



Kurdish EFL Teachers' Attitudes Towards the Use of Computer-Assisted Teacher Corrective Feedback in Teaching Writing Classes

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Abstract

Technology has recently played a crucial role in facilitating English language learning and teaching. A considerable body of literature has examined the influence of computer-assisted language learning (CALL) in ESL/EFL classrooms, specifically its mediating role in developing the learner's language skills. This study aims to investigate the attitudes of Iraqi Kurdish EFL teachers towards using CALL tools to provide teacher-corrective feedback in EFL writing classrooms. It also seeks to determine whether the teachers' demographic characteristics influence their attitudes and preferences towards using technology in their classes and computer-assisted teacher corrective feedback (CATCF). A quantitative research design was followed, and the data was collected from questionnaires administered to Kurdish EFL teachers at the public universities' language centres in the Kurdistan Region of Iraq (KRI). The study's descriptive and inferential findings indicate that although Kurdish EFL instructors were sometimes anxious about using technology, they had an overall positive attitude towards CATCF, preferred using technology to teach their classes of writing, and were aware of the modern tools to teach writing classes. The results of this paper have some implications for EFL writing teachers.

Keywords: attitudes towards CATCF; EFL writing instruction; CALL; and Kurdish EFL teachers

1. Introduction

Recently, there has been an expanding use of Computer-assisted Language Learning (CALL) programs in various aspects of people's lives, especially in educational settings (Al-Olimat & AbuSeileek, 2015). With the growth of technology, increasing research attention has been paid to using computer programmes for teaching and learning ESL/EFL writing. Although various labels (e.g. CALL, CELL, TELL, etc..) have been suggested to embody the role of computers in ESL/EFL learning and teaching, CALL is widely used as a generic term. The introduction of CALL traces back to the 1960s, when the proponents of behaviourism theory considered CALL a "computer as a tutor" model, but its developed version called "communicative CALL" emerged in 1980, followed by the development of "a web-based CALL" in mid-1990s (Smith, 2016, p. 3). Although Cahyani and Cahyono (2012) posit that Information and Communication Technology (ICT) is a commonplace entity in today's field of language teaching, CALL is broadly accepted as the "central acronym" (Gruba, 2007, p. 623) to refer to the involvement of technological devices and computers, such as interactive whiteboards, smartphones, MP3 players, desktops, laptops, tablets in language learning, and teaching (Hubbard, 2021). From a theoretical point of view, there is an interesting gap in the area of theory for CALL. Although CALL is not drawn from a particular theory, similar to the case of second language acquisition in general, skills-based language teaching is considered a common approach for CALL in ESL/EFL (Hubbard, 2021). For language teachers, "it is best thought of as being a sub-field of Applied Linguistics, Educational Linguistics, or Foreign/Second Language Education, and it is one of the fastest-growing areas in each of these disciplines" (Smith, 2016, p. 2).

As for the influence of technology in education, CALL is widely used to facilitate learning and assessment of learners' language (Thouëсны & Bradley, 2011). Moreover, CALL makes the process of language teaching or learning more successful because of CALL's positive effect on learning in terms of "learning efficiency", "effectiveness", "access", "times/places convenience", "motivation", and "institutional efficiency" (Hubbard, 2021, p.6). CALL technologies are believed to enhance learning in different ways; one way is to facilitate providing feedback (Thouëсны & Bradley, 2011). The use of CALL for providing immediate feedback has considerably increased in the settings of EFL/ESL (Mohamed, 2020) because it has taken a massive role in promoting interactive learning (Beechler & Williams, 2012). It is becoming a central issue to investigate the integration of technology in education and better understand the willingness and readiness of teachers and students to use technology in the classroom (Kilickaya & Seferoglu, 2013).

Additionally, the impact of technological-mediated corrective feedback on EFL learners' writing ability has been given more emphasis by recent scholars in second language writing research (Tabatabaei et al., 2017). According to sociocultural theory (Vygotsky, 1978), feedback is considered a key element of language learning as it raises learners' awareness about their performance (Mohamed, 2020). Feedback takes on a scaffolding role in informing learners about the gap between their existing and the desired level (Ilies et al., 2010). It is generally believed that the provision of corrective feedback on learners' tasks is the responsibility of EFL teachers to support learners in improving their writing abilities (Wang, 2017). However, there has long been controversy on how and the extent to which teachers provide learners with grammar correction in writing (Tootkaboni & Khatib, 2014). The proponents of CF (e.g. Tootkaboni & Khatib, 2014; Ferris, 2010; Sauro, 2009; Nizegorodcew, 2007) argue in favour of error correction due to

its facilitative role in developing ESL/EFL learners' linguistic knowledge, improving writing skills, and helping them notice the non-target like language production (e.g. Bower & Kawaguchi, 2011). Thus, it is essential to examine the role of CALL, especially through using computer-assisted teacher corrective feedback (CATCF), in advancing writing skills (e.g. grammatical accuracy). Several other terms have been used to describe this type of feedback, such as computer-mediated corrective feedback (CMCF), computer-assisted feedback (CAF), and computer-assisted corrective feedback (CACF), but CATCF will be used throughout this study since it seems to describe the medium and type of feedback better than the others. CATCF should be utilised as an educational instrument, especially in teaching writing, because it helps develop students' writing skills (Al-Olimat & AbuSeileek, 2015). The integration of CATCF into EFL classrooms is also important for motivating learners and helping them improve their writing proficiency, especially via computerising programs (e.g. a word processor), which could lead to the development of their writing performance in relation to lexical, grammatical, mechanical, and content-related aspects (Al-Olimat & AbuSeileek, 2015).

Several research studies (e.g. Hyland, 2019; Ai, 2017) have been carried out to investigate different types of traditional paper-based or technology-mediated CF and their efficacy in the development of various aspects of writing. In disagreement with the followers of CALL, it is argued that “computers will not replace teachers, teachers who use computers will replace those who don't” (Smith, 2016, p. 2). Namely, CALL itself cannot completely replace the position of teachers in class, yet it tremendously aids EFL teachers in delivering more effective teaching, particularly in writing instruction, due to its facilitative role in providing CF and motivating learners to self-edit their subsequent written tasks. An illustration of this is “Automated L2 Writing Evaluation” (AWE) feedback, which only draws learners' attention to surface-level errors in EFL/ESL rather than a meaning-making process of communication (Smith, 2016, p. 12). Therefore, “pre- and in-service language teachers should be equipped with skills and strategies in integrating CALL technologies into their classrooms” (Thouëсны & Bradley, 2011, p. 23). Meanwhile, teachers are in a better position if they utilise CATCF to provide learners with CF and, in turn, motivate them to benefit from CF (Smith, 2016).

Although the role of CALL in providing written corrective feedback has been recently examined, the CATCF has been less focused on the related literature, particularly in the context of the Kurdistan Region of Iraq (KRI). There exists a research gap in the field of corrective feedback within writing classes, and there is a need to conduct further research studies investigating the efficacy of CATCF in teaching writing (Al-Olimat & AbuSeileek, 2015). Additionally, there is a lack of research exploring the Kurdish EFL teachers' attitudes towards using CATCF in writing instruction, highlighting the need for further investigation and study.

Therefore, this study aims to investigate the attitudes of Kurdish EFL teachers towards using CATCF in their writing classes. Additionally, it seeks to examine the extent to which their preferences change in accordance with their demographical information, such as teaching experience, degrees and gender. Thus, to achieve these aims, the following questions have been addressed:

1. What are the Kurdish EFL teachers' attitudes towards using computer-assisted teacher corrective feedback (CATCF) in teaching writing?

2. To what degree do demographic characteristics influence EFL teachers' attitudes and preferences towards CATCF?

This study has both theoretical and pedagogical contributions to the related field of literature. The results of this paper tend to provide scholars with a theoretical foundation and insights into the role of CATCF in facilitating learning through enhancing student engagement and motivation in the writing process. Moreover, the findings of this study have practical implications for EFL writing teachers by showing how the use of technology for timely and targeted corrective feedback (i.e. CATCF) has the potential to enhance writing skills among students. This study also contributes to the benefits of digital tools for increasing accessibility and flexibility, enabling EFL teachers to give feedback more efficiently, anytime, and/or anywhere.

2. Literature review

Despite their inconsistencies, various research studies (Rahimi & Hosseini, 2011; Capan, 2012; Gilakjani & Leong, 2012; Vahdat & Gerami, 2015; Bouchefra & Baghoussi, 2017; Behroozian & Sadeghghli, 2017; Ahmed et al., 2020; Başöz & Çubukçu, 2014; and Gupta et al., 2021, to name a few) can be found on the efficacy of technology use in EFL classrooms or on the attitudes of language instructors and learners towards using technology in various EFL contexts to aid in teaching and learning different language skills. Although most of the findings indicate that language instructors have a positive attitude towards the use of technology in their classes, this positive attitude is conditioned on language skill (Başöz & Çubukçu, 2014; Bouchefra & Baghoussi, 2017; and Tran et al., 2023), the instructors' technological knowledge or attitude (Gilakjani & Leong, 2012; Gupta et al., 2021; Cahyani & Cahyono, 2012, and Ahmed et al., 2020), and class time and finance (Behroozian & Sadeghghli, 2017). However, as far as attitudes of English language instructors towards the efficacy of CATCF are concerned, very little can be found. Corrective feedback, or the amount and medium of feedback and its role in improving EFL writing skills, has been debatable for over two decades (Mohsen, 2022). Most researchers, relying on their research conclusions, have argued that using computers in language classes, especially when feedback is concerned, is quite advantageous (Ai, 2017; Sauro, 2009; Al-Olimat & AbuSeileek, 2015, to name a few). This literature review aims to briefly reflect on the efficacy of CF and provide an overview of existing research on attitudes towards CATCF.

Giving corrective feedback is one of the most contentious topics among researchers concerning teaching and learning. Whether to give corrective feedback, what medium to use, how much to give, when, and what type of feedback should be given are all quite debatable. Kang & Han (2015), Lee (2019), and Shintani (2016) maintain that providing feedback is challenging as it might discourage language use. Despite this, learners should be given feedback and have their language analysed to find and explain their errors (Lee, 2019). Ai (2017) studied the effects of corrective feedback on students' writing and found that CF helps learners in self-identifying and -correcting grammatical issues. It was also concluded that giving prompts helps students to be more independent since their self-editing and self-correcting skills would improve. Similarly, Maqbali and Mohin (2022) discovered that teachers use various methods for giving feedback, and technology is helpful in identifying mistakes, promoting learning, boosting student confidence, and saving time. Basabrin (2019) investigated the perceptions of both EFL instructors and

students towards written CF on an online platform. He found that learners and instructors generally perceived giving feedback positively. However, he found that even after receiving feedback on their writings, students made the same mistakes again. He also found that the teacher might think he/she uses a specific type of feedback while using something else in practice. In other words, while feedback might not always work for various reasons, teachers use various types of feedback extensively in language classes, and one of the mediums is the use of technology to provide corrective feedback.

Although there are researchers who question the effectiveness of CATCF, there seems to be a general agreement in the literature on its efficacy (Yeh & Lo, 2009; Hosseini, 2012; Abuseileek & Abualsha'r, 2014; and Al-Olimat & AbuSeileek, 2015). Despite this, Hyland and Hyland (2019) believe that CATCF is less effective than face-to-face or real-time feedback due to a lack of immediate interaction and time pressure. They state that face-to-face interactions result in more positive and focused feedback than modern computer-based feedback. Likewise, Raza (2019) investigated the perception of Arab EFL Learners towards the effectiveness of teacher feedback. He found that the students prefer handwritten feedback, which is corrective and self-explanatory, compared with CATCF or oral feedback. It seems that Hyland and Hyland (2019) fail to acknowledge that CATCF can be given, as Shintani (2016) suggests, synchronously and asynchronously. Moreover, Raza's (2019) study overlooks the advances in technology have provided teachers with various tools and ways to give CF to their learners in ways which might be much more salient than the traditional tools, giving learners various opportunities to self-identify and self-edit their written language (Shintani, 2016). Contrary to Raza's (2019) findings, Wu and Xu (2022) concluded that Chinese EFL learners had a positive attitude towards CATCF. In their study, the participants believed that CATCF is more advantageous than traditional feedback since it is less embarrassing and increases their confidence in language use. There are also various other studies suggesting that CATCF is quite advantageous and effective. For example, Sauro (2009), Al-Olimat & AbuSeileek (2015), Hosseini (2012), Yeh & Lo (2009), and Abuseileek & Abualsha'r's (2014) studies, although using various technological tools to give CF, all concluded that CATCF has profound effects, if used properly, on the student's language skills, especially when writing skills are involved. CATCF has been found to have profound positive effects not only on improving students' written accuracy but also on improving their speaking (Sauro, 2009 and Shintani, 2016). That explains why some researchers, for instance, Cerezo (2019), argue that contemporary classes need CATCF more than ever.

As established earlier, CATCF is highly effective and helpful to language learners and instructors since it saves time and effort. From the perspective of learners and researchers, it is broadly considered advantageous and viewed positively. There also are various studies suggesting that the attitudes of EFL instructors towards CATCF and their technological skills and knowledge are fundamental since they might predetermine the success and integration of CATCF in their classes (Gilakjani & Leong, 2012; Gupta et al., 2021; and Ahmed et al., 2020). Vahdat and Gerami (2015) investigated the attitudes of Iranian teachers towards CATCF and concluded a positive attitude towards it. They also concluded that their participants believed that CATCF make classes more fun and easier to teach, promotes students' overall writing skills, provides instructors with more opportunities to write constructive feedback, and improves learners' autonomy. In the same vein, Wu and Xu (2022) investigated the perceptions of teachers towards CATCF

in Chinese tertiary institutes. The researchers also found that the positive attitude of teachers towards CATCF has led to its extensive use in the Chinese EFL context.

However, as far as the Kurdish EFL context is concerned, the researchers were unable to discover any studies about the attitudes of Kurdish EFL instructors towards CATCF. Thus, this study aims to address this gap by shedding light on the attitudes and preferences of Kurdish EFL language instructors teaching in the language centres of KRI's public universities towards CATCF.

3. Methodology

3.1 Research design

This study used a quantitative research design to gather survey data from a sample of Kurdish EFL instructors teaching in the Iraqi Kurdistan Region's public universities' language centres. The main aim is to determine their attitudes and preferences towards using technology in teaching writing and providing students with CATCF. The quantitative phase, which entails surveys of instructors, enables the systematic collection of information on their viewpoints, attitudes, and experiences about technology in language instruction. Supporting this, Woodrow (2020: 33) and Dörnyei (2007: 34) define a quantitative approach as “*rigorous*”, “*pre-determined*”, “*systematic*”, generalizable, and objective by controlling sampling and variables. Thus, it can be argued that quantitative data can be more representative of the relevant population than qualitative results. To collect data quantitatively, this study administered a questionnaire from Vahdat & Gerami's (2015) and Vandewaetere & Desmet's (2009) studies to a group of Kurdish EFL teachers who taught in language centres. According to Dörnyei (2007, p.115), questionnaires help “collect a huge amount of information in less than an hour, ...”. Similarly, Woodrow (2020, p.39) argues that questionnaires are “*quick to administer and can be circulated electronically*”.

As for the sampling method, cluster sampling, which is a proposed probability sampling in quantitative research, was used. According to Woodrow, L. (2020, p.45), this method is defined as “randomly selected larger groups that use all participants in that group, for example, TESOL classes in a selected number of universities.” Thus, the target population was divided into 14 groups of EFL teachers teaching at 14 public universities across the Kurdistan Region of Iraq.

3.2 Setting and Participants

This study involved sixty-five Kurdish EFL instructors (40 male and 25 female). The participants were either employed or adjunct instructors in language centres that belong to fourteen public universities in the Kurdistan Region of Iraq. The teachers held PhD or Master's degrees and specialized either in linguistics, applied linguistics, literature, TESOL, or English language teaching. Table 1 shows the demographic information of the participants in detail.

Table 1: Demographic information of the participants of the study

		No
Gender	Male	40
	Female	25
Degree	MA	57
	PhD	8
Years of teaching experience	1 -5	16
	6 – 10	22
	11 -15	21
	16 -20	4
	More than 20 years	2
Workplace	Charmo University	4
	Duhok University	5
	Zakho University	14
	Sulaimani University	2
	Koya University	6
	Erbil Polytechnic University	3
	Salahaddin University	11
	Sulaimani Polytechnic University	4
	Garmian University	7
	Raparin University	2
	Halabja University	4
	Duhok Polytechnic University	2
Soran University	1	

3.3 Research instrument

A structured questionnaire was adapted from Vahdat and Gerami's (2015) and Vandewaetere and Desmet's (2009) studies to discover the participants' perceptions of using CATCF in teaching writing classes. However, the content of this study's survey was designed and developed to meet the objectives and research questions of this study. The questionnaire consisted of two sections: Section 1 – Demographical and Educational Background and Section 2 – EFL teachers' beliefs about using technology in writing instruction. The participants were guided to give their views on the statements in accordance with a 5-point Likert scale (ranging from strongly disagree to strongly agree). The statements elicited information on the attitudes of the participants towards CATCF and the use of technology to teach writing. For more details on the questionnaire, see Appendix A. Since the questionnaire was adapted, the researchers computed Cronbach's Alpha using SPSS to make sure the adapted questionnaire was reliable. The results indicated that the questionnaire was reliable, with a Cronbach's Alpha of .805. Additionally, the questionnaire was pilot-tested and involved two Kurdish EFL teachers with characteristics similar to the target population to assess the clarity, relevance, and effectiveness of the questionnaire.

3.4 Data collection procedure and data analysis

In this study, participants were asked to express their attitudes towards the use of technology in writing instruction, particularly when they provide CATCF. The data were gathered during a two-day teacher training workshop organized by the KRG Ministry of Higher Education and Scientific Research for the Kurdish EFL instructors who had been teaching at the language centres of the public universities in KRI. The training was held in Erbil, Duhok and Sulaimani cities from October to November 2023. At the end of the workshop in each city, the participants were invited to fill out the questionnaire after they were clarified with the aims of this study. They were given clear instructions for filling in the questionnaire.

The SPSS Version 27 program was used to analyse the data descriptively, and some inferential analysis was conducted. According to Woodrow (2020, p. 43), the latter “enables the researcher to generalise beyond the sample by using appropriate sampling and statistical techniques.”

4. Results

4.1 Kurdish EFL teachers' attitudes towards using technology to teach writing

The first research question was to investigate Kurdish EFL teachers' attitudes towards using CATCF. Therefore, some items of the questionnaire targeted the perception of the Kurdish EFL instructors towards using technology to teach writing classes and CATCF. The results indicate that most of the respondents of this study, 66.1% (mean= 2.60 and SD= .607) believed that technology-based writing instruction meets the student's needs for academic skills in the new age of technology, and 84.6% (mean=2.83 and SD= .417) of the respondents believed that teaching writing through computers prepares their students for their future professional skills since it saves time, develops ideas and thoughts, makes students more creative. The results also indicate that 83.1% (mean= 2.82 and SD= .429) of the respondents perceived that computers can be used as advanced instructional tools to provide written instructions. Additionally, 81.5% (mean = 2.71 and SD =.655) of the respondents claimed they are technologically competent enough to avoid traditional problems when giving feedback using computers, and 76.9% (mean=2.66 and SD= .668) claimed to be familiar with modern writing tools, including AI. Despite this, most participants still thought or did not provide any opinions, that computers are not more effective than the traditional method for teaching writing classes. More than half of this study participants (53.8%, mean 2.18, and SD= .846) still preferred the traditional method to teach their writing classes. Table 2 shows Kurdish EFL instructors' perception of the use of technology to teach their writing classes.

Table 2: Perceptions of the participants towards the use of computers and technology to teach their writing classes

Items	1	2	3	Mean	Std. D
	Fre (%)	Fre (%)	Fre (%)		
1. Technology-based writing instruction meets the students' needs for academic skills.	4 (6.2%)	18 (27.7%)	43 (66.1%)	2.60	.607
2. Writing papers by hand saves time compared to using a computer.	38 (58.5%)	7 (10.8%)	20 (30.8%)	1.72	.910
3. Writing to others by e-mail helps me develop my thoughts and ideas.	10 (15.4%)	17 (26.2%)	38 (58.5%)	2.43	.749
4. Writing by computer makes my students more creative and/or communicative.	5 (7.7%)	19 (29.2%)	41 (63.1%)	2.55	.638
5. Computer programs can be used as advanced instructional tools in writing instruction.	1 (1.5%)	10 (15.4%)	54 (83.1%)	2.82	.429
6. Technology-based writing prepares students for their future professional skills.	1 (1.5%)	9 (13.8%)	55 (84.6%)	2.83	.417
7. Computers are more effective for teaching writing than paper and pencil.	18 (27.7%)	17 (26.1%)	30 (46.2%)	2.18	.846
8. I can avoid problems like handwriting when I use computers to give feedback.	7 (10.8%)	5 (7.7%)	53 (81.5%)	2.71	.655
9. Computers can help keep track of my students' writing progress.	5 (7.7%)	13 (20.0%)	47 (72.3%)	2.65	.623
10. I have limited experience in using computer technology for my EFL writing courses.	40 (61.5%)	14 (21.5%)	11 (16.9%)	1.55	.771
11. I am familiar with modern writing tools, e.g. Quillbot, and/or AI writing tools, e.g. ChatGPT.	7 (10.8%)	8 (12.3%)	50 (76.9%)	2.66	.668

Note: 1= Disagree and strongly disagree, 2= Neutral, and 3= Agree and strongly agree

The rest of the questionnaire targeted the perceptions of the Kurd EFL instructors towards CATCF. 89.2% (mean=2.85 and SD=.475) of the participants of this study believed that they were aware of the applications that can be used to provide written feedback, and 78.5% (mean 2.77 and SD= .460) considered using computers gives them more opportunities to provide more written practice. Most of the respondents (80%, mean 2.71, and SD= .631) of the respondents believed that revising written tasks is much easier using computers, and they can provide better and more thorough feedback on their learners' written tasks to improve their learners' grammatical and lexical, and technical skills. In other words, using CATCF was deemed to improve the learners' accuracy and fluency. Moreover, 76.9% (mean 2.74 and SD = .509) stated that CATCF is more practical and less effortful than the traditional feedback method. That might explain why 83.1% (mean 2.80 and SD= .474) of the respondents believed that EFL instructors need training to be more familiar with the new tools or applications that can be used to give CATCF. Table 3 demonstrates the perceptions of the participants towards CATCF.

Table 3: Perceptions of the participants towards CATCF

Items	1	2	3	Mean	Std. D
	Fre (%)	Fre (%)	Fre (%)		
12. I am familiar with applications such as Microsoft Word to give feedback (e.g. by using track change).	3 (4.6%)	4 (6.2%)	58 (89.2%)	2.85	.475
13. Using a computer gives me more chances to provide more writing practice.	1 (1.5%)	13 (20%)	51 (78.5%)	2.77	.460
14. Communicating by e-mail is a good way to improve my learners' writing skills.	8 (12.3%)	13 (20%)	44 (67.7%)	2.55	.708
15. By using computers, students can write essays of better quality.	13 (20%)	13 (20%)	39 (60%)	2.40	.806
16. By using computers, students are motivated to follow up on the teacher's corrective feedback.	2 (3.1%)	12 (18.5%)	51 (78.5%)	2.75	.501
17. Revising/proofreading an essay is a lot easier when I use a computer.	6 (9.2%)	7 (10.8%)	52 (80%)	2.71	.631
18. By using computers, I can provide better and more feedback on students' writing.	7 (10.8%)	7 (10.8%)	51 (78.5%)	2.68	.664
19. I like to use computer-assisted teacher corrective feedback (CATCF) in teaching writing.	10 (15.4%)	12 (18.5%)	43 (66.2%)	2.51	.753
20. CATCF helps improve my teaching of writing.	5 (7.7%)	15 (23.1%)	45 (69.2%)	2.62	.630
21. CATCF is practical and effective.	2 (3.1%)	13 (20.0%)	50 (76.9%)	2.74	.509
22. CATCF is useful for learners' development of productive skills.	1 (1.5%)	22 (33.8%)	42 (64.6%)	2.63	.517
23. CATCF is useful for learners' development of receptive skills.	1 (1.5%)	22 (33.8%)	42 (64.6%)	2.63	.517
24. CATCF is useful for learners' development of grammatical and lexical accuracy in writing.	5 (7.7%)	12 (18.5%)	48 (73.8%)	2.66	.619
25. EFL teachers need training in using CATCF	2 (3.1%)	9 (13.8%)	54 (83.1%)	2.80	.474

Note: 1= Disagree and strongly disagree, 2= Neutral, and 3= Agree and strongly agree

Accordingly, to further understand the results, the questionnaire items were classified into two groups based on the two themes of the questionnaire: the attitudes towards using computers to teach writing (Group 1) and attitudes towards CATCF (Group 2). Correlational analyses were conducted between the means of the two groups, and the results of Spearman's rho showed a strong positive correlation between the two groups, $r_s(63) = .523, p < .001$, which was found to be statistically significant at the .01 level (two-tailed). Understandably, this result suggests that the overall perceptions of the participants towards

CATCF are positively correlated with their perception towards the efficacy of using computers and technology in general to teach their writing classes. Table 4 demonstrates the results of the correlation between the two groups.

Table 4: Correlations between Group 1 and Group 2

		Group1	Group2
Spearman's rho	Group1	Correlation Coefficient	1.000
		Sig. (2-tailed)	.523**
		N	.000
			65
			65

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

4.2. Influence of Kurdish EFL teachers' demographic characteristics on their attitudes

The second research question was to discover the influence of Kurdish EFL teachers' demographic characteristics on their attitudes towards CATCF. The researchers ran some inferential analysis to discover whether teaching experience, gender, and degree have any effect on the participants' attitudes.

A one-way ANOVA test was run to discover whether the teaching experience of the participants affected their attitudes towards CATCF. However, no significant differences were discovered. Table 6 demonstrates the results of the one-way ANOVA test.

Table 5: One-way ANOVA test of the participants' teaching experience and their attitudes towards CATCF

	Sum of Squares	DF	Mean Square	F	Sig.
Between Groups	.150	4	.037	.702	.594
Within Groups	3.197	60	.053		
Total	3.346	64			

Moreover, to discover differences between the mean scores of male and female participants, independent samples t-tests were conducted for all of the items of the questionnaire. Significant differences between male and female respondents were discovered for the three items that were related to the pedagogical effects of emails (Item 3), familiarity with the tools that can be used for giving CATCF (Item 12), and the need for EFL instructors for further training (Item 25). The results of Levene's Test for Equality of Variances showed variances were equal for Items 12 ($F(1, 63) = .968, p = .329$) and 25 ($F(1, 63) = .070, p = .792$), but not for Item 3 ($F(1, 63) = 15.741, p < .001$). Thus, equal variances were not assumed for Item 3. Nevertheless, the results of the independent samples t-tests were significant for all three items. For Item 3, the result showed a significant difference between male and female respondents, $t(62.807) = -3.563, p = .001$, with females scoring higher than males by an average of 0.630 points. Also, for Item 12, the result revealed a significant difference in the mean scores, $t(63) = 2.376, p = .021$, with males scoring higher than females by an average of 0.410 points. As for Item 25, the results indicated a significant difference in the mean scores, $t(63) = -2.325, p = .023$, where females scored higher by an average of 0.405 points.

Table 6: Independent samples t-tests of mean scores of male and female participants

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Item 3	Equal variances assumed	15.741	.000	-3.176	63	.002	-.630	.198	-1.026	-.234
	Equal variances not assumed			-3.563	62.807	.001	-.630	.177	-.983	-.277
Item 12	Equal variances assumed	.968	.329	2.376	63	.021	.410	.173	.065	.755
	Equal variances not assumed			2.215	40.145	.032	.410	.185	.036	.784
Item 25	Equal variances assumed	.070	.792	-2.325	63	.023	-.405	.174	-.753	-.057
	Equal variances not assumed			-2.331	51.560	.024	-.405	.174	-.754	-.056

These results suggest that the female participants were more likely to believe that writing to others by email assists them in developing their thoughts and ideas, while the male instructors held various views. Similarly, the male participants were more assertive in believing they were quite familiar with the tools and applications that could be used to give CATCF. This might explain why the female participants were more likely to believe that EFL instructors need more training to keep up with the newer tools to provide CATCF. Table 6 reports the independent samples t-test results in detail.

Independent samples t-tests were also conducted to reveal whether there were any significant differences between the mean scores of the different degree holders, master and doctorate degree holders. Some varied significant differences were noted but under different variance assumptions.

For Item 2, the t-test results indicated a significant difference between the two degree-based groups, $t(62) = 2.136$, $p = .037$. When equal variances were not assumed, the results were still significant, $t(10.724) = 2.606$, $p = .025$. Similarly, although not always under the same variance assumptions, significant differences were also found for Item 5 ($p = .030$), Item 10 ($p = .050$), Item 14 ($p = .037$), Item 18 ($p = .031$), Item 21 ($p = .019$), and Item 23 ($p = .050$) between the two degree-based groups. Table 7 shows these results in detail.

Table 7: Independent samples t-tests of mean scores of the participants based on their degrees

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Item 2	Equal variances assumed	3.580	.063	2.136	62	.037	.857	.401	.055	1.659
	Equal variances not assumed			2.606	10.724	.025	.857	.329	.131	1.583
Item 5	Equal variances assumed	1.564	.216	-2.784	62	.007	-.500	.180	-.859	-.141
	Equal variances not assumed			-2.585	8.727	.030	-.500	.193	-.940	-.060
Item 10	Equal variances assumed	.129	.720	2.000	62	.050	.643	.321	.000	1.286
	Equal variances not assumed			1.749	8.466	.116	.643	.368	-.197	1.482
Item 14	Equal variances assumed	.711	.402	-2.007	62	.049	-.661	.329	-1.319	-.003
	Equal variances not assumed			-2.387	10.458	.037	-.661	.277	-1.274	-.048
Item 18	Equal variances assumed	1.773	.188	-1.458	62	.150	-.482	.331	-1.143	.179
	Equal variances not assumed			-2.361	16.332	.031	-.482	.204	-.914	-.050
Item 21	Equal variances assumed	1.986	.164	-2.402	62	.019	-.482	.201	-.883	-.081
	Equal variances not assumed			-1.862	8.048	.099	-.482	.259	-1.079	.114
Item 23	Equal variances assumed	.626	.432	-1.998	62	.050	-.464	.232	-.929	.000
	Equal variances not assumed			-1.928	8.919	.086	-.464	.241	-1.010	.081

These findings suggest that participants who were doctorate degree holders were more likely to have a positive attitude towards the use of technology to teach writing and CATCF compared to their master's degree-holder counterparts. Doctorate degree holders were keener to believe that CATCF provides learners with better and more feedback, and it is quite practical, effective, and time-saving.

Overall, these results suggest that the perceptions of Kurdish EFL instructors towards CATCF are somewhat affected by their gender and degree. However, as far as teaching experience is concerned, based on these results, it had no significant effects on the perception of the participants of this study towards CATCF.

5. Discussions

This study was conducted to discover the attitudes of Kurdish EFL instructors at the Iraqi Kurdish public university language centres towards using CATCF and whether their demographic characteristics affected their attitudes. The overall results of the study suggest that the participants had a positive attitude towards

using CATCF and technology to teach their writing classes. Nevertheless, there were some discrepancies and significant differences based on the gender and degree of the participants.

For the first research question, which was targeted at the attitudes of the Kurdish EFL instructors towards CATCF, most of the participants of the study had a positive attitude towards it and were familiar with different tools and applications to provide CATCF. They believed that using CATCF is less effortful, more efficient, and more practical compared to the traditional method of giving CF. The participants of this study also believed that when teachers use CATCF, they motivate their students to follow up on their CF. This might lead to improvement in grammatical and lexical accuracy in writing, receptive skills, and overall productive skills. In other words, CATCF improves not only the learner's accuracy but also their overall fluency. These findings are in line with Ghufroon's (2019) study, in which he discovered that teachers, as well as students, had a positive attitude towards the efficacy of CATCF. Additionally, these findings also resonate with Sherafati and Largani's (2023) results, which suggested that CATCF improves the self-regulation and self-efficacy of the learners and is an appropriate alternative to traditional feedback. These are also consistent with Al-Olimat and AbuSeileek's (2015) remarks about how, by integrating CATCF as a pedagogical tool, EFL instructors are in a better position to provide CF and, in turn, improve the overall written proficiency of EFL learners.

However, there is no consensus among the researchers on the efficacy of CATCF. For example, Hyland & Hyland's (2019) belief and Raza's (2019) findings suggest that CATCF is less effective than face-to-face or real-time feedback due to a lack of immediate interaction and time pressure. Nevertheless, the effectiveness of CALL and CATCF has resonated in various other studies (for example, Nizegorodcew, 2007; Sauro, 2009; Yeh & Lo, 2009; Hosseini, 2012; Abuseileek & Abualsha'r, 2014; Vahdat & Gerami, 2015; Al-Olimat & AbuSeileek, 2015; Shintani, 2016; Basabrin, 2019; Ghufroon, 2019; Wu & Xu, 2022; and Sherafati & Largani, 2023). Although these studies have focused on using various technological tools to give CF, they all concluded that CATCF has profound effects if used properly. This can be explained by some of the features of CATCF, which is not only more efficient and time-saving but also provides opportunities to practice English. For the teachers, CATCF makes teaching easier and more interesting (Vahdat & Gerami, 2015). This is attributable to the efficacy of CALL that leads to learning enhancement in different ways, such as providing feedback (Thouëсны & Bradley, 2011) and providing immediate feedback in the field of language learning (Mohamed, 2020) because it has taken its massive role in promoting interactive learning (Beechler & Williams, 2012). It seems Hyland and Hyland (2019) have failed to acknowledge that there are various tools that can be used to give CATCF interactively.

Despite having a very positive attitude towards CATCF, being experienced, and acknowledging the new age of technology, the participants of this study had a tendency sometimes to prefer the traditional method to teach their writing classes and hesitated to believe that using technology in their writing classes could yield as many positive outcomes as the traditional method. This finding agrees with the findings of Thouëсны and Bradley's (2011), Başöz and Çubukçu's (2014), Bouchefra and Baghoussi's (2017), and Behroozian and Sadeghoghli's (2017) studies. These studies also discovered that EFL instructors had positive attitudes towards the efficacy of CATCF and CALL, but they were hesitant and anxious about the use of technology to teach writing classes. Thouëсны and Bradley (2011) maintain that being hesitant towards the use of technology might be due to the instructors' need for constant training and their

insufficient technological skills and knowledge to integrate CALL tools, which is difficult to keep up with into their classes. It seems that EFL instructors have a positive attitude towards CATCF and using technology to aid their classes, but they are still hesitant about its use in their writing classes. However, the overall attitude of the participants of this study was positive towards the use of technology to teach writing classes. A more detailed analysis of the results revealed that the attitudes of the participants towards the efficacy of CATCF were highly correlated with their attitudes towards the use of technology to teach writing.

For the second research question, which was to explore the influence of demographic characteristics on the attitudes of Iraqi Kurdish EFL instructors towards CATCF, the inferential analysis results indicated that degree and gender have significant influences while teaching experience does not.

The degree the Iraqi Kurdish EFL instructors hold affects their perceptions; the higher their degree, the more positive their attitudes towards the effects of teaching writing using technology and communicating with students by email. The results suggest that Iraqi Kurdish EFL instructors holding doctorate degrees have a more positive attitude towards the pedagogical effects of technology on the learners. This might be because doctorate holders arguably possess more skills and abilities. This finding is similar to what Gupta et al. (2021) and Ahmed et al. (2020) concluded in their studies. Both studies underscored that the attitudes of instructors of the English language towards CALL rely on their skills and abilities; the higher their skills and abilities, the more positive their attitudes. Some significant differences were also found between female and male Iraqi Kurdish instructors' attitudes towards writing emails. It was discovered that female instructors had a more positive attitude towards using emails than their male colleagues, while the male instructors were more likely to believe that they were familiar with the new tools and applications that can be used to provide students with CATCF. Since the females believed they were not quite familiar with the tools that can be used to provide CATCF, they were more keen to believe that EFL instructors need more training on CATCF.

Moreover, no significant differences were found between the participants' teaching experience and attitude towards CATCF. This result corresponds with what Başöz and Çubukçu (2014) and Bouchefra and Baghoussi (2017) discovered when studying pre-service Turkish and experienced Algerian EFL instructors, respectively. These results suggest that EFL instructors, regardless of their teaching experience, hold the view that technology is still not effective enough when teaching writing and assessment are concerned. Notwithstanding, various researchers (Wang, 2017; Mohamed, 2020; Ilies et al., 2010; and Smith, 2016) argue that it is the responsibility of EFL instructors to approach and use CALL and CATCF in their classes and motivate their learners to do the same.

In summary, these results suggest that, in various EFL contexts, instructors have positive attitudes towards the efficacy of CATCF and believe that it is effective, time-saving, and helpful for both learners and instructors; however, some of their demographic characteristics, such as gender and degree, affect their attitudes. These findings provide more insights into the role of CALL in language learning and teaching writing skills, which encourages EFL teachers to integrate their writing classes with CALL applications, particularly CATCF, due to its flexibility, accessibility, learning efficiency, and learner-centred approach. Therefore, pre- and in-service language teachers ought to be more familiar with the necessary

technological tools and applications and to incorporate CATCF into their teaching environment. It should be noted that the results of this study have limitations as the number of participants were limited, especially the doctorate degree holders, and it lacks some qualitative details to account for some of the significant differences. The researchers believe that interviews with EFL instructors might provide a more detailed and qualitative analysis that could account for and explain some of the significant differences. Also, further research is recommended to explore different aspects of EFL students' views about using CATCF in EFL classrooms.

6. Conclusions

This study aimed to discover the attitudes of Kurdish EFL instructors teaching at the language centres of public universities of the Kurdistan Region of Iraq towards CATCF. It was discovered that most Kurdish EFL instructors have a positive attitude towards CATCF and believe that it is less effortful, more effective, time-saving, and more practical. The findings of this study provide more insights into the role of CALL in language learning and teaching writing skills, which encourages EFL teachers to integrate their writing classes with CALL applications, particularly CATCF. Despite this positive attitude towards the efficacy of CATCF, Kurdish EFL instructors were still anxious and sometimes had a tendency towards the traditional method of teaching writing. The overall results still suggested that they preferred the use of technology to teach their writing classes. The results also highlight that the teaching experience of Kurdish EFL instructors does not significantly influence their attitudes towards using technology to teach writing classes and CATCF. Nevertheless, some significant differences were found between the different genders and degree holders. Female and doctorate degree-holder instructors had a more positive attitude than their male and master's degree-holder counterparts.

This study also has recommendations for future studies to identify new areas for research. For example, further research is recommended to explore EFL students' views about using CATCF in EFL classrooms. In addition, qualitative research is needed to strengthen and validate the qualitative results of this study and provide a deeper understanding of the reasons for the differences in Kurdish EFL teachers' attitudes.

تيروانيني ماموستايانى كورد كه ئينگليزى وهك زمانىكى بيگانە دەلئنه وه سەبارەت بە بەكارهيتانى كۆمپيوتهر بۆ پيدانى فيدباكى ماموستايى چاكسازى بە نوسين له گوتنه وهى وانهكانى تايبەت بە نوسين دا

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پوخته

تەکنەلۆژيا لەم دوایانەدا رۆلێكى گرنگى هەبووه له ئاسانكارىکردن بۆ فيربوون و فيرکردنى زمانى ئينگليزىدا. بەشیکى بەرچاو له توێژينه وهكان له کارىگەرى فيربوونى زمان بە يارمەتى كۆمپيوتهر يان (CALL) كۆليوه ته وه له پۆله جياوازهكانى زمانى ئينگليزى وهك زمانى دوهم/ بيانى، بە تايبەتى ئەو رۆله نيوهندگيرەى كه كۆمپيوتهر هەيه تى بۆ پەرەپيدانى توانسته زمانىيه جياوازهكانى فيرخواز. ئەم توێژينه وهيه ئامانجى ليکۆلئنه وهيه له تيروانينى ماموستايانى كوردى عيراقى كه ئينگليزى وهك زمانىكى بيگانە دەلئنه وه سەبارەت بە بەكارهيتانى ئامرازه كۆمپيوتهر يه كان بۆ فيربوونى زمان (CALL) بۆ پيدانى فيدباكى ماموستايى چاكسازى بە نوسين له گوتنه وهى وانهكانى تايبەت بە نوسين لهو پۆلانهى كه ئينگليزى وهك زمانىكى بيانى دەخويندريين. وه ههروهها توێژينه وهكه ههولى ديارىکردنى ئەو تايبەتمەندييه ديموگرافىانه دەدات كه كارىگەريان له سەر تيروانين و ئارهزوى ماموستايان ههيه سەبارەت بە بەكارهيتانى تەکنەلۆژيا له پۆله كانياندا و بەكارهيتانى كۆمپيوتهر بۆ پيدانى فيدباكى ماموستايى چاكسازى بە نوسين (CATCF). لەم توێژينه وهيه دا ريبازى توێژينه وهى چەندايەتى بەكارهيترا و داتاكان له ريگەى پرسىارنامەيه كه وه كۆكرانه وه كه بە كۆمەليک ماموستايى كوردى زمان كه وانهى ئينگليزىيان دەگوته وه له سەنتەرهكانى زمانى زانکۆ حكومىيهكانى هەريمی كوردستانى عيراق. ئەنجامه وهسفى و ژماره ييهكانى توێژينه وهكه ئامازە به وه دەكەن كه ماموستايانى كوردى زمان كه ئينگليزى وهك زمانىكى بيگانە دەلئنه وه، ههچەنده هەندىك جار دوو دلبوون سەبارەت بە بەكارهيتانى تەکنەلۆژيا، بەلام بەشيوه يهكى گشتى هەلوستىكى ئەريتيان هەبوو سەبارەت بە CATCF. بەكارهيتانى تەکنەلۆژيايان پى باش بووه بۆ وانه گوتنه وهى نوسين، و ئاگادارى تەکنەلۆژيا و ئامرازه نوئيه كان بوون بۆ گوتنه وهى وانهى نوسين. ئەنجامه كانى ئەم توێژينه وهيه هەندىك ليكه وته يان ههيه له سەر ماموستايانى نووسين كه ئينگليزى وهك زمانىكى بيگانە دەلئنه وه ههيه.

كيله وشەكان: تيروانين بەرامبەر فيدباكى چاكسازى ماموستايى له ريگەى كۆمپيوتهر؛ CATCF؛ وانهكانى نوسين، تەکنەلۆژيا، CALL ئامرازه كۆمپيوتهر ييه ئاسانكارىيه كان بۆ فيربوونى زمان؛ ماموستايانى كورد زمان كه وانهى ئينگليزى دەلئنه وه

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Appendix A

Questionnaire: Kurdish EFL Teachers' Attitudes Towards the Use of Computer-Assisted Teacher Corrective Feedback in Teaching Writing Classes

The aim of this questionnaire is to elicit the teachers' attitudes of Kurdish EFL learners towards the use of computer-assisted teacher corrective feedback (CATCF) in teaching writing classes. This questionnaire has two sections: Section one is to obtain some demographic data, while the second section is designed to explore the instructor's attitudes towards using computer-assisted teacher corrective feedback in teaching writing classes. Your data will be dealt with anonymously and will be kept confidential.

Section1 – Demographical and Educational Background

Directions: Please choose the best option or provide an answer for the following:

A1. Gender:

Male Female

A2. Degree

B. A M.A PhD Other: Please specify.....

A3. Major or Specialty:**A4. Teaching experience**

1 – 5 years 6 – 10 years 11 – 15 years 16 – 20 years More than 20 years

A5. University: **Name of Language Centre:**

Section 2 – EFL teachers' beliefs about the use of technology in writing instruction

Directions: Circle the option that you most agree/disagree with.

1. **Technology-based writing instruction meets the students' needs for academic skills.**
Strongly Disagree Disagree No Opinion Agree Strongly Agree
2. **Writing papers by hand saves time compared to using a computer.**
Strongly Disagree Disagree No Opinion Agree Strongly Agree
3. **Writing to others by e-mail helps me develop my thoughts and ideas.**
Strongly Disagree Disagree No Opinion Agree Strongly Agree
4. **Writing by computer makes my students more creative and/or communicative.**
Strongly Disagree Disagree No Opinion Agree Strongly Agree
5. **Computer programs can be used as advanced instructional tools in writing instruction.**
Strongly Disagree Disagree No Opinion Agree Strongly Agree
6. **Technology-based writing prepares students for their future professional skills.**
Strongly Disagree Disagree No Opinion Agree Strongly Agree
7. **Computers are more effective for teaching writing than paper and pencil.**
Strongly Disagree Disagree No Opinion Agree Strongly Agree
8. **I can avoid problems like handwriting when I use computers to give feedback.**
Strongly Disagree Disagree No Opinion Agree Strongly Agree
9. **Computers can help keep track of my students' writing progress.**
Strongly Disagree Disagree No Opinion Agree Strongly Agree
10. **I have limited experience in using computer technology for my EFL writing courses.**
Strongly Disagree Disagree No Opinion Agree Strongly Agree
11. **I am familiar with modern writing tools: e.g. Quillbot and/or AI writing tools e.g. Chat GBT.**
Strongly Disagree Disagree No Opinion Agree Strongly Agree
12. **I am familiar with applications such as Microsoft Word to give feedback (e.g. by using track change).**
Strongly Disagree Disagree No Opinion Agree Strongly Agree

13. **Using a computer gives me more chances to provide more writing practice.**
Strongly Disagree DisagreeNo Opinion Agree Strongly Agree
14. **Communicating by e-mail is a good way to improve my learners' writing skills.**
Strongly Disagree DisagreeNo Opinion Agree Strongly Agree
15. **By using computers, students can write essays of better quality.**
Strongly Disagree DisagreeNo Opinion Agree Strongly Agree
16. **By using computers, students are motivated to follow up the teacher's corrective feedback.**
Strongly Disagree DisagreeNo Opinion Agree Strongly Agree
17. **Revising/proofreading an essay is a lot easier when I use a computer.**
Strongly Disagree DisagreeNo Opinion Agree Strongly Agree
18. **By using computers, I can provide better and more feedback on students' writing.**
Strongly Disagree DisagreeNo Opinion Agree Strongly Agree
19. **I like to use computer assisted teacher corrective feedback in teaching writing.**
Strongly Disagree DisagreeNo Opinion Agree Strongly Agree
20. **Computer assisted teacher corrective feedback helps improve my teaching of writing.**
Strongly Disagree DisagreeNo Opinion Agree Strongly Agree
21. **Computer assisted teacher corrective feedback is practical and effective.**
Strongly Disagree DisagreeNo Opinion Agree Strongly Agree
22. **Computer assisted teacher corrective feedback is useful for learners' development of productive skills.**
Strongly Disagree DisagreeNo Opinion Agree Strongly Agree
23. **Computer assisted teacher corrective feedback is useful for learners' development of receptive skills.**
Strongly Disagree DisagreeNo Opinion Agree Strongly Agree
24. **Computer assisted teacher corrective feedback is useful for learners' development of grammatical and lexical accuracy in writing.** Strongly Disagree DisagreeNo Opinion Agree Strongly Agree
25. **EFL teachers need training in using computer assisted corrective feedback.**
Strongly Disagree DisagreeNo Opinion Agree Strongly Agree