

THE IMPACT OF TASK-BASED TRANSLATOR TRAINING PROGRAM
ON THE DEVELOPMENT OF TRANSLATION COMPETENCE

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ABSTRACT: This study consisted of two phases including 1) questionnaire development phase and 2) investigating the impact of task-based translator training program on the development of translation competence (TC). In phase one, a questionnaire of translation competence acquisition was re-developed and validated for the Iranian context using Cronbach's coefficient alpha and Confirmatory Factor Analysis as assessed by LISREL 8.8 and SPSS 16. In the second phase, two main types of translation tasks, i.e. technical tasks, and textual tasks, were selected and applied on the participants of two experimental groups. At the beginning and at the end of the treatment both experimental groups received TC questionnaire. The statistical analysis of the data revealed that there was a strong statistical difference between the mean score of TC in pretest and posttest at $\alpha = 0.05$. Also, considering TC components in ESG group, there was a considerable and statistically meaningful increase at $\alpha = 0.05$ from pretest to posttest. Likewise, as for all TC components in GT group, there was a substantial and statistically meaningful raise at $\alpha = 0.05$ from pretest to posttest. Finally, all TC components were compared individually in both ESG and GT groups to find out in which group the increase of TC components were statistically meaningful. The results showed that bilingual and instrumental sub-components had more significant growth in ESG group, while the other four components grew predominantly in GT group.

KEYWORDS: Task-based translator training program, Translation competence, Technical tasks, Textual tasks, Generic text, Expansion and semantic group text

INTRODUCTION

Over the recent years, translation and interpretation studies have attracted a great deal of attention; this appears to be affected by the temporal and special needs and demands of academic and industrial circles. The advances and developments in science and technology and the need to exchange the newly-developed information, knowledge and technology in native speakers' countries highlight a deep demand to train professional translators. One of the requirements of training professional translators is to look more deeply into the translation professionalism. One of the most critical factors contributing to professionalism in translation is the development of translation competence, which has been called differently by different scholars, as *Transfer Competence* (Nord, 1992), *Translational Competence* (Toury, 1995), *Translation Performance* (Wilss, 1989), and even *Translation Skill* (Lowe, 1987). Borsch, (1986); Gerloff, (1987); Seguinot, (1991) and Lorscher, (1991) examined translation competence acquisition. However, it appears more qualitative, quantitative and empirical studies are needed to determine what kinds of factors can affect it. Some researchers, i.e.,

[Ressurreccio et al. \(2008\)](#) investigated the impact of textual genre on TCA. However, the role of other factors, such as: translation training courses and translation tasks, has remained unclear. PACTE group, i.e. [Process of Acquisition of Translation Competence and Evaluation, \(2002\)](#) presents the translation competence model that is the basis for designing the hypotheses of an empirical-experimental study of translation competence. Their research is the first stage in a larger project to investigate the process of translation competence acquisition. They describe theoretical framework and the first models that were designed in 1998; along with the modification introduced in 1998 translation competence model were developed as a result of the first exploratory studies. After the translation competence model has been established, the researchers, i.e. Orozco and Albir, tried to design and develop the instruments which could accurately measure it. In 2002, Orozco and Albir developed the instruments for measuring the process of acquiring translation competence in written translation. Translation competence and its process of acquisition were described, and then three measuring instruments especially

developed to measure translation competence acquisition were presented: (I) to measure notions about translation, (II) to measure students' behavior when faced with translation problems, and (III) to measure errors. Pilot studies were carried out for three years to test, improve and validate the measuring instruments. Empirical research in translation studies, in particular TC, appeared in 1980s. At first, the scholars concentrated on the development of a model for TC, but recently they are more focused on the components and factors affecting it. [Orozco and Albir \(2002\)](#) proposed that the period of time exposure to translation training methodologies may have some influence on TC, but they never carried out research into it. Based on the available literature in Translation Studies and since no or little research has been conducted on the impact of task-based translator training course on the development of TC, it seems crucial to study whether task-based translator training program has any influence on TCA. Therefore, this study seeks to explore the role of task-based translator training program on the development of translation competence. Most of the empirical researches in translation studies, as [Orozco and Albir. \(2002\)](#) suggest, are concerned with problems not only from the scientific point of view, but also from the theoretical perspective because none of them explores translation competence as a whole, except some of its aspects ([Orozco and Albir, 2002](#)). It also appears that no study targeted the role of task-based translator training program in the TCA. This study also aimed to evaluate what types of translation tasks were more useful for Translation students and could develop Translation Competence. As stated earlier, one of the elements of being a professional translator is to have a high level of Translation Competence; therefore, the main purpose of translation instructors is necessarily to enhance the development of translation competence in translation students. Since this study aims to evaluate translation tasks, it can provide translation instructors to organize their practices on the basis of the findings of this study.

THEORETICAL AND IMPERIAL BACKGROUND

The main aim of this study is to measure TCA in students of Translation considering task-based translator training program. Generally, there are two main types of translation tasks, one focusing on textual tasks and the other on technical task. Therefore, there was one independent variable, i.e. task-based translator

training program with two levels, which are textual tasks and technical tasks. As for the dependent variables, i.e. TCA, three measuring instruments were used.

2.1. A Framework for Task-based Translator Training

Task-based language teaching (TBLT) employs authentic tasks as the unit of analysis in syllabus design ([Long and Crookes, 1992](#); [Long and Crookes, 1993](#)). It is argued that students learn best through social interactions which let students work toward a common purpose, by sharing information and solving the same problems ([Pica et al., 1993](#)). Therefore, presentation of cooperative tasks in which students work jointly is more common in the TBLT approach. It is also suggested that these tasks rooted in real life context. In a Task-Based Translator Training Program the teaching process is appeared to be a simulation of real-world experiences whereby students work through groups to achieve a common goal, by sharing information to identify potential problems and find resources to solve them collectively. Their tasks include a textual analysis of the background, structure and vocabulary of the source text, terminology research and other related writing, editing and revision skills. Besides, the technical tasks were added to this approach as well. In the present research, both textual tasks and technical tasks were used to develop the task-based translator training curriculum. Textual tasks are tasks related to comprehension, meaning, structure, and vocabulary of the source or target text. However, technical tasks refer to the tasks that focus on Texts consisting of job applications, immigration, health service and court forms ([Zeng and Lu-Chen, 2010](#)). Conducting translation practice with task-based approach makes no difference with other task-based lessons, with tasks being clarified before initiating the program. Its lesson design should be planned on the account of Pre-task, While-task and Post-task ([Willis, 1996](#)). To be more specific, one lesson plan should consist of the following stages:

2.1.1. Pre - Task (Target Text Assessment)

Stage one, i.e. pre-task, focuses on the target text evaluation tasks. Here, the students were grouped and were asked to analyze a target text based on its grammaticality, use of expressions, smoothness, consistency and naturalness.

2.1.2. While - Task (Translation Process)

During this stage, translation assignments were

given to the translation students to translate in groups. As stated earlier, two types of tasks were worked on, one is Textual task and the other is Technical task. Concerning these two types of translation tasks, two forms of translation assignments were chosen, one for the textual task and another for the technical task. The rationales for such activities appear below:

1 – Expansion and Semantic Groups (ESG): This task is used for the purpose of accomplishing the textual task. It is a type of task in which the translation trainee needs to first define, and then amplify an idea expressed in a given language *in that same language*; offer possible contextual synonyms, relate the idea/term/expression to others in similar contexts, then proceed to translate the original idea into another language. This type of task also refers to hyponyms and hyperonyms (Baker, 2001; López and Minett, 2001). The objective of

this type of task is to broaden the translator's perspectives, expand his active and passive vocabulary and contribute to a solid mastery of both languages in contact (Gonzalez, 2008).

2 – Generic Texts (GT): This task is employed for the purpose of achieving the technical task. It refers to the texts consisting of job applications, immigration, health service and court forms (financial affidavits, marriage, juvenile court documents, etc.), since this represents the greatest need in our communities (Gonzalez, 2008).

2.1.3. Post - task (Final Assessment)

During the final stage of the task-based translator training, students are required to do a final project, as well as take a post-test. Then, the translations of students were assessed by their teachers and peers.

Table 1: A framework for Task-Based Translator Training

Stages	Pre - Task	While - Task	Post - Task
Focus	Target Text Assessment	Translation Process	Final Assessment
Tasks	1. Evaluate a target text based on its grammaticality, use of expressions, genre and vocabulary. 2. Rephrase the target Text	1. Translate the assigned tasks. 2. Discuss general & specific problems found in the texts in small groups.	Evaluate the Translated text by teacher and peer.

2.2. Translation competence: definitions and theoretical model

The PACTE Group defines translation competence as the fundamental system of knowledge needed to translate. They believe that translation competence: (a) is expert knowledge; (b) is principally procedural knowledge, (c) includes various inter-related sub-competences; and (d) encompasses a strategic component which is of high significance. In PACTE model (PACTE, 2002), translation competence comprises five sub-competences and psycho-physiological components:

- Bilingual sub-competence. Mainly procedural knowledge needed to communicate in two languages. It comprises pragmatic, socio-linguistic, textual, grammatical and lexical knowledge.
- Extra-linguistic sub-competence. Chiefly declarative knowledge, including general world knowledge, domain-specific knowledge, bicultural and encyclopedic knowledge.
- Knowledge about translation. Mostly declarative knowledge about translation and aspects of the profession. It consists of knowledge about how translation functions and knowledge about professional translation practice.
- Instrumental sub-competence. For the most part, procedural knowledge related to the use of documentation resources and information and

communication technologies applied to translation (dictionaries of all kinds, encyclopedias, grammars, style books, parallel texts, electronic corpora, search engines, etc.).

- Strategic sub-competence. Procedural knowledge to assure the effectiveness of the translation process and solve problems faced. This sub-competence controls the translation process. Its purpose is to plan the process and perform the translation project; evaluate the process; activate the different sub-competences and compensate for any deficiencies; identify translation problems and apply procedures to solve them.
- Psycho-physiological components. Various types of cognitive and attitudinal components and psycho-motor mechanisms, including cognitive components such as memory, perception, attention and emotion; attitudinal aspects such as intellectual inquisitiveness, perseverance, inflexibility, the ability to think critically, etc.; abilities such as creativity, logical reasoning, analysis and synthesis, etc.

RESEARCH QUESTIONS AND HYPOTHESES

According to Orozco, (2001) three measuring instruments can be used to evaluate the Translation Competence. The first one is called "Translation Notions Instrument" (TNI), the second one is "Translation Problems Instrument" (TPI), and the last instrument is "Translation

Errors Instrument" (TEI). Therefore, the dependent variable of the study, i.e. TCA, was measured using three questionnaires mentioned above. As mentioned earlier, the current study would examine the impact of task-based translator training program on the development of TC. To achieve the objective of this study, the following two research questions are formulated:

1- Does Task-Based Translator Training Programs (TBTP) have any statistically significant effect on participants' translation competence development?

2 - Is there any statistically significant difference in the effectiveness of textual tasks and technical tasks in participants' translation competence development?

The following null-hypotheses were developed based on the above-mentioned research questions:

1 -TBTP doesn't have any statistically significant effect on the participants' translation competence development.

2 -There is no statistically significant difference in the effectiveness of textual tasks and technical tasks in participants' translation competence development.

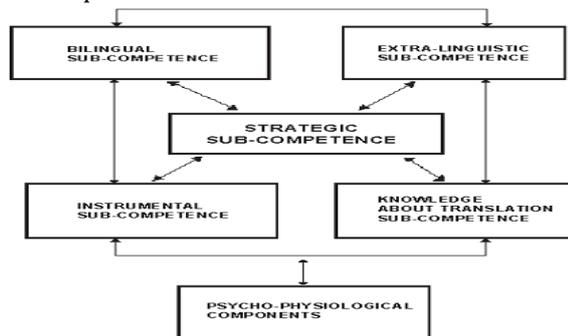


Figure 1: PACTE Model of Translation Competence Adapted from [PACTE \(2002\)](#)

METHOD

4.1. Participants

Participants were selected from B.A. students of English Translation Studies at Taberan Institute of Higher Education in Mashhad, Iran. Since the participants should not have had any academic translation training experience, only students who were studying in the fifth semester were selected. The age range of participants was between 19 and 22 years old and based on the prior completion of the courses, they were all in the 5th semester, studying Translation Studies.

4.2. Instruments

Considering the aims of the study, one instrument was used. The instrument, which estimated the Acquisition of Translation

Competence, is named Translation Competence Acquisition Questionnaire which includes three sub-instruments as follows:

- 1 - Translation Error Instrument (TEI)
- 2 - Translation Problem Instrument (TPI)
- 3 - Translation Notions Instrument (TNI)

[Orozco, \(2001\)](#) suggests that the above instruments are the measuring instruments of TCA.

The first measuring instrument, i.e. TEI, measures errors, the second, i.e. TPI, measures behaviors of translators when faced with translation problems, and the third, i.e. TNI, measures the knowledge about translation. All three instruments were unified in a single questionnaire called TC Questionnaire and it was administered twice, once at the beginning of the treatment and once the treatment was completed.

4.2.1. Translation Notions Instrument (TNI)

TNI is a multidimensional questionnaire as it covers seven factors within the "abstract" notion of what translation is ([Orozco and Albir, 2002](#)). Seven factors like notions about translation, notions about translation problems, the translation units, translation equivalence, translation functions, translation competence and translation strategies are included in the questionnaire ([Orozco, 2001](#)). Based on the findings of [Orozco and Albir \(2002\)](#), this questionnaire measures two main constructs of *Knowledge about translation*, as measured by items 1, 2, 3, 4, 5, 6, 7, 12, 13, and 14, of the TC questionnaire and *Strategic sub-competence*, which is measured by items 15, 16, 17, 40, 50, 51, 52, 53, 54, 55, and 56.

4.2.2. Translation Problems Instrument (TPI)

TPI questionnaire consists of two parts. The first part includes a task translating a text, and the second one a TPI questionnaire. In the text students are supposed to translate four translation problems, namely: pragmatic, extra-linguistic, transfer and linguistics. [Orozco and Albir \(2002\)](#) maintained that these four types of translation problems are chosen based on the rationale that in order to solve them the translator needs to mobilize all the components of translation competence ([Orozco and Albir, 2002](#)). After students translated the text, they were asked to answer the TPI questionnaire. The evaluator read the translated text together with the TPI questionnaire. Therefore, the translation of each student was checked to see whether each problem had been solved or not. This questionnaire measures two main constructs of *Bilingualism*

and *Instrument sub-competences*. Bilingual sub-competence was measured through items 21, 22, 23, 24, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 43, 44, and 45. Also, Instrumental sub-competence was measured through items 8, 9, 10, 11, 18, 19, 20, 28, 41, and 42 of TC questionnaire.

4.2.3. Translation Error Instrument (TEI)

TEI was aimed to measure two constructs of *Extra-linguistics* and *Psycho-physiological components*. The former was measured through items 25, 26, 44, 49, 56, and 57 and the latter through items 27, 46, 54, 55 and 57. Since the questionnaire is re-developed in the context of Iran, its Cronbach's Alpha reliability and internal consistency were measured. Also, the construct validity of the TC questionnaire was calculated using LISREL 8.8. The results of construct validation are as follow:

In line with the work of [Batinic et al. \(2007\)](#), the goodness of fit statistics was obtained emphasizing the Root mean square error of approximation (RMSEA), the comparative fit index (CFI), Non-normed fit index (NNFI) and incremental fit index (IFI). The χ^2 test was also used to test the fitness of the model. RMSEA values less than .05 indicate good fit and values as high as 0.08 represent acceptable errors of approximation ([Bentler, 1990](#)). The CFI/NNFI and IFI differ along a 0 to 1 continuum in which values greater than 0.90 and 0.95 are considered to show an acceptable and outstanding fit of the data ([Bentler, 1990](#)). However, an index of 0.90 and above is considered as acceptable fit.

TC questionnaire, used in the present study, consists of three main sections namely: Translation Notions Instrument (TNI), Translation Problems Instrument (TPI) and Translation Error Instrument (TEI). According to [Orozco and Albir \(2002\)](#), the first part of the questionnaire, i.e. TNI, including 21 items, covers two main latent variables of notions about translation and notions about translation competence. The second part comprises a text to be translated and TPI including 28 items, all of which should be measured based on the translated text. The items of TPI represent four latent variables, i.e. four translation problems namely: pragmatic, transfer, linguistic, and extra-linguistic problems. The last part, i.e. TEI, consists of 11 items, in which two constructs of Extra-linguistics and Psycho-physiological components, were measured.

I. Internal Consistency

The Cronbach's alpha coefficient estimated for the instrument and subscales was acceptable

and reached the target reliability of at least 0.70 ([Garson, 2005](#); [Lewicki and Hill, 2006](#)).

Table 2: The Cronbach's alpha(s) Coefficient for TCQ

Factor	Cronbach's alpha values
Translation Notions instrument	0.79
Translation Problems instrument	0.86
Translation Error Instrument	0.80

II. Confirmatory Factor Analysis

The CFA model estimated the ability of the three factors to clarify the relationship among the 60 items (item 21 consists of 4 sub-items). This model with 60 items positing two TC factors provided a good fit to the data (CFI=0.94, NNFI=0.93, IFI=0.92, RMSEA=0.07 and $\chi^2=972.09$, $df=569$, $p=0.0$). The solution was entirely proper and the factor structure was well definite with all factor loading being positive and significant and were larger than 0.30 (See table 2). The correlations among the three factors were small to moderate ($r_s=0.91$), indicating that the factors were clearly distinguishable from one another (see table 3). In sum, there was support for the three factor model in Iranian sample based on the finding of; (a) a reasonable model fit (i.e. CFI, NNFI, IFI=0.93), (b) good factor loading for the model (0.43 and above for each item loading on the respective factor), and (c) reasonably low correlation among the three factors (<0.7).

Table 3: Summary of the Item - factor loading

Items	TNI	Items	TPI	Items	TEI
TNI 1	0.71	TPI 1	0.77	TEI 1	0.76
TNI 2	0.76	TPI 2	0.89	TEI 2	0.74
TNI 3	0.81	TPI 3	0.83	TEI 3	0.79
TNI 4	0.82	TPI 4	0.91	TEI 4	0.83
TNI 5	0.78	TPI 5	0.81	TEI 5	0.85
TNI 6	0.77	TPI 6	0.79	TEI 6	0.76
TNI 7	0.87	TPI 7	0.74	TEI 7	0.71
TNI 8	0.81	TPI 8	0.80	TEI 8	0.70
TNI 9	0.83	TPI 9	0.89	TEI 9	0.82
TNI 10	0.73	TPI 10	0.81	TEI 10	0.80
TNI 11	0.77	TPI 11	0.82	TEI 11	0.89
TNI 12	0.72	TPI 12	0.78		
TNI 13	0.76	TPI 13	0.87		
TNI 14	0.75	TPI 14	0.75		
TNI 15	0.77	TPI 15	0.85		
TNI 16	0.78	TPI 16	0.72		
TNI 17	0.96	TPI 17	0.74		
TNI 18	0.78	TPI 18	0.86		
TNI 19	0.71	TPI 19	0.75		
TNI 20	0.79	TPI 20	0.83		
TNI 21	0.91	TPI 21	0.72		
		TPI 22	0.72		
		TPI 23	0.79		
		TPI 24	0.94		
		TPI 25	0.73		
		TPI 26	0.84		
		TPI 27	0.82		
		TPI 28	0.83		

Table 4: Sub-factor correlation of the three factors of TCQ

	TNI	TPI	TEI
TNI	1	0.91	0.93
TPI	0.91	1	0.87
TEI	0.93	0.87	1

III. Modeling Approach

The most significant basis on which SEM is based is the correlation matrix and/or covariance matrix. So, for the purpose of this study, first, the data obtained from the questionnaires of TNI and TPI were analyzed using SPSS software and then the correlation matrix which was obtained from the SPSS was imported to and run through LISREL software.

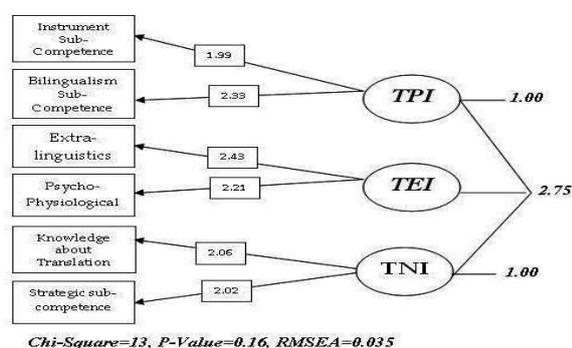


Figure 2: Relationships between Latent and Observed Variables

Since the Chi - Square equals 13, the p-value is larger than 0.05 and RMSEA is less than 0.05, we conclude that the model is fit. The Goodness of Fit Index (GFI) equals 0.91, Adjusted Goodness of Fit Index (AGFI) equals 0.76 and Parsimony Goodness of Fit Index (PGFI) equals 0.35. These findings also confirm that the data fits the model. The values which are written on each arrow are demonstrated in the *Estimated Mood*, and they are not interpretable. In all SEM models run in LSREL software, the values of *Estimated Mood* are not interpretable because there is no principle to which one can compare these values. In order to make the values interpretable, we should change the mood from *Estimated Mood* to *T-Value Mood*. Having changed the mood to T-Value mood, we see that all the values written on the arrows of the above model changed and are higher than 1.96 (1.96 is a predetermined principle value to which all the values are to be compared). As a result, we can conclude that there is a meaningful relationship between the observed variables (TNI, TPI and TEI) and their latent variables, i.e. Instrument Sub-Competence, Bilingualism Sub-Competence, Extra-linguistics, Psycho-Physiological, Knowledge about Translation, and Strategic sub-competence.

Now, we should assess the relationship between TNI, TPI and TEI to see whether both sections of TCQ are in the same line with the purpose of TCQ. As illustrated in Figure 2, the relationship among TNI, TPI and TEI equals 2.75 and based on the SEM literature, since this figure is larger than 1.96, we come to the conclusion that there is a statistically meaningful relationship among TEI, TNI and TPI.

As seen in table 2 the internal consistency analysis of the TCQ utilizing Cronbach's coefficient alpha reached acceptable alpha(s). The results of the CFA as assessed by the CFI/NNFI, RMSEA and chi-x2, reached acceptable fits. Table 3 showed that the factor structures were defined and table 4 showed that the factors were clearly distinguishable from one another. The factor structures of TCQ suggest that this instrument is thoroughly qualified to be used in the context of Iran and on Iranian Samples.

4.3 Procedures

In order to carry out this study, English Translation students were selected from Tabaran Institute of Higher Education. In order to do the study, two classes were selected randomly, but both were chosen from the 5th semester. The first class played the role of experimental group number 1, in which "*Expansion and Semantic Group*", ESG, which is a form of textual tasks, was worked on.

In the second class, i.e. experimental group number 2, the participants were required to work on "*Generic Text*", GT, which is a form of technical tasks. Both groups received TC questionnaire on the first session of treatment.

The two experimental groups followed the same time schedule and the number of sessions used for applying the treatment was the same. However, the types of tasks and exercises used in each group were totally different. In technical tasks group, i.e. GT group, the participants were required to work on the generic texts such as job applications, immigration, health service, financial affidavits, marriage, juvenile court documents, etc.

On the other hand, in textual tasks group, i.e. ESG group, the students were asked to work on ESG texts such as word meaning from context, identifying synonyms, identifying antonyms, Using Inference, Quotations, Drawing Conclusions, etc.

To be more specific, the lesson plan of the first session in both groups is given below:

Pre - Task (Target Text Assessment)

Here, the students were grouped and were asked to analyze the first translation task, i.e. *Simplified*

Work Application Form and *Sample Job Application* for GT group and *Vocabulary - Meanings From Context* and *Word Meanings From Context* for ESG group, based on its grammaticality, use of expressions, smoothness, consistency and vocabulary richness. They were asked about their opinions considering the passage. Also, some of the difficult grammatical structures of the passage were explained by teacher. If the task was unfamiliar for the students, the teacher explained the text or the form of task for students and tried to activate their background knowledge about the text which was going to be translated.

While - Task (Translation Process)

During this stage, the participants were asked to start translating the text individually. If they faced with a problem, they could solve it through discussing it with their peers in small groups. Students were allowed to use any kind of dictionary they liked.

Post - task (Final Assessment)

During the final stage of the task-based translator training, students were required to finalize their translations and hand in them to the teachers. Then, the translations of students were assessed by their teachers. Having passed the 10 sessions of treatment, the participants received the TC questionnaires as posttest. A full session of 90 minutes was devoted to answering the TC questionnaire. Finally, the data were extracted from TC questionnaires for the purpose of data analysis.

DISCUSSION AND DATA ANALYSIS

The present study aimed to investigate the impact of task-based translator training program on the development of Translation Competence. The nature of the instruments forced the researcher to do quantitative analysis. Concerning the quantitative analysis, Two - Way ANOVA, both parametric and Non-parametric tests, One-Sample Kolmogorov-Smirnov Normality Test and Independent sample T-Test were carried out. Considering the independent variable of the study, i.e. TBTP, the results of each student from the pretest were compared to those of the posttest in both experimental groups. Since all the participants were studying in a specific semester and all have passed identical number of credit courses prior to the treatment, they were considered homogenous.

In order to investigate the reliability of the Translation Competence Acquisition Questionnaire (TC questionnaire hereafter), a pilot study was carried out on 18 students who have the similar characteristics and the Cronbach's Alpha was calculated. Also, internal consistency of the TC questionnaire in deleted-alpha form was done.

Table 5: Reliability Statistics

Cronbach's Alpha	N of Items
0.807	57

It is believed that the accepted Cronbach's Alpha is 0.65 or more, but a standard criterion for judging about Cronbach's Alpha used for questionnaires is as follows:

[George and Mallery \(2003\)](#) provide the following rules of thumb:

"_ > .9 - Excellent, _ > .8 - Good, _ > .7 - Acceptable, _ > .6 - Questionable, _ > .5 - Poor, and _ < .5 - Unacceptable" (p. 231).

In the present study, concerning the 57 items included in the Likert scale TC questionnaire, Cronbach's Alpha was 0.807. Based on [George and Mallery \(2003\)](#) the obtained Cronbach's Alpha for the TC questionnaire is located in Good area so it is considered as an appropriate instrument to be used in the study. Moreover, in order to investigate the reliability of the TC instrument, the internal consistency was carried out in deleted-alpha form for each individual item of TC questionnaire. All the Cronbach's Alpha were around .807 and there was no Cronbach's Alpha significantly larger than 0.807, indicating that all items in the TC questionnaire were appropriate and had acceptable internal consistency.

Since there were two experimental groups, i.e. GT and ESG, for the first hypothesis of the study, T-test was carried out simultaneously for both groups on total score of TC, and as for the second hypothesis of the study, each component was investigated individually for each group. Also, as the distribution of all variables was normal, to compare two groups in pre and posttests, T-test was used for two independent samples.

Now, let's investigate the first hypothesis of the current study using T-Test:

H0₁: TBTP doesn't have any statistically significant effect on the participants' translation competence development.

The results of T-test for TC scores are as follow:

Table 6: Descriptive statistics for TC score

	group_main	N	Mean	Std. Deviation	Std. Error Mean
TC score	Pretest	85	2.3302	0.13492	0.01463
	post test	85	3.9571	0.15576	0.01689

Table 7: Independent sample test for TC score

		Independent Samples Test			
		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	df
TC score	Equal variances assumed	4.100	0.044	-72.784	168
	Equal variances not assumed			-72.784	164.652

Table 8: T-test for Equality of Means for TC score

		Independent Samples Test		
		Sig. (2-tailed)	Mean Difference	Std. Error Difference
TC score	Equal variances assumed	**0.00001	-1.62683	0.02235
	Equal variances not assumed	**0.00001	-1.62683	0.02235

** Significant at $\alpha = 0.01$

Table 9: T-test for Equality of Means for TC score (Cont.)

		Independent Samples Test	
		95% Confidence Interval of the Difference	
		Lower	Upper
TC score	Equal variances assumed	-1.67096	-1.58271
	Equal variances not assumed	-1.67096	-1.58270

Because in all above-mentioned tests

$p - value = 0.00001 \ll \alpha = 0.05 \Rightarrow \text{Reject } H_0$
 There is a strong statistical difference between the mean score of TC in pretest and posttest at $\alpha = 0.05$. Since the mean score increased dramatically in posttest, it can be concluded that TC has experienced a considerable and meaningful growth at $\alpha = 0.05$ from pretest to posttest. Now, let's investigate the second hypothesis of the present study using T-Test:

H_{02} : There is no statistically significant difference in the effectiveness of textual tasks and technical tasks in participants' translation competence development. A comparative study of TC components, concerning ESG and GT groups, was carried out utilizing T-test. The results of ESG group are as follow:

Table 10: Descriptive statistics for TC score in ESG Group

		Group Statistics				
		group_ESG	N	Mean	Std. Deviation	Std. Error Mean
TC score_ESG	pretest		42	2.34127	0.143639	0.022164
	post test		42	3.97661	0.137250	0.021178
Bilingual sub-competence_ESG	pretest		42	2.42404	0.225033	0.034723
	post test		42	4.13039	0.226808	0.034997
Extral-Linguistic sub-competence_ESG	pretest		42	2.23016	0.354897	0.054762
	post test		42	3.82143	0.323834	0.049969
Knowledge about translation_ESG	pretest		42	2.42619	0.282894	0.043651
	post test		42	3.75952	0.266009	0.041046
Instrumental sub-competence_ESG	pretest		42	2.25893	0.412637	0.063671
	post test		42	4.18571	0.267392	0.041259
Strategic sub-competence_ESG	pretest		42	2.25714	0.459662	0.070927
	post test		42	3.76667	0.315198	0.048636
Psycho-Physiological component_ESG	pretest		42	2.24762	0.371705	0.057355
	post test		42	3.74286	0.334331	0.051588

Table 11: Independent Sample Test for ESG components

		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	t
TC score_ESG	Equal variances assumed	0.048	0.827	-53.346
	Equal variances not assumed			-53.346
Bilingual sub-competence_ESG	Equal variances assumed	0.009	0.926	-34.611
	Equal variances not assumed			-34.611
Extra-Linguistic sub-competence_ESG	Equal variances assumed	0.182	0.671	-21.465
	Equal variances not assumed			-21.465
Knowledge about translation_ESG	Equal variances assumed	0.017	0.897	-22.252
	Equal variances not assumed			-22.252
Instrumental sub-competence_ESG	Equal variances assumed	4.526	0.036	-25.396
	Equal variances not assumed			-25.396
Strategic sub-competence_ESG	Equal variances assumed	8.008	0.006	-17.552

Psycho-Physiological component_ESG	Equal variances not assumed	0.970	0.328	-17.552
	Equal variances assumed			-19.383
	Equal variances not assumed			-19.383

Table 12: Independent Sample Test for ESG components (Cont.)

		t-test for Equality of Means		
		df	Sig. (2-tailed)	Mean Difference
TC score_ESG	Equal variances assumed	82	**0.00001	-1.635338
	Equal variances not assumed	81.831	**0.00001	-1.635338
Bilingual sub-competence_ESG	Equal variances assumed	82	**0.00001	-1.706349
	Equal variances not assumed	81.995	**0.00001	-1.706349
Extra-Linguistic sub-competence_ESG	Equal variances assumed	82	**0.00001	-1.591270
	Equal variances not assumed	81.322	**0.00001	-1.591270
Knowledge about translation_ESG	Equal variances assumed	82	**0.00001	-1.333333
	Equal variances not assumed	81.691	**0.00001	-1.333333
Instrumental sub-competence_ESG	Equal variances assumed	82	**0.00001	-1.926786
	Equal variances not assumed	70.272	**0.00001	-1.926786
Strategic sub-competence_ESG	Equal variances assumed	82	**0.00001	-1.509524
	Equal variances not assumed	72.576	**0.00001	-1.509524
Psycho-Physiological component_ESG	Equal variances assumed	82	**0.00001	-1.495238
	Equal variances not assumed	81.096	**0.00001	-1.495238

** Significant at $\alpha = 0.01$

Table 13: Independent Sample Test for ESG components (Cont.)

		t-test for Equality of Means	
		Std. Error Difference	95% Confidence Interval of the Difference
TC score_ESG	Equal variances assumed	0.030655	-1.696322
	Equal variances not assumed	0.030655	-1.696324
Bilingual sub-competence_ESG	Equal variances assumed	0.049300	-1.804423
	Equal variances not assumed	0.049300	-1.804423
Extra-Linguistic sub-competence_ESG	Equal variances assumed	0.074133	-1.738744
	Equal variances not assumed	0.074133	-1.738763
Knowledge about translation_ESG	Equal variances assumed	0.059919	-1.452530
	Equal variances not assumed	0.059919	-1.452537
Instrumental sub-competence_ESG	Equal variances assumed	0.075871	-2.077717
	Equal variances not assumed	0.075871	-2.078095
Strategic sub-competence_ESG	Equal variances assumed	0.086001	-1.680607
	Equal variances not assumed	0.086001	-1.680940
Psycho-Physiological component_ESG	Equal variances assumed	0.077143	-1.648700
	Equal variances not assumed	0.077143	-1.648725

Table 14: Independent Sample Test for ESG components (Cont.)

		t-test for Equality of Means
		95% Confidence Interval of the Difference
TC score_ESG	Equal variances assumed	-1.574355
	Equal variances not assumed	-1.574353
Bilingual sub-competence_ESG	Equal variances assumed	-1.608275
	Equal variances not assumed	-1.608275
Extral-Linguistic sub-competence_ESG	Equal variances assumed	-1.443795
	Equal variances not assumed	-1.443777
Knowledge about translation_ESG	Equal variances assumed	-1.214136
	Equal variances not assumed	-1.214130
Instrumental sub-competence_ESG	Equal variances assumed	-1.775855
	Equal variances not assumed	-1.775477
Strategic sub-competence_ESG	Equal variances assumed	-1.338441
	Equal variances not assumed	-1.338107
Psycho-Physiological component_ESG	Equal variances assumed	-1.341777
	Equal variances not assumed	-1.341751

Since in all tests indicated in tables 11 to 14

$p - value = 0.00001 \ll \alpha = 0.05 \Rightarrow$ *Reject H_0*
 We conclude that there was a statistically significant difference in all TC components in ESG group between pre- and posttests at

$\alpha = 0.05$. Because of the mean score increased in posttest, we draw the conclusion that for all TC components in ESG group, there was a considerable and statistically meaningful growth at $\alpha = 0.05$ from pretest to posttest. Now, let's

investigate the same components but this time for GT group.

Table 15: Descriptive statistics for TC score in GT Group

	group_GT	N	Mean	Std. Deviation	Std. Error Mean
TC score_GT	pretest	43	2.31946	0.126601	0.019306
	post test	43	3.93962	0.171651	0.026177
Bilingual sub-competence_GT	pretest	43	2.39646	0.226646	0.034563
	post test	43	3.74862	0.331925	0.050618
Extral-Linguistic sub-competence_GT	pretest	43	2.11240	0.431438	0.065794
	post test	43	4.14961	0.418891	0.063880
Knowledge about translation_GT	pretest	43	2.46047	0.292069	0.044540
	post test	43	4.15581	0.274558	0.041870
Instrumental sub-competence_GT	pretest	43	2.19767	0.340946	0.051994
	post test	43	3.77907	0.215537	0.032869
Strategic sub-competence_GT	pretest	43	2.20930	0.418509	0.063822
	post test	43	4.15349	0.308104	0.046985
Psycho-Physiological component_GT	pretest	43	2.45116	0.409629	0.062468
	post test	43	4.11628	0.290263	0.044265

Table 16: Independent Sample Test for GT components

		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	t
TC score_GT	Equal variances assumed	7.410	0.008	-49.811
	Equal variances not assumed			-49.811
Bilingual sub-competence_GT	Equal variances assumed	5.935	0.017	-22.061
	Equal variances not assumed			-22.061
Extral-Linguistic sub-competence_GT	Equal variances assumed	1.911	0.171	-22.215
	Equal variances not assumed			-22.215
Knowledge about translation_GT	Equal variances assumed	.272	0.603	-27.733
	Equal variances not assumed			-27.733
Instrumental sub-competence_GT	Equal variances assumed	6.213	0.015	-25.709
	Equal variances not assumed			-25.709
Strategic sub-competence_GT	Equal variances assumed	3.809	0.054	-24.532
	Equal variances not assumed			-24.532
Psycho-Physiological component_GT	Equal variances assumed	1.424	0.236	-21.749
	Equal variances not assumed			-21.749

Table 17: Independent Sample Test for GT components (Cont.)

		t-test for Equality of Means		
		Df	Sig. (2-tailed)	Mean Difference
TC score_GT	Equal variances assumed	84	**0.00001	-1.620155
	Equal variances not assumed	77.260	**0.00001	-1.620155
Bilingual sub-competence_GT	Equal variances assumed	84	**0.00001	-1.352159
	Equal variances not assumed	74.171	**0.00001	-1.352159
Extral-Linguistic sub-competence_GT	Equal variances assumed	84	**0.00001	-2.037209
	Equal variances not assumed	83.927	**0.00001	-2.037209
Knowledge about translation_GT	Equal variances assumed	84	**0.00001	-1.695349
	Equal variances not assumed	83.681	**0.00001	-1.695349
Instrumental sub-competence_GT	Equal variances assumed	84	0.000	-1.581395
	Equal variances not assumed	70.947	**0.00001	-1.581395
Strategic sub-competence_GT	Equal variances assumed	84	**0.00001	-1.944186
	Equal variances not assumed	77.190	**0.00001	-1.944186
Psycho-Physiological component_GT	Equal variances assumed	84	**0.00001	-1.665116
	Equal variances not assumed	75.685	**0.00001	-1.665116

** Significant at $\alpha = 0.01$

Table 18: Independent Sample Test for GT components (Cont.)

		t-test for Equality of Means	
		Std. Error Difference	95% Confidence Interval of the Difference
			Lower
TC score_GT	Equal variances assumed	0.032526	-1.684837
	Equal variances not assumed	0.032526	-1.684919
Bilingual sub-competence_GT	Equal variances assumed	0.061293	-1.474047
	Equal variances not assumed	0.061293	-1.474283
Extral-Linguistic sub-competence_GT	Equal variances assumed	0.091703	-2.219571

Knowledge about translation_GT	Equal variances not assumed	0.091703	-2.219574
	Equal variances assumed	0.061130	-1.816913
Instrumental sub-competence_GT	Equal variances not assumed	0.061130	-1.816920
	Equal variances assumed	0.061512	-1.703719
Strategic sub-competence_GT	Equal variances not assumed	0.061512	-1.704049
	Equal variances assumed	0.079252	-2.101787
Psycho-Physiological component_GT	Equal variances not assumed	0.079252	-2.101991
	Equal variances assumed	0.076561	-1.817366
	Equal variances not assumed	0.076561	-1.817611

Table 19: Independent Sample Test for GT components (Cont.)

		t-test for Equality of Means 95% Confidence Interval of the Difference Upper	
TC score_GT	Equal variances assumed		-1.555473
	Equal variances not assumed		-1.555391
Bilingual sub-competence_GT	Equal variances assumed		-1.230272
	Equal variances not assumed		-1.230036
Extral-Linguistic sub-competence_GT	Equal variances assumed		-1.854847
	Equal variances not assumed		-1.854845
Knowledge about translation_GT	Equal variances assumed		-1.573785
	Equal variances not assumed		-1.573778
Instrumental sub-competence_GT	Equal variances assumed		-1.459072
	Equal variances not assumed		-1.458742
Strategic sub-competence_GT	Equal variances assumed		-1.786585
	Equal variances not assumed		-1.786381
Psycho-Physiological component_GT	Equal variances assumed		-1.512866
	Equal variances not assumed		-1.512621

Because in all tests mentioned in tables 16 to 19 $p - value = 0.00001 \ll \alpha = 0.05 \Rightarrow$ *Reject H_0*
We can conclude that there was a statistically significant difference in all TC components in GT group between pretest and posttest at $\alpha = 0.05$. As the mean score rose remarkably in posttest, we come to the conclusion that for all TC components in GT group, there was a considerable and statistically meaningful increase at $\alpha = 0.05$ from pretest to posttest.

Finally, all TC components are compared individually in both ESG and GT groups to find out in which group the increase of TC components were statistically meaningful. In order to do so, at first, the mean scores of all TC components in GT and ESG groups in pretest and posttest are considered. Then, concerning the difference between pretest and posttest, the rate of growth for each component is calculated.

Table 20: Comparison of TC Components in ESG and GT groups

	Group	Mean for ESG	Mean for GT	Difference For ESG	Difference For GT	More Increase
Bilingual sub-competence	pretest	2.42404	2.39646	1.70635	1.35216	ESG
	post test	4.13039	3.74862			
Extra-Linguistic sub-competence	pretest	2.23016	2.11240	1.59127	2.03721	GT
	post test	3.82143	4.14961			
Knowledge about translation	pretest	2.42619	2.46047	1.33333	1.69534	GT
	post test	3.75952	4.15581			
Instrumental sub-competence	pretest	2.25893	2.19767	1.92678	1.5814	ESG
	post test	4.18571	3.77907			
Strategic sub-competence	pretest	2.25714	2.20930	1.50953	1.94419	GT
	post test	3.76667	4.15349			
Psycho-Physiological component	pretest	2.24762	2.45116	1.49524	1.66512	GT
	post test	3.74286	4.11628			

Table 20 shows that bilingual and instrumental sub-competences had more significant growth in posttest in ESG group, i.e. textual tasks group, while the other four components grew predominantly in GT group, Technical tasks group, rather than ESG one.

CONCLUSION

The current study aimed at investigating the

effect of task-based translator training program on the development of translation competence. For designing task-based translator training program two types of translation tasks namely Technical and Textual tasks were selected and each one was worked on through three stages of task-based teaching, i.e. pre-task, while-task and post-task. Also, in order to estimate the development of translation competence a TC

questionnaire was re-developed and validated in the context of Iran and was given to the participants both at the beginning of study as pretest and at the end of the study as posttest. The results of the study suggest that task - based translator training program had a statistically significant impact of the development of translation competence.

As mentioned earlier, bilingual and instrumental sub-competences had more considerable development in the group in which textual tasks, ESG, were worked on. It was previously discussed that bilingual sub-competence consists of procedural knowledge needed to communicate in two languages including pragmatic, sociolinguistic, grammatical, lexical knowledge etc. Pragmatic knowledge, as an example, is "how individuals communicate meaning and how they produce contextually appropriate utterances, sentences, or texts" (Leech, 1983). Since in ESG group the participants were required, first, to offer contextual synonyms, antonyms, relate the idea / expressions / terms to others in similar context and then proceed to translate the task, it is suggested that this kind of task, as stated by Gonzales, (2008), could broaden translators' perspective and contribute to a solid mastery of both languages in contact, and as a result developed pragmatic knowledge of participants to a great extent and hence, bilingual sub-competence. Instrumental sub-competence, as mentioned before, refers to procedural knowledge related to the use of dictionaries of all kinds, encyclopedias, electronic corpora, etc. Clearly, in doing ESG tasks the participants were required to work enormously with all sorts of dictionaries, online or offline, to find and offer possible synonyms and antonyms, and to translate thought provoking words, and troubling words; consequently, instrumental sub-competence in textual tasks group developed more.

On the other hand, it was found out that Extra-linguistic, Strategic, Psycho-physiological sub-competences, along with Knowledge about translation component grew further in GT group, Technical tasks group. As formerly discussed, technical tasks are the types of tasks in which the participants were required to translate the texts consisting of job applications, immigration, health service and court forms. In doing these tasks, participants concentrate mostly on the format of the text, try to be informed about the content and purpose of the text and increase their world knowledge about such texts (Källkvist, 1998), so their extra-linguistic knowledge, including world knowledge, domain-

specific knowledge, bicultural knowledge etc., developed remarkably. And their Knowledge about translation promoted as well, which are all in the same line with the results of this study.

Similarly, since in translating technical tasks the participants' attitudinal aspects, which are the main components of Psycho-physiological components, such as the ability to think critically, intellectual inquisitiveness, and cognitive components are involved to a great extent (Källkvist, 1998), the findings of this study confirm that technical tasks led to the development of Psycho-physiological components. Likewise, as stated by Källkvist (1998), in translating Generic texts, translators should, firstly, plan the translation process, identify translation problems, apply the procedures to solve them, and then proceed to perform the translation task. Accordingly, the participants' Strategic sub-competence developed remarkably, which is also approved by the results of the current study.

As stated before, one of the requirements of training professional translators is to look more deeply into the translation professionalism. One of the most critical factors contributing to professionalism in translation is the development of translation competence. This study could be of high significance for curriculum and syllabus designers as it provides wider view toward applying various translation tasks in training translators. Almost all translator trainers are not aware of the fact that translation tasks and exercises could be done through task-based approach. The findings of this study not only did provide the Translation Studies syllabus designers with the new notion of Task-based Translator training program and its positive impact of the development of translation competence, but it also suggested the two most important types of translation tasks, which could be utilized in Translation Studies courses and classes. Furthermore, the results of this study confirmed some of the previous studies carried out on translation competence and its components. For example, the finding of the current research approved the findings of study done by Källkvist (1998) and recommended the Translation Studies syllabus designers to include more of technical tasks in their curriculum and syllabi, since these types of tasks could increase the development of four significant competences of translation competence namely Extra-linguistic, Strategic, Psycho-physiological sub-competences, along with Knowledge about translation component.

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