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AN INVESTIGATION OF THE ROLE OF GENDER IN RESILIENCE AND ATTITUDE TOWARD TECHNOLOGY USE AMONG IRANIAN ENGLISH TEACHERS: A CASE OF MAINSTREAM EDUCATION

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ABSTRACT

Background and Purpose: Technological tools are not effectively and regularly utilized by EFL instructors in their language teaching since not all of them are ready to employ technology despite its opportunities of assisting their pedagogical procedure. Consequently, exploring the instructors' perceptions of the existing usefulness of technology in their language instruction setting is crucial. The present study set out to explore the associations between teachers' attitudes toward the use of technology for instructional purposes, their gender, and resilience.

Methodology: Through simple random sampling, the researcher selected 120 male and female Iranian EFL teachers with more than three years of teaching experience from different private language institutes. Two instruments were used to collect the data for a correlational design: The teacher resilience scale of Connor-Davidson (2003) and the attitude scale adopted from Cox et al. (1999). To compare the role of gender in terms of resilience and attitude, an independent samples t-test was carried out.

Findings: The analysis of the data indicated a significant relationship between Iranian male and female EFL teachers' resilience as well as attitude toward technology use. Further analysis of the study demonstrated females' resilience scores were significantly higher than males' resilience scores. On the

other hand, male participants had a more significantly positive attitude toward technology use in EFL classes.

Contributions: One of the study's pedagogical implications was that the stakeholders need to notice resilience toward technology in pre- or in-service EFL teachers, give them supportive scaffolding, and help them enhance their resilience.

Keywords: Correlation, EFL teachers, gender, technology.

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1.0 INTRODUCTION

Development in technology use has improved how we communicate, establish our daily affairs, and engage in our relationships. The application of these technological developments requires both resilience to adapt to the new technology and a positive attitude toward its usefulness. Language instruction has always needed resilience but never as much as the present era in Iranian Education. The change in economic and social conditions, in particular the changes in technological advancement, has led to cumulative challenges for the instructors in the classroom context in Iran. The use of information technology has contributed to the teacher's workload and difficulty. The technological changes have challenged a school culture that mainly existed practically unchanged for years.

In the era of international communication, technology has turned into an omnipresent part of modern education. As academies train learners to live in technology-driven workplaces and technology-based societies, we need well-prepared teachers to keep learners learning through technology. Teachers are considered the fundamental elements in curriculum implementations and instruction. The quality of any country's education is determined by the teachers' differentiae and their perspectives on the occupation (Folashade, 2009). Moreover, the quality of education and the attitudes might be a function of teachers' gender. Okpala and Onocha (1995) reported a significant difference between teachers' attitudes regarding gender, whereas Iroegbu (1998) reported that gender differences do not have an influential function in the educational context.

The utilization of digital tools in language classes and educational contexts is a practical idea to help learners in acquiring satisfactory English proficiency. However, the efficiency of these approaches might depend on instructors' attitudes and persistence in computer-assisted language learning (Getie, 2020). In spite of the rapid expansion of studies about technology use in the 21st century, a gap exists between the presence of technology as a whole and its adoption in educational settings in particular. This could be attributed to the absence of knowledge among language teachers, their negative attitude toward technology use, and the absence of positive adjustment among teachers. Indeed, due to the novelty of technology in language classes, some teachers might resist its incorporation into language classes. This resistance, however, might be a function of many internal and external factors, including their gender and attitude. Therefore, several problems regarding the use of technology led the researcher to conduct the present study. However, no previous study has considered the relationship between teachers' attitudes toward technology use and other personality variables like resilience and teachers' gender.

Based on the researcher's personal experience, technological tools are not effectively and regularly utilized by EFL instructors in their language teaching since not all of them are ready to employ technology despite its opportunities to assist their pedagogical procedure. Consequently, exploring the instructors' perceptions of the existing usefulness of technology in their language instruction setting is crucial. Most previous studies about technology in instruction have investigated the effects of a couple of variables on both teachers' attitudes in training or on their instruction practice. Therefore, it is needed to extend the knowledge related to the way different variables play roles and are related to teachers' attitudes toward technology. In the present study, the researcher explored the associations between instructors' attitudes toward the utilization of technology in an ELT setting, their gender, and their resilience. Regarding the existing gaps, the following research questions and hypotheses were formulated:

RQ 1: Is there any significant relationship between Iranian EFL teachers' resilience and their attitude toward technology use in language classes across gender?

H0 1: There is no significant relationship between Iranian EFL teachers' resilience and their attitude toward technology use in language classes across gender.

2.0 LITERATURE REVIEW

2.1 Language Teachers and Language Teaching in Iran

As Pishghadam and Saboori (2013) suggest, for a deeper perception of the role of English teachers in Iran, it is more reasonable to begin with a review of the language teaching system(s) in Iran. In the context of Iran, there is not much chance to learn English through everyday communication. Learners can get English communication competence through four different ways: learning in private language institutes, in public schools, learning from a tutor, and self-study. Because tutored acquisition and learning through self-study are not common practices, and they are usually taken with personal approaches, they are not described here.

English courses are one of the regular courses in Iranian public education, and learners need to go to language classes for two hours per week. Regarding oral skills, after accomplishing secondary education, those who have not taken any extracurricular language instruction would not be able to greet friends in English (Dorshomal et al., 2013). The only central policy for language skills teaching in Iranian public education is the improvement of students' elementary-level reading ability at the expense of the other three skills. However, maintain that the language education system is being revolutionized toward a more communicative approach focusing on all four skills (Pishghadam & Saboori, 2013); However, Sadeghi and Richards (2015) claim that even the revolutionized language syllabus does not meet the minimum requirements of a communicative approach.

The general approach toward language assessment in public schools is mostly an external summative assessment in which students respond to a set of multiple choice, spelling, cloze passage, and short answer open-ended questions. The items are designed to measure students' vocabulary, structural knowledge, and sentence-level reading comprehension knowledge. Because of the lack of audio-visual tools in school, oral skills assessment is limited to reading aloud short passages chosen from their textbooks (Namaghi, 2006).

The educational setting in private institutes is better than public schools regarding the language learning process, teachers' proficiency, and ultimate proficiency of learners. Private language institutes take a more communicative approach, in comparison with state schools, and act as a compensatory program for the deficiencies of state schools (Razmjoo, 2007). Most of the teachers speak at an acceptable level of proficiency, and the common ELT textbooks (e.g., Four Corners, Top Notch, New Interchange, etc.) are generally covered in these institutes. The emphasis

is mostly on speaking skills, though other skills, including listening, reading, and writing, are not ignored. A language class in private schools is held for two sessions per week during the academic year and three sessions during the summer holidays. Many of the schools are equipped with a smart board; almost all of the classes have TV sets and video player equipments; however, only some schools do not have access to PCs, the Internet, and language labs. Language laboratories are usually seen in colleges and higher education centers that offer English programs (Sadeghi & Richards, 2015).

Sadeghi and Richards (2015) categorize Iranian English teachers into four groups, depending on the context of instruction:

- Teachers of public schools;
- Teachers of private language institutes or language centers;
- University instructors and higher education instructors;
- Private teachers or tutors.

The target population of the teachers in this study was the second group, those teaching at private language institutes. The rationale for choosing the research population is that: a) other teachers generally obey the prescribed syllabus of Education Ministry textbooks. Teaching programs, English textbooks, and teachers' manuals are confined by the Education Ministry to be in full unity with the government's policies (Safari, 2016). b) If the other, they teach in private institutes, too.

Although the classification of teachers based on the context of instruction is insightful for a deeper understanding of the language education system of Iran, another approach to grouping Iranian teachers is needed to match the scope of the present study: grouping by academic background. Iranian language teachers are divided into two groups in terms of their academic background:

- TEFL Major Teachers (TMTs): The first group includes English teachers with a university degree in applied linguistics or TEFL. These teachers have passed language assessment courses as well as other language instruction-related courses (e.g., language learning theories, psychology of teaching, etc.)
- Non-Teaching Major Teachers (NTMTs): The second group includes English teachers who have a university degree other than applied linguistics or TEFL. This group of language teachers is further divided into two groups: language major teachers and non-language major teachers. Language major teachers refer to English teachers who have a university degree in translation studies or English literature, in which the medium of instruction is English; however, the non-language major teacher refers to English teachers who have any other academic degree. This group of teachers usually gains English proficiency through taking private institute courses or living in an English-speaking country. The difference between these two groups (language and non-language major teachers) is that the first group receives a two-credit language assessment course in their BA program. However, the course is very superficial, and it is not usually taken very seriously by them because it is not part of their technical courses.

English instructors in private language institutes are mostly interested and young (not more than 40 years old). Their learners are motivated and willing to learn, unlike students in public schools. At the more prestigious language centers, there is intense competition for teaching vacancies, and processes for hiring teachers are complicated. The volunteers need to take examinations, have interviews, and demonstrate a teaching session. Nevertheless, in contrast to public schools, there is no guarantee of jobs in private language institutes, and therefore, teacher performance has a significant role. Instructors are observed, and they are asked to have specific standards for job upgrades or contract renewals. Nonetheless, in some private language institutes, managers do not have the required professional knowledge for providing satisfactory leadership. Assessment in private institutes is both formative and summative. The final score of a student is usually the mean of a collection of qualities and skills, including class participation, doing homework, the midterm exam, speaking, listening, writing, and the final exam. Although the final exam is paper-based and consists of assessing knowledge of structure, vocabulary, and reading comprehension, students need to take writing, speaking, and listening exams, too. However, the assessment of the four skills

and sub-skills is not usually carried out in the same session.

2.2 Technological Literacy

Undoubtedly, technology literacy implementation in a classroom context involves a complicated interaction of pedagogical and epistemic ideas, social and intrapersonal aspects, and environmental benefits (Ertmer, 2005; Leu, 2006). Although students are usually passionate about the use of educational technology (Izadpanah & Alavi, 2016), there is a need to differentiate the terms technology literacy and technology learning activities. Using technology for its novelty is not adequate; learners must get beyond the technology's newness and start using it to see how technology tools will help (Davies, 2008). Given that technology is constantly changing, it is essential to understand that literacy with technology is not a one-time achievement; it is a lifetime effort that includes practice, ability, and skills of its users that must be repeatedly improved. In order to effectively use technology as a learning instrument, learners and teachers must first become knowledgeable about their goals and operation.

The education ministry of Iran has invested so much money in equipping schools with technology to keep pace with this century. To do this, besides technology, teachers need to be trained on how to employ an interactive whiteboard (IWB) to make the most of teaching activities. As the Ministry of Education in 2000 states that 86% of teachers only use the Internet in teaching for checking emails, to find classroom materials, and 66% use the Internet to improve instruction, and 27% engage their learners with the technology itself. In order to involve students in a technology-based environment, the teachers should be the focus of educational trainers (Moazzami et al., 2021). The investigation of Fan et al. (2023) emphasizes the significance of training teachers in information technology teaching, and training should concentrate on the skills and knowledge of teachers using information technology teaching.

Moreover, learners need the ability to use technology to help them explore, discuss, inquire, and share information (Thakkar et al., 2001). In order to develop productive, engaged, and responsible learners, we need technologically literate teachers (Willis, 1997). Teachers need to know that how to teach with computers is less important than learning how to integrate technology into classroom practice as a learning tool (Scheffler & Logan, 1999). Following UNESCO (2016), technology with advanced teaching methods would enhance the quality of education and help reform a better-administering education system.

It has been known that information and communication technology (ICT) and language learning support each other (Pawlak & Kruk, 2022). ICT in language learning can effectively and efficiently improve the quality of understanding and mastery of the language being learned. Although the efficiency of this learning tool depends entirely on both teachers and learners, it requires more specific skills from its users. Insufficient technical support in schools and access to the Internet and ICT can prevent them from using ICT in classrooms (Salehi & Salehi, 2012). These barriers should therefore be considered before ICT materials are developed.

2.3 Teacher Resilience

The term 'resilience' was first used in the field of psychiatry as well as developmental psychology. In these fields, the outcomes of longitudinal research revealed that 50 to 66 percent of the children who grow up experiencing considerably negative life events (for instance, those experiencing poverty, parent loss, or those whose parents experience misconduct or low mental health) grow more successfully and thrive (Rutter, 1987). The detection of this point triggered a lot of studies that aimed at finding out what brings about resilience. Early studies on individuals' attributes or traits that may determine resilience recommended that an individual's ability to be resilient can hinge on the point that the negative life outcomes have been evaded (Garmezy et al., 1984).

Whereas these studies provided valuable insights into the development of positive adaptation through adversity, they also attracted pervasive criticism for encouraging beliefs about blame and helplessness. Moreover, many resilience researchers challenged the uncomfortable consequences of this rather essentialist attitude to describe resilience. For instance, resilience is something that individuals either have or do not have, suggesting that people are individually responsible for experiencing negative life outcomes (Benard, 1993).

Before the beginning of the new century, the term 'teacher resilience' had been largely absent from studies on resilience, with investigations mainly focused on juvenile studies and those who have overcome great and important adversity (Beltman et al., 2011). Day and Gu (2007) state that since the bases of teacher stress happen for many educators daily, teachers need daily resilience. Therefore, it is maintained that, in addition to investigating the factors that allow teachers to react to events involving great adversity, research on teacher resilience also needs to concentrate on unveiling the processes that let teachers be resilient daily. Based on the majority of theory-based studies on teacher resilience, there is a lack of consensus over the most valuable

theoretical framework for understanding teacher resilience. It is acknowledged that a wide range of interacting factors form the resilience of teachers in both a developmental and a cyclical manner (Beltman et al., 2011; Day & Gu, 2007). Many conceptualizations of teacher resilience have provided insights into the vagueness of how best to scrutinize the phenomenon; however, it has been contended that they are essential to enlighten the multidimensional state of resilience (Beltman et al., 2011).

3.0 RESEARCH DESIGN

3.1 Participants

EFL teachers were considered the target population in this research. The researcher selected 120 male and female Iranian English teachers from different private language institutes through simple random sampling. A roughly equal number of males and females were selected as participants. The age of the male participants ranged from 22 to 39 (mean= 30.2), and the age range of female participants was 18 to 41 (mean= 27.6). Regarding the teaching experience, the participants had an average of 9 years of teaching experience. The participants had different academic backgrounds, including (36 B.A.s in TEFL, 19 M.A.s of TEFL, 18 B.A.s in Translation studies/ English Literature, and 12 M.A.s in Translation studies/ English Literature). The rest of the participants had academic degrees from other fields, ranging from Humanities to Engineering. Participation in the study was done through two channels: filling out the hard copy of the instruments and completing an online survey. The first group of participants was the researcher's colleagues in language institutes, whereas the second group was the teachers found on LinkedIn (a professional social network). A demographic summary of the participants is given in Table 1.

Table 1: Demographic information of the participants

No.	Participants	Frequency	Mean age	Experience (Years)
1	male	45	30.2	9.9
2	female	45	27.6	8.1

3.2 Instruments

As the first instrument, the Teacher Resilience Scale of Connor-Davidson (2003) was used. The scale included 25 items in the original format. Items were rated on a 5-point Likert scale from true

nearly all the time (4) to not at all true (0), and a higher score indicates greater resilience. To determine the characteristics of resilient participants, the items have been derived from three various investigations, (Kobasa, 1979; Lyons, 1991; Rutter, 1985). The scale had acceptable reliability and validity evidence. The reliability of the Persian version of the instrument in Jokar's study equaled 0.83. In this study, the Cronbach alpha was estimated for the Teacher Resilience Scale equaled 0.79.

The second questionnaire to collect data about the use of technology by teachers was the attitude scale suggested by Cox et al. (1999), consisting of sixteen items on a Likert scale to measure the perceived benefits and ease of technology use. Out of the 16 items, eight are linked to perceived benefits, and the other eight items are connected to ease of technology use. These items measure the ICT use in language teaching, EFL teachers' computer use, and their perceptions of employing ICT in the classroom. It included the 5-point Likert Scale of strongly disagree (SD), disagree (D), neutral (N), agree (A), and strongly agree (SA). The validity of the instrument was ascertained by seeking a panel of TEFL experts' ideas about the questionnaire. It was also checked for internal consistency; The internal consistency was 84.5, which is acceptable.

The reliability of the two main instruments (Teachers' Resilience Scale and attitude toward technology use questionnaire) was confirmed through Cronbach's alpha. The results of reliability related to all the instruments are indicated in Table 2.

Table 2: Internal consistency index for instruments of the study

No.	Instrument	Cronbach's Alpha	N of items
1	resilience scale	0.79	25
2	attitude toward technology	0.84	15

The reliability of the Resilience Scale equaled 0.79, which is considered acceptable reliability. Moreover, the reliability of the Attitude toward Technology questionnaire equaled 0.84. Since both measures of internal consistency are acceptable, the result of the analysis of piloting the instruments was satisfactory.

3.3 Procedure

The design of this study was ex post facto correlational, in which the variables to be compared

consist of attitude toward technology use, gender, and resilience among Iranian EFL teachers. The type of collected data for the three variables was the interval. In a correlational design, variables were measured without manipulating them and then analyzed to check if the variables were related or not. The statistical tools used to measure the strength and direction of the relationship (i.e., correlation coefficients).

The teachers in this study were selected from those who have different years of English teaching experience, ranging from three years to highly experienced teachers. The instruments were piloted on 25 available teachers who were similar to the main participants concerning academic background, experience, and age. The results of the pilot study were analyzed for internal consistency. The present investigation comprised the following phases: First, the participants took the technology use questionnaire, and the obtained data were recorded. The available teachers were given a paper-based questionnaire. As with the online participants, the link to the questionnaire, which is designed on www.docs.google.com, was sent to the target teachers. The link was sent to around 200 teachers. In the next step, the resilience scores were collected through the Teacher Resilience scale, and the data were recorded. In this stage, the scores related to the male and female participants were recorded separately for later comparison.

The obtained data related to male and female participants were entered into SPSS 25. Descriptive analysis was run to measure the standard deviation, mean, and normality of distribution for the ratio of participants' scores. In the next step, the three sets of data were checked for the assumptions of parametric tests. The data was checked for existing outliers, linearity of the relationship, and normality of the distribution. To compare the males and the females in terms of resilience, an independent samples t-test was carried out. Finally, Spearman Correlation was run to identify any possible relationship between the variables.

4.0 ANALYSIS

In order to determine the relationship between gender, resilience, and attitude toward technology use, the three sets of data were entered into SPSS software. Subsequently, the collected data were analyzed through a series of calculations, and statistical routines were elaborated comprehensively in this part. Both inferential and descriptive statistics were utilized in the process, details of which are presented below.

To run the Pearson correlation, the following assumptions should be met first:

1. Distribution normality of each set of scores
2. Linear relation between each pair of variables
3. Homoscedasticity
4. Variables should be measured at ratio or interval levels.

Except for the last assumption, which does not need any statistical test, the first three assumptions were checked statistically to see whether the running correlation was legitimate or not (for the last assumption the very fact that the data was interval would suffice).

4.1 Normality of Distribution

An examination of the normality of data is a prerequisite for conducting considerable statistical tests because normal data is an underlying assumption in parametric testing. There are two main methods of evaluating normality: numerically and graphically. Since graphical methods lack objectivity and using graphical methods for ascertaining normality needs a great deal of experience interpreting normality graphically, the researcher preferred to use the statistical test of Kolmogorov-Smirnov and Shapiro-Wilk to ascertain the normality of translation quality scores. The results are indicated in Table 3.

Table 3: Normality distribution test for the sets of data in the study

	Kolmogorov-Smirnov[a]			**Shapiro-Wilk**		
	Statistic	df	Sig.	Statistic	df	Sig.
resilience male	0.205	60	0.32	0.894	60	0.36
resilience female	0.111	60	0.65	0.936	60	0.51
attitude male	0.152	60	0.21	0.957	60	0.33
attitude female	0.123	60	0.22	0.966	60	0.18

a. Lilliefors Significance Correction

We can see from Table 3 that all four sets of data (attitude toward technology among males, attitude toward technology among females, resilience among males, and resilience among females) were normally distributed because Sig. The value of the Shapiro-Wilk and Kolmogorov-Smirnov Tests

is greater than 0.05, and the data is normal.

The data were also checked graphically for normality of distribution. To specify normality graphically, we can employ the output of a normal Q-Q Plot. If the data are normally distributed, the data points will be close to the diagonal line. If the data points stray from the line in an obvious non-linear fashion, the data are not normally distributed. The normal Q-Q plot in Figure 1, 2, 3, and 4 demonstrated that the data is normally distributed.

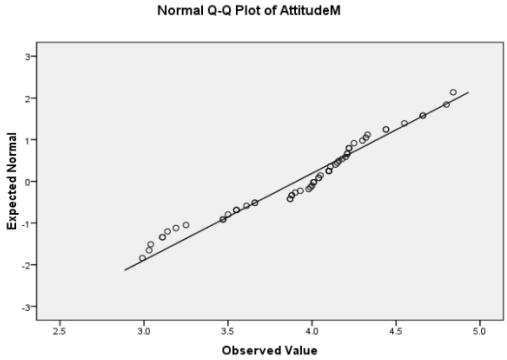

Figure 1: Graphic indicator of males' attitude toward technology scores' normality

As can be visually observed, the data points are not far from the diagonal line, then, Figure 1 shows the normality of distributions as well. Females' attitudes toward technology questionnaire scores were also graphically illustrated in Figure 2 to ascertain normality.

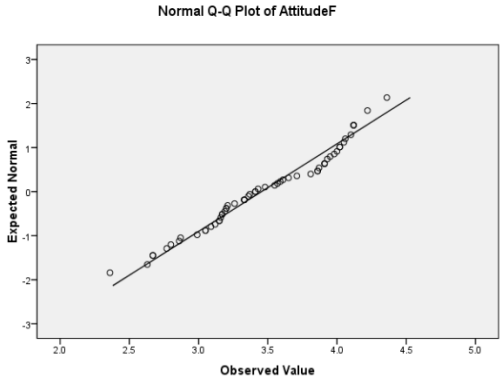

Figure 2: Graphic indicator of females' attitude toward technology scores' normality

As can be visually observed, the data points are not far from the diagonal line, then, Figure 2 shows the normality of distributions as well. Resilience questionnaire scores were also graphically

illustrated in Figure 3 to ascertain normality.

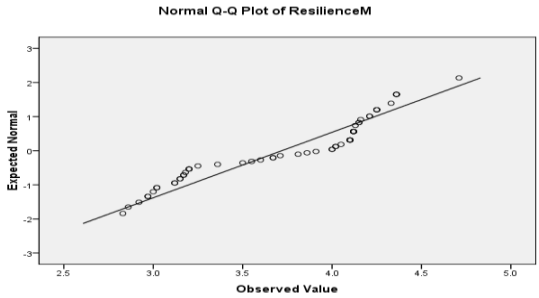

Figure 3: Graphic indicator of males' resilience scores' normality

As can be visually observed, the data points are not far from the diagonal line, then Figure 4 shows the normality of distributions as well. Finally, females' resilience scores were graphically checked for normality in Figure 4.

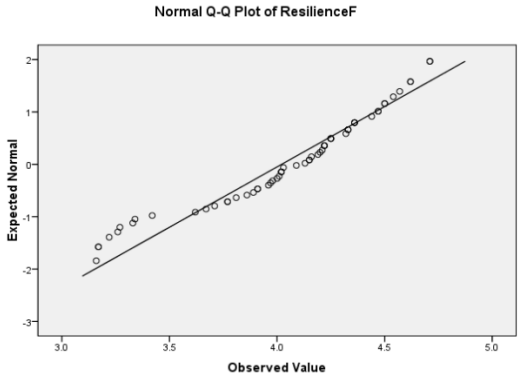

Figure 4: Graphic indicator of females' resilience scores' normality

4.2 Linear Relation between Each Pair of Variables

When we want to conduct a Pearson correlation, there needs to be a linear relationship between each pair of variables (attitude of males vs. attitude of females; resilience of males vs. resilience of females). Whereas there are several ways to inspect whether a linear relationship exists between the two variables, the researcher adopted a scatterplot using SPSS Statistics and then visually inspected the scatterplot to check for linearity. To check the linearity, the researcher visually checked the data by the subsequent scatter plots.

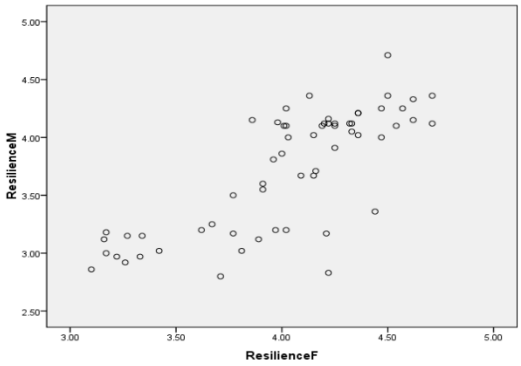

Figure 5: The relationship between male and female participants' resilience scores

As Figure 5 depicted, the dots cluster around a straight line stretching from the bottom left to the top right, indicating a positive relationship between the male and female participants' resilience. A similar graph was presented (Figure 6), showing the relationship between female and male participants' attitudes toward technology use:

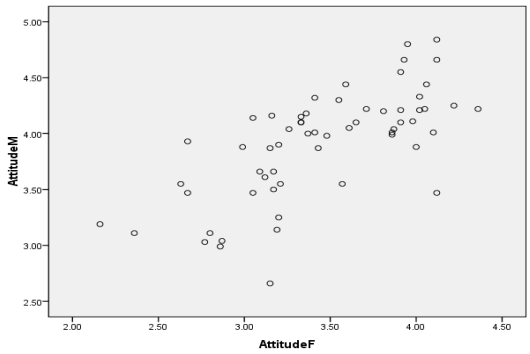

Figure 6: The relationship between male and female participants' attitudes toward technology

As Figure 6 depicted, the coordinate values form a line stretching from the bottom left to the top right; hence, the linearity of the relationship between males' and females' attitudes toward technology use of the participants was also revealed.

4.3 Checking for Outlier Assumptions

To detect the outliers, a Stem-and-Leaf Plot was used for all sets of data. Stem-and-Leaf plots are presented in Figure 7 through Figure 10.

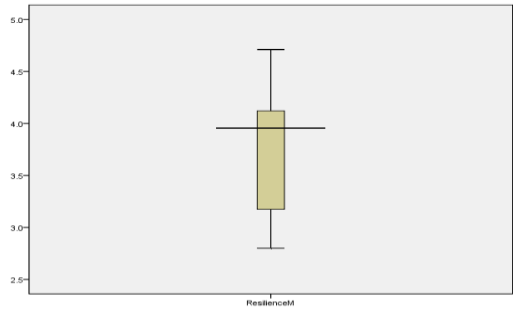

Figure 7: Stem-and-Leaf Plot for male participants' resilience scores

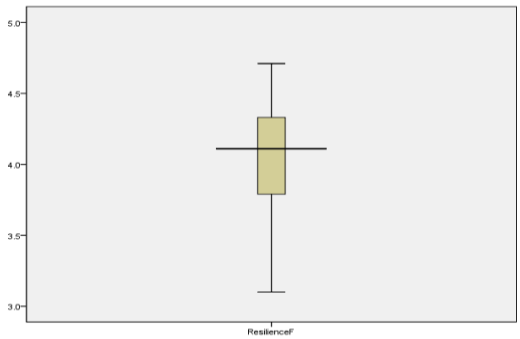

Figure 8: Stem-and-Leaf Plot for female participants' resilience scores

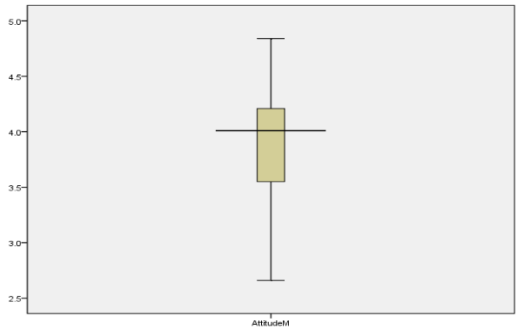

Figure 9: Stem-and-Leaf Plot for male participants' attitude toward technology scores

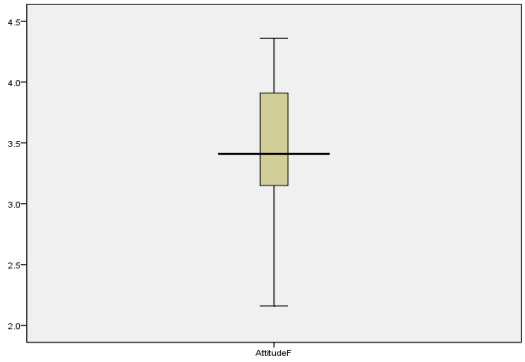

Figure 10: Stem-and-Leaf Plot for female participants' attitude toward technology scores

As seen from Stem-and-Leaf Plots, no case of an outlier has been reported. Therefore, the last assumption is also passed.

4.4 Testing the Hypothesis

The data revealed no violation of linearity, normality, or homoscedasticity. After the assumptions were met, to test the study hypothesis, a correlational analysis was conducted by the researcher. The study hypothesis assumed that there is no significant relationship between Iranian EFL teachers' resilience and their attitude toward technology use in language classes across genders. Two Pearson correlations were carried out to identify the relationship between males' and females' resilience as well as their attitude toward technology use. The Table 4 revealed the results related to the relationship between males and females regarding their resilience scores.

Table 4: The relationship between male and female's resilience scores

		Resilience males	**Resilience females**
Resilience	Pearson Correlation	0.775**	1
	Sig. (2-tailed)	0.000	
	N	60	60

***. Correlation is significant at the 0.01 level (2-tailed).*

The analysis of results indicated that there is a strong, positive correlation between males' and females' resilience scores, which was statistically significant (r = 0.77, N = 60, Sig. (2-tailed) =

0.00 < .0001). In addition to the Pearson correlation, an independent samples T-test was run to see if the males' and females' scores were significantly different or not. However, before running the t-test, there was a need to check the mean score of each group regarding their resilience scores. The descriptive statistics related to each of the two groups are presented in Table 5.

Table 5: Descriptive statistics related to the males' and females' resilience scores

	Gender	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
resilience	male	60	3.7188	0.52065	0.06722
	female	60	4.0212	0.43365	0.05598

Because the mean scores of the two groups regarding their resilience score are different (males= 3.71; females = 4.02), the independent t-test is run to check if the difference is statistically significant (See Table 6).

Table 6: T-test results comparing males' and females' resilience scores

		T-test for equality of means				
		t	**df**	**Sig. (2-tailed)**	**Mean difference**	**Std. Error difference**
resilience	equal variances assumed	-3.456	118	0.001	-0.30233	0.08748

According to Table 6, there is a statistically significant difference between males and females concerning their resilience (Sig. 2-tailed = 0.001< α = 0.05).

Another Pearson correlation test was run to measure if there is a relationship between males and females regarding their attitude toward technology use in English classes. The Table 7 shows the result related to the relationship between males and females regarding their attitude toward technology scores.

Table 7: The relationship between male and females' attitude toward technology scores

		Attitude males	Attitude females
Attitude	Pearson Correlation	0.695**	1
	Sig. (2-tailed)	0.000	
	N	60	60

**. *Correlation is significant at the 0.01 level (2-tailed).*

The analysis of the results indicated that there is a strong, positive correlation between males' and females' attitudes toward technology scores, which was statistically significant (r = 0.69, N = 60, Sig. (2-tailed) = 0.00< 0.001). In addition to the Pearson correlation, an independent samples T-test was run to see if the males' and females' scores of attitudes toward technology were significantly different or not. However, before running the t-test, there was a need to check the mean score of each group regarding their attitude toward technology scores. The descriptive statistics related to each of the two groups are presented in Table 8.

Table 8: Descriptive statistics related to the males' and females' attitude toward technology scores

	Gender	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
Attitude	male	60	3.9080	0.47969	0.06193
	female	60	3.4543	0.50320	0.06496

Whereas the mean of males' attitudes was larger than that of females, it is not clear if the difference is statistically significant. Since the mean scores of the two groups regarding their attitude score are different (males = 3.71; females = 4.02), the independent t-test is run to check if the difference is statistically significant (See Table 9).

Table 9: T-test results comparing males' and females' attitude toward technology scores

	T-test for equality of means				
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Attitude	5.055	118	0.000	0.45367	0.08975

According to Table 9, there is a statistically significant difference between males and females concerning their attitude toward technology use (Sig. 2-tailed = 0.00< α = 0.05). Consequently, the null hypothesis predicting an insignificant relationship between Iranian EFL teachers' resilience and their attitude toward technology use in language classes across genders is rejected.

5.0 DISCUSSION

Individual internal aspects also play a role in encountering challenges to activate the resiliency attributes. The internal facets containing digital literacy possess basic technical knowledge, skills and the psychological traits of coping, which can assist individuals to construct resilience and remedy the effect of adversity or disruptive events (Reynolds & Parker, 2018). The results of the study demonstrated a significant relationship between Iranian male and female EFL teachers' resilience as well as attitude toward technology use. Further investigation of the data displayed a significant difference between the males' and females' scores of resilience and attitudes. Indeed, female teachers' resilience scores were significantly higher than the male teachers' resilience scores. On the other hand, it was revealed that compared to females, males have a significantly more positive attitude toward technology use in English classes.

The results are in accordance with Poynton (2005), who claims that there is proof in the literature that computer skill is impacted by factors like gender, attitudes, age, and access, regarding the more positive attitudes of males toward technology. The findings of the study is in line with Volman and van Eck (2001) maintain that studies concerning ICT use and teachers' gender have declared lower levels of computer use by female teachers due to female teachers' limited technology access, interest, and skill.

Considering the previous investigations on the use of technology or the attitude toward technology, not all previous studies are consistent with the results of the present study. For

instance, whereas Okpala and Onocha (1995) reported a significant difference between female and male teachers' attitudes, Iroegbu (1998) reported that gender difference does not have any significant role in the incorporation of technology into educational contexts. Moreover, based on Hatlevik and Bjarnø (2021), student teachers' resilience to digital distractions and gender among females were positively correlated with students' approach to studying and time devoted to individual study.

Regarding the obtained results about higher levels of resilience among female teachers, the findings could be explained by Anderson and Olsen (2006), who reported on contextual factors such as professional development and relationships with students as protective factors for teachers' resilience. This point has also been highlighted by Sammons et al. (2007), who emphasized the importance of reciprocal, mutually supportive, personal, professional, and peer relationships for promoting teacher resilience. Considering the point that females are generally closer, more supportive, and more friendly in educational settings (Quaglia et al., 2013), the relationship with students may have caused a higher level of resilience.

One extra point to be noted is that describing females as more resilient, concerning the present study findings, is not suggested since, as Beltman et al. (2011) declare, a complex range of interacting factors shapes the resilience of teachers in either a cyclical way or a developmental. However, the uncertainty about what shapes teachers' resilience can be explained by the multiple conceptualizations of teacher resilience. According to Sun et al. (2022) attributes of digital resilience were influenced by personal internal and external factors when facing the risks of digital technologies. Training teachers' resilience is crucial because it indicates they will be more powerful in the face of adversity (Jamon et al., 2021). Literature displays that a devotion to training teacher resilience can foster teaching capability to overcome problems (Hipolito, 2022).

6.0 CONCLUSION

The analysis of the data revealed that there is a significant relationship between all of the study variables. However, the degree of correlation was different for each pair of variables. The strongest relationship was found to be between males' and females' resilience scores (r= 0.77). There was also a significant relationship between males' and females' attitudes toward technology use (r= 0.69). In spite of the significant correlation between males' and females' resilience as well as an attitude toward technology, the correlation did not imply that the males and females level of

resilience and attitude was similar. Indeed, further analysis of the data indicated that there was a difference between males' and females' mean scores of resilience and attitude toward technology use. Regarding the resilience scores, females' mean score was significantly larger than males' (females' mean= 4.02; males' mean= 3.71). As with the teachers' attitude toward technology use, it was revealed that male teachers' attitude toward technology was significantly higher than that of females (females' mean= 3.45; males' mean= 3.9).

There were many parallel findings from previous studies. However, inconsistency between this study and previous studies was also observed. These inconsistencies could have been due to differences in the context of the studies, different characteristics of the participants, and different ways. The results of this research added to the body of literature related to the role of gender, resilience, and attitude toward technology in an educational context.

Both resilience and attitude toward technology were revealed to be correlated with the adversity quotient. Some researchers (Daloos, 2015) have highlighted the role of teachers' gender, personality traits, and psychological factors as significant predictors of their attitude and resilience. The results revealed a significant difference between males' and females' degrees of resilience and attitude toward technology. According to this shift, teachers are required to develop new skills in designing online pedagogy, integrating digital resources, and utilizing digital tools (Albrahim, 2020).

Several limitations of the study need to be acknowledged. First, teacher resilience as well as attitudes toward technology are not fixed, but they are modifiable and can be developed. Then, language teachers, policymakers, and teacher educators can work on pre- or in-service EFL teachers' attitudes and resilience in order to enhance their resilience as well as attitude toward technology. Pedagogical implications of the study are that the stakeholders need to talk about resilience with pre- or in-service EFL teachers, treat them with respect, give them supportive scaffolding, and help them to enhance their resilience. Second, the strong difference between female and male teachers' resilience and attitude toward technology suggests that females need to be more familiar with the advantages of technology in language classes. Moreover, enhancing females' technological literacy is suggested since previous studies have shown a relationship between attitude towards technology and the technological skills of teachers.

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