control group, which did not receive any treatment, did not show any significant differences (pre and post-test). Intonation training clearly made a significant impact on the intonation and production ability (speaking) of the participants in the experimental group, both in comparison with the control group and in terms of their improvement in the three tests points. The overall results made it clear that intonation is neither unteachable, as asserted by Taylor (1993), nor too difficult to tech as emphasized by Dalton and Seidlhofer (2004).

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