QUANTITATIVE RESEARCH IN PRACTICE: APPLYING A DIFFERENTIAL SCALE QUESTIONNAIRE TO LITERATURE

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Literary scholarship has traditionally relied on interpretative studies. Grounded on the theoretical bases of the Empirical Study of Literature, this paper moves away from such tradition by following the tenets of an empirical perspective. Its purpose is to report on the design of a questionnaire and how semantic differentials were created so as to elicit responses from readers from two different cultures, namely, Ukraine and Brazil. The study described in this paper enables researchers to look into readers' reactions to a given poem from a collective viewpoint.

__Key words:__ questionnaire development, differential scale, quantitative method, data collection, research design, literature.

Since the advent of literary theory in the beginning of the 20th century, critics have often interpreted texts based on their own intuitions. As a consequence, studies have tended to be idiosyncratic and resist replication. Historically, such a problem has led the academic community to question the validity of literature as a *scientific* knowledge area. The role of subjectivity in literary analyses is clearly seen in a large number of literature compendiums. One example is the *Concise Anthology of American Literature*. In the introduction to the entry dedicated, for instance, to Edgar Allan Poe one reads that "[t]o a world fascinated by the bizarre and the macabre, Poe has often seemed an embodiment of the satanic characters in his own fiction, the archetype of the neurotic genius. He left no diaries, had few intimate friends to set straight the details of his life, and the vivid derangements portrayed in his writing and the tales of his own depravities (many of which he told himself for their shock effect) created a false portrait not completely corrected to this day" [1, 366-367]. What is done in this short excerpt is to relate Poe's writing style to his own personal life. The question which remains unanswered is how one can be sure this is the case.

This paper assumes that to interpret a work of art by means of its author's biography or any other subjective approach may express one's opinion but does not contribute to the advance of science. Here we **aim** at showing how a quantitative approach to research may be applied to the field of literature. We intend to take a perspective more in line with studies in Social Sciences and describe how a scientific instrument can be designed if replication is to be carried out. More specifically, the focus here lies on the development of a differential scale questionnaire which will make it possible to discover how Ukrainian and Brazilian readers actually react to a specific poem in their mother tongues (Ukrainian and Portuguese) and in a foreign language (English).

This type of study is developed within the framework of the Empirical Study of Literature (henceforth ESL), which does not see literature from the perspective of hermeneutics. Rather than defining literature as a collection of texts recognized as literary because it is part of a canon, ESL considers it as a social system. Literature thus becomes a more complex phenomenon, in which a *text* is only one element among many others involved in the LITERATURE[1] system.

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[1] *The word 'literature' is written in capital letters when referred to the system developed by S.J. Schmidt [2].*

Although it is not possible to state the precise date in which ESL theories were established, there seems to be a consensus that it initiated with S. Schmidt and his colleagues from the NIKOL (*Nicht Konservativ Literaturwisenschaft*) group around the 70s.

According to S.J. Schmidt [2], LITERATURE, a subdivision of the ART system, is only one of many other systems of social interactions. This system consists of four main dimensions, namely, production, mediation, reception and post-processing. Production refers to the creation of literary products such as poems, plays or novels. Mediation consists of activities – such as editing and publishing – that make this product available to other agents. Reception concerns the cognitive and emotional effort of attributing meaning to a literary product as is the case when one reads and interprets a poem. Finally, post-processing comprehends all activities about what has been produced, such as writing reviews, or offering textual interpretations. In each one of these dimensions, there is a specific agent, namely, the producer (e.g., author), responsible for the writing of the text; the mediator (e.g., publisher), whose task is to see that the works are available to others; the receiver (e.g., reader), who gives meaning to literary products; and the post-processor (e.g., critic), who mediates the contact with literary products through reviews, for instance. As we can observe, defining literature as a system highlights its complexity as all activities and agents need to be considered. Therefore, the objective of literary studies is not to interpret a piece of work based on one's subjective reasoning, but to investigate the social actions developed by these agents.

LITERATURE is also ruled by two literary conventions, namely the aesthetic and the polyvalence conventions. The former deals with the characteristics one product should have in order to be considered literary. In other words, it is a convention which establishes the elements responsible for attributing literariness to a given text. The latter, on the other hand, states that receivers have different readings of the same text, that is, a literary text is open to multiple interpretations and experiences.

Of an interdisciplinary nature, ESL is especially concerned with investigating the psychology and sociology of literature, rather than focusing on the individual interpretations of literary pieces. According to G. Steen and D. Schram [3], ESL values the understanding of the elements and agents involved in LITERATURE, for instance, establishing who the readers are, how they read a certain text, whether mediating elements interfere in the reading process and so on. In order to obtain answers to questions such as these, ESL uses empirical methods, both qualitative and quantitative, borrowed from the Social Sciences, especially from Psychology and Sociology. Such methods enable researchers to understand the phenomena under analysis more accurately, as their hypotheses are put to test, and their beliefs are not taken as a general truth.

The **focus** of the present investigation lies on the relationship between receivers, real readers, with a literary product, a poem by Edgar Allan Poe. To this end, a quantitative **method** is adopted in this study. From a more specific perspective, a questionnaire is used here. Such an instrument consists of a set of questions with a view to gathering information on the perspectives, opinions, reactions, etc. of respondents on a specific person, object or event. [4, 81].

The questions included in a questionnaire may be open or closed. The former allow participants to freely answer them while the latter limit in some way the replies to be given. As expected, the latter are easier to analyze and quantify while the former require some extra work to be processed. Also, open questions are generally left unanswered by research participants when compared to closed questions [4, 83]. Generally, open questions are used in the initial stages of a research plan when one does not

know what to expect and/or anticipate as possible answers. When such a panorama can be delineated, closed questions are used to check how valid they are to a larger sample. D. Nunan states that "[w]hile responses to closed questions are easier to collate and analyze, one often obtains more useful information from open questions. It is also likely that responses to open questions will more accurately reflect what the respondent wants to say" [5, 143]. Even though it is true that respondents may give more thorough answers to open questions for the reason that they are not restricted in any sense, the claim that such questions provide researchers with more valuable data is debatable. When one wants to test hypotheses which have already been generated, it seems that closed questions are more appropriate to the study.

A questionnaire "enables the researcher to collect data in field settings, and the data themselves are more amenable to quantification than discursive data" [5, 143]. One advantage of using questionnaires then is the fact that it is easier to draw conclusions from the results they yield than other qualitative methods of collecting data. The latter is usually prone to subjective analyses that may not make results falsifiable, which is one of the tenets of any scientific approach.

The use of questionnaires is especially useful when one aims at collecting information from a large number of respondents. It is such a method of data collection that allows researchers to do so at a reduced period of time when it is compared to, for instance, interviews, focus groups or observations [4, 87].

It is exactly because of the above-mentioned reason that the questionnaire was chosen for this research. In order to contrast the reactions of both Ukrainian and Brazilian readers to a same poem in three different languages, the research design required four different groups. Group 1 consisted of Ukrainian participants who read the poem in its original form (in English); and Group 2, of Ukrainians reading the same poem translated to their mother tongue, Ukrainian. Groups 3 and 4 included Brazilian participants reading the poem in its authentic form and in its Portuguese translation, respectively.

In order to design the questionnaire, a poem was needed to trigger the reaction of respondents. "Annabel Lee" by Edgar Allan Poe (1849) was selected to this end. One reason for choosing this poem was the fact that it is viewed as canonical in both countries and can be easily found in a number of different syllabi in Ukrainian and Brazilian universities. In addition, it is a widely anthologized poem [cf. 1]. Finally, it has been translated both to Ukrainian and Portuguese, making it possible to investigate the reaction of participants to reading the poem in their mother tongues as well. The translated versions by Victor Marach for the Ukrainian text and Fernando Pessoa for the Portuguese one were used in the questionnaires.

As the focus of the research lies on investigating readers' reaction to one poem, it was decided to make use of a semantic differential scale. It is "a scaling tool which has been used frequently for measuring social attitudes, particularly in the fields of linguistics and social psychology" [6, 1]. In this specific case, it allows for comparison of reading reactions on a wider scale. It contains two opposing adjectives on each end of a continuum and some intervening positions between them. Below there are three possible layouts for this scale.
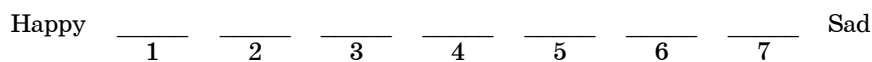
Happy _____ _____ _____ _____ _____ _____ _____ Sad
            1   2   3   4   5   6   7

Figure 1 - First layout

The first type may seem the most confusing layout, but it may be used when all pairs of adjectives are positioned in a same direction. For instance,

the positive ones are placed on the left while the negative ones are to be found on the right. The creasing order of numbers indicates that the adjective on the far left is more valued than the other one. In this case, all pairs should follow this order. The problems here are that such positioning of adjectives may bias the answers given by participants and it may not always be possible to organize adjectives as such [6, 7].

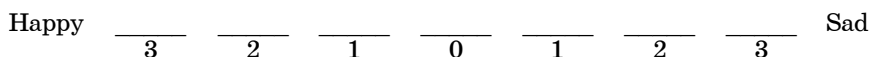The following option also makes use of numbers to indicate each point in the scale.

Happy ____ ____ ____ ____ ____ ____ ____ Sad
3   2   1   0   1   2   3

Figure 2 - Second layout

This second layout makes it clear to respondents that the closer the point is to the adjective, the more they agree to it. As they move to the center, they go toward a more neutral position, represented by 0 in the scale.

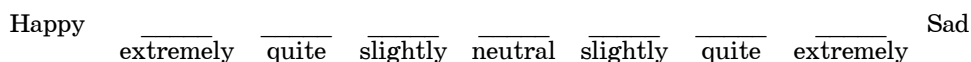Finally, the last layout to be commented on here does not use numbers to indicate the gradable continuum.

Happy ____ ____ ____ ____ ____ ____ ____ Sad
extremely   quite   slightly   neutral   slightly   quite   extremely

Figure 3 - Third layout

This last scale is probably the best one as it is easy for respondents to understand what each point represents in the continuum. Instead of numbers, respondents have adverbs which clearly indicate what each point in the scale stands for.

In summary, what a semantic differential scale does is to provide researchers with two types of information: "a scale like this one measures directionality of a reaction (e.g., good versus bad) and also intensity (slightly through extreme)" [7, 235].

Semantic differential questionnaires are frequently criticized for the selection of adjectives that are to be included in the scale. As J. Al-Hindawe puts it, "in selecting adjectives, the researcher should not simply think up a range of adjectives he/she thinks might sound adequate and use them straight away in a study" [6, 2]. Otherwise, the selection will be as subjective as any type of hermeneutic literary interpretation.

Due to the above-mentioned reason, the following step in the questionnaire development was to collect the most recurrent adjectives respondents in both countries would word to describe their feelings after reading the poem. To this purpose, a questionnaire with a single open question was employed in order to generate the variables to be used in the final design of the instrument. Randomly chosen participants in both countries were asked to read "Annabel Lee" either in the original or in translation into their native language and list ten adjectives which would describe their reactions to the reading.

All in all, 60 initial questionnaires from both countries were collected, 30 from each country: 20 for the poem read in one's mother tongue (Ukrainian and Portuguese) and 10 for "Annabel Lee" read in English. Thus, 20 questionnaires for each of the three languages were received: Ukrainian, Portuguese, and English (10 from Brazil and 10 from Ukraine).

In Ukraine, the questionnaires were collected both from undergraduate and graduate students of Kyiv National Linguistic University and Advocacy Academy of Ukraine during their classes and leisure activities. In Brazil, this initial questionnaire was collected during a two-day conference on empirical studies. The respondents were mostly graduate students from

different universities although some lecturers also answered the questionnaires. At this stage, the gender and age of the participants were not taken into account.

After all questionnaires had been applied, the adjectives which were listed in Ukrainian and Portuguese were then translated into English. Altogether, a list of a 195 different adjectives was compiled. The first 50 results may be found in Table 1 as well as the number of times they were mentioned by all respondents.

Table 1 - Top 50 adjectives mentioned by participants

Adjectives	Instances	Adjectives	Instances
sad	35	pleasant	4
romantic	27	sentimental	4
beautiful	20	strong	4
tragic	12	amazing	3
melancholic	10	boring	3
nostalgic	10	dark	3
touching	10	deep	3
interesting	8	dramatic	3
mysterious	8	exciting	3
sincere	8	expressive	3
sensitive	7	fascinating	3
tender	7	full of images	3
cold	6	gentle	3
dreamy	6	honest	3
moving	6	meaningful	3
difficult	5	memorable	3
enigmatic	5	morbid	3
long	5	nice	3
repetitive	5	old-fashioned	3
subjective	5	piercing	3
wonderful	5	surprising	3
emotional	4	transcendental	3
lovely	4	well-written	3
lyric	4	adored	2
musical	4	angelic	2

As can be noticed in Table 1, more than half of the respondents in both countries considered Poe's "Annabel Lee" to be a sad poem. At the same time, almost half of the participants regarded the poem as romantic. Beauty was also a characteristic commonly associated to the poem.

One of the decisions involved in the design of a differential scale questionnaire is the number of pairs of adjectives to be included in it. According to J. Al-Hindawe, "there are nearly always at least eight different pairs of adjectives, and quite often there are a dozen of more" [6, 1]. A balance must be found while selecting the adjectives. Although a great number of adjectival pairs yields more comprehensive results, it also makes the task of answering the questionnaire more tiring. This may have a double negative effect: participants may not feel committed to answer all questions or may even refuse to cooperate at all.

For this reason, it was decided to work with 15 pairs of adjectives. They were selected out of the 19 most frequently mentioned in both countries in the three languages, as can be seen in Table 2.

Table 2 - Most frequent adjectives

Order	Adjectives	Instances
1st	sad	35
2nd	romantic	27
3rd	beautiful	20
4th	*tragic*	*12*
5th	melancholic	10
6th	nostalgic	10
7th	touching	10
8th	interesting	8
9th	mysterious	8
10th	sincere	8
11th	sensitive	7
12th	*tender*	*7*
13th	cold	6
14th	dreamy	6
15th	*moving*	*6*
16th	difficult	5
17th	*enigmatic*	*5*
18th	long	5
19th	repetitive	5

It should be pointed out that four adjectives (shown in italics in Table 2) were omitted when developing the semantic differential scale in spite of their occurrences in the initial questionnaire. The adjective 'tragic' was believed to be semantically related to 'sad', which was the most frequent one. The meaning of 'tender' was, in a way, encompassed by that of 'sensitive' as pointed out by some respondents. As it would be hard to explain the difference (if any) between 'touching' and 'moving', the latter was discarded for having been mentioned fewer times than the former. Finally, the adjective 'enigmatic' was considered semantically similar to 'mysterious' and not included in the final differential scale either.

As indicated in Table 1, the adjectives 'subjective' and 'wonderful' were also mentioned 5 times by participants, the same frequency of 'difficult', 'enigmatic', 'long' and 'repetitive'. However, the former were not included in the final instruments because it had been decided to work with a maximum of 15 pairs of adjectives, and 'subjective' and 'wonderful' appeared the 16th and 17th respectively by the alphabetic order.

Later on, their opposites were added, as Figure 4 indicates.

Providing antonyms was an essential step as "it is [was] important to make the poles real opposites of each other" otherwise it would have been "hard for respondents to interpret because two dimensions are [would have been] mixed" [8, 129].

After selecting the adjectives and their opposites, the next step was to decide how many points the scale would have. These points generally range from 5 to 9. Even numbers, nevertheless, are generally avoided for they do not have a neutral position, thus forcing respondents to mark either one side of the poles. Nine-point scales, although offering researchers with a very fine gradation between the extremes of the continuum, are too detailed for respondents to decide upon. The seven-point scale (as exemplified in Figures 1-3) is one of the most popular choices in attitude research as pointed out by J. Al-Hindawe [6, 7]. However, the five-point one was chosen in this study given that the plan was to have respondents read the poem and fill out the questionnaire in a maximum of 10 minutes. The longer it takes for participants to fill out a questionnaire, the fewer the potential contributors willing to cooperate.

Adjectives selected	Opposites created
sad	happy
romantic	realistic
beautiful	ugly
melancholic	encouraging
nostalgic	not longing for the past
touching	hard-headed
interesting	boring
mysterious	clear
sincere	insincere
sensitive	insensitive
cold	warm
dreamy	down-to-earth
difficult	easy
long	short
repetitive	varied

Figure 4 - Final selection of adjectives and their opposites

The final questionnaire was then constructed by adding a short introduction to it. In this opening text, the institutions involved in the research as well as the research project were named. A very brief explanation about the research was forwarded and the directions on how to proceed were also included.[2] Finally, a thank-you note was also added to the questionnaire.

The layout was identical for both countries and for the three languages. Although the one-page questionnaire was designed in a way that answering it did not take more than 10 minutes, the researchers made sure that participants were willing to answer it so as to guarantee commitment and frankness.

In the final questionnaire (see Appendix 1), the respondents are asked to read the poem and evaluate their emotional feedback by way of checking the adjectives and their intensity which corresponded best to their reaction to

[2] *In order to keep the questionnaire in a single page so as not to frighten possible participants, it was decided not to include an example of how to mark the answer in the scale. However, such explanation was given orally by the researchers while administering the questionnaire. Similarly, researchers also explained that there were no right or wrong answers, but that they were personal and individual.*

the poem. They are also to indicate their age, gender, nationality and university.

The respondents will all be advanced students of Languages at both Kyiv National Linguistic University and the Federal University of Rio de Janeiro. All in all, 400 questionnaires will be collected, as follows:

(a) **100** questionnaires in Ukrainian;
(b) **100** questionnaires in Portuguese;
(c) **100** questionnaires in English from Ukraine;
(d) **100** questionnaires in English from Brazil.

The data obtained will then be analyzed with the help of the computer program SPSS for Windows. The results will be compared both within a country (the reactions to original and translated versions) and between Ukraine and Brazil.

In sum, this article has shown an application of a semantic differential scale questionnaire to evaluate how readers react to E.A. Poe's "Annabel Lee". Much has been discussed about the poem on the grounds of subjective interpretation. At present, it seems that more objective analysis of readers' reactions to literary works is needed. In this sense, the questionnaire described here may be of help.

A number of advantages may be found in the application of a semantic differential questionnaire. First, it is a reliable means for collecting data on participants' reaction to a literary work in this case. Second, it may be applied to a great number of respondents. Third, it is easily implemented because all which needs to be done is to mark one of the options in each row containing two contrasting adjectives.

In the specific case of the research to be carried out, it will be possible to check whether a same group of respondents have different attitudes towards the poem in their mother tongue and in English as a foreign language and whether these attitudes differ when compared to those of respondents from another country. Such a plan could never be carried out on safe grounds by means of intuition.

КІЛЬКІСНЕ ДОСЛІДЖЕННЯ НА ПРАКТИЦІ: ВИКОРИСТАННЯ АНКЕТИ ІЗ ДИФЕРЕНЦІЙНОЮ ШКАЛОЮ У ВИВЧЕННІ ХУДОЖНЬОГО ТЕКСТУ

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Дослідження художнього тексту зазвичай передбачає проведення інтерпретаційних розвідок. Послуговуючись альтернативними принципами, автори цієї статті відходять від усталеної традиції й натомість спираються на постулати емпіричної школи. Мета публікації – повідомити про спосіб укладання анкети, а також про шлях розроблення шкали семантичних диференціацій, що спрямовано на висвітлення реакції представників двох різних культур (а саме – українців і бразильців) на поезію Е.А. По "Анабель Лі". Розвідка, яка описується у статті, дозволяє вченим виявити відгук читачів на такий текст із колективної точки зору.

Ключові слова: *розробка анкети, диференційна шкала, кількісний метод, збір даних, схема дослідження, художній текст.*

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This questionnaire will be used in an empirical research held by the Federal University of Rio de Janeiro and the Kyiv National Linguistic University. It should take you approximately 10 minutes to read the poem and choose the adjectives which describe your reactions to it. This is an anonymous questionnaire, so your identity will be preserved. We *thank* you for your collaboration.

Please read the following poem.

It was many and many a year ago,
    In a kingdom by the sea,
That a maiden there lived whom you may know
    By the name of Annabel Lee;–
And this maiden she lived with no other thought
    Than to love and be loved by me.

She was a child and *I* was a child,
    In this kingdom by the sea;
But we loved with a love that was more than love–
    I and my Annabel Lee–
With a love that the wingéd seraphs of Heaven
    Coveted her and me.

And this was the reason that, long ago,
    In this kingdom by the sea,
A wind blew out of a cloud by night
    Chilling my Annabel Lee;
So that her highborn kinsmen came
    And bore her away from me,
To shut her up, in a sepulchre
    In this kingdom by the sea.

The angels, not half so happy in Heaven,
    Went envying her and me: –
Yes! that was the reason (as all men know,
    In this kingdom by the sea)
That the wind came out of the cloud, chilling
    And killing my Annabel Lee.

But our love it was stronger by far than the love
    Of those who were older than we–
    Of many far wiser than we–

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[3] *Due to the formatting procedures of the journal, the questionnaire cannot be reproduced here in its one-page format as it has been originally designed and described in this paper.*

And neither the angels in Heaven above
    Nor the demons down under the sea,
Can ever dissever my soul from the soul
    Of the beautiful Annabel Lee:–

For the moon never beams without bringing me dreams
Of the beautiful Annabel Lee;
And the stars never rise but I see the bright eyes
    Of the beautiful Annabel Lee;
And so, all the night-tide, I lie down by the side
Of my darling, my darling, my life and my bride,
    In the sepulchre there by the sea–
    In her tomb by the side of the sea.

Now, please mark how you react to the poem itself. Please make sure that you mark only **ONE** tick for EACH line of the questionnaire.

	I think this poem is…					
	Very	*A little*	*Neutral*	*A little*	*Very*	
sad						happy
romantic						realistic
beautiful						ugly
melancholic						encouraging
nostalgic						not longing for the past
touching						hard-headed
interesting						boring
mysterious						clear
sincere						insincere
sensitive						insensitive
cold						warm
dreamy						down-to-earth
difficult						easy
long						short
repetitive						varied

Personal information

Age: _____

Sex: (   ) Male   (   ) Female

Nationality: _____
University: _____

КОЛИЧЕСТВЕННОЕ ИССЛЕДОВАНИЕ НА ПРАКТИКЕ: ИСПОЛЬЗОВАНИЕ АНКЕТЫ С ДИФФЕРЕНЦИАЛЬНОЙ ШКАЛОЙ В ИЗУЧЕНИИ ХУДОЖЕСТВЕННОГО ТЕКСТА

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Изучение художественного текста, как правило, предполагает проведение интерпретационных исследований. Основываясь на альтернативных принципах, авторы данной статьи отходят от устоявшейся традиции и вместо этого опираются на постулаты эмпирической школы. Цель публикации – описать методику составления анкеты и процедуру разработки шкалы семантических дифференциаций, что ведёт к выявлению реакции представителей двух разных культур (а именно – украинцев и бразильцев) на стихотворение Э.А. По "Аннабель Ли". Исследование, предлагаемое в статье, позволяет учёным выявить реакцию читателя на этот поэтический текст с коллективной точки зрения.

Ключевые слова: разработка анкеты, дифференциальная шкала, количественный метод, сбор данных, схема исследования, художественный текст

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