

**Using E-Poling of MCQs for developing non-English specialized students' educational terms translation skills and their attitudes towards translation**

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## **Using E-Polling of MCQs for developing non-English specialized students' educational terms translation skills and their attitudes towards translation**

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### **ABSTRACT**

This study aims at identifying the effect of using e-polling of Multiple Choice Questions (MCQs) in the field of translation in developing non-English specialized students' educational terms translation skills. The study follows the one-group quasi experimental design. Participants of the study were (37) non-English specialized graduates at Hurghada Faculty of Education, South Valley University in Egypt. The study utilizes five instruments: the first is An Educational Terms' Translation Skills Questionnaire, a Translation Module based on Multiple Choice Questions MCQ, Translation Skills Online Test, An Attitude Scale towards Translation, and a Reflective Journal. Results of the study showed that using e-polling of MCQs developed the translation skills of the participants. Participants showed a high performance in translating the educational terms in the post testing (sig 0.01). Results also showed that there is a positive relation between *developing* the translation skills and attitudes towards translation (sig 0.01). These mean differences between the pre and post tests were attributed to the effect of the MCQ module instructed to the participants. The study recommends using polling as a technique in translation course design and assessment. The study's implications for course designers, students and teachers are discussed.

**Key words:**

**Polling – Multiple Choice Questions MCQ - Translation**

## 1.Introduction

Learning how to translate plays an important role in both language instruction practices and language learning process. In this view, Brown (2004, p. 30) highlighted the importance of translation in language instruction stating that “Translation is a part of our tradition in language teaching that we tend to discount or disdain, if only because our current pedagogical stance plays down its importance. Translation methods of teaching are certainly passé in an era of direct approaches to creating communicative classrooms”. Translation is a key human activity that is required for spoken or written communications. One of the areas of translation, which is needed in the field of education, is the translation for education purpose. This type of translation depends on translating the educational terms both at word and sentence levels.

There have been various approaches, models and types of translation strategies (e.g. Teleiba, 2014; Marghany, 2016; Saleem, 2016; Ali, 2016; and Haggag, 2018). In this research, machine translation or Computer Aided Translation CAT is used through the use of Multiple Choice Questions (MCQ). This is a type of objective questions that are used in the present study through a polling process. Polling can be procedurally defined to mean choosing an answer from various options depending on personal views and cognitive preferences.

MCQs have been used in various EFL fields including translation assessment. This is due to the various studies that listed their merits in language learning and assessment. For instance, Pan et al. (2016, p. 38) stated that “MCQs, as assessment tools have the advantages of both consistency and objectivity”. Similarly, Brigui (2017, p. 22) stated that “MCQ has high degrees of objectivity, fairness and high reliability... saving time.... and it can be scored mechanically...it can provide more feedback on language learning and teaching”. Though the drawbacks of MCQs related to design, running or correction, the literature stresses their merits more than the drawbacks.

Therefore, the present research utilizes using MCQs in a polling-based module for developing non-English specialized students’ educational terms translation skills and to identify its effect on their attitudes towards translation.

## 2.Objectives of the research:

The research aims at (a) verifying the effectiveness of using an online MCQ translation module on developing non-English specialized

students' educational terms translation skills. (b) Identifying the effect of using virtual classes in developing translation skills of post graduate students. (c) Identifying the effect of using an MCQ based translation module on developing educational terms' translation skills of non-English specialized post graduates. (d) Identifying the effect of the module on participants' attitude towards using MCQ in translation.

### **3.Theoretical Framework**

The following review discusses the concept of electronic polling in learning and language education. It highlights the area of translation, skills development and educational terms' translation. It also integrates the relevant literature related to the areas of e-polling and educational terms' translation skills.

#### ***3.1. Polling in EFL Classrooms***

Classroom Polling Systems CPS, Classroom Clickers CC and Class Response Systems (CRS) are various means for exposing students and learners to free choice question types such as yes/no or MCQs. According to Center for Teaching Innovation, Cornell University (2018, p.2) "in conjunction with good question design, polling can increase student engagement, facilitate peer learning, assess student, gauge student opinion and help students recognize gaps in their own learning". E-polling is an equivalent to e-voting which started early with the emergence of clickers in a political context. With the advances in technology and student-related class practices and assessments, polling has become an effective approach in class practices for learning, teaching and assessment. This paper highlights the use of polling or clicking of MCQs in an EFL context.

Polling has various advances in learning and teaching. For instance, Bao et al. (2007) investigated the impact of polling in students' learning. Results showed that polling compared to non-polling learning environment has significant gains in conceptual learning, performance and class punctuality. Similarly, Martyn (2007) examined the positive impacts of clickers or student response systems at a college level on students' active learning. Results also showed that polling or clickers increase learning outcomes more than other active learning class techniques. The study also showed the distinctive polling advantages: the first is that polling provides a mechanism for students to participate anonymously. Second, clickers integrate a game-like approach to the class which is enjoyable and engaging. Molloy & Charles (2013) add another merit in its anonymous features of can facilitate learning through this safe non-threatening environment.

### *3.2.MCQ Polling*

Polling is a choice from different options and this highlights the use of MCQ as a means for polling. Participants in a polling class can poll or answer either manually (by mere selection between choices) or electronically (by using clickers). Through the use of MCQ a variety of merits can be achieved (Hipkins, 2006) such as avoiding the barrier of writing, ease of correction, covering a wide range of concepts in a course as well as determining students' false concepts). On the other hand, limitations of using MCQ include the difficulty in constructing effective MCQ items, the reading barrier to students, sentence structure and vocabulary levels of difficulty, besides, they do not evaluate real language performance. In a comparison between MCQ and Multiple True False MTF test formats in Iranian intermediate EFL learners' vocabulary learning, Javid's (2014) proved that using MCQ had positive impacts on students' performance compared to the other format. This shows the effectiveness of using MCQ in various language development areas.

MCQs have been criticized in literature due to its scope in assessing recalling and lower thinking skills rather than real language communication (see Brougi, 2017 and Hughes, 2003). Recently, literature in assessment calls for new approaches in MCQ writing. For instance, Featherstone & Coughlin (2017, p.1) state that "traditionally, MCQs have been seen as a useful tool for testing factual knowledge, with higher order cognitive process, such as interpretation, application of knowledge and problem solving left to short answer questions, essays and oral examinations). This view of MCQ items' design has changed and a view for using MCQs in higher thinking skills and language development is growing. This view includes using MCQ questions in the field of translation.

Literature shows the widespread use of MCQ in foreign language development, language-related areas such as communication and translation as well other disciplines (see Jafri& Hashim, 2012, Robinson & King, 2012, and Yangawa & Green 2008). Automated assessment (using MCQ polling) was used in a study by Tian (2009) which investigated online automated assessment of student-Chinese translation. The study showed that using two languages as mediums of instruction makes automated assessment more difficult than of only one language. The study utilized an online translation tool (YanFa5) which proved its effectiveness using automated polling in the assessment of student online translation skills. Brown (2004, p.198) stresses the view that "The most popular method of testing a reading knowledge of vocabulary and grammar is the multiple-choice format, mainly for

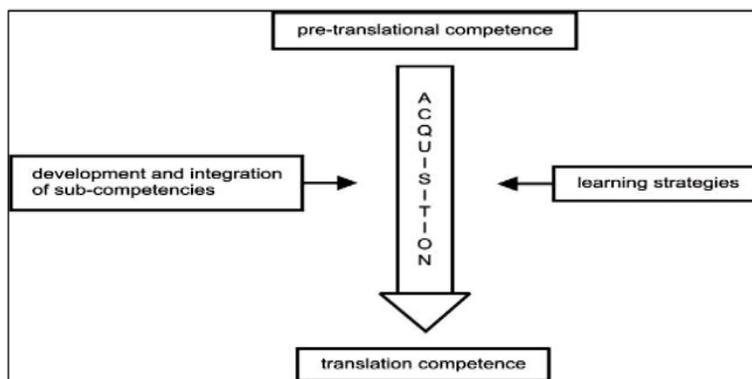
reasons of practicality: it is easy to administer and can be scored quickly”. For these advantages and points of strength, MCQ is one of the key question and learning types that is widely used in language learning field in general and translation as well.

### 3.3. Translation

Translation has long been defined as a process which includes conveying the meaning of “source language” into the “target language”. This process in translation has been stressed by Robinson (2003, p. 49) stating that “Translation is an intelligent activity involving complex processes of conscious and unconscious learning”. The present research focuses on “written translation” which has been defined by Gaber (2005, p.7) to mean “the translation of written (not spoken) messages....this included literary, technical, scientific, legal, media, business translations). The main research focuses on scientific “educational” translation.

Translation “training” or “education” has been a topic for long debate between language acquisition research and translation studies (see Bernardini (2004), Mahmoud (2013) and Yahya (2015). Although these studies disagreed on designing a clear-cut translator preparation program still they have agreed on some elements that combine translation acquisition competencies. In this view, PACTE (2000, p. 104) proposed a model that summarizes translator’s competencies’ development as figure (1) indicates:

*Figure (1) Translation competence acquisition (PACTE, 2000, P. 104)*



Although the above figure highlights learning role in translation development but it neglects the role of learner or “translator” role in learning especially at a virtual learning environment. For this, the present study highlights learner role of electronic learning environment in both developing translation skills and attitude towards translation. It integrates MCQ as a means for online polling in participants’ translation for the educational terms.

Term-translation has been a distinctive field of research in translation studies. Most of the literature related to term translation focused on the problems and possible remedial approaches or models to overcome this challenge. Problems of term translation include culture-based or pragmatic problems, meaning-related problems or linguistic competencies development. In his study that investigated idiom comprehension and translation by translation students at KSU, Salamah (2015) highlighted the key problem of term translation which is not only understanding meanings and expressions of the target language but also changing them into another language. The obtained results from the two female groups in the study showed that participants did not face problems in understanding the terms but they face problems in translating them into Arabic. Results concluded with error categories and suggested translation strategies.

Studies that dealt with translating terms discussed cultural problems and challenges of term translation. Al Harbi (2013) examined idioms and culture in FL translation class. The study highlighted the role of pragmatic competence including culture in translation. The study suggested a multilayered method of teaching culture in translation classes. Results showed that pragmatic culture-oriented in L2 instruction is crucial in translation classes. It concluded that translating idioms in Arabic include cultural-identical idioms, cultural semi-identical idioms, cultural-equivalent idioms and cultural-specific idioms. Similarly, the studies of both Harbi (2013) and Althawbih & Rabadi (2016) stressed the role of pragmatic competences including culture. In sum, literature stresses the significance of pragmatic competence in translation programs.

Translation studies that dealt with translation in an Arab or an international scope can be classified into two main categories: the first are the studies that dealt with developing translation competencies, and the second are those that dealt with proposing programs, models or frameworks for translation. These studies attempted to highlight the process of translation instruction (the how) or translation areas development (the what).

*The first category of studies* examined the process (the how) of translation instruction. For instance, Mohamed (2013) utilized self-monitoring strategy in compiling a program for developing translation skills of university students. Participants of the study were students at Ahlia University in Amman. Results showed that using self-monitoring and guiding can develop the skills of the translation as well as the attitude towards translation. It can also maintain motivation of the translator during his translation course.

Similarly, Harbi (2013) examined the use of translation technology and translation quality. The study examined computer-based translation technology in developing translation quality. Results showed that using computer-aided technology can enhance the quality of the translation. This type of studies is grouped into the studies which promote "Machine" translation. This area in literature – machine and manual translation- has been researched by Dushek (2009) that tracked how translation and translator have changed. The study stressed the view that modern technology including internet has greatly affected the quality and accuracy of the translation. The study showed that internet can be useful in the process of both translation instruction and translation itself. In an Arabic perspective, translation instruction has been studied by Mahasneh (2013) in a study about translation training in Jordanian context through curriculum evaluation in translator educator. Although the study examined the Jordanian context but since it is similar to other Arab educational contexts, the following result can be generalized: Translation instruction should improve and increase the effectiveness of the teaching and learning practices in Arab educational institutions.

Machine translation has been researched by various studies (see, Teleiba, 2014; Haggag, 2017 and Marghany, 2016). For instance, in a study that examined evaluating and Arab-English machine translated text using an analytical pedagogical approach, Mahmoud (2016) discussed the problems faced by Egyptian EFL undergraduates during their translation using machine translation. Using a descriptive approach that integrated both source text and target correct language, results showed that there are systematic, lexical and grammatical problems face the translators. Literature highlights the use of machine translation not just at undergraduates' level but also the postgraduates. This growing approach to translation is supported by the advances in technology and online translation tools.

*The second category of studies* examined the areas (What) or competencies and attitudes of the translator. For instance, Saleem (2007) examined updating Arab translators' skills and tools to meet the

challenges of scientific and technical texts. The study highlighted the area of technical translation as a requirement at the age of globalization. It also viewed these skills as key academic requirements at the scientific disciplines.

Translation competence has been examined by various researches (see Ali (2016), Mohamed (2013) & Haggag (2018). For instance, Ali (2016) examined the impact of textual analysis on translation competence of university students. The study utilized various data from various texts. Results showed that textual analysis influences the translation quality and enhance translator's competence and skills. Translation studies that aimed at developing translators' skills resulted with attitude development towards translation as well (e.g Cetiner (2018), Blasco (2016), Flangan (2016), Habeeb, Ahmed & El Reesh (2016), Yahya (2015) and Telieba (2004)). For instance, Habeeb (2016) examined the impact of a suggested practical program on improving Arts of English translators' translation competencies at the Islamic university of Gaza and their attitudes towards translation. Results highlighted three competences which are essential to translators: knowledge, skills and attitudes. Using pre and post assessments, results showed significant mean differences favoring the post testing in both translation skills and attitudes. Flangan (2016) also examined attitude towards translation using Blogs as a medium for instruction. The study aimed at identifying professional translators' attitudes towards the practice of translation crowdsourcing. Results highlighted the point that no attention is paid to open source software projects.

Other type of translation studies examined translators' attitudes towards machine translation. For example a study by Cetiner (2018) aimed at analyzing the attitudes of translation students toward CAT (Computer Aided Translation). The study examined translation students' satisfaction and acceptance of automated translation tools. Results showed that CAT is accepted and recommended by their users. Similarly, a study by Mahfuz (2018) examined attitudes to CAT tools: Application on Egyptian translation students and professionals. The study built the results over many factors including years of experience, computer skills and type of translated texts. Results showed that translators with high computer skills have higher attitudes towards CAT. Similarly, Alotaibi (2014) examined teaching CAT tools to translation students: an examination of their expectations and attitudes. Results also showed participants' positive attitudes towards CAT. To conclude, literature mainly stresses the positive correlation between translation skills development using traditional programs or CAT programs and the

attitudes towards translation. In the light of this gap in literature, the following research hypotheses can be formulated.

#### 4. Research Hypotheses

- 4.1 There are statistically significant mean differences between participants' mean scores in the translation skills test favoring the post test.
- 4.2 There are statistically significant mean differences between the participants' mean scores in the pre-post testing of attitude towards translation favoring the post test.
- 4.3 There is a correlation between participants' scores in the post testing of translation skills and attitude towards translation.

#### 5. Method

The research followed a quasi-experimental design, where participants were selected randomly, exposed to an independent variable (Translation skills Module) and then pre post tests were run over the two independent variables (educational terms translation skills and attitude towards translation). Mean differences were compared using SPSS program for both the translation skills test results and for the attitude scale as well.

##### 5.1. Participants

A number of (37) students studying at the Special Diploma in Education (a one-year post graduate study in education) at Hurghada Faculty of Education, Egypt. They were randomly selected in the experiment through an online platform at Google Classroom. They were adjusted according to specialization (Non-English departments' graduates). Participants were asked to volunteer for the research through registering their Gmail accounts, a password was sent to them to log in to the class of the experiment. A number of 68 students volunteered, only 37 were selected to the experiment.

##### 5.2. Instruments of the research

The research utilizes the following five instruments:

##### 5.2.1. Educational Terms translation skills questionnaire. (See appendix)

The questionnaire aims at identifying the key translation skills for post graduate students to translate educational terms. The final questionnaire consisted of (20) items. Reliability coefficient was calculated using split half method (0.82). Validity was calculated using a jury of TEFL experts, they

agreed on the appropriateness of the skills (No. 20) to measure the aims of the questionnaire. For ease of judge the tool a link for the tool on Google Documents was sent to the jury to write their comments.

### 5.2.2. *A translation Module based on Multiple Choice Questions MCQ.*

The Module consists of (7) units with (14) online sessions and it aims at developing participants' educational terms' translation skills. It focuses on word and sentence level translation. It utilizes MCQ items in examples, exercises, quizzes and tests. Content validity was used using a jury of TEFL experts. Their comments and suggestions were considered to enhance the quality of the module and to verify its content appropriateness. (See appendix)

### 5.2.3. *Online Translation skills Test.*

The test was designed using MCQ test design online machine (see appendix). It aims at measuring test-takers' translation skills of the educational terms. It consisted of (50) MCQ items; the test was piloted to verify its time (25 minutes) and reliability. Using Cronbach alpha, the reliability value was calculated (0.89), which is a high reliability value. The test was validated by a jury of TEFL experts; a link and password for the test was sent to the jury to add their comments and suggestions. Their comments included validating the type of MCQ items to include both word and sentence level translations. Example of the word and sentence levels' of translation is shown in the following figure:

*Figure (1) word and sentence levels examples from the test*

Word- level MCQ polling example	Sentence-level MCQ polling example
8. Attitude الميل الاستعداد الاتجاه	1. فعالية برنامج مقترح في الترجمة. a) Effect of a suggested program on translation. b) Effectiveness of a suggested program in translation. c) Effect of a proposed program on translation.
38 العينة Sample Group Participants	2. تحددت الدراسة في عينة من التلاميذ. d) The study was delimited in a sample of students. e) The study was limited with a group of pupils. f) The study was delimited in a sample of pupils.

The test includes (50) questions at both word and sentence levels; it also includes both Arabic-English and vice versa translation items. Participants were trained on polling for answering the MCQs to compare answers and reach to the correct translations. They were also trained on the challenges of translating the educational terms.

#### 5.2.4. *An Attitude Scale towards Translation. (See appendix)*

The scale consisted of (30) items which aimed at investigating participants' attitude towards translation. They were asked to follow a Likert scale to state their opinions about the attitude test. Using test-retest method, reliability coefficient was calculated using SPSS program and reported (0.78). A link with the scale was sent to a jury of TEFL experts for validation. Jury validation proved the validity of scale content with minor changes to some grammatical structures and item modification.

#### 5.2.5. *Reflective Journal*

Participants were asked to reflect on their learning and assignments through an online journal. The journal was run online using Google Documents -Edit Mode- to allow participants to express their views and ideas.

### 5.3. *Delimitations*

The research was delimited to a number of (37) non-English specialized post graduates at Hurghada Faculty of Education, South Valley University. It was also delimited to (30) translation skills that were identified by the translation skills questionnaire. The experiment was run online using Google Classroom application. It was also delimited to both cold and group polling methods where cold polling refers to individual contribution to choices in reduce time, while group calling or “closed polling is closed to the individual level but open at the aggregate level.

## 6. Design

Following a one-group quasi experimental design, two variables (translation and attitude towards translation) were experimented. Participants (37) were randomly selected from non-English specialized postgraduates in the Educational Diploma (A one-year academic program at the field of education). Participants were adjusted to specialization (graduates from other departments except for English) and were asked to join a Google Classroom, through a mobile application or through their Pcs (see appendix). A class code was sent to participants to join the class and participate in the class.

The application is a platform where they are enrolled in a virtual classroom, which is similar to a traditional classroom. It incorporates, tasks, assignments, downloaded materials, assessment windows and chat platform. At the beginning of the experiment, participants were asked to complete both the online translation test as well as the attitude test. Participants then were asked to joining an online platform "Web Blog via Blogger" for reflection purpose. At an early session, they were informed with the purpose, sequence and assessment procedures of the training. They were informed of polling procedure and how they can view all the translations of their colleagues through MCQ choices. Participants were asked to examine, discuss and reflect the translation module that they study on the platform. The experiment lasted for 6 weeks as the following schedule indicates:

**Table (1): Translation training scope and sequence**

<i>Weeks (2 hours per session)</i>	<i>Translation Area</i>	<i>Assessments</i>
<i>W. One</i>	<i>Lead- in and pre testing- Blog logging Google class logging</i>	<i>Adjusting and information sessions- Pretests</i>
<i>W. Two</i>	<i>Polling – MCQ - Word translation</i>	<i>Blog reflection formative assessment</i>
<i>W. Four</i>	<i>Sentence translation polling</i>	<i>Self-reflection Blog reflection</i>
<i>W. Five</i>	<i>Challenges with education terms' translation Blended practice</i>	<i>Quiz – Formative assessment</i>
<i>W. Six</i>	<i>Blended translation- Models for translation – Wrap up</i>	<i>Post testing – Summative</i>

Participants were informed with the schedule and were asked to use their Gmail accounts for logging into both Google classroom and Blogger. Following the above schedule, the experimented utilize d a pre and post testing to verity the effect of the independent variable (polling issuing MCQ) over the dependent variables (translation skills and attitude towards translation). The following section discusses the findings and discussion of this quasi-experimental design.

## 6. Findings and discussion

Results of this research were mainly obtained from two instruments that answer the two research hypotheses (the translation test using MCQ and the attitude scale). Using SPSS statistics, the following results were obtained to answer the research hypotheses.

*H.6.1. There are statistically significant mean differences between participants' mean scores in the translation skills test favoring the post test.*

To answer the hypothesis, a quasi-experimental design was followed using a pre and post testing procedure. A translation test designed, by the researcher, using an online MCQ machine (see appendix) was used to verify students' development in translation skills using electronic polling. The following table (1) indicates the descriptive statistics of the results. The table shows the differences in means for the pre and posttests (23.68 and 27.51) respectively.

**Table (2): Paired Samples Statistics**

		Mean	N	Std.	Std. Error Mean
Pair 1	*1 pretranstest	23.68	37	5.803	.95
	*2 posttranstest	27.51	37	5.581	.91

\*1 refers to the pretest of translation skills.

\*2 refers to the posttest of translation skills.

Table (2) shows the difference between the two means of the participants. To identify whether this difference in means is significant or not the following treatment was statistically run as table (3) indicates.

**Table (3) Comparing means**

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Devia	Std. Err	95% Confiden				
				Lower	Upper			
Pair *pretranstest- *posttranstest	-3.83	3.35	.551	-4.95	-2.71	-6.96	36	.001

The table shows that there significant mean differences between the pre and post testing of participants' translation skills using MCQ. The difference is due to the effectiveness of the control variable (translation module).

*H.6.2. There are statistically significant mean differences between the participants' mean scores in the pre-post testing of attitude towards translation favoring the post test.*

To answer this hypothesis, a pre posttest analysis was run to identify the change in students' attitudes towards translation as the following table indicates.

**Table (4): Descriptive Statistics**

<b>Paired Samples Statistics</b>				
Pair 1	Mean	N	Std. Deviation	Std. Error Mean
1 *pretransattitude	79.41	37	13.641	2.243
posttransattitude	92.92	37	13.099	2.153

\*1 refers to the pretest of attitude.  
 \*2 refers to the posttest of attitude.

The above table (4) shows means differences obtained from the attitude scale towards translation. The table shows the means differences in favor of the post testing (pre 79.41 and post 92.91). This difference in means accepts the alternative hypothesis and rejects the null hypothesis. This means that developing translation skills of the participants also developed their attitudes towards translations. The following table shows the significance in participants' means in translation and attitude towards it.

**Table (5): Significance value of translation and attitude tests**

		<b>Paired Differences</b>					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	pretransattitude - posttransattitude	-13.514	13.146	2.161	-17.897	-9.130	-6.253	36	.000

The table shows that the differences in means in the pre and posttests of attitude towards translation are significant (0.000) at level (0.001). The following table shows if there is a correlation between participants' means in both the tests.

**Table (6): Means significance**

**Paired Samples Correlations**

	N	Correlation	Sig.
Pair 1 pretransattitude & posttransattitude	37	.517	.001

The above table shows that there is a strong difference between the pre and posttests of both the translation and attitude towards it (.517); this value is significant (0.01). This significance accepts the positive correlation between the two variables of the study and rejects its null hypothesis.

*H. 6.3. There is a correlation between participants' scores in the post testing of translation skills and attitude towards translation.*

To verify if there is a relation between the two dependent variables of the research the following statistics were run; first, identifying the linear conditions of the variables as the following table shows.

**Table (7) Descriptive statistics**

**Descriptive Statistics**

	Mean	Std. Deviation	N
VAR00001	92.62	13.744	37
VAR00002	27.51	5.581	37

The table shows the means of the participants' in the post testing of translation (92.62) and in grammar (27.51) and then standard deviation and the number of the participants (37). To identify the correlation between the two variables, the following statistical procedure was run as the table shows. The above table shows the correlation between each variable's pre and post testing.

**Table (8) Descriptive statistics**

**Correlations**

		VAR00001	VAR00002
VAR00001	Pearson Correlation	1	-.114
	Sig. (2-tailed)		.503
	N	37	37
VAR00002	Pearson Correlation	-.114	1
	Sig. (2-tailed)	.503	
	N	37	37

The above table shows that there is a strong correlation between each variable's testing (pre and post); as Pearson correlation showed (sig

value 1) for variable one (translation), while variable 2 (attitude) showed (0.503) significance. Both the two score values (1.00 and 0.503) are significant. To identify the correlation coefficient (degree of correlation) between the two research variables, the following Kendall and Spearman Brown statistics were run as the following table shows.

**Table (9) Correlations statistics**

Correlations			VAR00001	VAR00002
Kendall's tau_b	VAR00001	Correlation Coefficient	1.000	-.073
		Sig. (2-tailed)	.	.550
		N	37	37
	VAR00002	Correlation Coefficient	-.073	1.000
		Sig. (2-tailed)	.550	.
		N	37	37
Spearman's rho	VAR00001	Correlation Coefficient	1.000	-.117
		Sig. (2-tailed)	.	.491
		N	37	37
	VAR00002	Correlation Coefficient	-.117	1.000
		Sig. (2-tailed)	.491	.
		N	37	37

The above table shows the correlation between the two variables using Kendall and Pearson correlation coefficients. The first correlation (1) is a strong linear correlation as well as the second (.503) which is less than (a/2). This means rejecting the null hypothesis and accepting the alternative one which means that there is a strong relationship between developing translation skills and attitude towards translation.

**7. Discussion**

To verify the effectiveness of the experiment, an online platform on (Google docs) was created by the researcher and was shared with the participants. In this platform, participants were asked to write their feedback and how they react to the experiment. They showed a high satisfaction with the training and reported that it was useful for their language development and use of technology in language and translation. A participant (Yahia Salah) reported that “*I enjoyed the experiment, especially the e-test through Nearpod website. I think it helped me develop my ideas about educational terms’ translation*”). Similarly (Mona Aly) reported that “according to me, I am very happy to join this classroom to learning and have more experience....thank you for sharing this amazing online translation course, which I hope to improve my skills in this filed”. Other students reported that they liked the idea of viewing what others choose and then to judge their own answers. They reported that having this group agreement over a translation followed by an academic discussion was of great value to them.

The obtained results for the first dependent variable (educational term translation skills) agree with many studies that utilized Computer Mediated Translation CAT approach (e.g. Cetiner, 2018; Alotaibi, 2014 & Mahfuz, 2018). These studies attributed translation skills development due to technology effect. They highlighted the positive effect of electronic learning in developing not only translation skills but also attitude towards translation. The present study differs in the Mobile Learning approach it follows since participants mainly use polling technique on their mobiles. Therefore, these results may claim that ML translation programs can lead to similar positive results like CAT in the field of translation and attitudes towards it.

Using polling as a technique proved to be effective in enhancing participants' skills in translating educational terms. This result agrees with others that utilized polling and MCQ (e.g. Javid, 2014; Featherstone & Coughlin, 2017; Hipkins, 2006 & Tian, 2009). The difference is in the way MCQ was used as a polling tool, where participants express their views about the translation then a collective discussion is presented about the translation of the term. The present study is one of the few studies that used polling authentically in translation. It attempted to use polling not only for expressing ideas but on agreeing over an opinion and positively promote an attitude.

### **8. Conclusion and implications**

Translation skills are essential to postgraduates pursuing their higher studies in different fields including the field of education. Using the quasi-experimental design, results showed that participants developed their translation skills using electronic polling technique. This development in translation skills also positively developed participants' attitude towards translation. This result implies the value of using both polling as a technique and MCQ as assessment questions in translation studies. The results also highlight the importance of using Mobile Learning environments in translation classes.

The research recommends that novice translators can use CAT for better translations. Results also stress the value of pragmatic competencies specially culture in designing and teaching translation courses. Course designers, teachers and assessment practices may consider e-polling as an effective technique in translating educational terms.



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