

Research Article

Inspecting Instrument-Based Variability: Effects of Enriching Willingness to Communicate Questionnaire (WTC) - A Mixed Methods Approach

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(Received:2022/12/04; Accepted:2023/11/19)

Online publication: 2023/12/09

Abstract

This cross-sectional mixed methods sequential explanatory research aimed at finding out the effects of enriching WTC using oral-visual role-play on EFL responses from comparing the responses of 117 pre-intermediate EFL learners to this instrument before and after the enriching act. The quantitative results indicated no statistically significant effect in average score of the responses, and a decrease in reliability from original to the enriched one, but individual and item internal changes. Then, it followed up with 12 purposefully recruited typical respondents to explore those quantitative results in verbal protocol after each administration of original and enriched WTC questionnaire that detected source of variability due to purpose, place, visualization, age, gender, and personality of the interlocutors in the role-plays. Quantitative and qualitative results are discussed with reference to the prior research. Finally, implications for EFL instructors, supervisors, and language assessors are provided.

Keywords: enriching, mixed methods, role-play, WTC

Introduction

An important predicament in sociolinguistic inquiry deals with the methods employed for collecting data, the credibility of diverse kinds of methods, and appropriateness of them to approach the authentic performance of the linguistic action (Kasper & Dahl, 1991). In fact, the most proportion of authentic data in the realm of sociolinguistic research is the spontaneous performance collected by the ethnographic observation (Wolfson, 1981). The enhancing some of the pragmatic tests such as Discourse Completion Test

(Billmyer & Varghese, 2000) and (Mohammad Hosseinpur, Bagheri Nevisi, & Lowni, 2019), as the main instrument in the field of pragmatics has been done in comparison with the written DCT in order to elicit more authentic and richer data. However, all these studies have been done just qualitatively, and in particular no study, to our knowledge, has considered this issue both quantitatively and qualitatively.

Anyway, different people involve in communication to different extents (Barraclough, Christophel, & McCroskey, 1988), and they (1988, p. 188) explain that this WTC is subject to changes “at any given time in a given context”. Similarly, WTC is described as a situational variable with both changeable and permanent influences (MacIntyre, Clément, Dörnyei, & Noels, 1998).

Two major theories of Functional Theory or more specifically Communicative Competence Theory (used in Communicative Language Teaching) and Sociocultural Theory served as a theoretical foundation for the present study. In fact, according to Hymes (1972), developing communicative competence is the aim of language teaching. Hymes created this expression to oppose a communicative view of language and Chomsky's theory of competence. Chomsky believes that the focus of language theory is to characterize the abstract abilities speakers possess that make them to produce correct sentences in a language.

Another linguistic theory related to communication used in CLT theory was Halliday's functional account of language use. In several influential publications such as books and papers, Halliday (1975) expounded a powerful theory of the functions of language that compliments Hymes' view of communicative competence. Halliday (1975) presented seven essential functions that each language prepares for children acquiring their first language: a) regulatory function, b) instrumental function, c) interactional function, d) heuristic function, e) personal function, f) representational function, and g) imaginative function.

Canale and Swain (1980) presented a more pedagogical significant analysis of communicative competence in which four features of communicative competence were determined: grammatical competence, sociolinguistic competence, discourse competence, and strategic competence.

The second theory used in this study was Sociocultural Theory of human learning (Vygotsky & Cole, 1978). In fact, Vygotsky and Cole (1978) defines the learning process as a social process and the origination of human intelligence within the society or culture. In fact, the main theme of Vygotsky's theoretical framework relates to social interaction playing a central role in the progress of cognition. Vygotsky believes in two stages for everything learned: first by interaction with others, then integration into the person's mental structure. They (1978) contended that in the cultural

development of the child, every function forms twice: firstly, on social stage, then, on individual one.

Another feature of Vygotsky's theory relates to the idea that the potential for cognitive development is restricted to a "zone of proximal development" (ZPD). "Zone" is the amount of exploration for which the learner is cognitively equipped, however requires help as well as social interaction to completely grow (Briner, 1999).

MacIntyre and Doucette (2010) as cited in Cameron (2013), defined WTC as the WTC can be theorized as a keenness to speak in the L2 at a specific time with a specific person, and as such, is the final psychological stage to the start of L2 communication.

Numerous factors have been dealt with over the last two decades as to their impact on WTC; nevertheless more recently, MacIntyre and Doucette (2010) have proposed theory of *action control* (Kuhl, 1994), which has as its basis *hesitation, preoccupation, and volatility*, as a antecedent for WTC. The aforementioned Action Control factors are often seen by MacIntyre and Doucette (2010) to be more the outcome of steady individual discrepancies (or characteristics) rather than the dynamic situational reactions to occasions in or out of class.

The model itself comprises six layers, which then is divided into two groups: 1) stable factors, 2) lasting factors (layers IV, V and VI), and situational, contextualized, and so changeable factors (layers I, II and III) (ibid. 546). They build upon McCroskey and associates' opinions by placing *personality* as the basis on which the pyramid is grounded.

Regarding data collection of WTC, two main written questionnaires have been developed and used until recently: A WTC questionnaire developed by McCroskey and Baer (1985) and the other one made by McCroskey (1992). These questionnaires were just written and different authors criticized these written forms (Cameron, 2013). Having searched about the WTC instruments by the current researchers it was found that almost no studies have examined enriching this instrument.

So, in this study oral-visual role-play was used to enrich and modify the McCroskey's WTC questionnaire (McCroskey, 1992). In fact, role-play is the most widely used method to elicit learners' production data either oral or written. As Félix-Brasdefer (2010) believes, an important characteristic of this instrument is that different variables, like the context, age and gender, politeness factors, and the proficiency level of the participants could be controlled.

The present study aims at examining the effects of enriching the WTC situational prompt on non-native English speakers' responses. Particularly, we were more interested in finding out whether enhanced contextual information,

similar to face-to-face spontaneous communication, would arouse different responses. If different responses were the results, such a finding might make a reassessment of the instrument design.

Therefore, the present study pursued a mixed method approach to inspect the impacts of enriching McCroskey's WTC questionnaire both quantitatively and qualitatively in order to elicit more comprehensive results providing a more complete picture of the research problem (Greene, Caracelli, & Graham, 1989; Johnson & Turner, 2003; Tashakkori, Teddlie, & Teddlie, 1998). Based on the rationale described above, the current study aims to examine the effects of enriching McCroskey's WTC questionnaire on responses using a mixed method approach. Specifically, the following research questions guided the present study:

1. What effect does enriching the content of WTC questionnaire have on EFL learners' responses?
2. In what ways do the think-aloud data reporting the views of EFL learners about the effect of enriching the content of WTC questionnaire on responses help to explain the quantitative results?

Method

Participants

This study examined the effect of modification of McCroskey's WTC questionnaire using 117 EFL Iranian pre-intermediate learners who were studying English at a private foreign language institute named Iran-Zaban Institute, Tehran, Iran. In fact, their age range was between 13 and 21, and they were of both genders. In fact, there were 74 boys and 43 girls. Their first language is Persian and they have not lived or stayed more than two weeks in a foreign country. Moreover, three boys and three girls in each age group of 13-17 and 18-21, altogether 12 learners from those who participated in the main study were chosen to self-report their thoughts after administering each version of the WTC questionnaire. All were given a consent form to be completed.

Instruments

a) McCroskey's WTC questionnaire

The present study investigates McCroskey's WTC questionnaire (McCroskey, 1992). The questionnaire consists of 20 items of five-point Likert type ranging from 'SD' = 1 to 'SA' = 5. Its Cronbach's alpha reliability index of was estimated 0.875 through the pilot study done with 30 EFL pre-intermediate EFL learners who were similar to the main participants of the

study. Meanwhile, a panel of TEFL experienced university instructors accepted the content validity of the questionnaire.

b) Enriched version of WTC questionnaire

To enrich the McCroskey's WTC questionnaire, an enriched photo was provided for each situation along with the intention (goal) of the talk and extra information presented orally by the researchers. Photographs were used in order to prepare the respondents with sufficient and detailed information concerning the context of interaction, so that learners may recognize them as real situations and social locations in everyday life. Since the purpose or intention of the talk or communication was not possible to be included in the photos, it was presented in orally by the researchers. Its reliability value turned out to be 0.810 during the piloting stage, and three TEFL experienced university teachers verified the content validity of this questionnaire.

Procedure

In order to answer the research questions, the data was collected in two phases: quantitative phase and qualitative phase. In the quantitative phase, behavioral analysis or single-subject experiments were employed in which an experimental treatment is administered over time to a single individual or a small number of individuals (Neuman & McCormick, 1995). In fact, in this phase, the cross-sectional survey design was used (McMillan, 2000). First, the original version of McCroskey's (1992) WTC questionnaire consisting of 20 situations of 5-point Likert type scales was administered to 128 EFL learners, then after a two-week period interval, the enriched version of the questionnaire was given to the same participants ($n = 117$). In fact, the teacher role played each item through additional oral and visual information such as stating the topic or aim of communication as well as presenting the photo of the interlocutors and context of the item (scenario) in order to enrich the questionnaire contextually and socio-linguistically. After watching the role play performed by the teacher, he asked the students to respond to that item by selecting the preferred choice. Finally, 117 questionnaires were found appropriate and compatible with the non-enriched version, and 11 questionnaires were discarded due to inappropriate, partially answered, or no answered cases.

In the qualitative phase, verbal protocol, also known as verbal report or think-aloud protocol, was used in the qualitative phase of the study. In fact, verbal protocol is the introspective self-report procedure that generates data about tackling tasks, not data resulting from tasks (Ericsson & Simon, 1998). Also, think-aloud protocols were used in this study due to the rapid decay of

information in working memory (Woodfield, 2010). Retrospective verbal protocols were done immediately after responding to each version of the questionnaire. Each think-aloud protocol session was held individually by the learners and lasted around 10 minutes. In fact, verbal reports were performed on an individual basis. The researchers wrote memos during the research process to concentrate on ideas about the data and the coded categories (Creswell, 2012). With the receiving the permission of the learners, all verbal reports were tape recorded and immediately transcribed using Microsoft Word 2020, and then the data were imported in MAXQDA version 2018 for qualitative analysis. This study was conducted at a private foreign language institute, Tehran, Iran. The data gathering was done during April-May of 2022.

Case Selection

To select cases for the verbal protocol, initially, the typical participants in each of the four groups were recognized first by measuring the summed average scores and their respective group means of all respondents in each of the four groups according to their answers to the survey questions, and then a few participants were recruited from each age group having the mean score within one SEM through a maximal variation strategy (Creswell & Creswell, 2005). In fact, during this procedure, two boys and two girls in each age group of 13-15, 16-18, and 19-21, altogether 12 learners, were selected to self-report their thoughts after administering each version of the WTC questionnaire.

Statistical Analysis

To analyze the quantitative data to find out if there was a statistically significant increase in the participants' performance on WTC between the first version (non-enriched) to the second one (enriched), both descriptive (i.e., mean and standard deviation) and inferential statistics (i.e., paired samples t-test) was used.

Additionally, the analysis of the verbal report qualitative data in this study relied primarily on content coding. After transcribing the spoken data, the researchers segmented the data and assigned codes to classify the segments into categories. In fact, the bottom-up, also known as *inductive* or *data driven* approach (Flick, 2014; Miles, Huberman, & Saldaña, 2018), was used in the current research, in which the researchers identified patterns in the data and grouped segments that followed these patterns into categories, which were then labeled and their characteristics outlined.

After transcribing the spoken data, they were then imported in MAXQDA version 2018. The transcripts ranged from 1376 to 1855 words (i.e., 15 single-spaced typed pages) per learners. In fact, Charmaz' (2014) steps in analyzing the

qualitative data were followed who concisely noted that “coding generates the bones of the analysis ... integration will assemble those bones into a working skeleton” (p. 45). The validity of the findings is usually secured by some ways such as the inter-coder agreement, the member checking, the reviewing and resolving disconfirming evidence, and finally the academic advisor's auditing (Creswell & Miller, 2000; Lincoln & Guba, 1985; Miles & Huberman, 1994; Stake, 1995). However, the validity of our findings was done by the member checking and the reviewing and resolving disconfirming evidence.

Design

To answer the research questions of this study, the researchers used a mixed methods approach (Teddlie & Tashakkori, 2003), which is a procedure for collecting, analyzing, and mixing or integrating both quantitative and qualitative data at some stage of the research process within a single study (Creswell & Creswell, 2005). These two methods complement each other, when used in combination, and prepare a more complete picture of the research problem (Greene et al., 1989; Johnson & Turner, 2003; Tashakkori et al., 1998). The present study employed a sequential explanatory mixed method design, consisting of two distinct phases (Creswell, Plano Clark, Gutmann, & Hanson, 2003; Tashakkori et al., 1998).

Results

Quantitative Results

Table 1 shows the mean and standard deviation of WTC scores for the non-enriched ($M = 68.90$, $SD = 11.03$) and enriched ($M = 69.50$, $SD = 10.99$) versions. In addition, the results suggest that the paired samples t-test fails to find a statistically significant increase ($t(116) = -.82$, $p = .41$) in WTC from the first version (non-enriched) to the second one (enriched).

Table 1

Descriptive Statistics and Paired Samples T-test for the Non-Enriched and Enriched Versions of WTC

Test	N	M	SD	Paired T	DF	P
Non-Enriched	117	68.90	11.034	-.823	116	.412
Enriched	117	69.50	10.995			

Table 2 and Figure 1 show the mean and SD of WTC scores for the young group in non-enriched ($M = 73.00$, $SD = 11.58$) and enriched ($M = 74.72$, $SD = 11.62$) versions, and for the teenager group in the non-enriched ($M = 67.35$, $SD = 10.48$) and enriched ($M = 67.53$, $SD = 10.14$) versions.

Table 2

Descriptive Statistics and T-test for the Non-Enriched and Enriched Versions of WTC by Age Group

Age group	Test	N	M	SD	T	DF	P
Young	Non-Enriched	32	73.00	11.58	-1.305	31	.201
	Enriched	32	74.72	11.62			
Teenagers	Non-Enriched	85	67.35	10.48	-.207	84	.840
	Enriched	85	67.53	10.14			

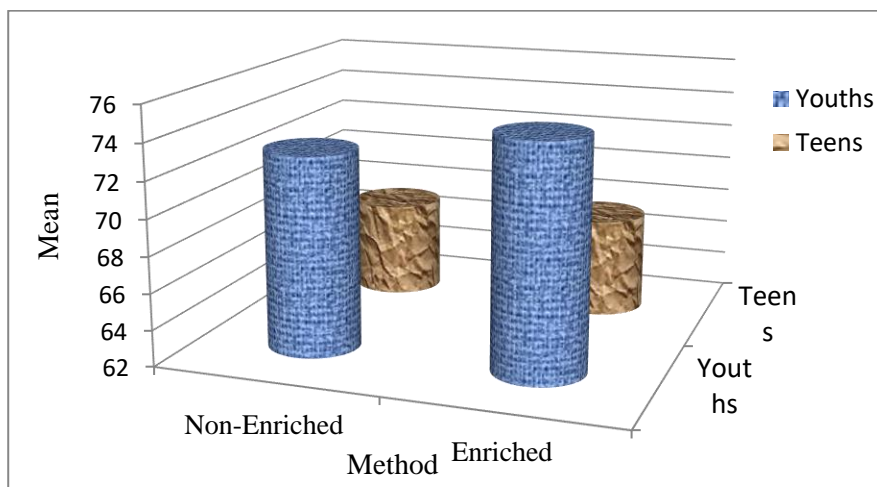


Figure 1. Bar Graph for the non-enriched and enriched versions of WTC by age group

Additionally, Table 2 indicates that the paired samples t-test detects a statistically significant increase from the first version (non-enriched) to the second one (enriched) for both young ($t(31) = -1.30, p = .20$) and teenager groups ($t(84) = -.21, p = .84$).

Furthermore, Table 3 and Figure 2 display the mean and SD of WTC scores for the male group in the non-enriched ($M = 71.04, SD = 10.44$) and enriched ($M = 71.84, SD = 10.30$) versions, and for the female group in the non-enriched ($M = 65.21, SD = 11.17$) and enriched ($M = 65.47, SD = 11.10$) versions.

Table 3

Descriptive Statistics and T-test for the Non-Enriched and Enriched Versions of WTC by Gender

Gender	Test	N	M	SD	T	DF	P
Males	Non-Enriched	74	71.04	10.442	-1.018	73	.312
	Enriched	74	71.84	10.302			
Females	Non-Enriched	43	65.21	11.173	-.175	42	.862
	Enriched	43	65.47	11.102			

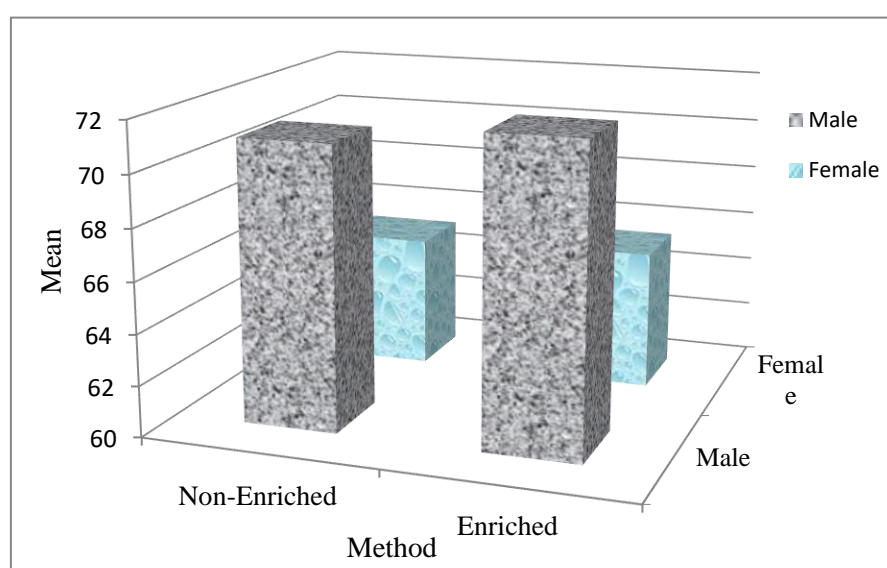


Figure 2. Means of non-enriched and enriched versions of WTC by gender

As indicated in Table 3, the paired t-test found no statistically significant increase from the first version (non-enriched) to the second one (enriched) for both males ($t(73) = -1.02, p = .31$) and females ($t(42) = -.17, p = .86$).

Qualitative Results

The analysis of the verbal report data in this study relied primarily on content coding. After transcribing the spoken data, the researchers segmented the data and assigned codes to classify the segments into categories. In fact, the bottom-up (also known as inductive or data driven) approach, was used in the current research in that the researchers identified patterns in the data and grouped segments that followed these patterns into categories, which were then labeled and their characteristics outlined.

a) Verbal protocol findings after administering non-enriched WTC Questionnaire

(1) Intention (purpose or topic)

The analysis of the responses to the *non-enriched WTC* questionnaire yielded that majority of the participants were not pleased with lack of aim for initiating or maintaining talk with the persons. In fact, several learners revealed that in the items of the WTC questionnaire, the intention of initiating communication is not mentioned at all. For instance:

"The reason for conducting communication is not mentioned in the items of the questionnaire. For example, regarding 'talk with the gas station attendant' I didn't know whether to have an ordinary talk with him since I have to fill in the tank of my car paying money or thanking him, or asking address, or greeting, or talk about personal idea, or etc." (P5)

"To talk with a garbage collector about what? About his or her job? Salary or weather? Interests? Films? Sports? Asking an address?" (P7)

"I didn't know which topic I was asked to talk about in most of the situations of the questionnaire. As an example, in talking in a big meeting of strangers I can talk about what?" (P1)

(2) Place

Another theme emerged from the self-report data was the place of communication in that noting about it was present in the non-enriched McCroskey's WTC questionnaire and therefore, according to the participants, it added to the vagueness of this version of the questionnaire. For example:

"I didn't know where the situations were set in this questionnaire since it's very important and affect the degree of response." (P1)

"If I want to start talk with a physician at his or her office, he or she probably will not like to continue because he wants to visit the patients and earn money and go home sooner. Certainly he prefers to earn money, finish work and arrive at home sooner rather than talk with me." (P4)

(3) Age

The Verbal protocol results showed that age of the speakers to talk to affects the participants' responses to two versions of the McCroskey's WTC questionnaire. In fact, the participants expressed that they'd like to communicate with someone who was around their age. As sample:

"I personally like to communicate with a person who ages near mine than a person who is very younger or older than me because there are more things to talk about with someone of my own age." (P2)

"If a person is very old and untidy, he is tired working hard, how can I start to talk with him? But if he is young and happy and smiling, I like very much to speak with him because he will react to my talking with more than 90% confidence, so I begin talking." (P11)

"In this questionnaire, the age of the imagined speaker was not assigned. If the speaker has the same age as me it's better to have communication except for the situation in which for example I need more important information to ask from a more knowledgeable person like a teacher or someone else who is very older than me." (P5)

(4) Gender

Gender of the interlocutor is a decisive and influential factor. That means Iranian people react differently to different gender. In fact, it has cultural reasons behind it. The followings are three excerpts of the three participants:

"It was not mentioned in the questionnaire if the person I want to talk is a male or female. Generally, I prefer to initiate talk with girls rather than boys since it's more interesting and enjoyable." (P6)

"In my opinion, I prefer to talk with a person who has the same gender as me, to be a girl. I feel more relax and secure to talk to the girls instead of boys. Also another reason is that we girls have more things, thoughts and topics in common to talk about like travel, school, film, shopping, celebration, etc." (P9)

"Usually I don't go anywhere alone except during the class. Always my father and mother are beside me and they won't like and permit me to talk with the boys." (P12)

(5) Personality or mood

Another theme that could be inferred from the analysis of responses was personality or mood of the interlocutor. In fact, this was important for the participants of this study to respond to the items of the first version of the questionnaire. For example:

"It's not clear whether the person I'm going to talk about is introvert or extrovert, is happy or angry, is friendly or hostile in this questionnaire." (P8)

"If I want to decide to initiate a conversation with somebody, I first look at his or her face to see if s/he is willing and welcome to talk with or not. If s/he is smiling at me and greeting with me warmly, I am more willing to start to speak with him or her." (P4)

"This questionnaire doesn't show anything about the character or attitude of the speakers we are to communicate especially for the strangers since we don't know them and their personality traits and attitudes." (P10)

(6) Contextualization (visualization)

The majority of participants argued that visualization and contextualization of situations in the first version of the WTC questionnaire was difficult and varied among the different peers. The followings quotes are for two of the learners:

"It was difficult to visualize the context and situation just by reading some words, so I respond to this questionnaire fast and I was almost unsure about the precision or accuracy of my response." (P5)

"I myself am not good at imagination and visualization. For example, when I read a story, it's not enjoyable much however when watching a film, I enjoy a lot. I believe that in stories that different people read from books, different people have different interpretation and therefore different visualization." (P7)

**b) Verbal protocol findings after administering enriched WTC Questionnaire
(1) Intention (purpose or topic)**

Analysis of responses to the enriched questionnaire which included photograph and orally presented topic revealed that some of the mentioned topics presented in the related situations were interesting and logical to talk about for the students but some other topics were not. That means, for example, one student showed strong willingness to almost half of the situations and weak willingness to almost other half of the situations. This pattern occurred for most of the learners. In fact, in the first questionnaire most of the students gave conservative response, however, here, in the 2nd questionnaire, for some desired topics and purposes they expressed strong

agreement to communicate, but to some other uninteresting and hopeless topics and goals these students selected willingness weakly. For instance, three of the participants said that:

"Actually, some situations had nice topics and they were my favorites, but some others were not. For instance, in talking with a police officer, I liked to talk about neighborhood safety a lot and fortunately it was mentioned. However, for example in talking with a waiter or waitress, since they were handsome and fit, I liked to talk about the sport or exercise that they might do, but the presented topics were job satisfaction, salary, or holidays." (P2)

"There are good purposes to start talking about and I expect that person to continue and enjoy talking although some other purposes for talking do not seem successful to follow." (P11)

(2) Place

Think-aloud protocol data analysis showed that places shown by photos of situations affected their selected choices regarding their WTC. But all these places were not of their preferences, thus some shown places made them report high level of tendency to talk, and other places that were not preferred had the opposite functions. Besides, some few places had neutral function. The followings are three excerpts of the three participants' utterances:

"I considered talking with a girlfriend in the coffee shop a suitable place since we can have private and relax atmosphere to talk. Also, we could have coffee or tea if we were tired. But talking with a physician in his office was not nice because he was working and probably, he didn't have enough time to speak." (P10)

"I'm very impatient and dislike waiting and standing in queue. So, in order to entertain myself in the queue on the bus or train station that they usually make long line, I like to talk with others and pass the time and also with a secretary in her office while waiting for my turn to visit the doctor. Still in other places like talking with a policeman in street, I don't stop to talk." (P5)

"Some places that there were in the questionnaire and were informal such as parties I highly liked to speak, and in some other formal places like meetings in offices or schools I hated to talk." (P7)

(3) Age

Age of the speakers was another theme that emerged from analyzing the data. Some interlocutors had the same age as the participants but some other interlocutors were younger or older than the participants of the study. As mentioned in the method section of the present study, the participants aged between 13 and 21 so it was not possible to put a photograph of speakers that fit the age of all participants. Also, some situations and persons mentioned in the questionnaire entails putting photograph of adults since teenagers and young people cannot have these jobs like physician, garbage collector, or gas station attendant. For instance:

"Some persons in the photographs did not have the same age as me so I didn't like much to start talking. For example, the garbage collector was actually very older than me." (P3)

"To me actually it's rude and impolite to start conversation with someone very older than me. In this questionnaire I was questioned whether I like to talk with for instance a policewoman who is not the same age as me." (P8)

(4) Gender

As explained earlier, the results of analyzing the verbal protocol related to the original questionnaire revealed that the boys were more willing to communicate with girls than with boys in English; however, the girls showed stronger degrees of tendency to talk with the speakers having the same gender. Then we had to prepare some photographs of boys and some photographs of girls to consider this matter since we had the participants of both genders. Consequently, no noticeable increase or decrease in the tendency to communicate with others in English was detected. As an illustration:

"In some photographs there were two persons like the two secretaries: one boy and one girl, and a pair of waiter and waitress. So, I was not sure to speak with the boy or girl. I really prefer to talk with a person of different gender, actually a person to be a girl. Thus, I gave a neutral response to such these items." (P9)

"I prefer to have dialogues with someone of my own gender, so I gave a strong WTC to the situations with girls such as policewoman, garbage collector, etc. Conversely, I selected weak responses for the males like the physician, gas station attendant, etc." (P2)

(5) Personality or mood

Analyzing the participants' think aloud thoughts revealed that there was some ambiguity in the photographs concerning personality (introvert or extrovert) or mood (happy or angry) of the speakers. In other words, the photographs couldn't demonstrate the personality or mood of the interlocutor completely since a photograph can just display a moment of the face and body, however it cannot show other moments and behaviors in that situation before or after the taken photograph since it's unpredictable. The following excerpts were taken from three of the students:

"Most of the people in the photographs were smiling and happy but I was not sure if they will be in this way when we continue talking or not." (P12)

"In my opinion, it is not clear whether the speakers are just smiling and laughing at something or they are really happy and friendly, so I had some guess for this matter in responding to the items of the questionnaire." (P1)

"When we don't hear the peoples' voice and see the behaviors, we cannot decide to begin to communicate with. I think the photo does not suffice." (P4)

(6) Contextualization (visualization)

Majority of the learners reported that the photos helped them to visualize the situations and therefore they provided a single scene for all the participants. Yet some contextualized situations for the participants were more preferable and desirable than what they had visualized in the 1st version of the WTC questionnaire, and some others were less preferable. As a result, the EFL learners did not show substantial change in their overall tendency to communicate with others in English between the two administrations. For example:

"Visualization of the situations was easy and fixed so I was sure of my response to the items. On the other hand, some situations were more beautiful and exciting than what I expected before, and on the contrary, some other contexts were not interesting and attractive." (P11)

"For me the contexts shown in the photographs made my answers look more objective and exact. Also the photos made me focus on one single context and not think and visualize different situations and people."

Another important point is that I love some contexts so much but I hate some." (P3)

"In the written questionnaire I responded before, I visualized some situations to be confronted in my own country, Iran, however, here, in this questionnaire all situations are contextualized in a foreign country. I am interested to visit some of those contexts and talk but I don't like some others." (P6)

Discussion

Many students altered their responses on the enriched WTC questionnaire as the results of presenting additional oral and visual information such as saying the topic or aim of communication and photograph of the situation and interlocutors that were used to enrich the questionnaire contextually and socio-linguistically. In fact, these resultant idiosyncratic differences among the whole participants overlapped and parallel each other resulted in obtaining no significant difference in the overall meaning. Consequently, the administration of McCroskey's WTC questionnaire might act as a needs analysis for parents and language teachers, especially private language teachers in that they can use the WTC information for each learner concerning each situation in order to select an appropriate teaching methodology, textbook, and evaluation for each student or with more analysis for the group of students.

The findings of the present study mirror those of Billmyer and Varghese (2000) who examined the impacts of systematic change of DCT situational prompts employed to elicit request in the reactions of speakers of English. The modification comprised enhancing the situational prompt by adding more information on some social and contextual variables considered relevant to their study. In fact, they concluded that enhancement did not influence the request strategy or quantity of internal modification. But this enhancing situational prompt made noticeably longer and more detailed requests in both groups.

Moreover, our findings are consistent with Fraser (1990) and Meier's (1995) as cited in (Hinkel, 1997) findings that few social variables that are usually included in the production questionnaires such as social distance, imposition, and dominance, are not strong enough to elicit as complete and authentic answer as is observed in naturally occurring output.

However, these outcomes contrast those obtained by (Mohammad Hosseinpur et al. (2019) in which they found that role-play revealed the data closest to the natural method regarding the dependent variables, and it was uncovered that the differences between role-play and the natural method were less significant than those inherent in WDCT and ODCT.

On the whole, according to the results of both parts, male learners showed more willingness to communicate than the females. Also the male learners' increased amount of willingness to communicate from the written questionnaire to the enriched one was greater than the females, though not significant, was greater than the female counterparts. This result is natural in Iran with its special culture and religion. In fact, in Iranian culture, females have less freedom to communicate with others especially with the opposite genders and strangers or foreigners. This fact is more serious for girls than boys culturally. Generally, the parents don't like and let their girls to communicate with boys since they believe that this kind of interactions are considered as sins and taboos in which their committers will be punished severely, so they must be abandoned. However, this belief is more dominant on girls rather than boys and are seen more shameful socially for girls and their family than the boys.

One more interesting that may seem strange is that brothers are to some extent more prejudiced than their parents to the communication and interaction between their sisters with other boys. Besides, something deteriorates the issue, and it was the fact that the used photographs were taken from the cultures that were not Muslim and therefore the people did not have coverage for their hair and body. Accordingly, these cultural and religious reasons made the boys outperform the girls on the McCroskey's WTC questionnaire. Accordingly, it is suggested for other interested researchers to conduct the same study using a mixed method approach in other countries and cultures in addition to their own culture in order to explore the effect of gender more comprehensively.

Also, both quantitative and qualitative parts revealed that the young learners' improved degree of WTC from the written questionnaire to the enriched one was greater than the teenagers. Furthermore, the young learners expressed more degree of tendency to communicate than the teenagers. This finding, also relates back to the above-mentioned reasons, i.e. culture and religion. Fundamentally, young people possess more critical thinking ability than the teenagers, so this critical thinking ability helps the younger learners not accept the dominant culture and religious rules fully. Moreover, teenagers have less freedom and are much dependent on their parents than the younger ones to be willing to communicate with native speakers. Also, the young learners have broader academic and social needs than the teenagers, so they tend to communicate with others so that they might be able to meet these needs.

The researchers believe that both written and audio-visual enriched WTC are not appropriate enough to measure the real, authentic, and exact amount of EFL learners' WTC. In fact, information about the WTC with others is a so much complex affair that cannot be computed using these assessment

procedures. There is a long way to approach a desired method of data collection in this regard, and therefore, a big gap is felt and sensed in this realm of research and we ask for help and contemplation of the interested and competent researchers to construct and test more valid and reliable instruments in order for the language learners, teachers, parents, supervisors, researchers, educators, and stakeholders to administer them and use the results for decision making affairs.

To elicit more real, precise, and authentic data, interview might be a better instrument since WTC is very complex and the persons whose WTC needs to be measured are unique, therefore they should be engaged and challenged and deeper face to face interview analysis is required since one size does not fit all. In fact, during the interview, body languages such as gestures, feelings, voice, face, self-confidence can reveal more information about the quantity and quality of the learners' degrees of willingness to communicate.

Moreover, the photographs used in this study were taken from foreigners not Iranian in order to provide an English speaking context for the respondents. This act might influence the results of this study; thus, it is suggested for other investigators to choose the photographs of their countryman and woman, but of the three intimate levels, i.e., friend, acquaintance, and stranger in order to decrease the anxiety feelings while responding to the questionnaire to achieve more real and authentic findings.

In conclusion, in this research, WTC questionnaire was enhanced using audio-visual demonstration performed by the examiner. This was done with adding photographs along with the intention of the communication and extra information provided orally by the researchers. Doing this research, we can see that there the original and enriched McCroskey's (1992) WTC questionnaires do not elicit different amounts of WTC on the whole though considerable individual changes occurred.

Regarding gender, males are more prone to alter their responses as the result of enriching act in comparison with the females although this difference was not significant. Furthermore, it is clear that elder students expressed more flexibility in altering their responses.

Having carried out this study, it is suggested for other researchers in this field to pursue this path in order to put the knowledge in this area further by over enriching process such as think aloud procedure, observation, conservation, think-aloud protocol, etc. so that they can test and introduce other more valid and reliable instruments and techniques in eliciting authentic sociolinguistic data. Besides, the WTC questionnaire is a closed instrument and the respondents are required to select their degree of tendency and WTC. In fact, there is limitation in response and there is not a necessary space for

each situation in order for the respondents to express their opinions, feelings, or explanation toward the situations.

Declaration of interest: none

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