Reconfiguring Universities for the Future: E-learning Resources and Instructional Designs in Training Translation

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Abstract

Background: This study attempts to understand the importance of applying E-learning resources through evaluating the importance of said-resources in the differences appearing in the translation quality of texts trained to the students through various educational references.

Objectives: To achieve the purpose, the study was conducted at Islamic Azad University-Tehran Science and Research branch during the second semester of academic year 2018 - 19.

Methods: The evaluation of translation quality of the students who trained translation via traditional references and E-learning resource tools was conducted at the textual level according to the Sager's general classification for three levels of gravity of errors considering distortion of sense, omission, and minor errors using one way ANCOVA to determine a statistically significant difference in the learner's outcome through controlling the potential effect of translation pretest.

Results: For both traditional and E-learning references in translation training, the scorings of the two translation raters were consistent since the intraclass correlation (α) was 0.933 (> 0.70). The two groups of the study were significantly different from one another via obtaining the mean of 15.51 in the E-learning resources group of the participants in comparison with the mean obtained in the traditional references group which was 13.75 in the early observation of the descriptive statistics. Besides, the P value of 0.001 (< 0.050) retrieved from the result of One-way ANCOVA, represented the significant effect of training translation via applying E-learning in comparison to the traditional referenced training. The significance value of .001, which was smaller than 0.050, indicated the fact that our groups were significantly different. The proof to the claim was given strength from the results of the post hoc test for the dependent variable of the study (translation posttest), in which the means of 15.547 (for the control group) and 16.073 (for the experimental group) in the multiple measurements of P value (0.001) was calculated based on the 95% of confidence interval and standard error of 0.175. Accordingly, the translation training via E-learning resources made a statistically significant difference in the learning outcome of the students, the quality of students' translation, while controlling the effect of the pretest. Also, the effect size of 0.244 revealed the strength of independent variable as an appropriate numerical value for indicating the efficacy of the treatment-training translation via applying E-learning resources.

Conclusions: The consistency of quality assurance in translation could be achievable via E-learning resources; however it is not possible to consider all the resources as the appropriate material within all educational contexts with various instructional designs. Thus, the use of E-learning resources, as the necessary factor in reconfiguring the universities for the future through updated instructional designs should be preserved by the teachers and students regarding the necessary adaptations required in the local contexts of training translation. The research implications are basically referring the stake holders in developing instructional designs to consider the importance of E-learning resources in the training procedures applied by the instructors to provide various courses including translation. However, it is necessary for the policy makers to pave the grounds to settle the required platforms for the use of such resources within educational contexts concerning their applicability in the local context.

Keywords: E-learning Resources, Learning Outcome, Students, Translation Quality, Traditional References

1. Background

Reconfiguring universities for the future is defined as an educational concept which is in a direct connection with the dynamic process of developing instructional designs and activities. The reconfiguration thus, requires a thorough acquaintance with professional skills and cultural values in a learning environment, in which the use of learning resources and tools may face many changes to meet the needs of both teachers and students concerning the realities incorporated into the education. Currently,

the education systems are inclined towards the collaborative work instead of individual performance and such an inclination relied on the proper use of technology and information for the optimal application. In this view, "electronic learning references" that refers to the use of information technology or the internet for learning activities is of crucial importance (1). Respectively, information literacy through incorporating E-learning and computer assisted language learning [CALL] in a learning environment are aiming to help learners improve their knowledge proficiency more efficiently (2, 3). The issue is considered more vital, when students and teachers deal with multilingual aspects of education, a good example of which could be translation training activities.

On the other hand, since the learning contexts within instructional designs have the potential to incorporate new capacities to locate and use information and technology (4), teachers are attempting to use available resources to empower the learners with the applicable educational tools to enhance translation proficiency and deal with the related challenges. One of the solutions to cope with such challenges is the application of E-learning tools, which are becoming common in today's educational contexts for translation training. The tools are based on the use of online or electronic informational skills, the use of which has faced an increasing pace. Translation training is of no exception, since the learners are mostly relying on electronic references such as e-dictionaries, web-based translations, and online translation corpora (equivalents and comments search engines) to enhance their proficiency and provide a better learning outcome. One of the e-resources which is getting common within the current educational contexts are Massive Open Online Courses [MOOC], which provide an affordable and flexible way to learn new skills to deliver quality educational experiences at scale. The courses are the good examples for the learners to search for learn the best equivalent finding procedures through the online-based tutorial programs available to the learners for free (5).

Although translation underwent considerable transformations through academic studies, it was important to consider the existing flow of information and technology in its learning. In this respect, according to Kučiš et al. (6), the adoption of multilingual technologies has made the researcher concern about the quality of translation resulted by the application of the available resources to the learners and practitioners of the field.

2. Objectives

To find out more about the success in applying E-learning resources in training translation, the current study was conducted at Islamic Azad University-IAU to consider the differences resulted from the application of various educational resources and tools on the learning outcome of students' translation quality through providing answers to the following question:

Q: Is there a significant difference on the learning outcome of the learners who learned translation via applying traditional reference tools and E-learning resources?

To answer the quantitative question of the study, the null hypothesis of the study was proposed as follows:

H0: No statistically significant difference exists on the learning outcome of the learners who learned translation via applying traditional reference tools and E-learning resources.

3. Methods

3.1. Design

The current research as a branch of quantitative designs, aimed at evaluating the use of E-learning resources on the translation quality of the learners as their learning outcome. To do so, a two-group pretest-posttest experimental design including a control group was chosen to conduct the study. Students' translations pretest and posttest were scored based on Sager's (7) TQA general classification.

3.2. Participants

Based on Creswell's (8) simple random sampling method, the researcher, as the lecturer of translation courses concerned the shared characteristics of the potential participants of the study at the department of English language translation at Islamic Azad University-IAU Tehran Science and Research branch. Each participant was chosen entirely by chance as a member of the total population to have an equal chance or probability of being selected. The participants were given numbers which were used in the table of random numbers to decide which members were included in the study. Thus, selection bias was reduced. In this respect, 300 junior English-major students at bachelor's level, who had the translation courses during the second semester of the academic year 2018 - 19, were considered as the total population. The total population was recognized to have the minimum translation abilities due to their educational backgrounds.

Before selecting the samples of study, the preliminary English test (PET) was run among total population

based on which, the students ranging one standard deviation above and below the mean in their scores were extracted. As a result, 180 students who were standing in the same level of language knowledge-an intermediate level of English proficiency- in their mean score (16.53 $\pm$ 0.35.), including male and female students, speaking Farsi as their first language, with the average age of 23 years old, were considered as the final samples of the study. The required sample size of the study from the total population was determined with respect to the certainty for the sample size, based on the statistics of 5% for margin of error, 95% for the level of confidence, and the z-score of 1.58 in the total population, calculated by SPSS version 21.

3.3. Instruments

3.3.1. Language Proficiency Test

To homogenize the participants of the study, the Preliminary English Test (PET) was applied. The test was devised by Cambridge English Language Assessment and used by many researchers for the selecting the homogenous participants required for the experimental designs.

3.3.2. Translation Pre and Posttest

Two different authentic one-paragraph texts (about 200 words) to be translated as the pre-test and posttest in experimental and control groups were used. The two one-paragraph texts were almost at the same length and readability, which had been checked by instructors of translation and translators with at least five years of experience.

3.3.3. Translation Quality Assessment-TQA

Translation quality assessment (TQA), as a sub branch of translation studies is a way to evaluate the translations according to the needs which are expected according to the various contexts, the most prominent of which is learning outcomes. There are many theoretical views or models in this area. However, it seems that from among these many models, a few of them sound promising according to the goal of the current study. Since the focus of the study was to evaluate the quality of the students' translations on the posttest, Sager's general classification in three levels of gravity of errors considering distortion of sense, omission, and minor errors (such as stylistic infelicity, orthographic errors, etc.) was applied to score both the translation pretest and posttest of the participants. The levels classify translation errors via concerning any reversal in conveying the meaning (2 points), addition and omission of elements in the content (1 point), deviation or distortion of meaning (1 point), and translation incompleteness

(0.5 point). For each of the mentioned errors, the respective points in the parentheses were reduced from the total scores given in the translation pretest and posttest.

3.3.4. Procedure

After assigning the participants of the study to the experimental and control groups, the pretest of translation was carried out. The procedure continued with the treatment phase and the participants in the experimental group were taught based on applying internet-based E-learning resources corpora (equivalents and comments search engines) as the translation assignments, while the participants in the control group were provided translation training through the common reference tasks (translation tasks in course books and trainer's samples) in traditional methods of teaching during the four weeks of training sessions. During the first week of training in the experimental group the participants were getting acquainted with the major principles of searching the Web for finding the equivalences of terms which were new to them. As an example the students were asked to look for the terms in the Google translate machine and tried to compare the terms' meaning with other resources such as the Webster's online dictionary. During the second session of treatment, the same case was trained in the sentences' meaning, based on which students were learned how to compare the structural differences in the meaning of the sentences provided in the aforesaid machine translations. While the lecturer kept reminding the students that online resources for equivalent finding should go under permanent evaluation by the translator the learners were asked to provide their ideas about different resources in equivalent finding during the third session of training. In the last session of treatment, students learned how to locate their own online corpora on the Web for finding the degree of variance in finding the equivalents through different online resources. As a result, a simultaneous attempt was carried out by the learners to look for the various definitions of a term in different contextual definitions through the most applied and common examples of the use of a term in a sentence or a specific context of use available through the famous online resources such Google machine translation. After the four weeks of training at both groups, the translation post test was conducted. Both pre and posttests of translation were assessed by two raters based on Sager's translation error classification. The mean score of the two raters at both pre and post tests were calculated as the required data to assess the quality of participants' translation. The results were reported via SPSS version 21 to investigate the effect of treatment on the participants while controlling the potential effect of pretest as the covariate.

4. Results

To achieve the results, 180 students who were standing in the same level of language knowledge-an intermediate level of English proficiency- in their mean score (16.53 $\pm$ 0.35.), including male and female students, speaking Farsi as their first language, with the average age of 23 years old, were randomly assigned to the two experimental and control groups, in which E-learning resources and traditional references trainings were provided as the treatment of the study via the translation assignments on the translation quality of the learners. To obtain the expected results, a two-group pretest-posttest experimental design was used, the results of which were summarized as follows.

4.1. Data Analysis

4.1.1. Inter-Rater Reliability Indices

To ensure the existence of reliability between the raters' scores in both pre-test and posttest results, as shown in Table 1, Cronbach's alpha was calculated. The results indicated the existence of a high consistency between the two translation raters in their scoring systems since α was 0.933; which was greater than > 0.70.

According to Table 1, both pretest and posttest results from the two raters showed correlation with each other. Besides, there existed a high degree of interrater reliability between the two raters at both pre and a posttest results, since the results for intraclass correlation for average measures was 0.933.

Besides, the means of the two groups at both pretest and posttest results are shown in Table 2.

The descriptive statistics provided in Table 2 represent how different groups varied through the means gained at both the traditional and E-learning resources pretest and posttest groups of training of translation. In other words, the translation training via E-learning resources made a statistically significant difference on the learning outcome of the students and the quality of students' translation via obtaining the mean of 15.51, which was greater than the mean of the participants in the traditional references group (13.75).

4.1.2. Analysis of Covariance-ANCOVA

ANCOVA was used since the researcher aimed at controlling the potential effect of covariate, the pretest of translation, via considering the preexisting difference between the experimental and control groups and its potential effect on the dependent variable of the study, the posttest of translation. The results of ANCOVA test are shown in the following tables by identifying the two levels of the between-subjects effects.

As shown in Table 3 the P value of 0.415 is greater than 0.05 and it represents the fact that the interaction between the covariate (pretest) and independent (group) variable is not statistically significant for training translation via applying E-learning resources and traditional reference works. Thus, the researcher had not violated the assumption of homogeneity of regressions which was revealed through the similarities of the groups with respect to their slopes and trends. In other words, the factors (pretests) and covariates (experimental and control groups) did not interact.

To complete the quantitative analysis of the study, the test of the main hypothesis was carried out through the tests of between-subjects effects, the results of which are presented in Table 3. The table shows whether our groups in the study were significantly different in terms of the scores on the outcome, which was the posttest score based on the effect of independent variable through the test of between subjects effects. In order to interpret the results-"P value", shows the statistical significance of whether there are statistically significant differences in posttest scores (i.e., the dependent variable) between the groups (i.e., the independent variable) when adjusted for pretest scores (i.e., the covariate). In this respect, it is possible to consider whether there is a statistically significant difference between adjusted means (P < 0.050).

As shown in Table 4, training translation via applying E-learning resources' main effect was significant on the students' translation proficiency development [P (0.001) < (0.050)] controlling for the effect of pretest and the null hypothesis was rejected. In other words, One-way ANCOVA was conducted to determine the difference between the pretest and posttest scores on translation proficiency of students controlling for the potential effect of pretest scores of participants by experimental and control groups, through which P = 0.001 < 0.050 resulted in rejecting the null hypothesis.

According to Table 4, the significant value of 0.001 which is smaller than 0.050 indicated the fact that our groups were significantly different from one another. Also the effect size of 0.244 revealed the strength of the independent variable as an appropriate numerical value for indicating the efficacy of the treatment-training translation via applying E-learning resources.

Since the adjusted means of the groups based upon the influence of covariate of training translation via E-learning resources made the researcher observe the statistical significance of 0.001, the researcher could figure out which groups significantly differed from the others through the results of the post hoc test results shown in Table 5.

Further to this, the researcher could compare the out-

Table 1. Reliability Statistics via Inter-Item Correlation Matrix[a]

	Inter-Item Correlation Matrix			
	R1_Pretest	R2_Pretest	R1_Posttest	R2_Posttest
R1_Pretest Scores	1.000	0.957	0.724	0.713
R2_Pretest Scores	0.957	1.000	0.731	0.731
R1_Posttest Scores	0.724	0.731	1.000	0.923
R2_Posttest Scores	0.713	0.731	0.923	1.000

	Intraclass Correlation Coefficient					
	Intraclass Correlation	**Confidence Interval (95%)**			**F Test with True Value 0**	
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	0.778	0.714	0.833	14.982	99	297	0.001
Average Measures	0.933	0.909	0.952	14.982	99	297	0.001

[a] Cronbach's alpha: 0.933; standardized items Cronbach's alpha: 0.940; number of items: 4

Table 2. Pretest and Posttest Results in the Traditional References and E-learning Resources Training Groups

	N	Minimum	Maximum	Mean	Std. Deviation
Traditional references training					
Mean_pretest	45	8.00	14.50	11.25	2.86
Mean_posttest	45	11.50	16.00	13.75	2.02
Valid N (listwise)	45				
E-learning resources training					
Mean_pretest	45	10.00	16.50	13.96	2.22
Mean_posttest	45	13.00	19.00	15.51	1.75
Valid N (listwise)	45				

Table 3. Pretest and Independent Variable Interaction via Between-Subjects Effects Results

Source	Dependent Variable: Translation Posttest				
	Sum of Squares (Type III)	df	Mean Square	F	Sig.
Group	0.266	1	0.266	0.173	0.679
Pretest	172.269	1	172.269	111.885	0.001
Group* Pretest	1.034	1	1.034	0.671	0.415
Error	147.811	96	1.540		
Total	25351.875	100			
Corrected total	356.265	99			

comes from experimental and control groups and it was concluded that via applying E-learning resources in translation training, the groups were significantly different from each other through multiple measurements of P value, since P = 0.001 and is smaller than 0.050- representing how different groups vary. Accordingly, the translation training via E-learning resources made a statistically significant difference on the learning outcome of the students and the quality of students' translation, while controlling the effect of the pretest.

5. Discussion

In this study, the impact of applying E-learning resources on the quality of students' translation was examined in an attempt to seek for the applicability and benefits of E-learning resources in developing instructional designs as the main objective of reconfiguring universities

Table 4. Test of the Main Hypothesis via Between-Subjects Effects Results[a]

Source	Dependent Variable: Translation Posttest					
	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Pretest	200.130	1	200.130	130.422	0.001	0.573
Group	6.919	1	6.919	4.509	0.001	0.244
Error	148.845	97	1.534			
Total	25351.875	100				
Corrected Total	356.265	99				

[a] R squared = 0.582 (adjusted R squared = 0.574)

Table 5. Estimated Marginal Means the Experimental and Control Groups

Group	Dependent Variable: Translation Posttest			
	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Control	15.547	0.175	15.199	15.895
Experimental	16.073	0.175	15.725	16.421

to novel needs and learning outcomes. The findings in the current research are of crucial importance to the instructors and learners due to the limited number of studies focusing on the use of electronic references in students' learning outcomes. In a broader sense, the findings of the study emphasized that E-learning references differently affect the quality of students' translation, since instructors and learners, through various instructional designs employ different resources and activities to enhance the outcome quality. In this respect, through applying different resources in teaching translation, students might rely on updated references to check various possibilities in translation including better word choices and grammatical constructions to make fewer mistakes in various genres and contexts of translation. Although the use of vocabulary and their equivalences along with complicated grammatical structures were the crucial components of providing translation, but stylistic aspects might be better dealt with via checking electronic translation corpora that let the learners investigate further examples of a single word in various contexts of use. Thus, the learners' outcome might enhance in dealing with specific genres or contexts. On the other hand, as the necessary factor for the polysemantic nature of a translation activity such resources could be helpful through the directions made available for finding the ideal equivalents. In this respect, the instructors and learners are needed to be equipped with available resources in translation to enhance the efficacy of training.

It seems clear that traditional references might enable the learners to apply translatological skills such as text analysis and equivalent finding, but certain shortcomings in such references made the educational stakeholders to consider new resources to deal with the field's inefficacies in the teaching process.

Besides, via applying educational technologies, finding equivalents which are based on multipurpose analysis of text analysis could help the learners in narrowing down the domain of analytical research in finding equivalents and producing translations. The issue could be more attractive for the learners and let them engage in cooperative learning procedures. Finally, through defining the ideal translation quality resulting from applying E-learning resources in the learning, it is possible to assign different roles to the teachers and learners of the field. As a result it is possible to ensure the required integrative perspectives in developing the modern instructional designs to meet the demands of the future universities, through the reconfiguring principles and concepts achievable via e-resources in education. The findings of the study might provide some suggestions to encounter the difficulties caused by the shift from traditional to modern higher instructional structures concerning the ever-changing demands expected from the new generation of universities focusing on developing interdisciplinary fields of study and enhancing teaching methodologies as the determining elements in the concept of reconfiguration at universities. On the other hand, the research implications are basically referring the stake holders in developing instructional designs to consider the importance of E-learning resources in the training procedures applied by the in-

structors to provide various courses including translation. However, it is necessary for the policy makers to pave the grounds to provide the required platforms for the use of such resources within educational contexts concerning their applicability in the local context. The concept of local context could be exemplified by the type of E-learning resources such as the multimedia and internet resources which could be examined by the experts to become appropriate for the local users. In this view the prompt application of resources may not deem appropriate since the educational resources are needed to go under comprehensive assessment procedures for the practice in different contexts of education.

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Footnotes

Authors' Contribution: Mohammad Iman Askari planned the research, gathered the data and observed any problematic factor in it during the required analyses, through which the possible answers to the research question were identified and tested for the final outcome. Further modifications on the article were made by the same author.

Conflict of Interests: The author declares that there is no conflict of interest in this study.

Ethical Considerations: The participants as the researcher's students in translation courses declared their consent for their contribution at all stages who were the volunteers in the researcher's classes since the study was conducted by the researcher who was a teacher in translation studies. The participants were informed that all their personal data which were gathered in the current study would be considered as confidential.

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