EFL Teachers' Personality Traits and their Sense of Technophobia and Technophilia

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Abstract

New technologies can change everything in the world and people can have different reactions to them. Some people tend to use innovations but some people do not, due to the influence of different factors. Personality type can be considered as one of those factors that might have a relation with the feelings toward the innovations. Therefore, this paper explores the relationship between Iranian EFL teachers' personality traits and their sense of technophobia and technophilia. Two hundred and ten Iranian EFL teachers participated in this study. The Big-Five Personality Traits Questionnaire (John & Strivastava, 1999) and Technophobia and Technophilia Questionnaire (Martínez-Córcoles, Teichmann, & Murdvee, 2017) were used in the current study. To find the answers to the research questions, Pearson correlation, Structural Equation Modeling (SEM), and independent-sample t-test were used. The results showed that all subscales of personality traits were negative significant predictors of technophobia except Neuroticism. Moreover, the results indicated a positive significant relationship between overall technophilia and all constructs of personality traits.

Keywords: Big-Five; Computer anxiety; EFL teachers; Personality traits; Technology; Technophilia; Technophobia

1. Introduction

The increasing development of the new technologies which are called modern technologies is changing the world's and people's needs. Some opportunities and comforts for the future have been provided by emerging new technologies although they may also change an individual's norms and patterns of behavior which may lead to more emotional effects such as anxiety, fears, and sadness.

Such feelings lead to the outburst of the two important opposed terms, namely, *technophobia* (rejection of technology), and *technophilia* (attraction to technology) (Martínez-Córcoles, Teichmann, & Murdree, 2017).

Technophobia is not an illness that needs treatment or medical consideration. Everywhere that there is technology, the technophobia concept occurs. Whether in public places such as

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schools, libraries, or private sectors such as supermarkets, clinics (Fallad, Hueso, & Ramirez, 2012.). Technophobia is related to unpleasant emotions, anxiety, fear, and dislike toward using up-to-date technologies and modern devices (Martínez-Córcoles et al., 2017; Osiceanu, 2015). Thus, technophobia is characterized as anxiety or unreasonable fear by the impacts of modern technologies (Osiceanu, 2015). It has two components: The fear of influencing mechanical improvement on the environment and society, and the fear of utilizing mechanical tools such as computers and modern technology (Osiceanu, 2015). Accordingly, computer anxiety defines as fear when the users use the computers or even when they think about the computer usage (Gürcan-Namlu & Ceyhan, 2003).

Moreover, technophilia is generally defined as the enthusiasm and attraction of each individual toward new gadgets such as smartphones, the Internet, personal computers (Osiceanu, 2015). On the other hand, people's points of view about how technology makes their lives easier and increases life's quality refer to technophobia (Fallad et al., 2012).

In addition, personality traits are permanent single differences in a stable pattern of behavior (Matsumoto, 2009, as cited in Kell, 2019). Personality is gotten from the Latin word *Persona* which suggests a layer or mask employed by actors within the play to represent their character and personality (Pandey & Karitha, 2015). Besides, the term "trait" came from biology, where it refers to genetically, stable, and physically-based characteristics (Snow, Kyllonen, & Marshalek, 1984, as cited in Kell, 2019). Kell (2019) believed that personality traits account for the psychology of contemporary personality, which is in contrast with the ideas of James (1890, as cited in Kell, 2019) that personality qualities are ultimately fixed like plaster, and will not soften again. Traits are specifically treated as being natural-born by some common sources (Gregoire, 2014).

Thus, the researchers in this study would like to investigate the probable relationship that might exist between EFL teachers' personality types and their technophobia and technophilia. Accordingly, the researchers proposed the following research questions:

Q1: Is there any significant relationship between Iranian EFL teachers' personality traits and their sense of technophobia?

Q2: Is there any significant relationship between Iranian EFL teachers' personality traits and their sense of technophilia?

Q3: Which component of Iranian EFL teachers' personality traits is the better predictor of technophobia and technophilia?

2. Review of the Literature

2.1. Personality Traits

The 16 Personality Factors (16PF) questionnaire was one of the first inventory used by researchers (Cattle, Eber, & Tatsuoka, 1970, as cited in John & Srivastava, 1999) to measure individuals' personality types. Less than 10 years later, Costa and McCrae (1976, as cited in John & Srivastava, 1999) were establishing the NEO Personality Inventory which constitutes the three broad personality dimensions such as Neuroticism, Extraversion, and Openness to experience. The facets of Neuroticism, Extraversion, and Openness were the initial NEO Personality Inventory, but it did not have a facet scale for Agreeableness and Conscientiousness (Costa & McCrae, 1985).

Therefore, the 240-item NEO Personality Inventory allows differentiated measuring of every big five dimensions (Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness) in terms of six additional specific aspects per factor (Costa & MaCrae, 1992, 1995).

The Big Five traits show the heart of the theory of personality traits to descript, predict, and interpret people's behavior. The easiness and understandability of the Big Five provide the opportunity for a lot of people to understand human personality (Abood, 2019). Nowadays this model shows the most well-known model for describing the structure of personality in various languages (Abood, 2019). All types of personality can be included in the Big Five and there is nothing more than that (Saucier & Goldberg, 1998, as cited in Abood, 2019).

The *Big Five factors* are described as Extraversion versus Introversion, Agreeableness versus Hostility, Conscientiousness versus lack of Consciousness, Emotional Stability versus Neuroticism, Openness versus lack of Intellect/ Autonomy (Bakker, Van Der Zee, Lewig & Dollard, 2006).

Extraversion is described as self-confident, active, dominant (Bakker et al., 2006), and assertive, sociable, talkative, and positive emotions (John & Srivastava, 1999). It shows the intensity of personal interactions and a better need for stimulation are referred to as Extroverts (Bakker et al., 2006). Individuals with this type of personality tend to be related to problem-solving, adapting methodologies and looking for social support, and the utilization of rational (Dorn & Matthews, 1992; Watson & Hubbard, 1996, as cited in Bakker et al., 2006). Extrovert individuals make friends easily. However, Introvert people are more likely to be alone (Aghaee, Blackwell, Stillwell, & Kesinski, 2015).

Agreeableness can be associated with leadership (Pandey & Kavitha, 2015). Agreeableness includes traits such as tender-mindedness, modesty, trust, and altruism (John & Srivastavan, 1999). Disagreeable individuals tend to be more uncompromising, assertive, and focus on themselves (Aghaee et al., 2015).

Conscientious people act obediently and also focuses on accomplishment, planned behavior, following rules, reliable, and organized tasks (John & Srivastavan, 1999). In contrast, non-conscientious people are more creative, easygoing, and spontaneous (Aghaee et al., 2015).

Neuroticism is in contrast to emotional stability (John & Srivastavan, 1999; Pandey & Kavitha, 2015). Individuals tend to experience unpleasant emotions like anxiety, depression, nervousness, and sadness (John & Srivastavan, 1999; Aghaee et al., 2015; Pandey & Kavitha, 2015). People who are high in Neuroticism use avoiding, denying instead of proactive behavior, and problem-solving (Bolger; McCrae & Costa, 1986, as cited in Bakker et al., 2006). Emotionally stable people, reversely are calmer and self-confident (Aghaee et al., 2015).

People with openness to experience trait shows a tendency to try to learn valuable things by experiencing unusual ideas, adventure, the imagination of many experiences (Pandey & Kavitha, 2015). People who get a low score in openness are unreflective, uninquisitive, unsophisticated (Kell, 2019), and like to be traditional, and do not like abstract ideas (Aghaee et al., 2015). People who are high on openness like new and weird ideas (Aghaee et al., 2015).

Considering personality traits, some researchers found that instinct factors have an important role in the level of using technology. They pointed out that teachers with a lack of confidence tried not to use technology a lot because they face a sense of confidence in the

classroom (Zammit, 1992; Winnans & Sardo Brown, 1992; George & Camarata, 1996, as cited in Lam, 2016). Accordingly, Marcinkiewicz (1993) discovered a relationship between the use of computers and specific personality traits such as innovativeness and self-confidence.

Moreover, personality is used as a predictor of each person's views and behavior in different contexts (Nawas Khan, Coa, & Pitafi, 2019). For example, agreeableness and openness were related to perceiving ease of use, and neuroticism was associated with perceiving usefulness in smartphone users (Özbek, Alnıaçık, Koc, Akkılıç, & Kaş, 2014). Extraversion, conscientiousness, and neuroticism came with the perceived and actual use of technology (Barnett, Pearson, Pearson, & Kellermanns, 2015). People who use technologies and the Internet frequently are low in extraversion and high in neuroticism (Macdonald & Hülür, 2020). Mathews et al. (2020) showed the connection with higher anxiety and neuroticism and also with lower openness. Macdonald and Hülür (2020) found that openness is correlated with higher Internet adaption. They also showed in older age, individuals are more likely to learn to use the Internet and innovations.

Accordingly, some researchers have been studied the relationship between personality and social media use. They found that extraversion and openness are positively related to social media use (Correa, Hinsley, & Dezungia, 2010). People who are high in neuroticism tend to use the Internet a lot to avoid loneliness and they are interested in using the Internet for communication rather than conscious people who do not use the Internet (Butt & Philips, 2008, as cited in Cory Robinson, 2018). Moreover, extravert people are more likely to be on Facebook and use the Internet rather than introverts (Ross, E. S. Orr, Sisic, Arseneault, Simmering, & R. R. Orr, 2009). People who are high in openness and agreeableness, use the social network and Internet less than other people (Cory Robinson, 2018).

Some scholars also found out that neuroticism has a positive relationship with anxiety toward the computer, while introversion-extraversion of personality does not have any relation (Osiceanu, 2015). Besides, Farhad Khan, Iahan, and Miskon (2014) reviewed a lot of papers on teachers, students, and users of technologies to find out the relationship between personality traits and using technologies. They displayed that openness, consciousness, and extraversion with perceived ease of use have a strong relation.

Korukonda (2005) also tried to explain acceptance or avoidance of technology with focuses on the role of personality, gender, cognitive orientation, and math skills. The findings of their study showed that personality dimensions have a clear role in technophobia. Specially neuroticism is shown to possess a powerful positive correlation with technophobia while extraversion and openness have a negative relation with technophobia.

2.2 Technophobia and Technophilia
The major ability of technical innovations, as one of today's modernizing factors, is changing the world (Boehme-NeBler, 2011). This change and technical innovations sometimes lead to the feeling of technophobia. It is defined as fear, anxiety, hostile, and aggressive thoughts about computers (Brosnan, 1998, as cited in Fallad et al., 2012). Besides, some scholars believe that technophobia is negative global attitudes, anxiety about current or future interactions with computers (Rose & Weil, 1990, as cited in Fallad et al., 2012). Technophobia is not only applied

to computer and computer use, it is related to some other technologies as basic as wristwatches and all ways where technology is involved (Fallad et al., 2012; Osiceanu, 2015).

Thus, technophobia was explained as a terrible form of anxiety towards computers and a mixture of emotional, behavioral, and situational responses to computers (Agogo & Hess, 2018; Brosnan, 2002; & Jay, 1981). However, technophobia is not a disease that needs medical treatment; it is a general term that describes a reaction or attitude that produces signs of anxiety. In this regard, there are different symptoms of technophobia such as rejection of new gadgets, ineffectiveness on the job, increased absenteeism, and reluctance to learn (Fallad et al., 2012). Several authors contemplate that technophobia contains a pathological character since it refers to an unreasonable and exaggerated fear (Osiceanu, 2015). However, a reverent perspective towards technology determines technophobia can generally stop a practical assessment of the environmental and social impact of technology on society (Osiceanu, 2015). Resen (1993, as cited in Osiceanu, 2015) also found three main types of technophobes: *uncomfortable* users who are anxious since they do not have enough information to use the computers effectively; *cognitive computerphobes* are full of negative cognitions internally although may seem cool, calm, controlled externally; *anxious computerphobes* are those who showing the basic signs of anxiety when they use a computer such as heart palpitations, sweaty palms, etc.).

Technophilia is outlined as enthusiasm, the attraction of the human individual determinate by the activities that involve the employment of advanced technologies. It is expressed by simply adapting to the social changes brought by technological innovations (Osiceanu, 2015). The term technophilia is employed to focus on technology which leads to strong positive feelings. Osiceanu (2015) claims that technological determinism theory emphasizes that individual does not have the power to oppose towards the influences of technology. Accordingly, technophiles have no fear and enjoy using technology. Besides, technophilia refers to an obsession with innovation, particularly computer innovation, maybe more precisely called Technomania (Ullman, 1997, as cited in Fallad et al., 2012) which proposes the euphoric grasp of innovation. Technophilia has three main scales as *Enthusiasm, Dependency,* and *Technoreputation.*

Technophilia is the *enthusiasm*, attraction of persons toward the use of technologies (Osiceanu, 2015). Technophilia consists of behaviors and emotions such as dependency and technoreputation, it is not just a mere need or positive perspective to use technology like enthusiasm (Martínez-Córcoles, Teichmann, & Murdvee, 2017).

Schein (1985, as cited in Martínez-Córcoles et al., 2017) claimed that society has made *dependency* on technology. He stated that when a group of people or society make a solution to solve the problem and uses that many times, it is established as a reality. Then the persons could not do or behave differently such as sending a letter to a person in other cities rather than sending an email or a message. Therefore, dependence on technology is developed. On the other hand, dependency refers to the dominant and repetitive use of innovations (Martínez-Córcoles et al., 2017).

Technoreputation indicates the need to update. Individuals combine their enthusiasm and dependence with the fear of losing or missing the opportunity to join, have or update the technological devices. Also, people can spend a lot of money on technological devices that they

may not need or even use, but they love having the newest products in the market (Martínez-Córcoles et al., 2017).

Accordingly, Dincher and Wagner (2021) claimed that by the widespread Covid-19 pandemic all around the world, teachers use technologies and use web-based teaching during the Covid-19 school closure. They used different questionnaires to investigate teachers' connection with technologies. 2610 teachers from 76% of all schools in Germany participated in that survey and the result showed that teachers who have a high connection with technologies tend to use web-based teaching technologies a lot. Also, it showed the teachers with high job motivation and female teachers are more likely to use web-based teaching technologies. However, educational degrees and teachers' age and gender did not affect using technologies in teaching. The researchers also tried to find the relation between the teacher's characteristics using technologies. Then, the teachers who were high in extraversion, neuroticism, and openness used web-based teaching technology a lot. Moreover, the relation between conscious and agreeableness teachers and using technologies was negative (Dincher & Wagner, 2021).

Working on the relationship between personality traits and computer anxiety, Martin, Lauderdale, Thorpe, and Molhman (2019) showed that personality traits had a negative relation with age, computer anxiety. Besides, they showed that older adults were more technophobic and face anxiety a lot, and they tend to use innovations less than young people.

Moreover, Tzuching Chen (2012) surveyed to find the level of Taiwanese elementary EFL teachers' computer phobia and computer self-efficacy. For that study 300 EFL teachers who worked in elementary schools in Taiwan participated. Their age range was between 31-40. In that study, three questionnaires were used such as Computer Anxiety Rating Scale (CARS-S) and Computer Through Survey (CTS) to identify computer phobia and Computer Self-efficacy (CSES). In that research, the EFL teachers in Taiwan suffer from technophobia and low self-efficacy and their relationships were negative. When their level of technophobia increased, the level of computer self-efficacy decreased. On the other hand, a positive relationship between teachers' technophobia and teachers' age was found.

Salamzadeh, Mirakhori, Mobaraki, and Targhi (2013) randomly chose lecturers and students from an Iranian university and used semi-structured interviews to collect data. According to the data, they claimed that technophobia is the result of 14 factors which can be grouped into four categories. Individuals factors such as lack of individual skills, lack of communication skills, personality, the perceived complexity of use, and perceived usefulness. Social factors such as ethical problems, cultural influences, norms, and habits change. Infrastructural factors such as general changes in technology trends and laws and regulations. Moderating factors such as lack of training, experience, and age.

Moreover, Korukonda (2005) used 242 teachers to know the relation between individual characteristics and technophobia. The result showed the important role of personality in technophobia. Neuroticism and technophobia were positively correlated while openness and extraversion were negatively related to technophobia. Also, it showed that age did not have any effects on technophobia.

Tuzcuoglu (2000) did the survey which found the attitudes of teachers towards using CALL in the Foreign Language Department (FLD) at Osmangazi University (OGU). The data was

gathered through questionnaires which revealed teachers' attitudes and feelings, thoughts, and comments about using CALL in the FLD. The findings revealed that the teachers did not need training for using computers, they need training about CALL. The general teachers' attitudes were positive toward using computers in classes. Also, they like to use computers for both teaching and practicing aims.

3. Method

3.1. Participants and Setting

The acceptable number of participants for any SEM analysis should be at least a sample size of 200 (Kline, 2015). Accordingly, this study invited 210 participants (Male= 33%, Female= 67%) to take part in the study. They were selected based on convenient sampling due to the Corona Virus Pandemic. The majority of the participants (64.3%) studied TEFL, (18.1%) English translation, (2%) English literature, and (15.6) Others. About 5% of participants were AA holders, 34% of participants were BA holders, 55% were MA holders, and 5% were Ph.D. holders. Teachers' age range was between 20 and 44 (Mean= 30, SD= 8). Their years of teaching experience were ranged between two to more than 10 years (Mean= 4.8, SD=4.5). The teachers were from different cities and they had teaching experience in different language schools and universities of Iran. Data collection started in the Spring of 2021 and lasted for about one month.

3.2. Measurement

3.2.1. The Big Five Personality Traits Questionnaire. The Big Five Questionnaire was designed and validated by John and Srivastava (1999). The questionnaire consists of 44 items designed on a five-point Likert scale from 1 (*Disagree strongly*) to 5 (*Agree strongly*). It has five subscales including Extraversion (items 1, 6R, 11, 16, 21R, 26, 31R, 36), Agreeableness (items 2R, 7, 12R, 17, 22, 27R, 32, 37R, 42), Conscientiousness (items 3, 8R, 13, 18R, 23R, 28, 33, 38, 43R), Neuroticism (items 4, 9R, 14, 19, 24R, 29, 34R, 39), and Openness to experience (items 5, 10, 15, 20, 25, 30, 35R, 40, 41R, 44). Items 2, 6, 8, 9, 12, 18, 21, 23, 24, 27, 31, 34, 35, 37, 41, and 43 are reverse-scored items.

3.2.2. Technophobia and Technophilia Questionnaire. Technophobia and Technophilia Questionnaire was developed and validated by Martínez-Córcoles, Teichmann, and Murdvee (2017). The questionnaire consists of 32 items designed on a six-point Likert-type scale with responses ranging from 1(*very strongly disagree*) to 6 (*very strongly agree*). The scale contains 12 items covering technophobia and 20 items that cover technophilia. The Technophilia section has 3 subscales including *Enthusiasm*, *Dependence*, and *Technoreputation*.

3.3. Procedures

The present study used a correlational research design. Through this design, data was gathered by using questionnaires. Therefore, this quantitative study comprised three main variables: Iranian EFL teachers' personality traits, technophobia, and technophilia. SPSS software (version 26) was used to analyze the data. Cronbach's alpha coefficient was used to test the reliability and internal consistency of the scales. To answer the first and second research questions, Pearson-moment correlation was used. The third research question was studied by running SEM.

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4. Results

To answer the first and second research questions which aimed to find out the relationship between Iranian EFL teachers' personality traits and their sense of technophobia and technophilia, Pearson-product-moment correlation was used. Table 1 shows the results of the Kolmogorov-Smirnov test for the five Big Factors, Technophobia and Technophilia. As can be seen, the obtained sig value for all variables is higher than .05. Therefore, it can safely be concluded that the data is normally distributed across all the variables.

Table 1
The Results of Normality Test

	Statistic	df	Sig.
Extraversion	.08	210	.10
Agreeableness	.09	210	.11
Conscientiousness	.08	210	.08
Neuroticism	.06	210	.07
Openness	.06	210	.07
Technophobia	.06	210	.06
Technophilia	.04	210	.20

As Table 2 presents, there are negative significant relationships between overall Technophobia and all subscales of personality traits, except neuroticism: Extraversion (r=-.18, p<.05), Agreeableness (r=-.28, p<.05), Conscientiousness (r=-.26, p<.05), Neuroticism (r=.28, p<.05), and Openness (r=-.41, p<.05). Besides, the Table indicates that there are positive significant relationships between overall Technophilia and all subscales except neuroticism: Extraversion (r=.17, p<.05), Agreeableness (r=.13, p<.05), Conscientiousness (r=.26, p<.05), Neuroticism (r=.000, p>.05), and Openness (r=.29, p<.05). Therefore, except Neuroticism, all other constructs of personality traits are significant correlated constructs of teachers' technophobia and technophilia.

Table 2

Pearson Correlation between Teachers' Personality Traits' constructs and Technophobia and Technophilia

		Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness
Technophobia	r	-.182**	-.288**	-.267**	.285**	-.414**
	Sig. (2-tailed)	.008	.000	.000	.000	.000
Technophilia	r	.17*	.13*	.267**	.00	.29**
	Sig. (2-tailed)	.01	.04	.000	.92	.000

**Correlation is significant at the level of 0.01

SEM was employed using AMOS (24 version) software to study the interrelationships among teachers' personality traits, technophobia, and technophilia (Figure 1). As the model shows, it was hypothesized that all five sub-constructs of personality traits are predictors of teachers' technophobia and technophilia.
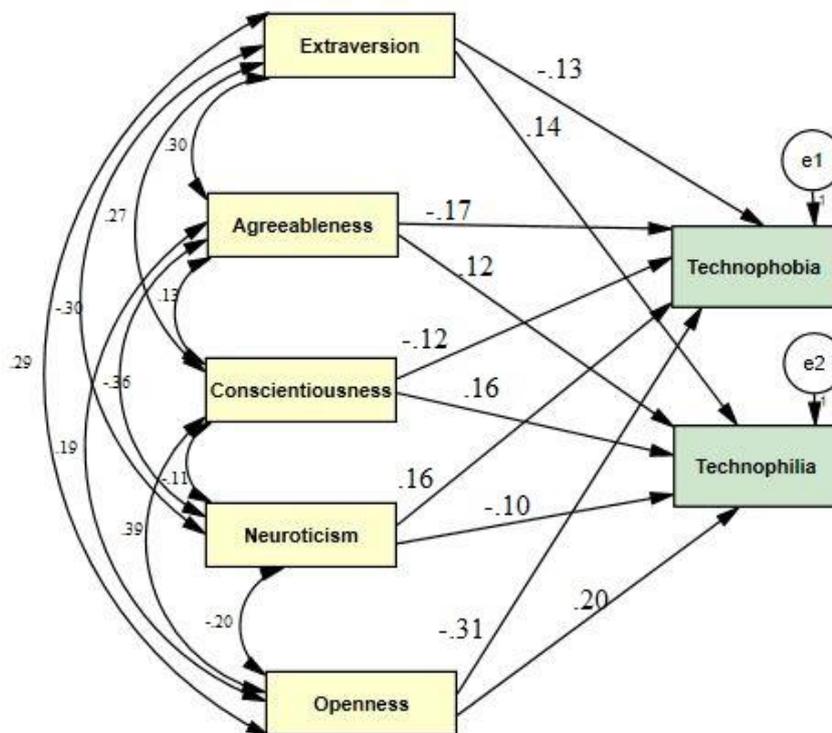

Figure 1. The Model of the Interrelationships among Variables

A number of fit indices were examined to evaluate the model fit: the chi-square magnitude which should not be significant, Chi-square/*df* ratio which should be lower than 2 or 3, the normed fit index (NFI), the good fit index (GFI), and the comparative fit index (CFI) with the cut value greater than .90, and the Root Mean Square Error of Approximation (RMSEA) of about .06 or .07.

The goodness of fit indices for the model (Table 3) demonstrated that the chi-square/df ratio (2.71), GFI (.95), CFI (.96), NFI (.93), and RMSEA (.05) lie within the acceptable fit thresholds. Hence, it can be concluded that the model had a perfect fit with the empirical data.

Results of the analysis also revealed that all five sub-scales of personality traits are negative significant predictors of overall Technophobia except neuroticism: Extraversion (β=-.13, p=.03), Agreeableness (β=-.17, p=.01), Conscientiousness (β=-.12, p=.03), Neuroticism (β=.16, p=.00), and Openness (β=-.31, p=.00). Moreover, based on the results of path analysis all five sub-scales of personality traits are positive significant predictors of overall technophilia except neuroticism: Extraversion (β=.14, p=.01), Agreeableness (β=.12, p=.04), Conscientiousness (β=.16, p=.00), Neuroticism (β=-.10, p=.04), and Openness (β=.20, p=.00).

Table 3
Goodness of Fit Indices for Model

	X2/df	GFI	CFI	NFI	RMSEA
Acceptable fit	<3	>.90	>.90	>.90	<.08
Model before Modification	2.71	.95	.96	.93	.05

5. Discussion

According to the result of the first question, there was a significant relationship between Iranian EFL teachers' personality traits and technophobia which is in line with Anthony, Clarke, and Anderson (2000) and Korukonda (2005) who claimed that there was a positive relation between Neuroticism and technophobia. Also, Openness and technophobia are positively associated with each other (Korukonda, 2005). On the other hand, the relation between Openness and technophobia was negatively related to each other (Anthony et al., 2000; Korukonda, 2005). Moreover, Korukonda (2005) found a negative relation between Extraversion and technophobia. And, the positive relationship between Agreeableness and technophobia was not found (Crabbe & Andras, 2012).

Based on the findings of the second question, a significant relationship between Iranian EFL teachers' personality traits and their sense of technophilia was found. Accordingly, some scholars discovered a positive relationship between personality traits and technophilia. According to Farhad Khan et al. (2014), technophilia was positively related to Extraversion, Openness, and Conscientiousness. Dincher and Wagner (2021) also claimed that Extraversion, Openness, and Neuroticism were positively related to technophilia. In contrast, Aghaee et al. (2015) stated that there was a negative relationship between technophilia and Extraversion, Neuroticism, and Agreeableness. Also, a negative relationship between Agreeableness and Conscientiousness with using innovations was found (Dincher & Wagner, 2021). In addition, in line with the results of this study, (Korukonda, 2005) stated that Openness to Experience had a positive relation with technophobia. Also, Neuroticism was positively associated with computer anxiety (Anthony et al., 2000; Korukonda, 2005). Furthermore, Korukonda (2005)

argued that there was a positive relationship between Openness to Experience and Extraversion with technophobia.

On the other hand, other researchers found negative relations between types of personality traits and technophobia. Technophobia was negatively associated with Openness to Experience (Anthony et al., 2000). Moreover, Crabbe and Andras (2012) claimed that Agreeableness negatively predicted technophobia. Farhad Khan et al. (2014) also reported a positive relation between technophilia and Extraversion. Likewise, Openness to Experience, and Neuroticism were negatively associated with technophilia (Dincher & Wagner, 2021). On the contrary, Aghaee et al. (2015) stated that technophilia with Extraversion and Agreeableness are negatively related to each other. Moreover, Agreeableness and Conscientiousness were negatively correlated with using innovations (Dincher & Wagner, 2021).

6. Conclusion

This study has explored through questionnaires to analyze the relationship between Iranian EFL teachers' personality traits and their sense of technophobia and technophilia. The results of the study revealed the negative and positive relationships between these variables. Although the personality subscales had a negative relation with technophobia, they had a positive relationship with technophilia. The findings of this study have implications for different groups of people. First, EFL teachers who work and learners who study in different workplaces including, schools, institutes, and universities, can advantage from the results of the current study (Dincher & Wagner, 2021). Personality traits are needed for teachers and they are keys to success in the process of teaching. Also, technology has a power that enables teachers to connect with the learners. The teaching and learning process can be affected by the instructors' personality and technology use. All teachers' personality traits, innovation knowledge, and using them in different classes can cause and show the teachers' proficiency, help them to personalize teaching, and improve their instructions. Besides, engaging learners in learning a foreign language needs teachers who are active and have efficient methods of teaching. In addition, supervisors and different language schools can benefit from the findings of this study to employ teachers with respect to their personality traits or technological capabilities for specific levels and classes. Thus, teachers' personality traits and their sense of technophobia and technophilia are important for supervisors as well as the different language schools to find, select, and hire teachers. Nowadays, technology use is so important for teaching and learning. Therefore, the teachers who are friendly with technology can find the job easily and can adapt themselves to different contexts.

The present study was limited in several ways. Participants of the study were gathered using convenience sampling because of the Coronavirus pandemic. Therefore, this study can be replicated with other sampling procedures. Moreover, teachers' personality types and the sense of technophobia and technophilia were assessed through questionnaires.

Declaration of Conflicting Interests

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