Research Article

The Impact of ESP Teachers' and Learners' Conceptualization of World Englishes on ESP Learners' Speaking across Gender

Flora Efaf Soltani [1], Mohamadreza Khodareza [*2], Davood Mashhadi Heidar[3]

[1, 2, 3]*Department of English, To. C., Islamic Azad University, Tonekabon, Iran*

*Corresponding author: m. khodareza@toni.au.ac.ir

Abstract

Learning English for Specific Purposes (ESP) aims to equip its learners to communicate in the multicultural work domain. The new emphases in learning ESP at the university level include the evolution of ESP itself over the last 50 years, and the challenges that ESP students face in speaking English. Conversely, the prevalence of World Englishes (WEs) in university contexts has made it relevant to ESP because both ESP and WEs aim to equip learners with practical communication skills. Therefore, with a quasi-experimental design, this study examined the effectiveness of WEs conceptualization on ESP students' speaking English across gender. According to the questionnaire data, the male and female ESP Learners and Teachers with high, mid, and low conceptualization were identified. Additionally, the data from the Preliminary Speaking Sample test, administered at the beginning and end of the ESP learners' course, were analyzed using Two-way ANOVA which revealed a statistically significant interaction between WEs conceptualization and gender intervention on the speaking performance of ESP students. These results reinforce the effectiveness and applicability of WEs in ESP classes. WEs conceptualization enhances both teachers' and students' awareness, thereby improving speaking skills. Furthermore, WEs conceptualization can be considered as an applicable multicultural solution. Its outcomes offer significant benefits to ESP curriculum developers and in-service teachers.

Keywords: conceptualization, ESP, intervention, speaking, World Englishes

Introduction

Studies from Iranian universities indicate that teaching ESP is driven by the necessity to communicate in English across fields such as technology, science, and commerce (Nezakatgoo & Behzadpoor, 2017). Topics related to English language speaking pose significant challenges for ESP finalists (Pishghadam & Sabouri, 2011). Knowledge about WEs is like a byway in technical situations. The growth of WEs and the needs to speak English among university students

or scientific organizations with different cultures persuade the ESP curriculum planners to consider the essentialities of related research deeply. Debates about WEs involved English language teaching (ELT) in-service planners to investigate the WEs' relation to ESP courses and its place at universities (Khodareza & Efaf Soltani, 2021). The question that stimulated the research is whether university students with an equal English Language Intensive Course for Specific Purposes (ELIC-SP) and an unequal background of Wes, demonstrate equal improvement in learning English. Knowing about WEs or learners' different backgrounds may help improve speaking in ESP classes. An exciting part of the question that differentiates current efforts from those already published on the mentioned subjects is about the effectiveness of WEs conceptualizations intervention on the English speaking of ESP learners when WEs and ELIC-SP have a lot in common.

Maasum (2011) studied the role of general English background in the success of ESP courses at Iranian Universities. He contends that course designers and material developers should quit their old tradition of being just specific to teach specific and that they can accommodate more GE, especially at earlier stages. He further explains if they may define a threshold level of GE upon which an ESP course could be built. The writer believes that (at least) the general knowledge of WEs, under the pressing needs of WEs recognition, is essential to insert in the ESP course scheme.

Students learning English for specific purposes who gain an understanding of World Englishes before interacting with professionals in their field will be better equipped to reach their professional goals. The professional goals are to communicate through speaking and understanding conversation, which is time-consuming in reading and writing.

The effectiveness and impact of the ESP teaching method in Iran (Fakharzadeh & Rasekh, 2009) have not been evaluated besides its popularity in the past twenty years. The admission of postgraduate students in different fields of science, who need to communicate precisely in English with colleagues, highlights the importance of learning English as a pluricentric language within ESP. The heterogeneity of English variations and cultures in the technological world has set challenges to English language teaching /ELT. Teaching ESP at universities often focuses primarily on reading comprehension, rarely addressing listening and speaking courses. However, many researchers, in medical, Para-medical, or in technological fields, believe that ESP teaching should not focus just on reading comprehension; it must mostly emphasize communicating in English languages. The selection of a specific English variety as a teaching model may imply that this is a standard variety that learners need to know for successful communication in the ESP

context and that other Englishes may seem as incorrect. However, while Iranian universities host only a limited number of international students (Tajvar, 2024), often from neighboring countries, the broader reality is that Iranian graduates must communicate with professionals across linguistic and cultural boundaries in international academic and professional arenas. This situation highlights the need to examine professors' and students' conceptualizations of WEs in ESP courses, as such awareness can enhance their readiness for real-world communication beyond the local context. Teacher and student conceptions are a psychological construct that cannot be observed directly.

Statistically, the aim of the study was to examine the effectiveness of WEs conceptualization on learners spoken English within university scientific courses. Hence, the current research examined the effectiveness of ESP Teachers' and Students' conceptualizations of WEs interventions on the development of English speaking skills among Iranian paramedical and medical faculty students in ESP classes. The questions and null hypotheses that provoked this research included:

Q1. Are there any significant differences in the students' English-speaking posttest scores among those taught by teachers with high conceptualization in WEs (THCWEs), teachers with mid conceptualization (TMCWEs), and teachers with low conceptualization (TLCWEs)?

Q2. Is there any significant difference in the English- speaking posttest scores of the male and female participants in classes taught by THCWEs?

Q3. Is there any significant difference in the English- speaking posttest scores of the male and female participants in classes taught by TMCWEs?

Q4. Is there any significant difference in the English- speaking posttest scores of the male and female participants in classes taught by TLCWEs?

H0 1: There are no significant differences in the students' English-speaking posttest scores among those taught by teachers with high conceptualization in WEs (THCWEs), teachers with mid conceptualization (TMCWEs), and teachers with low conceptualization (TLCWEs).

H02. There is no significant difference in the English- speaking posttest scores of the male and female participants in classes taught by THCWEs.

H03. There is no significant difference in the English- speaking posttest scores of the male and female participants in classes taught by TMCWEs.

H04. There is no significant difference in the English- speaking posttest scores of the male and female participants in classes taught by TLCWEs?

WEs and ESP Need Analysis in Iran

Recently, World Englishes has paid attention to ESL/EFL teaching and learning that is curious about phonology, morphology, idioms, and rhetorical styles

(Kubota & Ward, 2000). Sociolinguistic reality in digital and electronic contexts is at the center of attention. Reviewing the sociolinguistic reality, some researchers (Jenkins, 2002, 2003; Seidlhofer, 2005) admit that individual verbal English use does not give rise to communication blocks and employs its social group English for communication aims. At many Iranian universities, ESP courses are presented and emphasized. While no explicit regulations require Iranian academics to speak in English, professional advancement increasingly depends on their ability to publish in English, present at international conferences, and collaborate with global peers. This situation underscores the importance of developing communicative competence in English beyond reading and writing. Publishing in English in national or international journals is encouraged (Sadeghi & Richards, 2016). For many university students, this involves corresponding scientific and technical letters in English and translating articles and dissertations from Persian to English or having English-written papers revised and refined by more skilled English translators or post-graduate students. In large cities, private translation institutes and individuals offer translation and editing services. There are numerous published documents and scientific journals, newspapers, or general magazines in English covering different subjects. Local, regional, national and international conferences are held regularly. Meetings and courses conducted in English are organized by state capitals, universities, and private language centers or organizations. In Iran, like any other EFL/Expanding circle (Kachru, 2011), everyday use of English has led to English diversities and resulted in distinct forms when spoken by local users.

Designing developmental programs in oil- affluent areas, for example, the English teaching program to members of the Oil Services Company in Ahvaz, Abadan, and Khark Island (Weber, 2018), created local Englishes. It can be considered the oldest, if not the first, documented endeavor to instruct ESP in Iran. Early it was founded in the Iranian army services, old infantry, and medical education (Arasteh, 1969) navy, and later at universities.

The Ministry of Graduate School (now Science, Research, and Technology) in Iran launched the SAMT writing corporation in 1984, publishing academic Humanities books, including TEL and ESP materials. It was a provoking start for the establishment or promotion of ESP in the state, later growing to be more structured discipline, akin to English as an Additional Practice focused on reading. EAP typically covered two or four years within an educational period of maximally 120 hours (Atai & Shoja, 2011). In Iran, ESP has renewed its efforts to improve conditions and promote development by addressing emerging educational needs. The demand for ESP in Iran began in the late 1990s, driven by the rapid growth of computer science, IT, and evolving

educational demands. Despite advances in computing and Internet access, IT highlighted deficiencies in English speaking and reading skills across various fields.

Learners' Awareness, Conceptualization of WEs

The expanding growth of English has led increasingly to renew World Englishes (Alatis & Straehle, 2006 & Schneider, 2014). English is a communicative language at universities. Exposing university students globally to varied Englishes is crucial for their linguistic awareness. Exposing English language learners to both local and standard Englishes increases their understanding of English varieties and World Englishes. This helps students understand the characteristics of their local Englishes (Baumgardner, 1987). In ELT, Baumgardner highlighted Pakistani English newspapers' context and style, employing them as teaching materials. He believed that the main goal of comparison should not be deciding if a type of English is right or wrong. However, the priority should be to highlight diversity for students. Culturally and linguistically diverse (CALD) English speakers may express meanings differently.

Helping English learners develop socio-cultural competence allows them to appreciate cultural diversity instead of judging it. Although communicative language teaching aims are engaging learners in meaning negotiation, emphasizing English language as an intercultural and international medium, learning the culture of speakers does not seem to be possible (Savignon, 2001). Savignon (2001) believed that instead of focusing on teaching and learning cultures, researchers must foster cultural awareness and conceptualization. Kachru, Kachru, and Smith founded the WEs journal in 1983. Smith (1983) sparked the recognition of "Englishes" as a plural within the international academic community and other communities. Their innovative work challenged traditional ways of studying languages and the common ideas about native versus non-native speakers. They introduced the Kachruvian model of the Three Circles of English, leading to a significant shift in the field. Kachru (1990) proposed a different model for categorizing Inner Circle societies, which include the UK, the US, Australia, Canada, and New Zealand. It was done to avoid the historical negative consequences of distinguishing between English as a native language, English as a second language, and English as a foreign language. Schneider (2007), Mesthrie (2008), and Mair (2018) have clearly planned theories of WEs rooted in the Kachruvian principles within the field (Bolton & Jenks,2022). Today, the study of WEs encompasses a diverse range of approaches. These fields cover various areas of linguistic research, corpus linguistics, applied linguistics, critical linguistics,

and the study of English as a lingua franca (ELF). They also encompass cultural linguistics, English as an international language (EIL), lexicographical studies, pidgin and creole studies, bilingualism research, and varieties of English. The International Association for World Englishes (IAWE) holds regular conferences in different countries. These conferences and articles published in the WEs journal highlight the significant presence and importance of research in this field. The field of WEs has developed enormously since the 1980s. World English studies are now taught at many universities (Bolton & Jenks, 2022).

Gender and Speaking English in ESP courses
ESP research on gender differences in language learning shows that educational programs must be tailored to individual learner needs. A 2017 Taiwanese study by Hung revealed that university ESP students exhibited gender-based learning style differences, with females favoring kinesthetic and auditory learning more than males. Additionally, Sojoodizadeh et al.'s (2020) research highlighted gender differences in medical students' English language learning expectations, with females showing higher expectations for translation and comprehension support, suggesting a need for tailored instruction. To improve ESP course effectiveness, the study emphasizes using the approach of WEs conceptualization and resources that address the diverse learning styles of male and female students.

English in Science, Technology, Standard English
Being a proficient English speaker, for all English learners and specifically for ESP students, is an interest, but understanding and controlling verbal communication is a problem because of its unpredictability and transiency features (Bygate, 2009). Researchers (Thornbury, 2005) highlighted the critical role of productive verbal endeavors in classes. In syllabuses processing and classroom task planning, individual characteristics, like language learners' perception and proficiency, have crucial effects. The curriculum designers, teachers, and students can benefit from being acquainted with such characteristics. Actually, the more the students' conceptualization is rewarded, the more chances for language advance and achievement are arranged (Barkhuizen, 1998). Judgment about classroom tasks from the scholars' perspective is not managed intensely (Gentry et al., 2002). Presentation practices and free discussion can especially carry speaking skills (Thornbury, 2005).

Contrary, English in Iran does not set out as a means of daily communication and education in high school, but connected to prestige. English is considered a way to develop and progress in one's education and career

(Tamimi Sa'd, 2018). Speaking the English language is now a sign of education and societal winning (Sadeghi & Richards, 2016). Kachru's insights into legal language are relevant to numerous other ESP contexts, including workplace English, business communication, and academic English. ESP studies provide valuable insights into WEs.

Applied linguistics and English studies have seen ESP grow into a considerably larger sub-discipline in the past five decades. Rankings from Google Scholar Metrics for English language and literature journals within the humanities demonstrate ESP's significance. ESP holds the top spot, followed by WEs. ESP has strengthened over the years, shifting from a focus on grammar and register to a broader range of themes. These themes now include corpus analysis, assessment, curriculum, discourse, literacy, professional development and genre. Higher education research on English-medium instruction (EMI) shows a growing convergence between ESP and WEs. That is especially clear in higher education, where English has become a prominent language of instruction over the past two decades (Macaro, 2018). The linguistic revolution introduced by Chomsky (1957) and the advancements in educational psychology have paved the way for new opportunities in English language learning and teaching in the current decade. With each new suggestion in ELT, new demands appeared, opening the discussion in different branches of ESP.

At the local and national levels, international conferences in English-related fields are organized by different states and universities or private language centers. In the EFL/Expanding circle (Kachru, 2008), too much applicability of the English language ended in English, which is plural when used by local language users in different trades. World Englishes views all forms of English as equally legitimate. Questions remain regarding non-native English norms, attitudes, and standards (Namaziandost et al., 2019).

The ownership of English in linguistics, applied linguistics, and ELT has been debated for decades (Davies, 2013). Higgins' 2003 study assessed the acceptability judgments of English speakers from India, Singapore, Malaysia, and the US on certain utterances. Her study revealed that both Inner and Outer Circle participants used their own language use as a benchmark for judging sentence acceptability.

There is some qualitative Iranian university research in line with ownership and standard language arguments. This study explores the perspectives of Iranian EFL learners in the expanding circle on WEs and SE, their feelings of ownership of local English, and how these views influence their spoken English proficiency in ESP contexts.

Method

Design

The present study examined the effectiveness of ESP teachers' and learners' conceptualization of World Englishes (WEs) on ESP students' speaking performance, while also considering the role of gender. Unlike approaches that view English as a monolithic standard, this study is grounded in the pluricentric and heterogeneous view of English (Sadeghpour & Sharifian, 2017).

A quasi-experimental design was adopted, employing convenience sampling. Participants included ESP teachers and learners from medical and paramedical universities. These universities were selected because they host large numbers of students in ESP courses and represent a typical Iranian EFL context, where English is studied as a foreign or academic language but not as a medium of instruction. Although a limited number of students from neighboring countries also attend, the majority were Iranian learners. ESP classes in these institutions focus mainly on reading comprehension, but the present study extended instruction to emphasize speaking tasks aligned with World Englishes awareness. Universities were categorized by size (large, medium, small) based on student population, and all offered ELIC-SP courses.

The independent variables were:
1. Gender (male/female), and
2. Teachers' and students' levels of WEs conceptualization (high, medium, low).

The dependent variable was students' speaking performance, measured at the end of one semester. To analyze the data, a two-way ANOVA was conducted to examine both the main effects and the interaction effect between gender and WEs conceptualization groups on students' speaking scores.

Participants

The study involved 146 ESP students (72 males, 74 females) majoring in medical and paramedical fields from five Azad universities in Rasht. Eleven ESP teachers (6 female, 5 male) with varied teaching experience (ranging from less than 3 years to more than 7 years) participated. Teachers were not limited to a single university, ensuring diversity across institutions. Age of students ranged from 20–50. Based on convenience sampling eleven ESP teachers out of twenty were selected and three teachers based on Questionnaires results participated in the study. From the three mentioned ESP teachers' classes, 155 learners unanimously were selected. ESP students were passing their last ESP courses in five university classes.

Instrument

The WEs Conceptualization Questionnaire was designed and validated by Khodareza and Soltani (2020). The instrument demonstrated acceptable reliability (Cronbach's alpha = 0.89). A structured questionnaire is a notably prevalent data processing instrument in quantitative studies, so the Demographic Questionnaire, WEs Conceptualization Questionnaire, and PET B1 Preliminary Speaking Sample test (2018) were used as the instruments of the current investigation. The demographic seven questions covered age, gender, English teaching experience, ELIC-SP experience, education, native language, and English learning location. WEs Conceptualization Questionnaire included the 46 items WEs Conceptualization Likert scale, include the relevance of WEs emergence to TEFL, ESP, Culture, Ownership of English, and SE which are the main core of WEs study.

Procedure

The results of the WEs Conceptualization Questionnaire were used to classify students into high, mid, and low conceptualization groups. These classifications formed the basis for subsequent analysis of performance outcomes. Twenty ESP teachers were invited via email and WhatsApp to participate, of whom eleven completed the questionnaire. Based on their scores, three teachers were selected: one with high conceptualization (THC), one with medium (TMC), and one with low (TLC). Each teacher taught two ESP classes, yielding a total of six classes with 155 students in the medical and paramedical fields. Of these, 146 students completed both the pretest and the questionnaire and were therefore included in the final analysis.

The treatment consisted of a regular ESP course lasting one academic semester (16 weeks). The classes followed the officially prescribed ESP textbooks for medical and paramedical students, which focused on discipline-specific reading, vocabulary, and communication tasks. In addition, teachers conducted classroom activities aligned with their level of WEs conceptualization. For example, teachers with high conceptualization emphasized communicative activities, encouraged awareness of multiple English varieties, and promoted interactive speaking tasks. Teachers with mid- and low-level conceptualization tended to rely more on reading comprehension and grammar-based instruction, with limited explicit attention to WEs in classroom discourse. No additional materials beyond the university-prescribed ESP textbooks were introduced, ensuring that observed differences were attributable to teachers' conceptualization levels rather than curriculum changes.

All students took a Preliminary English Test (PET) Speaking Test at the beginning of the semester and the same test at the end as a posttest. Each test

session lasted approximately 10–12 minutes per pair of students. The tests were scored twice: first, analytically using a five-criterion scale (discourse management, pronunciation, interactive communication, grammar, and vocabulary, each on a 0–5 scale); and second, holistically by two additional raters who evaluated the overall communicative effectiveness of each performance. During the test sessions, one of the researchers acted as the interlocutor, managing the test tasks and interaction, while another examiner observed silently without participating in the scoring. This procedure was followed for both pretests and posttests.

The recorded test data were reassessed by two experienced EFL teachers to ensure reliability. The inter-rater reliability coefficient of .91 confirmed a high level of agreement among raters. The same procedures were strictly applied to the posttest at the end of the semester, enabling comparison of pre- and post-treatment performance.

Results

After validating and analyzing the data obtained from eleven teachers' completed questionnaires quantitatively, three teachers—one male and two female—were identified: one scoring one standard deviation above the mean (184), one at the mean (138), and one scoring one standard deviation below the mean (90).They were teaching ESP in six classes with155 Learners. Table 1 illustrates participant teachers' Wes Conceptualization scores.

Table 1
Teachers, WEs Conceptualization Scores

No.	Gender	Age	Teaching Experience	Degree	Mother Tongue	Scores
T1	Female	31~40	0~3	PhD in TEFL	Farsi	197
T2	Male	20~30	3~5	MA in Linguistic	Farsi	198
T3	Female	31~40	3~5	PhD in TEFL	Turkish	120
T4	Male	41~50	3~5	PhD in Linguistic	Farsi	199
T5	Female	41~50	3~5	PhD in Translation	Arabic	138
T6	Male	31~40	0~3	MA in TEFL	Farsi	90
T7	Female	41~50	5~7	MA in TEFL	Turkish	184
T8	Female	41~50	3~5	MA in TEFL	Turkish	104
T9	Male	31~40	0~3	PhD in Literature	Arabic	85
T10	Female	31~40	≥ 7	MA in Literature	Farsi	93
T11	Male	31~40	5~7	MA in Literature	Kurdish	97

Table 2 shows the descriptive statistics of the teachers' scores on Wes Conceptualization questionnaire.

Table 2
Descriptive Statistics, Calculation of Teachers' WEs Con. Mean and SD

	N	Minimum	Maximum	Mean	Std. Deviation
Teachers' WEs conceptualization Scores	11	85	199	136.82	48.168
Valid N (list wise)	11				

Additionally, a total of 146 ESP learners completed the questionnaire while nine did not complete the WEs and Demography questionnaires; however, they passed the speaking pretest. Table 3 represents the demographic information of ESP students.

Table 3
Demography of ESP Students

	Scale	Frequency
Gender	Male	72
	Female	74
Age	20-30	88
	31-40	52
	41-50	6
Learning Experience	0-3	61
	3-5	52
	<5	24
	<7	8
	Learnt it abroad	1
Major Of Study	Medical Students	90
	Para Medical Students	56
Mother Tongue	Farsi	101
	Turkish	25
	Kurdish	14
	Arabic	6
Total		146

Unanimously, teachers and students were classified into three groups. The participants' grouping based on their WEs conceptualization in different classes is also illustrated in Table 4.

Table 4

Grouping participants and classes

Teachers	Students /Participants	Number
THC WEs	Teachers with High Conceptualization in WEs	2 Classes
TLC Wes	Teachers with Low Conceptualization in WEs	2Classes
TMC WEs	Teachers with Mid Conceptualization in WEs	2Classes
SHC Wes	Students with High Conceptualization in WEs	48Subjects
SLC Wes	Students with Low Conceptualization in WEs	49Subjects
SMC WEs	Students with Medium Conceptualization in WEs	49 Subjects

For the smallest changes not to be ignored in the students' speaking scores, the students′ speaking scores at the beginning of the semester and post-test scores were compared based on their grouping details (Table 5).

Table 5

Grouping participants and classes

Teachers	Learners	WEs	Descriptive Statistic of pretest			Descriptive Statistic of posttest		
			Mean	Std deviation	N	Mean	Std deviation	N
THC Wes	F	SHC	20.12	3.01	24	21.22	3.288	23
		SMC						
		SLC						
	M	SHC	18.25	2.11	24	23.27	2.251	22
		SMC						
		SLC						
	Total		19.18	3.045	48	22.22	2.984	45
TMC Wes	F	SHC	14.01	3.23	25	16.54	4.295	22
		SMC						
		SLC						
	M	SHC	18.11	3.01	24	19.48	3.449	23
		SMC						
		SLC						
	Total		16.06	3.12	49	18.00	4.134	45
TMC WEs	F	SHC	12.99	2.55	25	13.14	4.442	21
		SMC						
		SLC						
	M	SHC	11.57	2	24	20.83	5.378	24

	SMC					
	SLC					
Total	12.78	2.27	49	17.24	6.256	45
				19.16	5.121	135

To answer the first research question which addressed whether either of the two independent variables or their interaction is statistically significant, a two-way ANOVA was conducted that examined the effect of gender and WEs intervention on ESP students' speaking. The results of the two-way ANOVA are shown in Table 6.

Table 6
Tests of Between-Subjects Effects, Dependent Variable: Post Test English Speaking

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	1460.358[a]	5	292.072	18.349	.000
Intercept	48987.807	1	48987.807	3077.580	.000
Gender	610.369	1	610.369	38.345	.000
TWEs	702.378	2	351.189	22.063	.000
Gender * TWEs	203.641	2	101.821	6.397	.002
Error	2053.375	129	15.918		
Total	53050.000	135			
Corrected Total	3513.733	134			

a. R Squared = .416 (Adjusted R Squared = .393)

As indicated in Table 6, a significant interaction between gender and WEs intervention impacted ESP students' speaking English, $p = .002$. The p value of .002 shows that interaction is statistically significant between Gender and WEs intervention levels, while the Sig. value from gender row (.000) also shows a significant difference in the means speaking scores between males and females. Therefore, teachers' and students' WEs conceptualization impact the speaking scores of ESP students in medical and paramedical fields because statistically there is a significant difference between speaking English levels of the students who study under the supervision of teachers with high, mid, and low conceptualization in Wes, *Sig. =0 .002<0.05*.

Simple Main Effects
The simple main effects of gender within T/S WEs Conceptualization are presented in results of the Univariate Tests in Table 7.

Table 7

Univariate Tests, Dependent Variable: Post Test English Speaking

Teachers'/Students' WEs Conceptualization		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Teachers and Students with High conceptualization in WEs	Contrast	47.501	1	47.501	2.984	.086	.023
	Error	2053.375	129	15.918			
Teachers and Students with Mid conceptualization in WEs	Contrast	102.806	1	102.806	6.459	.012	.048
	Error	2053.375	129	15.918			
Teachers and Students with Low conceptualization in WEs	Contrast	662.406	1	662.406	41.615	.000	.244
	Error	2053.375	129	15.918			

Each F-test examines the simple effects of gender within each level combination of the other factors. These tests are based on the linearly independent pairwise comparisons of the estimated marginal means.

The p values of 0.000 and 0.012 (in Table 7) for the teachers and students with Mid and Low conceptualization are less than 0.05. This means that there is a significant difference between the means of the posttest English speaking scores of both males and females at mid and low levels. In contrast, the p-values for the teachers and students with high conceptualization are greater than .05. This means that the differences between the means of the posttest speaking scores of males and females are not significant at this level.

High WEs Conceptualization (RQ2)

The second research question concerned the significant difference between the means of the females' and males' scores in the speaking posttest just in high WEs conceptualization class.

Table 8

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Post English Speaking Test	Female	23	21.22	3.288	.686
	Male	22	23.27	2.251	.480

Table 9
Independent Samples Test F/M in High level of WEs conceptualization groups

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Post English Speaking Test	Equal variances assumed	4.589	.038	-2.436	43	.019	-2.055	.844	-3.757	-.354
	Equal variances not assumed			-2.456	39.019	.019	-2.055	.837	-3.748	-.363

As shown in Tables 8 and 9, the females with high conceptualization of WEs had statistically lower scores on the speaking posttest (21.22±3.28) at the end of the ESP course as compared to their male counterparts (23.27±2.25), df = 43, t = 2.436, p = 0.019.

Mid WEs Conceptualization (RQ3)
The third research question examined male and female performance in the post-test scores in the mid-level WEs conceptualization class.

Table 10a
Group Statistics, Mid-level WEs Conceptualization

Gender	N	Mean	Std. Deviation	Std. Error Mean
Female	22	16.45	4.29	0.91
Male	23	19.48	3.49	0.73

Table 10
Independent Samples Test, F/M in Mid level of WEs conceptualization groups

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Post English Speaking Test	Equal variances assumed	.977	.328	-2.609	43	.012	-3.024	1.159	-5.361	-.687
	Equal variances not assumed			-2.597	40.271	.013	-3.024	1.164	-5.377	-.671

As shown in Table 10a and confirmed by Table 10, males in the mid WEs conceptualization class had statistically higher scores in the speaking test (19.48±3.49) compared to female participants (16.45±4.29), df = 43, t = 2.609, p = 0.012.

Low WEs Conceptualization (RQ4)

Finally, the fourth research question compared males and females at the low WEs conceptualization level.

Table 11a
Group Statistics, Low-level WEs Conceptualization

Gender	N	Mean	Std. Deviation	Std. Error Mean
Female	21	13.14	4.44	0.97
Male	24	20.83	5.37	1.10

Table 11
Independent Samples Test, F/M in Low level of WEs conceptualization groups

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Post English Speakig Test	Equal variances assumed	2.765	.104	-5.184	43	.000	-7.690	1.484	-10.682	-4.699
	Equal variances not assumed			-5.251	42.873	.000	-7.690	1.465	-10.644	-4.737

As indicated in Table 11a and further supported by Table 11, females with low conceptualization of WEs had significantly lower posttest speaking scores (13.14±4.44) compared to their male counterparts (20.83±5.37), df = 43, t = 5.184, p < 0.001.

Discussion

This study examined how English for Specific Purposes (ESP) teachers' and learners' conceptualizations of World Englishes (WEs) relate to ESP students' speaking outcomes. Three simple-effect patterns emerged: (a) in the high WEs-conceptualization group, females and males did not differ significantly on the speaking posttest; (b) in the mid group, males outperformed females; and (c) in the low group, males again outperformed females. These results indicate that greater awareness of the pluricentric nature of English is associated with smaller gender gaps in speaking performance.

Analytically, the study compared female–male performance within each level of WEs conceptualization (high/mid/low) and did not test additional between-student differences beyond those factors. Moreover, no explicit classroom instruction in WEs was delivered; rather, conceptualization levels were measured via questionnaire and used to classify classes/learners for analysis. Thus, claims are restricted to the observed associations between WEs conceptualization and posttest speaking performance, including its interaction with gender.

These findings should be interpreted within the Iranian academic context. Although formal exchange programs and large international student cohorts are rare, ESP students—particularly in medical and paramedical fields—must read

global literature, collaborate with international peers, present at conferences, and publish in English-medium venues. In such settings, communicative flexibility and tolerance for variation (central to WEs awareness) become professionally consequential.

A plausible interpretation is that higher WEs awareness reduces anxiety about 'native-like' accuracy and broadens acceptance of diverse pronunciations, discourse norms, and interactional strategies. This may be especially supportive for learners who otherwise underperform in speaking tasks – here reflected in the disappearance of gender differences in the high-conceptualization group. Conversely, lower WEs awareness can maintain rigid native-speaker models that constrain fluency and interactive risk-taking, magnifying performance gaps between males and females.

These patterns are consistent with accounts that document gradual acceptance of English diversity alongside lingering native-speaker bias in curricula and assessment (e.g., Jenkins, 2013; Sifakis & Bayyurt, 2015). The hesitation toward implementing WEs-informed pedagogy observed among some participants echoes concerns about intelligibility and model selection reported in EFL contexts (Bamgbose, 2014, 2019). At the same time, our results nuance optimistic claims about immediate WEs–ESP synergies (Bolton, 2019): without explicit curricular grounding and teacher development, WEs awareness may not translate uniformly into practice across programs.

Generalizability is bounded by the sampling frame (one province; Iranian ESP programs). Nevertheless, the mechanisms proposed here—links between WEs conceptualization, gendered performance patterns, and communicative confidence—are theoretically transferable to comparable EFL higher-education contexts. Multi-site studies, including cross-national cohorts, are needed to test the robustness of these effects and to examine institutional moderators (e.g., assessment regimes, exposure to international collaboration).

Pedagogically, integrating WEs-informed objectives into ESP (e.g., intelligibility-focused speaking tasks, exposure to multiple English varieties, reflection on listener–speaker accommodation) may narrow performance gaps and better prepare graduates for real-world communication. Teacher education should explicitly address WEs to align classroom practices with the communicative demands of research, healthcare, and industry.

This study did not manipulate WEs instruction and did not test additional student-level moderators (e.g., prior speaking training, anxiety). Future research should experimentally embed WEs-focused speaking tasks, incorporate longitudinal measures of communicative confidence, and extend sampling beyond a single province to strengthen external validity.

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Biodata

Flora Efaf Soltani is a Ph.D. candidate in teaching English as a foreign language at Islamic Azad University - Tonekabon Branch in Iran. She has been engaged in English translation for 20 years at Pinak Company in Rasht, Gilan, Iran. She has taught courses on general English language at different levels.

Mohammadreza Khodareza is an assistant professor of TEFL in the Dept. of ELT at Islamic Azad University - Tonekabon Branch in Iran with 29 teaching experience. He has taught courses on English language research, teaching methods, linguistics, and English as a foreign language. He has done studies on different topics related to his field of study.

Davoud Mashadiheidar is an assistant professor of TEFL in the Dept. of ELT at Islamic Azad University - Tonekabon Branch in Iran with 20 teaching experience. He has been teaching MA and PhD courses including Research Methods, Testing, Discourse Analysis, ESP and TEFL. He has supervised or advised numerous M.A. and PhD dissertations on TEFL, and published numerous professional papers both nationally and internationally.