The Importance of Vocabulary and Grammar for Measuring the Readability and Language Level

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ABSTRACT: The purpose of this research is to determine the level of difficulty (Readability) and the language level of texts written by non-Italian speakers. For this purpose, texts produced by Greek candidates (B1 and B2 level) according to the Greek State Certificate Exam (KPG) for the Italian language were selected. All data was collected from the KPG exams of May 2015 and November 2016. Specifically, from 1000 randomized KPG notebooks, a total of 80 notebooks were used, (B1 and B2) that were first digitized in manual form. In the second and third phase, these texts were measured using the READ-IT and SPSS.24 tool. The results lead to the fact that both the correct use of vocabulary, i.e., spelling and the appropriate vocabulary in relation to the content of the text, determine the language level and degree of difficulty of produced texts. All results are part of an existing tool named trat.exe used by the University EKPA and Aristotle to measure the Readability regarding the exams of Italian language of KPG. Of utmost importance would be the future deepening of the parameters of writing with the goal of developing even more advanced software.

Keywords: appropriateness, level, measurement, results, spelling.

ABSTRAK: Tujuan dari penelitian ini adalah untuk menentukan tingkat kesulitan (Keterbacaan) dan tingkat bahasa dari teks yang ditulis oleh penutur non-Italia. Untuk tujuan ini, teks yang diproduksi oleh kandidat Yunani (tingkat B1 dan B2) sesuai dengan Sertifikat Negara Yunani (KPG) untuk bahasa Italia dipilih. Semua data dikumpulkan dari ujian KPG pada Mei 2015 dan November 2016. Secara khusus, dari 1000 buku catatan KPG yang diacak, total 80 buku catatan digunakan, (B1 dan B2) yang pertama kali didigitalkan secara manual. Pada fase kedua dan ketiga, teks-teks ini diukur menggunakan alat READ-IT dan SPSS.24. Hasilnya menunjukkan bahwa baik penggunaan kosa kata yang benar, yaitu ejaan dan kosa kata yang sesuai dengan konten teks, menentukan tingkat bahasa dan tingkat kesulitan teks yang dihasilkan. Semua hasil merupakan bagian dari alat yang sudah ada bernama trat.exe yang digunakan oleh Universitas EKPA dan Aristotle untuk mengukur Keterbacaan terkait ujian bahasa Italia KPG. Hal yang sangat penting adalah pendalaman lebih lanjut dari parameter penulisan dengan tujuan mengembangkan perangkat lunak yang lebih canggih.

Kata kunci: ejaan, hasil, kesesuaian, pengukuran, tingkat.

INTRODUCTION

Determining the degree of difficulty in reading a text was the subject of systematic research over a century ago. Readability classification, therefore, is the task of mapping text onto a scale of readability levels. Research in the field of readability classification began in 1920. English is the dominant language in this field, although much research has been verified for other languages such as

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German, French, Chinese, and so on. These languages are considered high-density, as they are available to many resources and many linguistic tools. However, many languages are considered low density. This happens either because the population speaking these languages is not very large or because insufficient digitized text material is available for these languages, even though they are spoken by millions of people (Islam, Mehler & Rahman, 2012).

On the other hand, the development of various software programs has allowed researchers to develop new methods for determining the difficulty of texts based on traditional readability characteristics and cohesion characteristics that indicate the level of coherence of the text (Benjamin, 2011: 73).

In the Greek context, in 1833, the French language was introduced for the first time in the secondary school of Nafplio and over the years other foreign languages such as English, German, and Italian were also added. Coming to the modern days, the effort of the Ministry of Public Education in Greece is to integrate in the year 1999 a Greek educational system that gives the possibility of acquiring language proficiency certifications (Griva & Iliadou-Tachou, 2010). There are countless Greek candidates who have participated in the Greek State Certification for Foreign Languages exams (KPG) so far (Dendrinou, 2019). In this way, the antagonism between the public and private sector has increased in the production of teaching materials (software, bibliography, DVDs, CDs, etc.) compared to language learning exams based on the Common European Framework of Reference for foreign languages (CEFR) (Beacco, 2017).

Research Problem

First of all, the concept of the language level of a text constitutes the starting point of this research. Therefore, two main questions are being developed in this study: 1) How to create a test of reasonable evaluation in front of all Italian language users; 2) How to write a text according to the degree of difficulty (Readability) and language level (Jabbari & Saghari, 2011: 37).

Research Focus

On the first floor, there is the improvement of foreign language learning through meritocratic methods of evaluating Greek language candidates in other languages. The CEFR (North, B., 2005) proposes six common levels and interprets each linguistic-communicative competence separately. For each level there is a series of indicators to observe to verify the level of competence, and in almost all cases it involves "knowing how to do with the language" (Balboni, 2012: 13). The six levels of competence follow with their terminology in English (Diadori, 2003: 10-11):

A1 = Contact level (Breakthrough)

A2 = Survival level (Waystage)

B1 = Threshold level

B2 = Level of progress (Vantage)

C1 = Level of effectiveness (Proficiency)

C2 = Mastery level

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In accordance with these data, there are also other parameters that influence the result of a written text, which count a lot and are found in other certifications such as, for example, CILS (Matthiae, 2010: 106).

Fluency	 Good/various breaks/blanks	
Communicative	The message is	
Communicative effectiveness	 intelligible/practically	
	incomprehensible/blank paper	
Morphological-syntactic	Almost no errors/some	
correctness	 errors/many errors	
Lexical appropriateness	 Good/acceptable/insufficient	
	Does not compromise the	
Spelling	 message/compromises it	
	often/commonly compromises it	

Figure 1. Parameters that Influence the Result of a Written Text

Research Aims and Research Questions

The goal of this study is to highlight those criteria based on which it is possible to distinguish when a text is of language level B1 and when it is B2 (Novello, 2009), so that the measurement and evaluation can be done in a more fair and reliable way without human intervention, but with digital media.

Literature Review

The main purpose of this study is to investigate evidence-based criteria through which it is possible to evaluate users of a foreign language reliably and fairly during the production of written texts by non-native speakers (Johnstone, 2003). In the international literature there was no previous similar analysis of data and reflections, which brings to the academic community important elements. There was, on the one hand, a wider literature on readability in general, but not on written texts concerning foreign users of a different language (Frigo, Zuppiroli & Pagani, 2007).

The most remarkable difficulty of this research was the careful manual transfer of data to a digital platform to avoid data corruption or valid results (Venturi et. al., 2017: 36). Another difficulty was the digitization of the texts, as they are manuscripts with different handwriting each one and often difficult to read by the researcher.

On the other hand, the lack of biometric tools prevented the investigation of the conditions of the conduct of written speech by Greek users of the Italian Language, such as stress (Lileikienė & Danilevičienė, 2016).

With this research, however, it is expected from future researchers to continue this research in order to have corresponding results also for the effectiveness of other important factors such as stress.

A further goal of other researchers would be to discover the same or even more innovative criteria both for foreign languages other than Italian and for *e-issn:* 2746-1467 *p-issn:* 2747-2868

other levels (e.g. language level A1, A2, C1 and C2), as well as a larger research on international level by European country in connection with the present research by the same levels (Milton, 2010). To find the differences of Italian language users in the production of written speech at levels B1 and B2. Thus, we would have a centralized data platform which would perhaps be very interesting to see its results for the creation of new digital readability measurement tools, similar to earlier ones such as Gunning-Fog Index (Zurel, 2014), Spache, SMOG, Flesch-Kincaid (Heydari, 2012), Dale-Chall, ATOS (Janan & Wray, 2014) or Gulpease (Lyding et al., 2014).

RESEARCH METHODS

The present research is divided into three phases: the first one begins with the samples of the Greek State Certification for the Italian language exams (KPG).

Sample and participants

In particular, 316 written productions were chosen (160 of the B1 level and 156 of the B2 level), drawn from eighty unknown individuals. In addition, it is a search based on sources, i.e. on texts produced by users of Greek origin. To make the research more reliable, the examinees were chosen randomly without knowing their linguistic profile.

Instruments and procedures

In the second phase, the text was digitized and written in word and then analyzed through the READ-IT tool (Dell'Orletta, Montemagni & Venturi, 2011). For the statistical analysis in the third phase, the SPSS.24 software was used in order to the final product to be exported. With final product it is meant the lexical, syntactical and morphological criteria to evaluate foreign writers in a more reliable and fair manner.

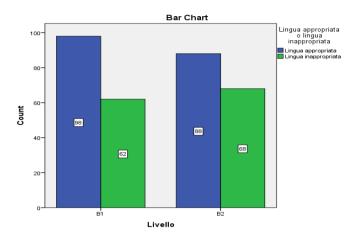
RESULTS AND DISCUSSION

Appropriate language means the right use of words in the Italian language and not from a lexical point of view (Velàsquez, Faone & Nuzzo, 2014). In other words, we find certain written productions in which words are used that resemble other Italian ones but are from another language (for example "honora", "phonetics"). These words are not part of the Italian vocabulary, but they are very reminiscent of Italian words. This part of the analysis belongs to the lexical sector, based on the use of the Italian language.

Results

According to Table 1 and Graph 1, among the 316 texts produced there are some in which the Italian language is not used. Instead, we look at words with Greek characters or English, German, Greek, French, Spanish vocabulary. This phenomenon perhaps occurs because many Greek students make unconscious use of interference by confusing certain words that are similar in different languages.

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Graph 1. Illustration of the total result of the variables 'Appropriate language' (blue column) and 'Inappropriate language' (green column) according to the language level

Table 1. Total result of the variables 'Appropriate language' and 'Inappropriate language' according to the language level

		language according to	the language level		
Appropriate or inappropriate language * Livello Crosstabulation					
Count					
	Appropriate or Inappropriate language				
		Appropriate language	Inappropriate language	Total	
Linguisti	B1	98	62	160	
c level	B2	88	68	156	
Total		186	130	316	

Based on these data, for level B1 there is a total of 160 texts produced, of which the Italian language is used in 98 texts and, on the other hand, not used in 62. Compared to the B2 level, there are 156 texts produced of which in 88 texts the appropriate language is visible and in 68 the inappropriate language is used. These facts show us the high importance of the role the appropriateness of language is playing when referring to a specific language level because it could also determine in the same way the difficulty grade of the text according to Murphy (2013).

Furthermore, in many texts we see words existing in other languages that resemble Italian words and others that are non-existent both in another language and/or in Italian. This is a frequent phenomenon as there are many students who try to combine and create words between two or more different languages. In other cases, we see Greek letters in Italian words that make the readability and comprehensibility of the text more difficult for a native Italian speaker. In this way, the entire linguistic level of the content is worsened and the degree of difficulty is lowered. The same also happens when users very often use Greek names and surnames such as 'Markos Papathanasiou' or Greek cities and islands. Sometimes, many students use various words in Greek instead of English.

This contrast is noted for words like Thessaloniki instead of "Salonicco" which would be the Italian word, or for example, 'Kerkyra' instead of Corfu, etc. Furthermore, in most texts we see a continuous repetition of words belonging to the VdB (Basic Vocabulary) through which the lexical density decreases, and this fact seems to lead to lower linguistic levels.

According to the observations cited above, we see that for both levels B1 and B2 there are many written productions that do not correspond to the relevant level, given that it will be difficult to evaluate a text that is not in Italian or without having the prerequisites for each linguistic level. In some cases it is also difficult to understand the content when the sentences are very short or contain many foreign or non-existent words.

A frequent situation is that many times we encounter words from another language in Italian. These lexical items can have the same and sometimes another meaning. These words, according to Russo, existing in English and Italian, not only have the same meaning, but are also similar with respect to their form as, for example, in the case of the words on the following table (Russo, 1998: 14).

Table 2. Grammatical and lexical similarities between the English language and the Italian language

English	Italian
Course	corso
University	università
Exam	esame

Consequently, if we think about this phenomenon as described in table 3, it will be very easy for a non-Italian speaker to use words that have the same phonetics, but different semantics or are often confused due to interference. This perhaps happens because learning one or more languages in which the same vocabulary appears with another script and/or different meaning will be easier to confuse. The incorrect use of these words by Greek native-speakers leads to the inappropriateness of the language and, unfortunately, to the fact that they cannot be understood in Italian when such candidates write a text in Italian. Furthermore, sometimes, words such as Greek names or surnames that do not exist at all in the Italian language are used. Even in this case there is a risk of being evaluated negatively because this phenomenon decreases the grade of readability of the text. That is to say that the measurement and evaluation of produced texts is carried out according to Italian rules. Consequently, it would be essential to emphasize that when writing one must reflect in Italian and not in Greek, thus avoiding errors such as those reported above. Another habit observed is that Greek words with Greek characters are sometimes used, perhaps because Greek users do not remember or are not aware of how to write them in Italian. Even in this case, an examiner who is a native Italian speaker will probably not be able to understand the text or sentence that contains vocabulary not recognizable in the Italian language.

B2

Phonetics,

honora,

Speaking in more detail, on Table 3 we see the words that are not part of the appropriate language according to the language level:

Table 3. Errors found in texts produced in Italian by Greek users

Language Words that do not correspond to the appropriateness of the language level B1 laografico, exposizione, attivite, caratita, vuo, Aschia, Di Ampiente, piu du centociquanta, mille visitori, piu du centociquanta mille visitori, andraci, attiviti del'arte, attiviti, Messogeia, la cità, que, cuando, que, Incontrarà, 150.000 turistes, Messogia, grecasi presedanno, tradicionali, ecologichi, Visitore, vuò fare, Attivite, lebberi, Cantauotore, Politismo offrè, attivitè, attivitè, Mesogeia, Parko, den mosaino, Μεσόγεια (Mesogia), visitori, jiugno, Noticia, Mesogeia, visitori, Priciparano, visitori, ogne, ampiente, 5 gigno, senzpilizazione, ampientali, produtti, traditionali, Kerkura, belenza, Kerkura, azzura aqua, nuovare, 10 liuglo, Niko, Akropoli e il Parthenona, la Salonica, piazza Aristotelous, Jugnio, grechi e stranteri, Ligourio, Epidavros Interesante, avaliabile, in 2 periode, dalle 22 Juglio, performazioni, un altro interessionaidea, Gli proffesori, i Turki, il Junio, Athene perche Athene, soublaki, parko, Akropolis, Athene, Lygourio, interessanto, in 22 juneo e seconda 10 juglio, isole dell' Aigaio, sambia, 6 lugglio, 10 del Lugglio al 24 del Lugglio, hospitarà, Epidabro, teatrichi, La scula, 22 gugno dal 6 guglo, 24 guglo, Athen, preferei hospitare, Participare, 6 Iulgio, personni, Athen, museum di Akropolis, è in Λigoupio in Epidaro, di drammatice scuole, gari olympiachi, montage, liceo Epidaurou, Likourgo, impatienza della civilazione, degle performare, 5 giungio, visitarerlo, con themi, energie surce, la fierra, museo Greco laografia, presedanno libri, un unico experienza, Representazioni, alternative resourse, prodotti biologichi, imformarti, ecologichi modi, excibitioni, la protecta, indimedicabile, Ciao Tammaso, Mesoggia, visitori, di giochi biologichi, un pik-nik, 25.000 g.m., Giugnio, o jiocci, l'abiente, sensionare, l'abiente, cinque lugnio, cilumetri, in Crecia, nella Crecia, criasuto, è.c., produte, Grupi, 22 Gugno, fare water sports, Il Parthenon, Athene e Thessaloniki, in village cinemas o Allou Fun Park, Athene, Parthenonas, In Athene, andare in parko Attico, Thessaloniki bugatsa, In valdi, in Grezia, in theatro di Epidabros, Luceo di Epidabros, 6 Juglio e la seconda periodo, 24 di Juglio, theatro, in valdo tra Llugourio e il theatro antico di Epidabros, Hospiteranno, Secomo me, extreme sport, tipo aventeroso, vicino al Λigourio, molti paidagogia, 6 giuglio, 24 giuglio, più intressanta città, visitori, con i bibi, 22 jugnio, speciale realtiva, Aygourio, alle isole cycladi, democratia, Delfoi, cyclismo, essere actori e actricci giovani tipo camping, Parthenon, local e altre cose, Adeventure Park ", ventidue Gugnio e finishe il sei liuglio, liuglio, impacienza, conosciere persone, dalle 22 Jugno alle 6 Juglio, dalle 10 alle 24 di Juglio, I participati, grupo inizia alle 22 June, Possono participare ogni ragazzo, in attivite.

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Supporte,

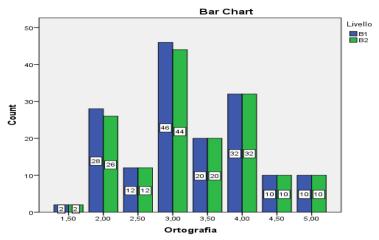
speridate,

organizato, attivite, utilita, programme, Septembre, Ioanna Filippu, Via

endirizia,

risponsibile,

Papadopulu, Piazza Omonia, communicazione, Visitore, Laografia, ampiente, l'ampiente, i visitori, l'ampiente, Attiviti, Messogeia, attiviti, attiviti, attiviti, il curso, que, conseguito, Specificarò, Ioanna Filippu, Aspetarò, Mesogia, Fando, incontrerate, dipente, Jiugno, Visitori, vuò rilassare, vuò abinare, vuò conscere, ecologichi, realtiva, Attivite, piadare, Curso, senderlo, senderlo, Differento, oppurtunità, Qualre, physik, Visitore, greka, visitori, sul proteggio Idela, altrenative, manifestazionial, oppurtunità, Μεσόγεια (Mesogia), visitori, unversiti, Europà, culturà, Septembre, Informacioni, noticia, Kilòmetro, visitori, pick nick, Laografico, Otombre, giugnio, Festazione, diadisionale, dimenticetale, camping, Senzibilizazione, ogne età, l'ampiente, produtti traditionali, etc., l'aqua, a Europi, symbolo, Acropolis, Parthenonas, il Frourio, diventirsi, Gli skopi, Ligourio, Epidavros, Jugno, si luoge, giovanni studenti, Epidavros, participare, Performazioni, participare, Traducioni, Un grante museo, fare gire, lo vuole visitato Venetia perche Venetia, Tu un macchina in Venetia, Perche in mare è molto persone e affacio molta amica, caratteriche in venetia, Le scuola internazional, lygourio, Bagelis Παπαthanasiou, Signorela, Turkia, le nuove techice dificile role, Sympatici, organisare, gitta al Kastra, i participanti deve essere, megliori, ossupano, attivite, in Λigourio in Epidaro, La prima period, 22 giuni alle lugli Athen, In Athen ci sono il museum di Akropolis, il Parthenon sul Akropoli, In Athen, in Plaka, archailogi, cal region, I visitori, la civilazione, un grande spazie, museum, La domenico, I visitori, il museum, resourse di energia, gioci ecologichi, Culturare, 5 Giugnio, ai presentravi, Ti initarvi, 5 Giugnio, villagio, traditionale, prodotti biologichi, gli ezibizioni, 5 gugno, l'aqua, molti visitori, stragneri, prodotti biologichi, 5 gugno, un pik-nik, Sivilisazioni Stadi, il Greco politismo, o jiocci, belezze dell' abiente, l'abiente, visatori, visitonno, è.c., cilometri, abiente, lugnio, Othomani, il Tzami, traditionali "Partenonas" e "Cariatides", grande stadeo, 22 Gugno, Obbieto, observare e bisantico, molte jorelly, un caratteristicho, un visitore, Alla plazza, . Piccoli viaggi e villeti vicini, debbe essera, un dei spachi più storichi, questi spaci, per discovere, questo specio, theatro, un spacio, in altro levelo, o theatri, Caratteristische, avere theatri, I theatri, theatrico, Turkia, Dimocratia, Parthenonas, museo Benaci, grando greci e strageri, stragneri, periode, Visitori, posti archeologicali, Gentile Segnore, ogni sera cadera, fare lecioni, a ligourio, giugno all sei luglo, 10 all 24 luglo, Riproduzuoni, può ospedare attività, Atèna, della Grecia che del estero a venirce, cinematographi, Gugnio fino al sei Liuglio, Liuglio, il nostro site, molti scuoli, il jugno, touristi, incredibile monumenti i tutto positani, cathedrici, molti diffirenti tessori, molte attivite, I participati, grupo inizia alle 22 Jugno dalle 6 luglio, La scuola chiama "Lichio Epidaurou", una grante opportunita, i participanti, participare, l' architetura, e.c.c., monumenti storichi.



Graph 2. Illustration of the assessment in the field of spelling ('Ortografia') according to language level B1 and B2

Continuing, on graph 2, we observe that spelling is rated with 3 (46 texts produced for level B1 and 44 for B2) and 4 (32 texts produced for each level). Many written productions were graded with 2, both for B1 and B2 levels. Only two for each level were rated with 1.50. This shows that most of the Greek candidates were quite careful about how to write in the Italian language because grades from 3-5 are higher than less than 3 according to the evaluation scale (Likert scale) used for the KPG exams. On the other hand, several written productions (10 for each level) were rated with 4.50 and 5.00. In other words, a total of 40 written productions achieved the maximum grade reached levels B1 and B2. 26 texts produced at the B2 level and 28 at the B1 level were scored with 2. This means that they did not even reach B1 and some Greek candidates found many difficulties in how to use Italian words appropriately according to the grammatical and syntactic system of the Italian language.

In this research, seven variables were not extracted from the READ-IT tool, but integrated for the textual analysis (Table 4, Figure 2).

Table 4. Seven important variables for the present research

LIV	Language level divided into Level B1 and Level B2 of the CEFR scale
SUFF	Sufficiency or insufficiency of the words of each written text
APPROP	Appropriateness (appropriate or inappropriate language)
VALUT	Evaluation of each written text
FT	Off topic (Off topic, i.e. lack of important information) or On topic
ORTO	Spelling
COESCOER	Cohesion and coherence

Figure 2. Seven important variables for the present research

The reasons why these variables were chosen are the following:

- a) The READ-IT tool (Panizza, 2016: 137) is the most suitable for identifying the variables that can be useful in addressing the problems of this research because it offers us the possibility of using, for example, morphologicalsyntactic or lexical elements.
- b) Variables such as the evaluation of texts produced, the cohesion and coherence of the text, the appropriateness of the language are decisive for a more complete result of a test.

In fact, these are elements that do not coexist within the READ-IT tool but must be analyzed with the SPSS.24 software and will provide new information on texts produced by Greek users. There are relatively few studies on the present research object, a fact that made the present study quite interesting, since new data emerged regarding the contribution of morphological, lexical, and syntactic elements to the results (Mikros, 2015).

Regarding the limitations, no psychometric tools were used for the research. This perhaps gave us an even more important insight into the conditions under which the texts were produced, since candidates are often influenced by the stress of the exams and other extraneous factors, such as noises, interruptions in the production of written speech, e.g. environmental noises from nature and cars.

Discussion

According to Ambroso (1995), when evaluating a produced text, one must pay attention to certain typologies. For example, when writing a letter, it must carry a certain type of heading and must end in a certain way within which variations are foreseen due to the purpose, the recipient and the content of the message (Ambroso, 1995). In other words, this means that a text presents information in a coherent manner if it has the appropriate linguistic signals and the suitable connectives. Lastly, Ambroso gives great value to certain parameters that must be considered when correcting and evaluating a text. We find sociolinguistic factors such as coherence, cohesion, lexical and stylistic-textual appropriateness alongside linguistic parameters such as spelling, punctuation, morphology and syntax.

According to Murphy (2013), the difficulty of a text does not lie in a single element but in a series of factors, some connected to the text and others that reside in the relationship between text and reader. Teachers can begin to address reader challenges, cultivating their love of literature. By reading we increase our vocabulary and by writing we use the vocabulary we have learned.

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Reading and writing are two interdependent acts and make up the mirror of every student's lexical knowledge.

In conclusion, evaluating a text and helping readers select texts of reasonable difficulty means ensuring that probably they can develop the way of producing texts while also reading. The more one reads, the more vocabulary one acquires to use it even during written production.

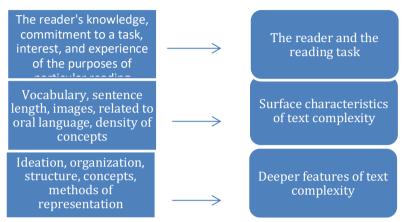


Figure 3. Important factors for defining the difficulty of a text

The level of difficulty of any text probably depends on very important factors, like the length of the word or sentence, the vocabulary used, the structure and organization of the text, the related language and the density of concepts mentioned on figure 3 according to Murphy (2013).

CONCLUSION

In what sense and why can the study of readability contribute to a better evaluation of the written production of the Italian language? Having a B1 level text, could we evaluate it as B1? If this hypothesis occurs, how can we verify it and for what purpose do we need this procedure?

If we consider that we are talking about Greek native-speakers, we see their difficulty in producing texts in Italian and in remembering suitable words in Italian perhaps because they reflect in Greek. From this aspect, we find morphological-syntactic and lexical errors, evident and decisive for the language level and the degree of textual difficulty. Consequently, we are talking about written productions that demonstrate a low level of readability which could later lead to texts produced of lower language levels.

The elements "Evaluation", "Spelling", "Textual Cohesion and Coherence", "Sufficiency or Insufficiency of words", "Appropriate language or inappropriate language", "Off-topic or Within-topic" were measured separately, even if they are not included in the READ- IT tool. Finally, these presented factors play a very notable role in the final result of the KPG tests. These variables were measured with scores from 1 to 5 by Italian-speaking examiners. It is very important to point out these characteristics, because they demonstrate great differences with respect to the language level.

In conclusion, it would be very interesting to find results from similar exams in other countries where Italian is taught as a foreign language to compare the language and readability level in texts produced by non-Italian native-speakers, and thus arrive at a European result. Adding more results from more countries and comparing them could produce some more innovative and advanced digital tools that can measure the language level and the degree of difficulty as a single international tool. This research introduces the statistical analysis of morphological-syntactic, lexical, grammatical elements and it is recommended to be expanded both in other languages and in other language levels according to the CEFR to have a more complete result for all the languages taught especially in Greece where the KPG exam is attended.

Suggestions for Future Research and Acknowledgements

This research is part of software used by the University of Athens (EKPA) and the Aristotle University of Thessaloniki to measure the texts for the KPG exams regarding the Italian language and its scope is to expand it also for other languages as Spanish, German, English and French and for other language levels (Klonis, 2019).

The fact that the Ministry of Education in Greece provided a huge amount of KPG notebooks assisted in order to proceed to this research. There was no financial contribution but on the other hand, without the confidence built between the Ministry of Education, the Aristotle University and the researcher, this study could not have been concluded.

The main purpose and suggestion for future research is to compare these results with the results of similar examinations by language level in other countries, in order to obtain an overall picture of results at a European or even international level.

In this way, there will be interesting data regarding the difficulties or eases of the candidates to possibly create more reliable and meritorious exams for all participants. Finally, the use of psychometric tools would also be of great importance to be able to examine the conditions under which the foreign candidates are asked to produce a text in another language.

REFERENCES

- Ambroso, S. (1995). Misurare la competenza in italiano come L2. Alcune considerazioni e proposte. *Cuadernos de Filología Italiana*, 2, 11-24. https://core.ac.uk/download/pdf/38830999.pdf.
- Balboni, P. E. (2012). Le sfide di Babele-Insegnare le lingue nelle società complesse. UTET Università (Quarta edizione).
- Benjamin, R. G., 2011. Reconstructing Readability: Recent Developments and Recommendations in the Analysis of Text Difficulty. *Educational Psychology Review*, 24(1), 64.
- Beacco, J.-C. (2017). Il Quadro Comune Europeo di Riferimento per le Lingue-Un manuale-Contributo all'insegnamento delle Lingue e al Piano Trentino Trilingue. Trento: IPRASE-Istituto Provinciale per la Ricerca e la

- Sperimentazione Educativa, Working Paper (5). Retrieved from https://shorturl.at/pFLHz, 23-05-2024.
- Dell'Orletta, F. Montemagni, S., Venturi, G., (2011). READ–IT: Assessing Readability of Italian Texts with a View to Text Simplification. *Association for Computational Linguistics*, 73-83. https://aclanthology.org/W11-2308.pdf.
- Dendrinou, V. [Δενδρινού Βασιλική (Μπέση)], Η αξιολόγηση Γλωσσομάθειας μέσω Η/Υ: Η περίπτωση του e-ΚΠΓ, Retrieved from https://rcel2.enl.uoa.gr/kpg/files/e-KPG.pdf, 12/11/2019.
- Diadori, P. (2003). *Orientamento linguistico degli immigranti in Italia*. Retrieved from shorturl.at/amnL0, 06/02/2020.
- Frigo, M., Zuppiroli, M., Pagani, R. (2007). L' italiano L2 per le discipline: Lingua della socializzazione e Lingua dello studio. Bologna: Centro Documentazione/Laboratorio per un' educazione interculturale. Retrieved from shorturl.at/eftBM, 07/02/2020.
- Griva, E. & Iliadou-Tachou, S. [Γρίβα, Ε. & Ηλιάδου-Τάχου, Σ.,]. (2010). Ιστορική θεώρηση της καθιέρωσης της αγγλικής γλώσσας στη δημόσια ελληνική εκπαίδευση: Οι στρατηγικές, τα προγράμματα και οι επιδράσεις (1961-2007). *Contemporary Society, Education and Mental Health*, 3, 15-16. Retrieved from https://shorturl.at/Vvbp0, 23-05-2024.
- Heydari, P. (2012). The Validity of Some Popular Readability Formulas. *Mediterranean Journal of Social Sciences*, 3(2), 425. https://www.richtmann.org/journal/index.php/mjss/article/view/11036/1 0649.
- Islam, Z., Mehler, A., Rahman, R., (2012). Text Readability Classification of Textbooks of a Low-Resource Language. *Proceedings of the 26th Pacific Asia Conference on Language, Information and Computation*, 545.
- Jabbari, A. A., Saghari, N. (2011). A Comparison between the Difficulty Level (Readability) of English Medical Texts and Their Persian Translations. *International Journal of English Linguistics*, 1(1), 37. https://pdfs.semanticscholar.org/792b/c1531d39dcf95a6e95f9102f101af9 13c10c.pdf.
- Janan, D., Wray, D. (2014). Reassessing the accuracy and use of Readability formulae. *Malaysian Journal of Learning and Instruction*, 11, 127-145. https://eric.ed.gov/?id=EJ1137275.
- Johnstone, C. 2003. Improving Validity of Large-Scale Tests: Universal Design and Student Performance. *National Center on Educational Outcomes, Technical Report* 37, 1-8. https://eric.ed.gov/?id=ED467721.
- Lileikienė, A., Danilevičienė, L. (2016). Foreign language anxiety in student learning. *Baltic journal of sport and health sciences*, 3(102), 18. https://journals.lsu.lt/baltic-journal-of-sport-health/article/view/61.
- Klonis, A. [Κλώνης, Α.,]. (2019). Κατασκευή λογισμικού επιπέδου γλωσσομάθειας και μέτρησης δυσκολίας τεστ. Πρακτικά Εργασιών 5ου Διεθνούς Συνεδρίου, για την Προώθηση της Εκπαιδευτικής Καινοτομίας, Λάρισα 11-13

- Οκτωβρίου 2019, 1239-1245. Retrieved from shorturl.at/eAFO3, 16/12/2020.
- Lyding, V., Brunello, M., Dittmann, H., Stemle, E., Castagnoli, S., Lenci, A., Borghetti, C., Dell'Orletta, F., Pirrelli, V. (2014). The PAISA Corpus of Italian Web Texts. *Association for Computational Linguistics*, 39. https://aclanthology.org/W14-0406.pdf.
- Matthiae, C. (2010). Valutazione della produzione scritta: parametri, griglie e soggettività. *Italiano LinguaDue*, 1, 105. https://riviste.unimi.it/index.php/promoitals/article/view/634.
- Milton, J. (2010). The development of vocabulary breadth across the CEFR levels. A common basis for the elaboration of language syllabuses, curriculum guidelines, examinations, and textbooks across Europe. *Eurosla*, 211-232. https://eurosla.org/monographs/EM01/211-232Milton.pdf.
- Mikros, G., [Μικρός, Γ.], (2015). Υπολογιστική υφολογία. Εκδόσεις Κάλλιπος.
- Murphy, S. 2013. What works? Research into Practice-Assessing Text Difficulty for Student. Retrieved from shorturl.at/rvzX1, 27/03/2020.
- Novello, A. (2009). *Valutare una lingua straniera: le certificazioni europee.* Venezia: Libreria Editrice Cafoscarina.
- North, B. (2005). The CEFR levels and descriptor scales. *Proceedings of the ALTE Berlin Conference*. Cambridge: University Press. https://www.cambridgeenglish.org/images/329231-studies-in-language-testing-volume-27.pdf.
- Panizza, S., (2016). *Profili attuali di qualità degli atti normativi e amministrativi.* Pisa: Pisa University Press srl.
- Russo, G. A. (1998). A conceptual fluency framework for the teaching of Italian as a second language. Retrieved from shorturl.at/qsEK8, 27/03/2020.
- Velàsquez, D. C., Faone, S., Nuzzo, E., (2017). Linee Guida per l'analisi delle unità di lavoro e dei materiali didattici. *Italiano LinguaDue*, 9(2), 25-26. https://www.researchgate.net/publication/310463203_Linee_guida_per_l' analisi delle unita di lavoro e dei materiali didattici.
- Venturi, G., Dell'Orletta, F., Montemagni, S., Flore, E., Bellandi, T. (2017). La qualità dei consensi informati-Un'analisi linguistico-computazionale della leggibilità dei testi. *Salute e territorio*, 212, 35-36. https://publications.cnr.it/doc/382249.
- Zurel, S. (2014). Readability of annual reports: a comparison of American and French annual reports. Retrieved from shorturl.at/ICFHS, 11/02/2020.