

HOW TO INCORPORATE WHORFIANISM AS A CULTURAL-LINGUISTIC APPROACH
TO THE LEARNING OF LANGUAGES?

Research Project

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by

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DEDICATION

I want to dedicate this work to Miriam Monaci, who introduced me to the wonderful world of pragmatics, taught me Italian, and gave me the most insightful experiences one could possibly get.

SPECIALIZED ANALYTICAL SUMMARY

Title	How to incorporate whorfianism as a cultural-linguistic approach to the learning of languages?
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Keywords	Culture, Education, Cross-linguistics, Whorfianism, Pragmatics
Description	Research Project
Sources	19 Indexed Papers. 9 books.
Contents	Se sugiere el uso del Whorfianismo como aproximación cultural para el aprendizaje de las lenguas; este, a su vez, es justificado por una investigación cuantitativa realizada en 27 participantes, de la cual se encuentra una correlación positiva con un valor de $R^2 = 0.9013$, donde aquellos usuarios que más lenguas reportan tienden a considerar de manera más positiva el uso de la cultura como herramienta pedagógica.
Research Line	Línea pedagogía, didáctica y currículo ECEDU
Conclusions	Data reports show that as language learners report more languages spoken (NLS), their value given to culture (VC) increases. Similarly, based on that report, Whorfianism is proposed as a cultural approximation that bridges language and culture thanks to the cognitive character it represents. These findings are related with a proposal where teachers are invited to favor awareness in relativistic reflection (RR), a product that is exemplified in the teaching of EFL.
Advisor	Mangely Londoño Gutierrez

ABSTRACT

Student, Perez, D., *How to Incorporate Whorfianism as a Cultural-Linguistic Approach to the Learning of Languages?* Licenciatura en inglés como lengua extranjera, september, 2020, Universidad Nacional Abierta y a Distancia.

This research aims at bridging two concepts that up until this moment were taken for granted in two different fields, while also having a lot in common: *Whorfianism, and Language Education*. Consisting of two parts, first, a data analysis carried on 27 participants, taken from a survey, where people from different backgrounds, including features such as, native language; profession; number of languages spoken (NLS), and the proclivity to include cultural aspects to facilitate language learning, also known as value to culture (VC). The results show that, when people acquire more languages, culture becomes more important and relevant in the pedagogical form, with a coefficient of $R^2 = 0.9013$. It was possible to both assess the realistic value of those participants whilst predicting a trendline. As for the second part, that analysis then justifies the use of Whorfianism when learning English as a foreign language and argues how relativistic reflection (RR) sets an ideal pedagogical alternative to the teaching of grammar.

KEY WORDS: Culture, Education, Cross-Linguistics, Whorfianism, Pragmatics

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TABLE OF CONTENTS

	Page
Chapter I.....	1
Introduction	1
Significance of the Study	2
Statement of the Problem	3
Objectives.....	4
General Objective	4
Specific Objective.....	4
Scope of Research	5
Limitations of the Research.....	5
Chapter II	6
Literature Review.....	6
Literature on Whorfianism	6
Literature on Cognitive Bilingualism.....	7
Literature on Language Teaching Methodology	8
Literature on Research Methodology	9
Literature on Contrastive Features between L1 and L2	10

Conceptual Framework.....	11
Related Previous Studies.....	12
Definition of Terms.....	12
Chapter III.....	13
Methodological Approach	13
Path of the Research Process	14
Collected Information	14
Questionnaire	15
Variables	16
Research Hypothesis.....	16
Analysis of the Hypothesis	16
Chapter IV.....	17
Results.....	17
Characterization of Samples	17
Assessment of Cultural Significance by Number of Languages Spoken	19
Bivariate Analysis of NLS per value of VC	20
Discussion.....	22
What Whorfianism Offers	23
Why Polyglots Matter.....	24
Using Whorfianism for Teaching English.....	25
Recommended Cultural Attributions to Topics.....	26

Whorfianism is about Prevention	26
Chapter V	27
Conclusions and Recommendations	27
References	30

LIST OF TABLES

Table	Page
1: Literature Review on Whorfianism.....	6
2: Literature on Cognitive Bilingualism.....	7
3: Literature on Teaching Methodology.....	8
4: Literature on Research Methodology.....	9
5: Literature on Contrastive features between L1 and L2.....	11
6: Characterization of Participants.....	13
7: Questionnaire.....	15
8: List of Variables.....	16
9: Bivariate Table between NLS and VC.....	20
10: Popular Language Teaching Methods and their Approaches to Culture.....	22
11: Example Using “ <i>Plurals</i> ” in American English with Colombian Students.....	26
12: Opportunities to Incorporate RR.....	27

LIST OF FIGURES

Figure	Page
1: Conceptual Framework	11
2: Path of the Research Process.....	14
3: Number of Participants by Country	17
4: Number of Participants by Occupation	18
5: Number of Languages Spoken by Percentage of Participants	18
6: Percentage of People rating VC when Learning L2.....	19
7: Scatter Chart Expressing the Influence of NLS over VC	21
8: Bar Chart (Alternative to Figure 7).....	21
9: Perceived Difference in Cognition	24
10: The RR Path	22

CHAPTER I

Introduction

Although Whorfianism has been a subject of interest in areal, historical, cross-linguistics, and geographical thought process in languages, it has not been incorporated as a tool for facilitating language acquisition among students; furthermore, the extension of Whorfianism is often limited to the description of languages (Fishman, 1982). The premise of this research comes from the inattention to culture among language learning approaches and philosophies, where culture, is only seen as a mean to be analyzed, and not reproduced.

As a result of this, this research focuses on language learners; 27 seven participants, among them, monolinguals, bilinguals, and polyglots, each of them from different backgrounds. The goal of this research is to assess a correlation between the value to culture for the learning of languages, and how experienced are those learners. This research shows global principles, considering languages share universal principles with the actions they represent in thought and speech through culture. At this point, both eastern and western languages show interest in the way on how culture affects the understanding of a language in a learner. Unfortunately, when it comes to English, the differentiation between culture and language is understated, and often transmitted solely through movies, music, and television.

In this research you will see two main ideas being procedurally worked on, one, the data analysis of the 27 participants, showing conclusive results on how the more experienced language users (i.e., polyglots) point out higher usage of culture to learn new languages; and two, the extrapolation of that analysis into the justification of the incorporation of Whorfianism as a cultural asset, taking English as an example.

Significance of the Study

Both students and teachers know about the importance of culture when learning a language, yet most of them do not know how it correlates to language (intrinsically). On the one hand, we see teachers implementing cultural concepts within their methodologies, often in the form of art. On the other hand, language learners try to implement these in the form of expressions (Richards & Rodgers, 2001). This study ties up these inconsistencies and provides an innovative and reliable theoretical incorporation of culture to language learning.

There are already valuable sources explaining how language learners incorporate a new form of thinking when they have perfected a new language (Wierzbicka, 2003); however, most teachers and learners do not know about them, and those that know about it, are mostly academics and researchers of linguistics. Now it is time to link such valuable information; it is the time to utilize the general information and advances made in linguistic relativism and cognitive bilingualism to put them into practice so that learners can benefit.

Linguistics and applied linguistics seem to have taken different routes, each time making progress in very specific areas, although forgetting to work hand-to-hand. This is made more apparent in the courses of linguistics designed for those who are studying English under a pedagogical emphasis. That means that those to-be teachers, develop early reluctance towards the theory involved in languages, whilst seemingly applying their own approaches to culture (Alangari, Jaworska, & Laws, 2020). This research is not only evidence on what culture means for the more experienced language users, but it is also, an invitation to teachers to start incorporating thought-effect ideas into their language philosophies.

Statement of the Problem

The understanding of culture has not been a crucial concern among material designers of languages; even though some argue the opposite and carry this topic among different methodologies of language teaching, the most relevant of them *Communicative Language Teaching* (Richards & Rodgers, 2001); there is not a defined and well-established approach to culture in any educational language philosophy.

Conversely, there are already well-developed fields interested in the way culture shapes language, such as ethnopragnatics; areal linguistics; and cognitive bilingualism. Although it is important to mention, that, these are presented within courses related to analytic approaches for languages, i.e., the study of language, and not on how they are implemented in language learning environments; in other words, these theories are not explicitly targeted for learners of languages.

This research proposes two variables to consider, a dependent one, the importance given to culture when learning a language, measured by the learner's proclivity to incorporate culture to learn language, influenced and explained by the independent variable, the number of languages the user has learned throughout his life. It is then essential to point out; this research hypothesizes a positive correlation between the variables, this means that as one increases, the other will increase too. What is important to find out, is the rate of commonality between them. 0, being insignificant, and 1 being extremely significant.

Objectives

General Objective

- To justify the incorporation of Whorfianism as a cultural-linguistic approach to the learning of languages.

Specific Objectives

- To describe the Whorfian approach to teaching languages using English as an example.
- To illustrate the importance of acquiring relativistic reflection (RR).

Scope of Research

This research has a focus on language education, explained through the field of linguistics. Most ideas about *how language users see the world* can be found in cognitive bilingualism. Culture, on the other hand, is studied from both the sociological and communicative perspectives of ethnopragsmatics, another sub-field of linguistics. Considering the novelty of this topic and the none-existent research performed in the area of language education; with the help of this research's goal *-to determine the correlation between experience in learning languages and how users rate the importance of culture when learning a language-*, discussion on why Whorfianism is adequate approach will be addressed.

Significant advances to the field of language philosophy, especially to that of English Language Methodology are addressed in Language Pedagogy; furthermore, the different language backgrounds of the subjects will provide a reasonable explanation as to why the learning of culture is easily applicable to every language. Moreover, this research provides a significant opportunity to the field of applied linguistics, precisely that of bringing back linguistic theory to language education.

Limitations of the research

The study on culture and language philosophy provide some limitations to the research in terms of boundaries as some of the more personified elements of language learning do not pose any meaningful participation in the topic of Whorfianism (Gutfreund, 1990). These concepts include preferences in learning styles, covering: visual, kinesthetic, auditory, and logical learners; the reason for this, is placed in the hypothesis; culture is an invariable feature of societies, where the individual value is reduced when compared to the effects of a community.

CHAPTER II

Literature Review

Literature on Whorfianism

For this field of literature, ethnopragmatics and areal linguistics will be accountable. For starters, introductory material on linguistic relativism is seen on Fishman, J. A. (1982).

Whorfianism of the third kind: ethnolinguistic diversity as a worldwide societal asset, where the foundation of the theoretical dimensions of Whorfianism is explained; and Wierzbicka, Anna.

(2003). *Cross-cultural pragmatics*. New York: Walter de Gruyter Inc, where specific phenomena of culture and semantics are shown as intertwined fields. Finally, Gutfreund, D. G. (1990).

Effects of language usage on the emotional experience of Spanish-English and English-Spanish bilinguals, with an emotional approach to languages, and how different cultures provide different semantic clues into their speech (see table 1).

Table 1

Literature Review on Whorfianism

Author	Title	Year
Fishman, J. A.	<i>Whorfianism of the third kind: ethnolinguistic diversity as a worldwide societal asset</i>	1982
Wierzbicka, A.	<i>Cross-cultural pragmatics</i>	2003
Gutfreund, D. G.	<i>Effects of language usage on the emotional experience of Spanish-English and English-Spanish bilinguals</i>	1990

Literature on Cognitive Bilingualism

For this field, the literature on the cognitive decisions made by bilinguals in contrast to monolinguals is shown, such as in, Tillman, R., Langston, W., & Louwerse, M. (2013). *Attribution of responsibility by Spanish and English speakers: How native language affects our social judgments*. Where the judgments of certain values are assessed accordingly to the linguistic background of the one who is interpreting the message; and as well as in Cook, V., & Bassetti, B. (2011). *Language and Bilingual Cognition*, where generalities on language learning and acquisition are presented, such as the role of interpreting those social clues presented in the speech, and how learners of various languages understand them; and finally, Reboul, A. (2017), with *Cognition and Communication in the Evolution of Language*; so that we can understand the role of syntax and how we think of the world, depending on our mother-tongue (see table 2).

Table 2

Literature on Cognitive Bilingualism

Author	Title	Year
Tillman, R., Langston, W., & Louwerse, M.	<i>Attribution of responsibility by Spanish and English speakers: How native language affects our social judgments</i>	2013
Cook, V., & Bassetti, B.	<i>Language and Bilingual Cognition</i>	2011
Reboul, A.	<i>Cognition and Communication in the Evolution of Language</i>	2017

Literature on Language Teaching Methodology

This literature is explored to analyze the implementation of Whorfianism in Language Teaching, as in Richards, J. C., & Rodgers, T. S. (2001). *Approaches and Methods in Language Teaching*, where the goal is to set and discriminate the teaching of culture within the methods that utilize it, and those that do not (i.e., the *Communicate Approach*). Conversely, a more general approach to the learning of culture with linguistic goals is analyzed in Valdes, J. M., (1986). *Culture bound: bridging the cultural gap in language teaching*, in this last one, culture is seen as a bridging concept, but it's not assumed within the context of education (linguistically), although it is seen through the exercise of the society. Finally, it is important to review *Methodology in language teaching: An anthology of current practice* (Richards & Renandya, 2002), to get a better idea of the differences between approach, philosophy, and methodology when it comes to teaching languages (see table 3).

Table 3

Literature on Teaching Methodology

Author	Title	Year
Richards, J. C., & Rodgers, T. S.	<i>Approaches and Methods in Language Teaching</i>	2001
Valdes, J. M.	<i>Culture bound bridging the cultural gap in language teaching</i>	1986
Richards, J. C., & Renandya W. A.	<i>Methodology in language teaching: An anthology of current practice.</i>	2002

Literature on Research Methodology

This field of literature is necessary as to incorporate the most adequate research methods onto the fields of this research's methodology, this includes methods in researching linguistics, such as *Research methods in linguistics* (Litosseliti, 2018). Research methods in cognitive linguistics, applicable to the ideas behind Whorfianism are found in *Methods in cognitive linguistics* (Gonzales, 2007). It is also worth looking at all the lexical components managed in research in teaching languages, found in *Handbook of research in second language teaching and learning cognitive linguistics* (Hinkel, 2011). Literature in methodology on the thought process involved in learning languages can be found in *Research methods in language learning* (Nunan, David & Swan 1992); and finally, some of these methods, can be contrasted in *Research methods for English language teachers* (McDonough & McDonough 2014). see table 4.

Table 4

Literature on Research Methodology

Author	Title	Year
Litosseliti, L.	<i>Research methods in linguistics</i>	2018
Gonzalez, M.	<i>Methods in cognitive linguistics</i>	2007
Hinkel, E	<i>Handbook of research in second language teaching and learning cognitive linguistics</i>	2011
Nunan, D., David, N., & Swan, M	<i>Research methods in language learning</i>	1992
McDonough, J., & McDonough, S	<i>Research methods for English language teachers</i>	2014

Literature on Contrastive Features between L1 and L2

Some of the literature about contrastive linguistic analysis include Lowie, W., & Verspoor, M. (2004). *Input versus transfer: The role of frequency and similarity in the acquisition of L2 prepositions*, where the author explains how people have a difficult time interpreting words that are of similar semantic value between L1 and L2 but have different cultural meanings when they are compared. This was the case of the pedagogical incorporation of English cognates for Dutch speakers. Here, the speakers ended up receiving a derived communicative methodology, where lexicons of frequency were associated with higher speech occurrences.

In the study of contrastive cultures between L1 and L2, we find that teachers who belong to one culture and teach the cultural-linguistic dimension of another language, need the comparison of the first culture to be understood. This study can be found in Mikhaleva, L. V., & Régnier, J. C. (2014). *Parallel study of native and target-language cultures in foreign language teaching*. *Procedia-Social and Behavioral Sciences*. Here, among other things, a task-based approach is set to develop the introduction of cultural references in second languages. The authors concluded by assessing the relationship of the educational elements of the instruction, including the cultural background of the teacher and his students.

Finally, a study on the role of meaning and the methodology of SLT is found in Boers, F., & Lindstromberg, S. (2006). *Cognitive linguistic applications in second or foreign language instruction: Rationale, proposals, and evaluation*. Here, linguistic relativism is taken as a form of motivation, where language students find the rationalization of words that go beyond what is said or written, thanks to the incorporation of cultural awareness in L2 (see table 5).

Table 5*Literature on Contrastive features between L1 and L2*

Author	Title	Year
Verspoor, M.	<i>Input versus transfer: The role of frequency and similarity in the acquisition of L2 prepositions</i>	2004
Mikhaleva, L. V., & Régnier, J. C.	<i>Parallel study of native and target-language cultures in foreign language teaching.</i>	2014
Boers, F., & Lindstromberg, S.	<i>Cognitive linguistic applications in second or foreign language instruction:</i>	2006

Conceptual framework

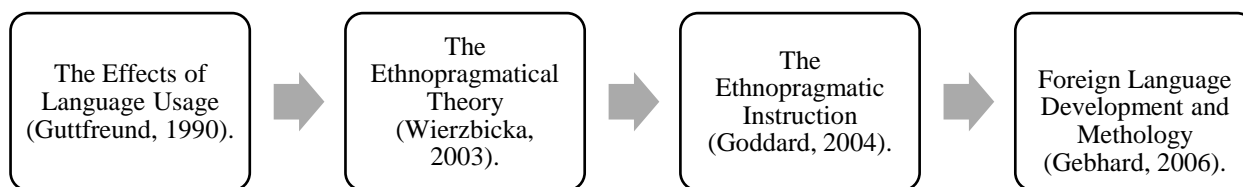
Figure 1*Conceptual Framework*

Figure 1 shows how there are four main theories used for the theoretical development of this research whereby one is required in the following concept.

Related Previous Theories

Whorfianism has only been considered for the construction of linguistic theories; sadly, when it comes to education and the language classroom, it has only played the role of an observer, rather than an active contributor. In this observer role, Whorfianism has been presented in Niemeier, S. (2004). *Cognitive linguistics, second language acquisition, and foreign language teaching*, where she discusses the development of linguistic relativism in the form of derived theories, such as the intercultural competence. The author recognizes that she doesn't want to provide ideas to the role of Whorfianism in second language acquisition, but, that she only wants to put forward the concept that in the near future, teachers should give some attention to it.

Definition of Terms

Whorfianism: Linguistic theory that holds languages affect the cognition of speakers due to the speaker's upbringing and context (Fishman, 1982).

Bilingual Cognition: Field of expertise interested in how language learners perceive the world and communicate their experiences (Cook & Bassetti, 2011).

Ethnopragmatics: Field of expertise interested in how cultures shape meaning beyond the written and spoken material (Wierzbicka, 2013).

Cross-Cultural Linguistics: The comparative analysis of language from the perspective of culture (Wierzbicka, 2013).

CHAPTER III

Methodology

This is an exploratory research that includes a randomized study carried in the form of a survey (Habib, Pathik, & Maryam, 2014), where 27 participants from different backgrounds were characterized regarding three attributes, including country of origin, profession, and number of languages spoken (see table 6). Since it was of utmost interest to assess the value to culture (VC), and how it changed depending on the experience of each user, the samples were divided into four different groups, including monolinguals, bilinguals, people who speak more 3 languages, and those who speak ≥ 4 languages,

Table 6

Characterization of Participants

Samples	Universe	Attributes
27 participants	<i>Language Learners</i>	Country of origin Profession Number of languages Spoken (NLS)

Methodological Approach

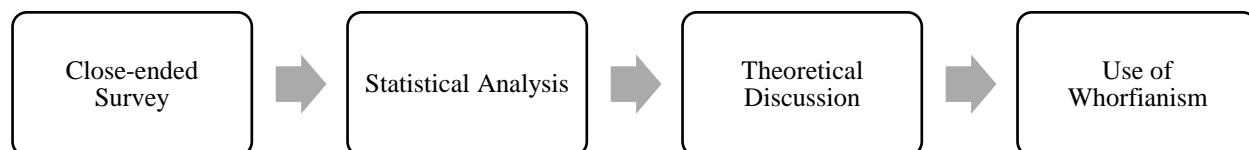
The survey follows the close-ended questionnaire typology (Habib, Pathik, & Maryam, 2014). In such survey, questions give the participants multiple scalar options which go from 1 to 4, this includes the ranges, low, fair, high, and very high; and for the case of quantifiable attributes, others, include binary responses (yes or no).

Path of the Research Process

This research follows statistical analysis made from a close-ended survey, where, the initial part of the questionnaire reflects on the experience of the samples, attributes such as, where they live and what is their occupation, aim at providing correlations to the quantifiable variables; these attributions give an accurate profile for each of the individuals. The second part of the survey follows an explorative analysis regarding the thoughts of the participants on *how they use and rate culture for their learning purposes* (VC). This brings us to the second major part of the study, where the data from the survey is organized in structures that lead to a theoretical discussion around the use of Whorfianism for pedagogical purposes.

Figure 2

Path of the Research Process



Information Collected

The information collected addresses the data being taken from randomized samples. As shown in table 6, the 27 samples represent the universe of language learners. In this case, since it is important to highlight the various occurrences in terms of attribution to language experience, the closed questions were created so that the results gathered higher significance to the primary occurrence (i.e., how important do you rate culture). To see these questions, refer to table 7.

Questionnaire

Table 7

Questionnaire

Question	Evaluation	Analysis
Where are you from?	Qualitative	Experiential
What is your profession?	Qualitative	Experiential
How many languages do you speak?	Quantitative	Scalar
How relevant has been culture for the development of your linguistic proficiency in another language?	Quantitative	Scalar
Have you incorporated cultural concepts to improve your use of another language?	Quantitative	Binary
If applicable – Have you incorporated these cultural concepts on your own?	Quantitative	Binary
How high would you rate the relevance of learning culture together with language?	Quantitative	Scalar
Has the learning of a second language affected your cognition on the way you perceive words and sentences?	Quantitative	Binary
Linguistic features of a culture can be learned to improve your fluency. How difficult do you think they would be?	Quantitative	Scalar

Variables

Table 8

List of Variables

Variable	Classification	Operational Component
Perceived value of importance given to culture (VC)	Dependent	<i>Linear Regression</i>
Number of languages spoken (NLS)	Independent	

Research Hypothesis

H_0 : As individuals acquire more languages, their value to culture increases.

H_0 : $R^2 = \leq 0.60$ » Positive significance

H_a : $R^2 = \leq 0.59$ » Does not differ.

Analysis of the Hypothesis

The operation of variables requires a linear regression so that the coefficient of determination (R^2) shows a positive significance, set at 0.60, meaning that the rate of proportion can be considered for a prediction (H_0). The prediction, on the other hand, will show an insignificant correlation if takes values ≤ 0.59 (H_a).

CHAPTER IV

Results

Characterization of Samples

The results of the characterization of the participants showed that most participants are heterogeneous. Adding up every different country we get 62.96%. The United States holds the mode, with a total of 4 participants, that is equal to 14.81%. These results are ideal for the randomized analysis since further observation requires no biases in VC (see figure 3, 4, and 5).

Figure 3

Number of Participants by Country

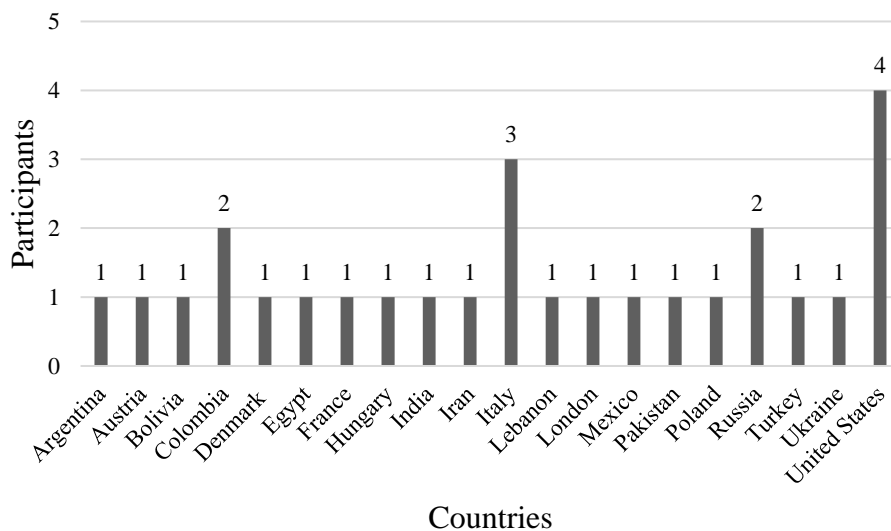


Figure 3 shows how spread out are the results according to the country by mean of participants. The United States occupy the first place with four participants, followed by Italy with three. Both Colombia and Russia show the same results with two participants. Note how there is not a significant bias of any country.

Figure 4

Number of Participants by Occupation

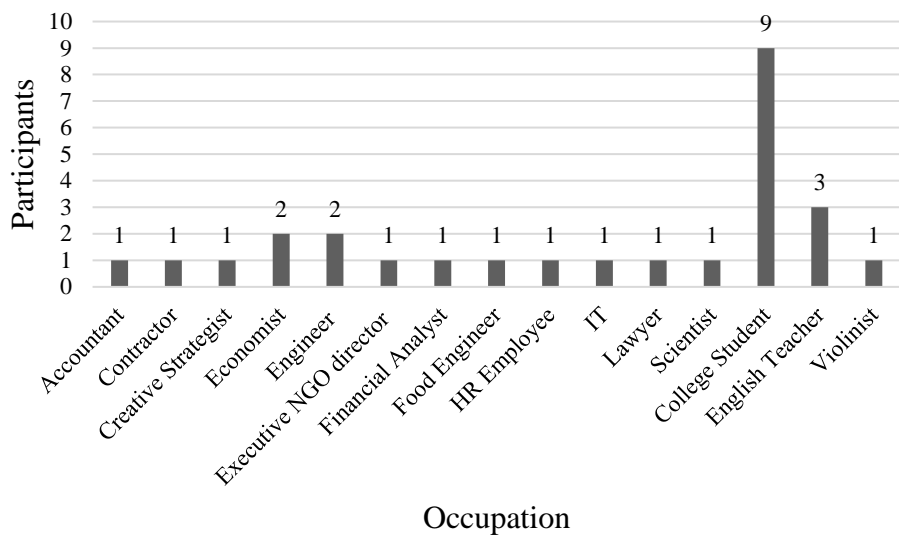


Figure 4 shows the number of participants by occupation. Here, it is worth noting that again, most participants come from a heterogeneous sample. This time the diverse occupations (where there is only one frequency), add up to 48.15%, giving the college students an average of 33.33%.

Figure 5

Number of Languages Spoken by Percentage of Participants

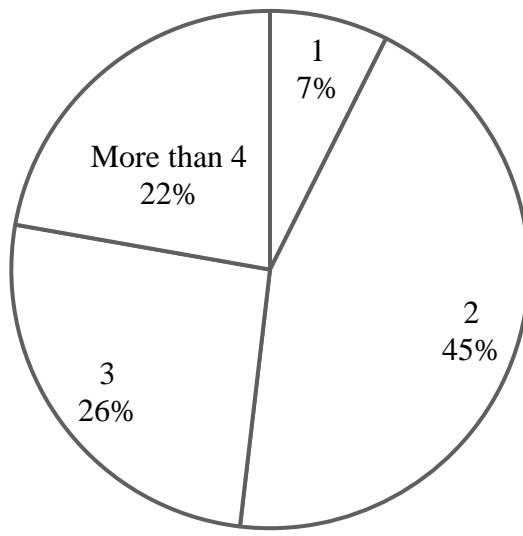


Figure 5 shows that most of the samples are bilinguals, followed by trilinguals, and lastly polyglots.

Assessment of Cultural Significance by Number of Languages Spoken

This part of the results will show the data collection organized by how participants in the survey answered to culture-related questions. Since our goal is to determine the experience-VC relationship, we will focus on the differences between the ends of the samples (monolinguals, and people who speak more than four languages). Nonetheless, it is also important to show the general responses.

Figure 6

Percentage of People rating VC when Learning L2.

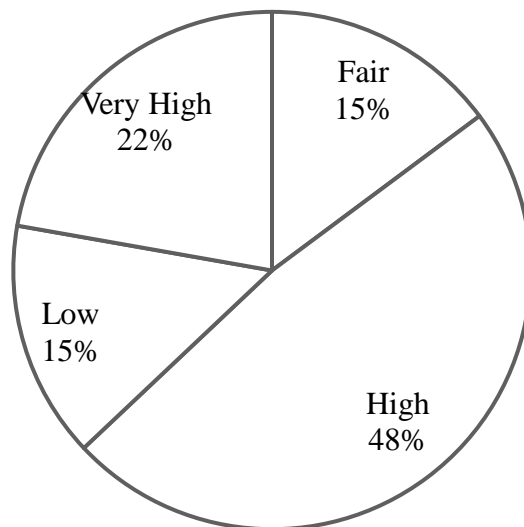


Figure 6 shows the total of the participants grouped by the percentage of people rating the importance to culture (VC) when learning another language. Here we can see that most people have chosen “high”, this is followed by very “high with” 22%. These two can be further grouped. In binaries, (e.g., important, and insignificant), culture still rates as “very important”.

Bivariate Analysis of NLS per value of VC

In this section, two variables are quantified at the same time, that of “*number of languages spoken (NLS)*”, with “*value of importance to culture when learning a language (VC)*”. Since the total distribution of the samples does not represent with enough accuracy which sections of the population give high or low importance to culture, it becomes necessary to analyze these two variables at the same time. First, the visualization of the bivariate table of distribution will help us understand the trends between monolinguals, bilinguals, trilinguals, and people who speak more than four languages; after that, a scatter chart will further understand the correlation between the two.

Table 9

Bivariate Table between NLS and VC

NLS	Value of importance to culture when learning a language				<i>Total</i>
	Low	Fair	High	Very High	
1			1	1	2
2	3	5	3	1	12
3			4	3	7
4			1	5	6
<i>Total</i>	3	5	9	10	27

Table 9 shows every response on how the participants valued culture according to their NLS. The total of each column shows a tendency to increase while the top values show the mean.

Figure 7

Scatter Chart Expressing the Influence of NLS over VC

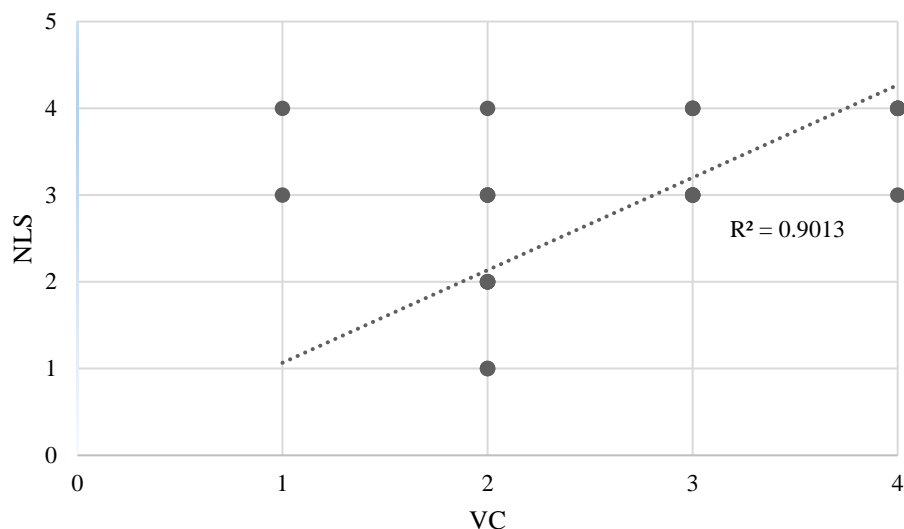


Figure 7 shows the correlation between NLS and VC. The trendline shows a positive correlation between NLS and VC, this means that for every language that participants reported, there was an equal increase to VC. R^2 shows a coefficient of 0.9013, thereby, the two variables show a positive significance according to the initial hypothesis.

Figure 8

Bar Chart (Alternative to Figure 7)

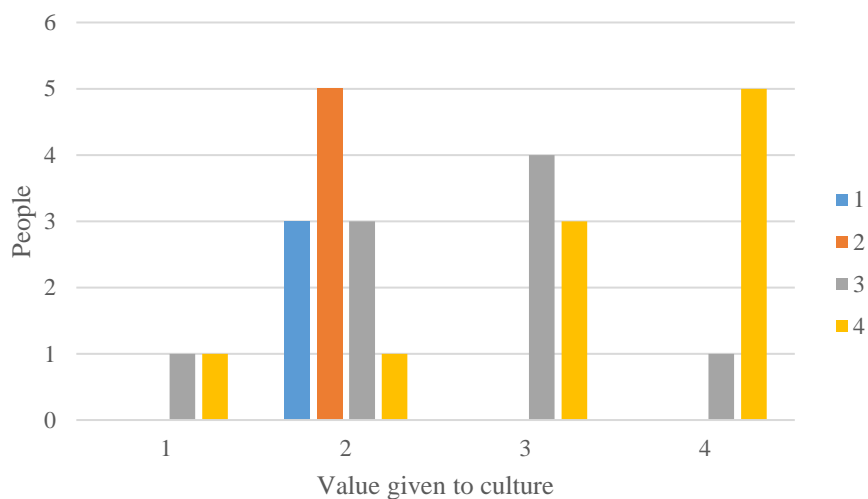


Figure 8 shows an alternative representation to figure 7. While figure 7 expresses a coefficient, figure 8 counts every value.

Discussion

The results show a positive correlation between NLS and VC, this means that even if there are no approaches to culture; culture, is still regarded as highly important among all sorts of learners. In this case, this discussion centers around the idea that, although VC is quantifiable, approaches to languages do not give culture any theoretical approach, let alone, an intrinsic incorporation of culture into language. As of 2020, the most popular teaching methodologies in L2 and foreign languages are the direct method, the grammar-translation method, the communicative language teaching approach, and the natural method (Hall, 2020). None of them provide a real bridge between culture and language. Some of the approaches and methodologies described above show approaches to culture, however, these are not tied to languages (see table 9).

Table 10

Popular language teaching methods and their approaches to culture

Language Teaching Method/Approach	Langue Philosophy	Approach to Culture
The Direct Method	L2 can be learned applying the principles when a child learns L1, heavily incorporating the use of non-verbal communication	There is no approach to culture. Learners are encouraged to speak as much as possible.
The Grammar-Translation Method	L2 can be learn with the deductions in vocabulary and syntax made from translation.	Culture is seen in books (a sub-segment of liberal arts)
The Communicative Language Teaching Approach	L2 can be learned by applying the principles of communication into practice.	Culture is seen in the social norm, and the socially acceptable.
The Natural Approach	L2 is learned acquiring what is verbally understandable.	There is no approach to culture. Students only learn what they are capable to understand.

What Whorfianism Offers

Whorfianism offers the theory that languages affect the way you see the world. In such case, this world is a world of perception where individuals verbally incorporate linguistic features that are present in their surroundings. One example of this can be seen in *direction*. Places where there is little spatial differentiation, have been the cradle of Chol (spoken in Mexico) and Guugu Yimithirr (spoken in Australia). People who speak Chol, do not have cardinal words of orientation, instead, whenever they talk about direction, they that say something is “up the hill or down the hill” (Rodriguez, 2016). Guugu Yimithirr, carries this sense of direction to a more personal level; people who speak this language do not have words for left or right; however, they have words for, east, west, north, and south. As a result, whenever they speak to someone and must mention an object concerning them or others, they use the cardinal points (Whorf, 2012).

These differences in lifestyles give place to comparative ways of thinking; of course, it would not be possible to define one language without the differences found in others. This is when relativism comes in handy. Relativism requires the juxtaposition of at least two languages; in the case of Whorfianism, we want to assess the differences that languages provide in terms of thought, whereas in the case of education, it is required to incorporate these advances within the goal of acquisitional language theory (Krashen, 1992).

What is the premise of Worfianism in language education? To answer this question is important to remember that Whorfianism should be taken into consideration as an approach to culture, rather than a teaching methodology (see table 9), knowing that, the Whorfian premise in education is to offer the chance of thinking in another language (Gonzalez-Marquez, Mittelberg, Coulson, & Spivey, 2007).

Why Polyglots Matter

The entire quantifiable data of this research is based on the role of polyglots, their experiences in languages, and their value given to culture. But then, how polyglots fit within the scope of this research? Polyglots allow us to analyze linguistic performance from two perspectives: experience and cognition. In the case of experience, every language learned facilitates the learning of a newer one; while in the case of cognition, considering, languages give you determined ways of thinking, then polyglots possess multiple ways of thinking. These different ways of thinking have been expressed in terms of “the way I perceived words and sentences”. See table 10.

Figure 9

-Perceived Difference in Cognition-

Percentage of people who describe differences in cognition after learning a language determined by “yes” has experienced, and “No” has not experienced it.

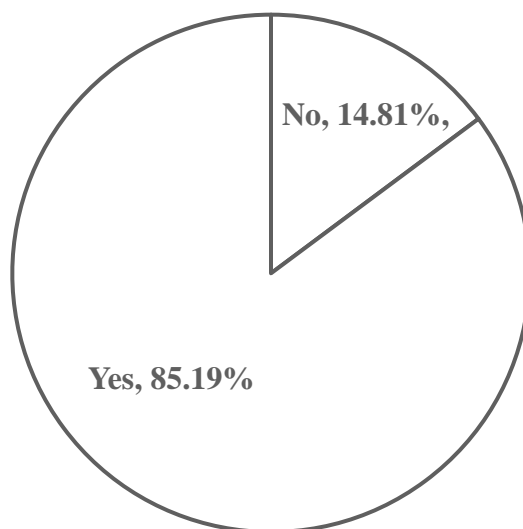


Figure 9 shows the perceived significance in changes of cognition between the participants who took the survey. It is worth nothing how most of the learners reported positive changes in the way they think about words and sentences.

Using Whorfianism for Teaching English

This section will provide exemplary evidence on how to incorporate Whorfianism in a class of English. First and foremost, teachers should start by embracing the idea that the language you are teaching (in this case, English), should reflect awareness in the way of how that language makes you think. Teachers can set topics depending on the needs of the students or the requirements of the institution, however, it's important that they make a cultural assessment, that is, making sure that the student's source and target languages are addressed (See table 11 for an example).

It is recommended to bring real material, preferably audiovisual, so that the students relate dialogues to context as much as possible (Barcelona, 2010). Finally, it is worth pointing out that teachers can have total liberty for when it comes to material design, this is entirely attributed to the pedagogical competence; nonetheless, the material should evidence relativistic reflection (RR). RR is the product of comparing two languages with the goal of making someone reflect on the differences in perception between them (see figure 10).

Figure 10

The RR Path

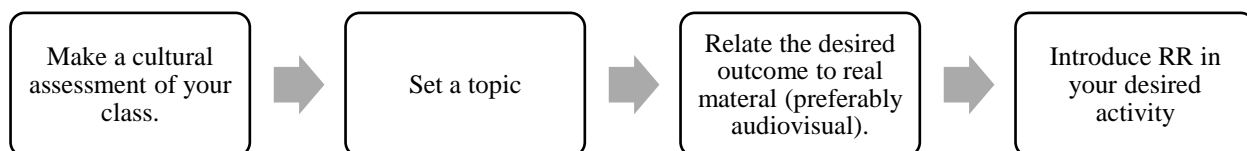


Table 11

Example Using “Plurals” in American English with Colombian Students

Cultural Assessment	Topic	Material	Activity	RR evidence
L1: Colombian Spanish (CS) FL: American English (AE)	Plurals for B2 Students	To watch interview of someone speaking about their family.	Students draw a group according to AE vs. according to CS.	Both diagrams show how AE sees groups as units vs. CS sees conglomerates.

Recommended Cultural Attributions to Topics

The following section provides an approach to RR perceived in English and Spanish. This is also an invitation for teachers to start looking for opportunities to incorporate RR within their lessons. That opportunity is as well a product of the teacher’s inferences to both languages (e.g., English and Spanish); it is also common to get inspiration from the student’s reports of mistakes. Those mistakes are the result of the lack of logical coherence between L1 and L2 (Richard & Rodgers, 2001). These reports made by the students are an excellent opportunity for teachers to incorporate RR. The Whorfian approach proposes the solution of these problems by making students reflect on how speakers of L2 think. It is imperative to discourage teachers from using grammar to solve these problems (See table 12).

Whorfianism is about Prevention

People who learn a new language will inevitably mirror what they know in L1 to L2, this is known L2 mirroring (e.g., using English words but maintaining a structure that is proper of Spanish). Whorfianism offers teachers a chance to tackle this phenomenon by giving students a chance to think in L2. It is also a suitable alternative for teachers to prevent giving explanations using grammar, which is highly regarded as detrimental for the language learning process.

Table 12*Opportunities to Incorporate RR*

Reference Level	Common Mistake	Correct form	Reason of the misunderstanding in terms of L1	RR opportunity
A2	Double marks “ <i>she does not eats cake</i> ”.	“ <i>She does not eat cake</i> ”.	Spanish speakers give higher individual effect to verbs.	English speakers give less specificity to verbs because actions offer little importance when compared to subjects.
B1	Use of preposition “ <i>This song talks of love and hate</i> ”.	<i>This song talks about love and hate.</i>	Spanish speakers think topics go hand to hand with ideas.	English speakers think ideas “mobilize” through different topics.
B2	Active voice “ <i>Through this video will be shown how important is the grammar</i> ”.	<i>This video will show how important grammar is.</i>	Spanish speakers avoid, mentioning the subject, for respect, instead, they try to use “se” as much as possible.	Subjects are extremely important for English speakers, hence, they think about people doing x, instead of x, being done by people.
C1	The persistence of tense “ <i>The reason why I mentioned this is because x</i> ”.	<i>The reason why I mention this is because x.</i>	Spanish speakers split tenses since the past creates new outcomes in the present.	For English speakers, the past is still part of the present, since the past, does not create the outcomes, they evolve over time.

Table 12 uses various examples of the use of RR according to some of the most common mistakes in English made by Colombian speakers. Note how A1 and C2 are absent. It is possible that A1 and C2 might not take as much advantage as the other reference levels.

CHAPTER V

Conclusions and Recommendations

The effects of multilingualism have shown that the value of culture, when learning languages, increases with experience; that of acquiring new languages. These types of learners set a parallel between approaches to languages where there is little to no regard to culture, or where there are, but, without regard to language. The results of this research, therefore, set an ideal paradigm where culture and language are bridged together. As shown through the different materials used to support the use of Whorfianism, we find that the Whorfian approach is an excellent alternative to explain not only the socio-linguistic features of a language but also an adequate philosophy of language where learners can start thinking in their target language.

Based on the trends of VC, it is also reasonable to suggest the idea that polyglots could make better language teaching materials when compared to bilingual teachers, however, this is not entirely practical, since there are more considerations to reflect on, for example, the skill of the teacher when assessing needs, and his didactical competences. When it comes to incorporating Whorfianism, it is possible that polyglots offer more chances of RR, considering they know more languages.

As for the case of RR, foreign teachers seem to be more suitable for teaching cultural-based subjects compared to native teachers, this might detriment the idea that native teachers offer better learning outcomes. There is an incredible benefit to get lessons from foreign teachers (as is the case of Colombian teachers, teaching English in Colombia), as they possess more knowledge about the circumstances that lead to L2 mirroring.

Although grammar is tremendously beneficial for people who teach language, the Whorfian approach proposes the use of RR instead of giving grammar explanations to students. Grammar explanations offer insignificant opportunities of acquiring language; they are good for studying language; nevertheless, setting teaching goals will always be ideal, even before taking presumptions about the language or the culture.

The Whorfian approach is precisely an approach because it offers the possibility of integrating ideas that can be easily adapted into multiple teaching methodologies. Various lists show adequate examples to tackle multiple gaps found in language teaching, including, the lack of a cultural approach to languages, the lack of integration between language and culture, and some of the benefits of thinking in another language.

Further study is recommended in various fields. In the case of methodology, it is required to do more research on the relation between the incorporation of Whorfianism and the performance of those teachers who apply it to their own methodologies. Since this proposal is still very new, it is ideal to put the role of practices into contemplation; this, however, will not be possible if the approach is not engaged in multiple situations (teaching ESP, EAP, and EFL). Secondly, it is recommended to dive into the differences of cognition between Spanish and English speakers. The material comparing the two languages is extremely scarce, even though it can offer extensive enlightenment into the Whorfian Approach.

Finally, this study considers theoretical and correlative principle of language to put forward the invitation to teachers onto how languages affect the way your students think, therefore, it is suggested, to embrace the idea of *change in thought*. As for the case of EAP and EFL, Whorfianism holds the theory that language affects the way you see the world, therefore, educators need to start thinking on ways to make students see that L2 world.

REFERENCES

- Alangari, M., Jaworska, S., & Laws, J. (2020). Who's afraid of phrasal verbs? The use of phrasal verbs in expert academic writing in the discipline of linguistics. *Journal of English for Academic Purposes*, 43, 100814.
- Barcelona, A. (2010). Metonymic inferencing and second language acquisition. *AILA Review*, 23(1), 134-155.
- Boers, F., & Lindstromberg, S. (2006). Cognitive linguistic applications in second or foreign language instruction: Rationale, proposals, and evaluation. *Applications of cognitive linguistics*, 1, 305.
- Cook, V., & Bassett, B. (2011). *Language and Bilingual Cognition*. New York, U.S: Psychology Press.
- Fishman, J. A. (1982). Whorfianism of the third kind: ethnolinguistic diversity as a worldwide societal asset (The Whorfian Hypothesis: varieties of validation, confirmation, and disconfirmation II). *Language in society*, 11(1), 1-14.
- Gebhard, J. G. (2006). *Teaching English as a foreign or second language: A teacher self-development and methodology guide*. University of Michigan Press.
- Goddard, C. (2004). Cultural scripts”: A new medium for ethnoprismatic instruction. *Cognitive linguistics, second language acquisition, and foreign language teaching*, 145-165.
- Gonzalez-Marquez, M., Mittelberg, I., Coulson, S., & Spivey, M. J. (Eds.). (2007). *Methods in cognitive linguistics* (Vol. 18). John Benjamins Publishing.

- Guttfreund, D. G. (1990). Effects of language usage on the emotional experience of Spanish-English and English-Spanish bilinguals. *Journal of Consulting and Clinical Psychology*, 58(5), 604-607. <http://dx.doi.org/10.1037/0022-006X.58.5.604>
- Habib, M. M., Pathik, B. B., & Maryam, H. (2014). *Research methodology-contemporary practices: guidelines for academic researchers*. Cambridge Scholars Publishing.
- Hall, G. (2020). Framing the Realities of TESOL Practice Through a Translanguaging Lens. In *Envisioning TESOL through a Translanguaging Lens* (pp. 67-90). Springer, Cham.
- Hinkel, E. (Ed.). (2011). *Handbook of research in second language teaching and learning*. Routledge.
- Krashen, S. (1992). The input hypothesis: An update. *Linguistics and language pedagogy: The state of the art*, 409-431.
- Litosseliti, L. (Ed.). (2018). *Research methods in linguistics*. Bloomsbury Publishing.
- Lindstromberg, S., & Boers, F. (2005). From movement to metaphor with manner-of-movement verbs. *Applied linguistics*, 26(2), 241-261.
- Lowie, W., & Verspoor, M. (2004). Input versus transfer? The role of frequency and similarity in the acquisition of L2 prepositions. *Cognitive linguistics, second language acquisition, and foreign language teaching*, 77-94.
- McDonough, J., & McDonough, S. (2014). *Research methods for English language teachers*. Routledge.
- Mikhaleva, L. V., & Régnier, J. C. (2014). Parallel study of native and target-language cultures in foreign language teaching. *Procedia-Social and Behavioral Sciences*, 154, 118-121.

- Niemeier, S. (2004). Linguistic and cultural relativity—Reconsidered for the foreign language classroom. *Cognitive linguistics, second language acquisition, and foreign language teaching*, 95-118.
- Nunan, D., David, N., & Swan, M. (1992). *Research methods in language learning*. Cambridge university press.
- Rodríguez, L. (2016). From discourse to thought: an ethnopoetic analysis of a Chol Mayan folktale. *Signs and Society*, 4(2), 278-301.
- Richards, J. C., & Renandya, W. A. (Eds.). (2002). *Methodology in language teaching: An anthology of current practice*. Cambridge university press.
- Richards, J. C., & Rodgers, T. S. (2001). *Approaches and Methods in Language Teaching*. Cambridge University Press.
- Reboul, A. (2017). *Cognition and Communication in the Evolution of Language*. Oxford University Press.
- Tillman, R., Langston, W., & Louwse, M. (2013). Attribution of responsibility by Spanish and English speakers: How native language affects our social judgments. *Revista Signos*, 46(83), 11–12. <https://doi.org/10.4067/S0718-09342013000300006>
- Valdes, J. M. (Ed.). (1986). *Culture bound: bridging the cultural gap in language teaching*. UK: Cambridge University Press.
- Wierzbicka, Anna. (2003). *Cross-cultural pragmatics*. New York: Walter de Gruyter Inc.
- Whorf, B. L. (2012). *Language, thought, and reality: Selected writings of Benjamin Lee Whorf*. MIT press.