

# Development and Validation of a Researcher Constructed Psycho-motor Mechanism Scale for Evaluating the Quality of Translation Works

Sepeedeh Hanifehzadeh<sup>1</sup>, Farzaneh Farahzad<sup>2</sup>

Received: 16 August 2016

Accepted: 20 September 2016

## Abstract

The present study was designed basically to develop a psycho-motor mechanism scale based on the theory of translation competence proposed by PACTE (2003), and then to assess the validity and reliability of the constructed scale. In this quantitative research, after designing the scale, two translation tasks were given to 90 M.A. students majoring in translation studies at four different branches of Islamic Azad University. Based on the ratings by two experienced raters, the reliability and validity of the scale were determined. Therefore, two types of validity including concurrent and construct validity were assessed. The possible correlation between TOEFL PBT, as the test of linguistic ability and the researcher constructed psycho-motor scale was later checked, and verified. Next, the possible correlation between holistic scale for translation quality assessment developed by Waddington (2001), and the researcher constructed psycho-motor scale was examined and proved. For calculating the construct validity of the scale, factor analysis was run to probe the underlying constructs of the eight components of the researcher-constructed psycho-motor mechanism scale. As for reliability, the correlation between the two ratings by the raters based on the constructed scale was calculated and the scale was found to be reliable. The present findings, approved by the validity and reliability of the researcher-constructed scale, can contribute to the field of translation studies, which seems to be in great need of objective and communicative scales for translation tasks based on an anchored and consolidated theory of translation quality assessment like that of PACTE (2003).

**Keywords:** *PACTE, Psycho-motor mechanism, Reliability, Scale, Translation quality assessment, Validity*

## 1. Introduction

Translation, in common terms, denotes to the act of reformulating a message from the source language into the target language. It requires first to grasp and convey the meaning of the source language text and next choose an adequate target-language sentence structure to represent the meaning by the selected structure (Malakoff & Hakuta, 1991). Based on this definition, translation is a two-fold enterprise consisting of both reception and production (Edwards, 1992).

---

<sup>1</sup>Science and Research Branch, Islamic Azad University, Tehran, Iran, Email: [Sepeed1999@yahoo.com](mailto:Sepeed1999@yahoo.com); [s.hanifehzadeh@ari.ir](mailto:s.hanifehzadeh@ari.ir)

<sup>2</sup>Allameh Tabatabai University, Tehran, Iran, Email: [farahzadatu@yahoo.com](mailto:farahzadatu@yahoo.com)

However, in recent years, one of the most important questions regarding the act of translation which transformed the definition of translation was the concept of quality in translation. From the second half of the 20th century onwards, debate surrounding the quality concept and the way to determine it has become crucial. Nonetheless, it seems that there is no common consensus when it comes to defining quality either from a practical or from a theoretical point of view. For instance, there are many scholars who still believe that quality in translation is a relative and subjective notion (Larose, 1998).

When the concept of quality arises in translation studies, the idea of its assessment also appears to be of paramount importance. However, in spite of the significant role of translation assessment, in the 1990s and in the early 2000s, there was a lack of empirical research on translation assessment. For example, Pym (1992) argued that there was no empirical research readily available for citation on translation assessment. Moreover, Hatim and Mason remarked that “the assessment of translator performance is an activity which, despite being widespread, is underresearched and under-discussed” (1997, p. 197). Albir and Martinez Melis (2001) recommended that scholars in translation studies should do more research on assessment. They stated that translation assessment had hardly existed in this field of study, and when it was practiced, it had not been carried out objectively and in a disciplined manner.

One reason for this lack of rigorous study can be traced to the fact that the concept of quality in translation was defined differently by scholars and it was the reason that progress in the field was thwarted (Colina, 2009). The problem is even exacerbated when scholars like Beeby (2000) and McAlester (2000), among others, refer to the fact that there have been relatively few empirical studies related to assessment within university level translation programs. Also, McAlister (2000) states that it is naturally desirable that the methods used for assessment in translator education “should be reliable, valid, objective, and practical”, but he continues that the methods vary noticeably in reality and they are different from one university to another and even between different departments of the same university.

However, with the great upheaval through the introduction of new skills and components in translation competence, particularly through the advent of models of Campbell (1991) and PACTE (2003), theories for communicative and objective targeting of translation assessment were advocated. Despite the existence of theories encouraging communicative translation directed towards achieving certain aims, communicative translation products could hardly be found in works of translation produced by translation trainees. The incongruence, even in modern decade of translation studies, especially in context of Iran, can be justified by the assumption that the scholars or stakeholders of the field believe observing communicative aspects in translation places a double pressure on authorities and organizations and is a futile practice.

For the following problems like the lack of sufficient empirical studies in translation quality assessment and the difficulties for scoring translation works objectively, some practical solutions can be put forward. To make the procedure for translation quality assessment more manageable and applicable, three steps should be taken: firstly, quality must be defined. Many would agree that a high quality translation is one that fits into its purpose (Nord, 1997; O’Brien, 2012). Secondly, the methodology must be set. For that, special attention has to be paid to those quality assessment methods that enable measurement. And thirdly, the assessment

should be carried out in accordance with the definition of quality as applied to the text and to the assessment methodology chosen.

Therefore, some measures, like developing appropriate scales for measuring communicative components of translation competence based on a consolidated definition of quality in translation can be presented to the translation trainees, teachers, raters and practitioners and other stakeholders for better and more accurate evaluation of translated texts. Accordingly, the present study was an attempt to construct a communicative psycho-motor mechanism scale based on the theory of translation competence proposed by PACTE (2003). Next, validity and reliability of the scale was checked to verify its appropriacy to be used for the translation products of translator trainees.

Based on the purpose of this research, the following research questions were put forward:

1. Does the researcher-constructed psycho-motor mechanism scale have construct validity?
2. Does the researcher-constructed psycho-motor mechanism scale have concurrent validity?
3. Does the researcher-constructed psycho-motor mechanism scale have reliability?

## **2. Review of literature**

Translation is delivering the meaning of a text into another language in the way “that the author intended the text” (Newmark, 1988, p. 5), or from the reader’s point of view, “in such a way that the receptors in the receptor language may be able to understand adequately how the original receptors in the source language understood the original message” (Nida, 1984, p. 119). The translation process can be evaluated in three stages: (1) translation-related reception of the source language text; (2) transfer of text from the source language into the target language; (3) translation-related production of the target language text (Tarp, 2004, p. 31).

After explaining the concept of translation, it seems necessary to pinpoint how the scholars grasp the act of translation; whether it is the final product and the output of the translator or it is comprised of a set of procedures that the translator surpasses to render the final product. Recent translation theory is concerned with two phenomena: (1) the product-oriented theory of translation which denotes that a written text in a target-language as the result of a translation process has traditionally been described and analyzed by a comparison with the respective source-language text. (2) the competence-oriented theory of translation which focuses on translators’ internalized knowledge (Lörscher, 1995, p. 884). In defining translation competence, theorists focus not only on its product, but also on the processes involved, which signifies that translation is a skill that can be trained and investigated in terms of relevant strategies and/or competencies (Latkowska, 2006, p. 210). Also, Hatim and Munday (2004, p.3) mention that translation can be analyzed from two different perspectives, namely that of a ‘process’, which refers to the activity of converting a source text into a target text in another language, and that of a ‘product’, i.e. a translated text.

Whether the translation is conceived as a process or product, the next important issue in translation studies is the assessment of translation as a competence or performance. Among

different models proposed on translation, PACTE group submitted the first draft of their translation model in 1998. However, two years later, they modified and fleshed out the proposed draft and submitted the final version in year 2000. After several years of attempt, the thoroughly revised model appeared in 2003 and it was by PACTE group or other researchers around the world (PACTE, 2003).

The model of PACTE as a communicative process originates from the definition provided by Newmark (1988) who referred to two approaches as semantic and communicative translation. Semantic translation “is personal and individual, follows the thought processes of the author, tends to overtranslate, pursues nuances of meaning, yet aims at concision in order to reproduce pragmatic impact” (p.46). Communicative translation, on the other hand, “attempts to render the exact contextual meaning of the original in such a way that both content and language are readily acceptable and comprehensible to the readership” (Newmark, 1988, p.46). PACTE’s model is composed of a set of interrelated sub-competencies, which are interdependent, hierarchical and can compensate for one another. The main aim of this group is to validate their theories by the use of empirical tools.

Under the impact of results emerging from evaluating translation competence and its acquisition, the model changed in time (PACTE, 2005). Moreover, the description of respective sub-competences developed simultaneously with the model (PACTE, 2003, p. 58-59):

- **Bilingual sub-competence:** It is mainly the procedural knowledge needed to communicate in two languages. It includes the specific feature of interference control when code-switching between the two languages. It is composed of pragmatic, socio linguistic, textual, grammatical and lexical knowledge in the two languages.
- **Extra-linguistic sub-competence:** It is predominantly declarative knowledge, both implicit and explicit, about the world in general and in specific areas. It contains bicultural knowledge (about the source and target cultures), encyclopaedic knowledge (about the world in general) and subject knowledge (in specific areas).
- **Knowledge about translation sub-competence:** It is chiefly declarative knowledge, both implicit and explicit, about what translation is and aspects of the profession. It includes knowledge about how translation functions and knowledge related to professional translation practice.
- **Instrumental sub-competence:** It is predominantly procedural knowledge connected to the application of documentation sources and information and communication technologies applied to translation such as dictionaries, encyclopaedias, grammars, style books, parallel texts, electronic sources, corpora, searchers, etc.
- **Strategic sub-competence:** It is the procedural knowledge to be applied as an ancillary tool in translation process and solve the problems encountered. This is an essential sub-competence which affects all the others and causes interrelations among them because it controls the translation process. It intervenes by planning the process in relation to the translation project, evaluating the process and partial results obtained, activating the different sub-competencies and compensating for deficiencies, identifying translation problems and applying procedures to solve them.
- **Psycho-physiological components:** It includes different types of cognitive and attitudinal components and psycho-motor mechanisms. They include: cognitive components

(memory, perception, attention and emotion), attitudinal aspects (intellectual curiosity, perseverance, rigour, critical spirit...), and abilities like creativity, logical reasoning, analysis and synthesis, etc.

Psycho-physiological components of PACTE (2003) include different types of cognitive and attitudinal components and psycho-motor mechanisms. Among them, cognitive components such as memory, perception, attention span, creativity, logical reasoning capacity, analysis, synthesis and emotion exist; attitudinal aspects such as intellectual curiosity, motivation, perseverance, rigor, discipline, critical spirit, creativity, as well as confidence in one's own abilities (self-efficacy) and knowledge about personal limitations are the typical examples. The psycho-motor mechanism ability denotes to the capabilities of the individuals in selecting the main idea in the text, the ability of reasoning, and reading ahead and saying what first comes to mind. In fact, the categorization of the last item as the psycho-motor ability is quite similar to what Facione (2013) elaborated on the definition of critical thinking. Facione (2013) defines critical thinking as the "Purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or contextual consideration upon which that judgment is based." Therefore, what PACTE (2003) refers to as psycho-motor mechanism ability is one of the offshoots of the psycho-physiological component of translation competence model that is equivalent to the definition of critical thinking proposed by Facione (2013).

### **3. Methodology**

The method for subject selection, the instruments used and the procedure are mentioned in the following parts.

#### *3.1 Participants*

In this quantitative study, the participants were 100 male and female MA students majoring in English Translation who studied at four different branches of Islamic Azad University and only the freshmen were selected, as the rationale was having a screened up group as they fulfilled the main courses of translation in their undergraduate level by proof of their BA degree, and secondly they had passed the Iran's Sanjesh Organization test of MA, therefore they could meet several criteria in order to be eligible for advanced translation courses. Next, standard version of TOEFL PBT was administered to all these five classes of M.A. candidates comprising a group of 100 students. The students whose scores fell one standard deviation below and above the mean ( $\pm 1SD$ ) were selected as the main participants of the study. Therefore, the final group of EFL learners taking part in the quantitative phase of the research were 90 participants based on the result of their performance in the TOEFL test.

#### *3.2 Instrumentations*

The following instruments were used in this study.

### 3.2.1 Translation tasks

The main information used for evaluating and validating the developed scale was elicited from two translation tasks, each involving translation of a news story from an English learning website that garners the learning material from the Guardian ([www.theguardian.com](http://www.theguardian.com)). In preparing the texts for translation, several criteria were adopted from PACTE (2005) to include suitable materials for translation. PACTE (2005) elaborates the selection criteria as follows:

- The texts need to be of the same genre and in the same field for the language to be translated. In other words, the texts need to be the pieces that occur in a specific social setting with distinctive characteristic parameters of organization, structure and communicative function.
- The texts should manifest multiple translation problems. Briefly, they should engage the abilities of inferencing, interpreting, evaluating the arguments, and making deductions in translators.
- The preferred texts are the short ones with approximately 175 to 300 words.
- The texts should contain the genres translated by professional translators in the target language.

### 3.2.2 Test of linguistic ability

To assess the reading comprehension ability of subjects, a standard version of TOEFL PBT was used to gather the data from participants. This test was a standard previous exam released by ETS organization in 2013 and has been registered in the ETS web site (<http://www.ets.org/toefl>). The rationale behind selecting TOEFL rests upon the assumption that the level of passages difficulty is suitable for MA students of English Translation major. It was supposed that the information provided by the test would facilitate the process for determining the external validity of the developed scale.

In English-speaking academic environments, students are expected to read and understand information from textbooks and other types of academic materials. As the putative participants of this research were MA students of English Translation, the topics and themes of this test seemed to be congruent with the purpose and field of the learners. In addition, since the researcher's scale was deemed to be applied for quality assessment of students' written translations from English to Persian, the test could manifest their general proficiency in order to evaluate the congruency between the level of translation and their proficiency in general English.

### 3.2.3 Researcher-constructed Psycho-motor Mechanism Scale

The constructed five-point Likert scale had three sections. The first section was *accuracy in comprehension of source language* content and five descriptors (Appendix A) were used to assess the level of accuracy in participants with allocated points ranging from one to five. The next section was *appropriacy in production of target language* with subsequent five descriptors (Appendix A). Likewise, the allocated score of the participants could range from one to five. The

last section named *translation strategies* consisted of six sub-components. They were *translation of words with multiple meanings, translation of words with no appropriate equivalence in target language, translation of idioms, the author's point of view, making conclusions, and interpretation of the text and title.*

### 3.2.4 Holistic scale for translation quality assessment

The appropriate medium for our purpose was Waddington Method C approach (Appendix B) for holistic correction of translation tasks. It represents a unitary scale, which considers the translation competence as a whole and it includes five main levels in an attempt to achieve maximum consistency between the raters, although there are two marks within each level (Waddington, 2003). The scale is a unitary one; however, it requires the corrector to consider different aspects for scoring the translation tasks. Accuracy of transfer from source to target language, quality of expression in the target language, and degree of task completion are the criteria for scoring the tasks.

Waddington (2003) propounds that there are two reasons for choosing the above mentioned criteria. First, overall translation contains two acts of accuracy in transfer from source to target language and being able to have a good expression in the target language. However, since in translations, the students are given clear instructions on how to accomplish the translation, degree of task completion was added as another component for scoring. Also, in this study, simple and clear instructions were provided above the translation tasks to familiarize the translators with the desirable output. The same recommendations were also made by Hatim and Mason (1997).

Also, since the scale is a unitary one, the fixed levels are differentiated for the rater and consistent scoring would be achieved by more than one rater. For each level, two scores are allocated. For example, if the rater decided about the level of the translator but the translation product is still not meeting all the criteria of that level, a lower score of that level would be assigned for the student.

Also, Waddington (2003), in a comprehensive study, evaluated the validity of Method C and found its reliability which was 0.84.

## 4.Procedure

In this quantitative study, first TOEFL and then translation tasks were given to all 90 participants. Based on the rating done by two experienced raters on the translation works of 90 participants, construct validity of the scale was revealed. For calculating the construct validity of the scale, factor analysis was run to probe the underlying constructs of the eight components of the researcher-constructed psycho-motor mechanism scale (*accuracy in comprehension of source language, appropriacy in production of target language, translation of words with multiple meanings, translation of words with no appropriate equivalence in target language, translation of idioms, the author's point of view, making conclusions, and interpretation of the text and title*).

Next, each rater was asked to score the papers once holistically based on Method C scale of Waddington (2003) and once analytically based on the developed scale by the researcher. In other words, each paper was scored with the scale and without it. Therefore, the data included

the results of the TOEFL test, the holistic translation scores, and the scores based on the researcher constructed scale. Finally, the correlation between the two ratings by the raters based on the constructed scale was calculated for finding the reliability.

#### 4. Results and discussion

##### 4.1 Evaluating the construct validity of the scale

After subject selection in the quantitative phase of the study, the first step was assessing the normality of the data garnered from various means. As displayed in Table 1, the ratios of skewness and kurtosis over their respective standard errors were lower than the absolute value of 1.96, hence normality of the data was confirmed.

Table 1. *Descriptive Statistics*

	N		Skewness			Kurtosis		
	Statistic	Std. Error	Statistic	Std. Error	Ratio	Statistic	Std. Error	Ratio
TOEFL	90	.254	-.085	.254	-0.33	.278	.503	0.55
Holistic	90	.254	.391	.254	1.54	-.337	.503	-0.67
Waddington	90	.254	-.184	.254	-0.72	.520	.503	1.03
Accuracy	90	.254	.263	.254	1.04	.148	.503	0.29
Appropriacy	90	.254	-.350	.254	-1.38	-.275	.503	-0.55
WWMM	90	.254	-.350	.254	-1.38	.155	.503	0.31
WWNE	90	.254	-.318	.254	-1.25	-.461	.503	-0.92
Idiom	90	.254	.160	.254	0.63	-.409	.503	-0.81
Point of view	90	.254	-.206	.254	-0.81	-.149	.503	-0.30
Conclusion	90	.254	-.079	.254	-0.31	.057	.503	0.11
Interpretation	90	.254	-.313	.254	-1.23	-.257	.503	-0.51

Next for evaluating the construct validity of the scale, factor analysis was run to probe the underlying constructs of the eight components (*accuracy in comprehension of source language, appropriacy in production of target language, translation of words with multiple meanings, translation of words with no appropriate equivalence in target language, translation of idioms, the author's point of view, making conclusions, and interpretation of the text and title*) of the researcher-constructed psycho-motor mechanism scale. In doing so, assumptions of sampling adequacy and lack of multicollinearity were met. As displayed in Table 2 the KMO index of .915 was higher than the minimum acceptable criterion of .50.

Table 2. *KMO and Bartlett's Test*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.915
	Approx. Chi-Square	477.964
Bartlett's Test of Sphericity	Df	28
	Sig.	.000

The Bartlett's test of multicollinearity was significant ( $\chi^2(28) = 477.96, p = .000$ ) indicating that the correlation matrix was significantly different from an identity matrix – a matrix with zero correlations among all variables.

The determinant value of .004 ( $> .00001$ ) indicated that the correlation matrix did not suffer from multicollinearity, too high correlation among all variables. As displayed in Table 3, none of the correlation coefficients were higher than .80 (Field, 2013).

Table 3. *Correlation Matrix<sup>a</sup>*

	Accuracy	Appropriacy	WWMM	WWNE	Idiom	Point	Conclusion	Interpretation
Accuracy	1.000	.730	.423	.696	.766	.714	.486	.536
Appropriacy	.730	1.000	.450	.724	.746	.742	.578	.588
WWMM	.423	.450	1.000	.450	.386	.358	.306	.484
WWNE	.696	.724	.450	1.000	.717	.717	.687	.683
Idiom	.766	.746	.386	.717	1.000	.724	.479	.574
Point	.714	.742	.358	.717	.724	1.000	.582	.523
Conclusion	.486	.578	.306	.687	.479	.582	1.000	.457
Interpretation	.536	.588	.484	.683	.574	.523	.457	1.000

a. Determinant = .004

The SPSS extracted one factor which accounted for 64.37 percent of the total variance (Table 4).

Table 4. *Total Variance Explained*

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% Variance	of Cumulative %	Total	% Variance	of Cumulative %
1	5.150	64.375	64.375	5.150	64.375	64.375
2	.799	9.986	74.361			
3	.627	7.840	82.200			
4	.477	5.957	88.158			

5	.277	3.461	91.619
6	.251	3.137	94.755
7	.227	2.840	97.596
8	.192	2.404	100.000

As displayed in Table 5, all of the eight components of the researcher-constructed psycho-motor mechanism scale loaded on the only extracted factor. Based on these results, it can be claimed that the researcher-constructed psycho-motor mechanism scale had construct validity.

Table 5. *Component Matrix*

	Component
	1
WWNE	.894
Appropriacy	.879
Idiom	.857
Point of View	.851
Accuracy	.848
Interpretation	.752
Conclusion	.713
WWMM	.572

For finding the concurrent validity of the developed scale, the Pearson correlations between the eight components of the researcher-constructed psycho-motor mechanism scale (*accuracy in comprehension of source language, appropriacy in production of target language, translation of words with multiple meanings, translation of words with no appropriate equivalence in target language, translation of idioms, the author's point of view, making conclusions, and interpretation of the text and title*) and the TOEFL and Waddington Method C scale for scoring were employed. Based on the results displayed in Table 6, it was concluded that the eight components of the researcher-constructed psycho-motor mechanism scale had significant correlations ( $P < .05$ ) with the TOEFL and Waddington Method C scale for scoring; indicating the concurrent validity of the newly developed scale.

Table 6. *Pearson Correlations; Researcher-Constructed Scale with TOEFL and Waddington*

	TOEFL	Waddington
--	-------	------------

Accuracy	Pearson Correlation	.678**	.785**
	Sig. (2-tailed)	.000	.000
	N	90	90
Appropriacy	Pearson Correlation	.689**	.795**
	Sig. (2-tailed)	.000	.000
	N	90	90
WWMM	Pearson Correlation	.376**	.445**
	Sig. (2-tailed)	.000	.000
	N	90	90
WWNE	Pearson Correlation	.654**	.701**
	Sig. (2-tailed)	.000	.000
	N	90	90
Idiom	Pearson Correlation	.727**	.770**
	Sig. (2-tailed)	.000	.000
	N	90	90
PointOV	Pearson Correlation	.670**	.778**
	Sig. (2-tailed)	.000	.000
	N	90	90
Conclusion	Pearson Correlation	.319**	.417**
	Sig. (2-tailed)	.002	.000
	N	90	90
Interpretation	Pearson Correlation	.507**	.520**
	Sig. (2-tailed)	.000	.000
	N	90	90

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

For finding the reliability, each of the eight components of the researcher-constructed psycho-motor mechanism scale was rated twice. The inter-rater reliability indices (Table 7) indicated that there were significant agreements between the two raters ( $p < .05$ ).

Table 7. *Pearson Correlations; Inter-Rater Reliability Indices*

	Holistic	AccyR	AppR	WWMM	WWNE	idiomR	PointR	ConcR	InterR
	R2	2	2	R2	R2	2	2	2	2
HolisticR 1	R	.719**							
	P	.000							
	N	90							
AccuR1	R	.598**							
	P	.000							
	N	90							

AppR1	R	.524*	
	P	.000	
	N	90	
WWMM R1	R	.576**	
	P	.000	
	N	90	
WWNER 1	R		.669**
	P		.000
	N		90
idiomR1	R		.725**
	P		.000
	N		90
PointR1	R		.686**
	P		.000
	N		90
ConcR1	R		.463**
	P		.000
	N		90
InterR1	R		.394*
	P		.000
	N		90

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

\* . Correlation is significant at the 0.05 level (2-tailed).

## 5. Conclusion

In the first place, the qualitative data helped to construct the psycho-motor mechanism scale. In the second place, the findings of the present study revealed the construct validity and reliability of the scale with respect to the data provided by factor analysis. In other words, the operationalization of the construct which was the researcher-constructed psycho-motor mechanism scale was the good reflection of the theory underlying it.

In line with this study, in a comprehensive research work, Famil Khalili (2011) tried to develop a translation quality assessment scale based on the theories of PACTE (2003). However, he operationalized and developed 7 descriptors based on the first two subcomponents, namely, bilingual and extra-linguistic subcomponents. The descriptors derived from the bilingual and extra-linguistic subcomponents of PACTE' model were evaluated in terms of five independent variables. These investigated variables were: (1) the ability to use the language to manifest linguistic functions and speech acts; (2) the ability to use the language according to the socio-linguistic conventions of the target language; (3) the ability to apply the textual conventions of the target language including knowledge of texture (coherence and cohesion mechanism) and

knowledge of different genres with their respective conventions (structure, language feature, etc.); (4) the ability to use well-formed sentences involving conformity with the native speakers' knowledge of vocabulary, morphology, syntax, and phonology/graphology; and (5) the ability to use culturally appropriate language. The developed scale based on the above criteria had a considerable reliability and was successful in assessing translation quality and that established the construct validity of the scale.

In another similar study, Orozco and Albir (2002) designed a tool for measuring the concept of translation competence proposed by PACTE. Their multidimensional translation competence questionnaire consisted of three instruments namely, translation notions instrument, translation problems instrument, and translation errors instrument. Their developed questionnaire, likewise favored high reliability and validity which could put the ideas of PACTE (2003) into practice.

Moreover another study was done by Alavi and Ghaemi (2013) based on the questionnaire developed by Orozco and Albir (2002) which in turn was another practical approach to put the ideas of PACTE into practice. Their study redeveloped and modified the translation competence questionnaire developed by Orozco and Albir (2002) and assessed the validity and usefulness of their multi-dimensional translation competence questionnaire in the Iranian sample. Alavi and Ghaemi (2013), based on their findings, concluded that the translation competence questionnaire by Orozco and Albir, modified and redeveloped by them, has surely strong psychometric characteristics and good construct validity in the context of Iran.

In this study, no intervention or even observation during the translation classes were made or done and only the final product of translation was evaluated based on the researcher constructed criteria. However, when the outcome is tested, it is important to evaluate the input that the learners received. Therefore, it is the responsibility of the course and curriculum developers to include psycho-motor or critical thinking abilities in the program of graduate and undergraduate learners. As Paul (1992) stressed students learn best "when their thinking involves dialogue or extended exchange between different points of view or frames of reference" (p. 291) and advocated engaging students in dialogical (involving dialogue or exchange of different view points) and dialectical (testing strengths and weaknesses of opposing viewpoints) thinking, listening, and speaking situations in the classroom. These are all the processes that in the act of translating on the day of the exam or in any other situations take place for the translators if they plan to translate a text communicatively. So, teaching them the skills in advance is a facilitative tool for them in occasions in which they need to translate any type of text.

Moreover, a possible future trend in the field of translation studies might be investigating the subjective nature of the variables involved in translation quality assessment. In this vein, a scale based on the subjective and objective nature of the variables can be constructed in which according to the nature of each variable, subjective or objective measurement of the construct can be done. Therefore, finding the procedures for reducing the observed subjectivity or even objectivity of constructed scales can be an important concern for interested scholars in the field.

## References

- Alavi, M., & Ghaemi, H (2013). Reliability assessment and construct validation of translation competence questionnaire (TCQ) in Iran. *Language Testing in Asia*, 3 (18), 1-10. doi:10.1186/2229-0443-3-18
- Campbell, S. J. (1991). Towards a model of translation competence. *Meta: Translators' Journal*, 36 (2), 329-43. doi:10.7202/002190ar
- Colina, S. (2009). Translation quality evaluation: Empirical evidence for a functionalist approach. *The Translator*, 14, 97-134. doi: [10.1080/13556509.2008.10799251](https://doi.org/10.1080/13556509.2008.10799251)
- Edwards, B. (1992). *Drawing on the right side of the brain*. London: Harper Collins.
- Facione, P., A. (2013). *Critical thinking: What it is and why it counts* (6<sup>th</sup> ed). Millbrae: Measured Reasons and California Academic Press.
- Famil Khalili, Gh. (2011). *Developing a valid scale for translation quality assessment in undergraduate translator training program* (Unpublished doctoral dissertation). Islamic Azad University, Science and Research Branch, Iran.
- Field, A. (2013). *Discovering statistics using SPSS. (3rd ed.)*. London: SAGE.
- Hatim, B., & Mason, I. (1997). *The translator as communicator*. London: Routledge.
- Hatim, B., & Munday, J. (2004). *Translation: An advanced resource book*. New York: Routledge.
- Honey, P. (2000). *Critical Thinking questionnaire*. Retrieved January, 2015 from <http://www.PeterHoneyPublications.com>
- Larose, R. (1998). A method for assessing translation quality. *Meta*, 43, 163-86.
- Latkowska, J. (2006). On the use of translation in studies of language contact. In J. Arabski (Ed.), *Cross-linguistic influences in the second language lexicon* (pp. 210–225). Cleveland: Multilingual Matters.
- Lörscher, W. (1995). Psycholinguistics. In S. W. Chan & D. E. Pollard (Eds.), *An encyclopaedia of translation—Chinese-English/English-Chinese* (pp. 884–903). Hong Kong: The Chinese University of Hong Kong.
- Malakoff, M. & Hakuta, K. (1991). Translation skill and metalinguistic awareness in bilinguals. In E. Bialystok (Ed.), *Language processing in bilingual children* (pp. 141-167), Cambridge: Cambridge University Press.
- Mcalester, G. (2000). The evaluation of translation into a foreign language. In Ch. Schäffner & B. Adab (Eds.), *Developing translation competence* (pp. 229-242), Amsterdam: John Benjamins.
- Newmark, P. (1988). *A textbook of translation*. New York: Prentice Hall.
- Nida, E. (1984). *On translation*. Beijing: Translation Publishing Corp.
- Nord, C. (1997). *Translating as a purposeful activity: Functionalist approaches explained*. Manchester: St. Jerome Publishing.

- O'Brien, Sh. (2012). Towards a dynamic quality evaluation model for translation. *Jostrans: The Journal of Specialized Translation*, 17, 20-27.
- Orozco, M., & Albir, A. H. (2002). Measuring translation competence acquisition. *Meta*, 47 (3), 375-402. doi: [10.7202/008022ar](https://doi.org/10.7202/008022ar)
- PACTE (2003). Building a translation competence model. In F. Alves (Ed.), *Triangulating translation: Perspectives in process oriented research* (pp. 43-66). Amsterdam: John Benjamins.
- PACTE (2005). Investigating translation competence: Conceptual and methodological issues. *Meta*, 50(2), 609-619.
- Paul, R. (1992). Critical thinking: Basic questions and answers. *Think*, 34(3), 28-36.
- Suksaeresup, N., & Thep-Ackrapong, T. (2009). Lost in translation: How to avoid errors in translation from English. *Translation Journal*, 13 (1), 1-11.
- Tarp, S. (2004). How can dictionaries assist translators? In S. W. Chan (Ed.), *Translation and bilingual dictionaries* (pp. 23-38). Tübingen: Max Niemeyer Verlag.
- Waddington, C. (2001). Different methods of evaluating student translation: The question of validity. *Met: Translator's Journal*, 46 (2), 311-325. doi: 10.7202/004583ar
- Waddington, C. (2003). A positive approach to the assessment of translation errors. *Actas del I Congreso Internacional de la Asociación Ibérica de Estudios de Traducción e Interpretación*, 2, 409-426.

Appendix A:

**Researcher constructed scale based on the translation strategies**

- **Accuracy in comprehension of source language content**

5- The translator could completely transfer the source language information and only minor revisions were needed to reach professional standard.

4- The translator could almost completely transfer the source language information. However, there were one or two insignificant inaccuracies which required certain amount of revision to reach professional standard.

3-The translator could transfer the general ideas of the text, but a number of lapses in accuracy were observed which needed considerable revision to reach professional standard.

2- The translator had serious inaccuracies in the translation and thorough revision was required to reach professional standard.

1-The translator had totally inadequate transfer of source language content and the translation was not worth revising.

- **Appropriacy in production of target language**

5- Almost all the translation was like a piece originally written in the target language. There were just minor lexical, grammatical, and spelling errors.

4-Large sections of the translation were like a piece originally written in target language. There were a number of lexical, grammatical and spelling errors.

3-Certain parts of the translation were like a piece originally written in English. However, there were a considerable number of lexical, grammatical, and spelling errors.

2- Almost the entire text was like a translation and there were continual lexical, grammatical, and spelling errors.

1-The translator had a total lack of inability to express him/herself appropriately in the target language.

- **Translation strategies**

**Translation of words with multiple meanings:**

5-For translating the words with multiple meanings, the translator consistently used the strategies of borrowing, coinage, elaboration and addition of meaning throughout the text.

4-For translating the words with multiple meanings, the translator often used the strategies of borrowing, coinage, elaboration and addition of meaning throughout text.

3- For translating the words with multiple meanings, the translator sometimes used strategies of borrowing, coinage, elaboration and addition of meaning throughout the whole texts.

2- For translating the words with multiple meanings, the translator rarely used strategies of borrowing, coinage, elaboration and addition of meaning throughout the whole texts.

1-For translating the words with multiple meanings, the translator never used strategies of borrowing, coinage, elaboration and addition of meaning throughout the text and left all the words untranslated or omitted them.

#### **Translation of words with no appropriate equivalence in the target language:**

5-For translating the words that have no appropriate equivalence in the target language, the translator consistently used the strategies of borrowing, coinage, elaboration and addition of meaning throughout text.

4- For translating the words that have no appropriate equivalence in the target language, the translator often used the strategies of borrowing, coinage, elaboration and addition of meaning throughout the text.

3-For translating the words that have no appropriate equivalence in the target language, the translator sometimes used the strategies of borrowing, coinage, elaboration and addition of meaning throughout the text.

2-For translating the words that have no appropriate equivalence in the target language, the translator rarely used the strategies of borrowing, coinage, elaboration and addition of meaning throughout the text.

1-For translating the words that have no appropriate equivalence in the target language, the translator never used the strategies of borrowing, coinage, elaboration and addition of meaning throughout the text.

#### **Translation of the idioms:**

5- For translating the idioms, the translator used the correct equivalence in the target language which conveyed the meaning appropriately.

4- For translating the idioms, the translator used the similar equivalence in the target language which conveyed the meaning appropriately.

3-For translating the idioms, the translator used the similar equivalence in the target language but it did not convey the meaning appropriately.

2-For translating the idioms, the translator translated the idiom word by word and it could not convey the meaning appropriately.

1-In case of translating the idioms, the translated omitted them and provided no translation for them.

#### **The author's point of view:**

- 5-The translator could recognize the author's argument and point of view in all of the separate paragraphs of the texts.
- 4-The translator could recognize the author's argument and point of view in most of the separate paragraphs of the texts.
- 3-The translator could recognize the author's argument and point of view in half of the paragraphs of the texts.
- 2-The translator could recognize the author's argument and point of view in few paragraphs of the texts.
- 1-The translator could recognize the author's argument and point of view in none of the paragraphs of the text.

**Making conclusions:**

- 5-The translator could meaningfully link the ideas in the source language to form the author's conclusions throughout the text.
- 4- The translator could meaningfully link the ideas in the source language to form the author's conclusions in most of the paragraphs in the text.
- 3- The translator could meaningfully link the ideas in the source language to form the author's conclusions in half of the paragraphs in the text.
- 2- The translator could meaningfully link the ideas in the source language to form the author's conclusions in few paragraphs in the text.
- 1- The translator could meaningfully link the ideas in the source language to form the author's conclusions in none of the paragraphs in the text.

**Interpretation of the text:**

- 5- The translator's interpretation of the title and the main idea of the text were consistent.
- 4-The translator's interpretation of the title and the main idea of the text were similar.
- 3-The translator's interpretation of the title and the main idea of the text were quite similar.
- 2-The translator's interpretation of the title and the main idea of the text were dissimilar.
- 1-The translator did not translate the title of the text.

Appendix B:

*Scale for Holistic Method C*

Level	Accuracy of transfer of ST content	Quality of expression in TL	Degree of task completion	Mark
Level 5	Complete transfer of ST information; only minor revision needed to reach professional standard.	Almost all the translation reads like a piece originally written in target Language. There may be minor lexical, grammatical or spelling errors.	Successful	9, 10
Level 4	Almost complete transfer; there may be one or two insignificant inaccuracies; requires certain amount of revision to reach professional standard.	Large sections read like a piece originally written in target language. There are a number of lexical, grammatical or spelling errors.	Almost completely successful	7, 8
Level 3	Transfer of the general idea (s) but with a number of lapses in accuracy; needs considerable revision to reach professional standard.	Certain parts read like a piece originally written in target language, but others read like a translation. There are a considerable number of lexical, grammatical or spelling errors.	Adequate	5, 6
Level 2	Transfer undermined by serious	Almost the entire text reads like a translation; there	Inadequate	3, 4

	inaccuracies; thorough revision required to reach professional standard.	are continual lexical, grammatical or spelling errors.		
Level 1	Totally inadequate transfer of ST content; the translation is not worth revising.	The candidate reveals a total lack of ability to express himself adequately in English.	Totally inadequate	1, 2