

Article

Vocabulary Learning Strategies in a Multilingual Academic Environment: Is Morphological Segmentation Quite Sustainable?

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Abstract: This article contributes to the ongoing research on the importance of the strategy of morphological segmentation to vocabulary growth in foreign language learning. A total of 45 students of the department of Italian Language and Literature at Aristotle University of Thessaloniki (Greece) were to segment 21 Italian words—among which there were 6 pseudo-words—and write their meaning with the use of an e-questionnaire. In turn, 10 out of 45 students participated in a focus group discussion. Results reveal no correlation between morphological segmentation and understanding of the meaning of words, except in the case of pseudo-words that were completely unknown to the participants. During the focus group, students attempted to recognize the productive and transparent suffixes of the words and discover their contribution to the building and the meaning of them. Other languages, such as English—L2/first foreign language for the majority of the interviewed students—assisted multilingual students in retrieving the meaning of the words implementing translanguaging practices. The students' responses show that they managed to segment the words correctly at a rate of 49.3%, while they understand their meaning due to their frequent use at a rate of 57.8%, without having been taught the morphology of L2.

Keywords: vocabulary learning; strategies; morphological segmentation; tertiary education; Italian; foreign language; translanguaging



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1. Introduction

Morphology courses in tertiary education can help students improve their morphological awareness and understand how words are formed, also showing in what ways the component parts of words affect their grammatical function, meaning, and sound [1]. The purpose of this article is to contribute to ongoing research on strategies that L2 learners of the Italian language tend to adopt in their attempt to improve vocabulary learning in the Italian language, emphasizing morphological awareness and, more specifically, morphological segmentation with the ultimate goal of understanding the meaning of words. The aim of this research, divided in two research questions, is to determine what parameters affect the implementation of morphological segmentation as a strategy in understanding the meaning of nouns derived from verbs (deverbal nouns). The following two research questions were formulated during this research:

1. Are morphological segmentation and discovery of the meaning of morphologically complex words, and more specifically deverbal nouns, connected?
2. May the knowledge of other languages affect students' effort on understanding the meaning of derived words, in our case deverbal nouns, in L3?

Deverbal nouns were chosen, among other types of derivational affixation, on the basis that they constitute a very productive and prototypical subdomain of derivation, involving change in both grammatical category and meaning between basic lexical categories.

2. Background

2.1. Basic Assumptions

Vocabulary growth is strongly connected with language learning. The range of vocabulary of an L2 constitutes an important criterion in determining the level of language proficiency. It is obvious that vocabulary, as it develops through the connection of form and meaning of morphological parts of the word (morphemes) [2–4], leads to the development of the lexical repertoire [5].

On the other hand, vocabulary development involves learning the vocabulary in such a way that it is possible for one to make the best use of the vocabulary that is already known [6]. Vocabulary grading is important for the determination of language proficiency. The vocabulary repertoire of a language learner expands as the knowledge of the words they use increases, combining the four language macro-skills (listening, speaking, reading, and writing) with the form, the meaning, and the use of the word. In terms of vocabulary, when it comes to reading comprehension, the form of a word often supports students in the understanding of its meaning [7].

According to the afore-mentioned reasoning, vocabulary development is also strongly connected with the morphological awareness of a word. Knowledge of the internal structure of words (morphological awareness) can contribute effectively to the development of vocabulary [8], while being a predictor of success for the:

- (i) Understanding of the written word;
- (ii) Vocabulary management;
- (iii) Development of the orthographic ability of the learners.

Morphological analysis enables the learner to decipher the meaning of the words using the parts of a word to “approach the meaning” [9]. This does not mean that learners are required to be able to state the part of the speech that a word belongs to, but to be able to understand its meaning by implementing specific strategies to the unknown vocabulary of the texts they read in order to achieve the reading comprehension in L2.

For the process of morphological segmentation of words in relation to the multilingual background of students, Cummins’ theory [10] for the interdependence of languages is also important. Cummins’ iceberg model is often represented visually as an image of an iceberg that has two tips over the surface of the water. The two tips represent the separate languages that a user of language may know. These languages often appear to have fundamentally different features when looking at them from the surface. Under the surface there is a common base that connects the two languages. The part of the iceberg that is underwater represents Cummins’ idea that learning the two languages actually involves the same basic processes and skills (Figure 1). Cummins’ Common Underlying Proficiency Model of bilingualism could be considered the basis of modern theories on bi- or multilingualism.

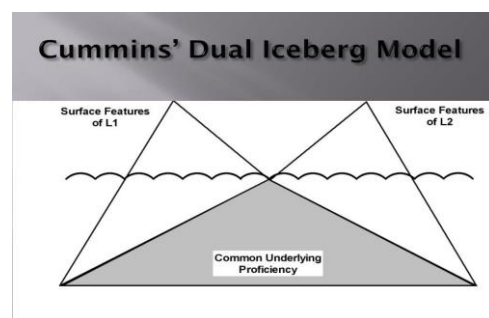


Figure 1. The Iceberg Model [11].

In this vein, learning one language makes it easier to learn another. The tips of the iceberg are related to BICS, and the basis is related to CALP. Two important components of

Cummins' model [12] are the BICS and the CALP [13], which are both acronyms to describe different ways that language can be used. BICS are Basic Interpersonal Communication Skills, which are easily acquired quickly by many students. This is particularly true for students from language backgrounds similar to English who spend a lot of their school time interacting with native speakers. CALPS are Cognitive Academic Language Proficiency Skills. They are the more school-like approach to language [13–15]. Given that the students who took part in this research were multilingual according to the Common European Framework of Reference for Languages (CEFR) [14] (fluent in Greek being their L1, and English and Italian being their L2 and L3), knowledge of other languages with similar word formation processes could affect the process of morphological segmentation in the Italian Language in relation to their knowledge of Italian as defined by the *Profilo della lingua italiana* [15].

Previous relative research was carried out concerning the implementation of the strategy of morphological segmentation in English and Italian. Two studies concerning infants identified common points in both inflectional [16] and productive morphology [17] between English and Italian. However, these studies did not concern adults and did not focus on derivation, and deverbal nouns in particular.

Finally, translanguaging emerges as a practice in multilingual speakers. García and Wei [18] define translanguaging as “a pedagogical practice where students are asked to alternate languages for the purposes of receptive or productive use”. Translanguaging is for them a language practice of bi- or multilinguals, in which learners draw on all of their linguistic resources to complete a variety of tasks or to negotiate meanings. According to García and Wei, student-directed translanguaging is a way for pupils/students to develop new language practices in inter-relationship with practices they are already performing, in order to become more knowledgeable.

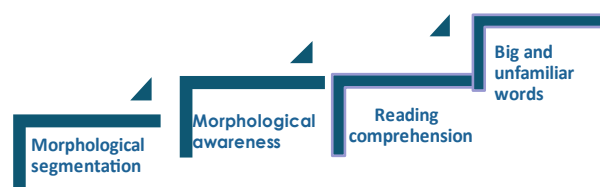
2.2. Representative Research

A great number of researchers have highlighted the strong connection between vocabulary knowledge and reading comprehension [19–22]. In particular, as far as reading comprehension is concerned, meaning is associated with words (in the Saussurian sense), and vocabulary is a key element in reading comprehension, in both academic and lifelong learning [23]. The role of morphological awareness has been argued to be crucial in reading comprehension, as reported in the relevant literature [2,19–27].

Research results in the teaching of Italian, which is the target language in the present study, which supports the opinion that an acquaintance with morphological analysis and segmentation and emphasizing the morphological strategies could be particularly useful in promoting reading and spelling accuracy [24]. Morphological awareness can also contribute to the development of the reading ability of bi-/multilingual children [28], as well as the management of large and unfamiliar words.

In particular, the teaching of morphemes and the emphasis on morphological strategies can contribute to reading comprehension and spelling accuracy, mostly when this concerns long and unfamiliar words with graded difficulty [29] (see Figure 2). Gradually, as if climbing the stairs of a ladder, one can, by adopting the strategy of morphological segmentation, be led to the understanding of words that are large and unknown. The teaching of the morphology of L2 can contribute to this process in order to lead students (who are potential language teachers) to morphological awareness. Thus, with the effective implementation of the strategy of morphological fragmentation, students will be able to respond to the reading comprehension of texts with large and unknown words.

Morphological segmentation in reading comprehension



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Figure 2. The importance of morphological segmentation in reading comprehension.

3. Research Methodology

3.1. Research Context

This research study focuses on students of Italian language in an academic environment, specifically, students in the department of Italian Language and Literature at Aristotle University of Thessaloniki (Greece). The research took place in the academic year 2020–2021 during the elective course of *Vocabulary acquisition and strategies for teaching and memorization*. The objective of the current research is to determine whether morphological segmentation, as a strategy that L2 learners of the Italian language tend to adapt in their attempt to improve vocabulary learning in the Italian language, can contribute to the understanding of the meaning of words and specially to the understanding of the meaning of deverbal nouns. A total of 45 students participated in this research. The study was carried out in three stages (Table 1). The research results of stages 2 and 3 are presented in detail in this paper. A short reference is made to the first stage of this research.

Table 1. The three stages of the study.

1st stage: answers to a printed questionnaire	Spring semester 2018–2019
2nd stage: answers to an e-questionnaire	Winter semester 2020–2021
3rd stage: discussion in a focus group	Spring semester 2020–2021

This was not a large-scale study but a case study (see [30]), within the frame of which an attempt was made to triangulate the results by implementing more than one research method. This procedure is very important because the research participants, in addition to completing an e-questionnaire, participated in a focus group discussion. Firstly, an e-mail was sent to the students. Secondly, they noted in a Doodle poll the desired meeting time among those proposed, and finally the focus group took place in their common free time. During discussion among the members of the focus group (third stage), the students elaborated their answers to the questions of the e-questionnaire (second stage).

3.1.1. The First Stage of the Research

The first stage of the research took place during the spring semester of the academic year 2018–2019 [25], targeting adult L2 Italian students, addressing what strategies they use in order to learn new vocabulary and whether strategies related to the morphological analysis of words were adopted. For the academic year 2019–2020, due to the unexpected situation caused by the COVID-19 pandemic, the research process was halted and continued over the next academic year remotely with the second stage of the research.

3.1.2. The Second Stage of the Research

The second stage of the research took place during the winter semester of the academic year 2020–2021, implementing a quantitative research method using an e-questionnaire via Google Forms (the e-questionnaire was written in Greek with the words investigated written in Italian). A total of 45 students in the department of Italian Language and Literature answered the closed- and open-ended questions of an e-questionnaire consisting of two parts: (1) five questions regarding the age and the sex of the participants, their semester of study, their first language, and the foreign languages they speak; (2) morphological segmentation of 21 Italian deverbal nouns and writing of their first meaning, including 6 pseudo-words [31], which the two researchers had created. The use of pseudo-words was meant to capture those cases in which learners read/hear a new word for the first time and check how they deal with it, that is, whether the strategy of morphological segmentation is activated to help them acquire the new word's meaning.

All the words included in the e-questionnaire were derived either by means of derivational affixation, generating nouns from verbs with the use of a derivational marker, or by means of conversion, in which an inflectional signal signals the change in the grammatical category [32]. In particular, the formation of nouns from verbs seems to be a very productive word formation process from the low language levels in Italian [33]. All the words in the e-questionnaire were cited as representative examples of deverbal nouns [32], except for the pseudo-words. Five of these, including a pseudo-word, were formed from verbs with the addition of an inflectional suffix (see Table 2, rows 1–5), while all the rest were formed by verbs with the addition of a derivative suffix.

Table 2. The deverbal nouns in the second part of the e-questionnaire.

1	cammin-o	11	aliena-tura
2	consum-o	12	forni-tura
3	lum-o	13	cambia-mento
4	conquest-a	14	insegna-mento
5	sost-a	15	telefona-mento
6	nol-eggio	16	lavora-zione
7	pass-eggio	17	pettina-zione
8	immobil-izzo	18	puni-zione
9	stamp-izzo	19	let-tore
10	vocal-izzo	20	circola-trice
		21	investiga-trice

All 21 words used in this research were characterized according to three features:

- Their morphological transparency;
- The level of language proficiency at which they are considered known by the students;
- The frequency of the words in the corpus for the Italian language of the *Sketch Engine*, a computational search engine (<https://www.sketchengine.eu/> (accessed on 20 August 2022)).

Before completing the online questionnaire and at the beginning of the discussion in the focus group, students were informed that they would answer questions related to the formation of nouns from verbs. The same information was recalled at the beginning of the discussion in the focus group. Then, they were asked to segment the stem and the suffix of each deverbal noun (Table 2). Pseudo-words are written in gray. For example, in the case of the noun *qualificazione*, students were expected to segment the stem *gratifica-* and the derivative suffix *-zione*.

Upon completing the collection of the questionnaire responses, the statistical analysis of the answers began, followed by their presentation and interpretation of results.

3.1.3. The Third Stage of the Research

The third stage of the research took place during the spring semester of the academic year 2020–2021. A qualitative research method was implemented, in which 10 of the 45 students in the department of Italian Language and Literature who had previously answered the e-questionnaire were randomly selected to participate in a focus group discussion via Zoom. During the focus group, they were asked to justify their answers to the 21 open-ended questions of the questionnaire (regarding 21 Italian deverbal nouns and pseudo-words, their morphological segmentation, and their meaning). The interviews were audio-recorded with the consent of the research participants and later transcribed verbatim.

After the transcription of data, a qualitative content analysis, according to the scheme of Badiie, Wang, and Creswell [34], followed. Data were organized using thematic content analysis, and a database was created with the participants' responses. In order to maintain the anonymity of the participants in the current research, students' names were replaced by the letter S (student) and a number (e.g., S1 and S2), while the researchers' names were replaced by the letter R. The extracts from the focus group discussion were translated into English by the researchers.

3.2. The Profile of the Participants

This study focused on a group of 45 subjects attending the undergraduate program of Italian Language and Literature at Aristotle University of Thessaloniki with an average B (B1–B2) independent user language level. Level B1 is a prerequisite to pass the national exams in order for someone to become student in the department of Italian Language and Literature at Aristotle University of Thessaloniki, in Greece. Students had all completed the first year of their studies (Figure 3), as well as successfully completed the introductory course of linguistics, including introductory lectures on morphology. However, none of them had attended courses on the morphology of the Italian language, regardless of the semester of study, since attending the afore-mentioned course was not compulsory.

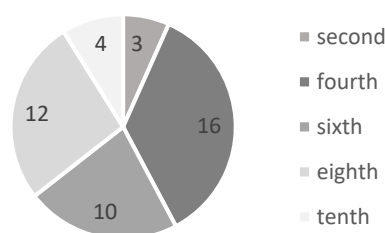


Figure 3. Students' semester of study.

Overall, 82% of the participants were females and 18% were males, which is usually the average in philological departments in Greece, in which graduates become language teachers. Regarding the age of the participants, the participating students were between 18 and 65 years old, with 60% of them belonging to the age group of 30–55. Sociolinguistic information of the participants was taken into account and is going to be used in the next steps of our research.

Almost all (44 out of 45) students participating in this research were trilingual, while all students were multilingual. In addition to Greek, which is their first language, they speak Italian and English. Less than 10% of the students who took part in this research speak other foreign languages, such as German (7 out of 45) and French (5 out of 45). One student also speaks Albanian, another Finnish, while a third one Turkish (Figure 4).

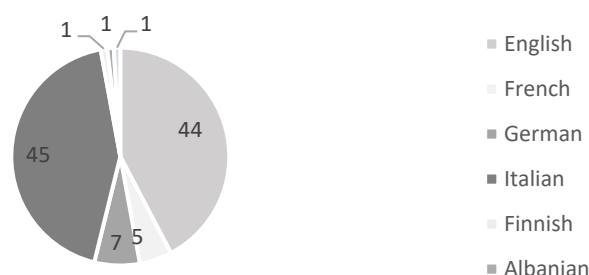


Figure 4. Languages spoken by the students.

4. Research Results

4.1. Strategies Related to Morphological Segmentation

Regarding the research results of the first preliminary stage of the research, it became obvious that strategies related to the morphological analysis of words and in particular morphological segmentation were high in the preferences of the research participants, occupying the first, second, and fourth place among the six strategies investigated related to the morphological analysis of words. These were the strategies *I pay attention to the structure of the word* (53.3%), *I break the word into pieces in order to understand its meaning* (46.7%), and *I emphasize separate parts of the word in order to remember it more easily* (36.7%) [23].

4.2. Word Classification

The morphological transparency of the words was judged by two native speakers of the Italian language with great metalinguistic awareness due to their linguistic background. All words that the students were asked to segment were deverbal nouns [32]. Word transparency varied from complete (twelve nouns) to partial morphological transparency (nine nouns).

Two teachers of the Italian language in the department of Italian Language and Literature at the Aristotle University of Thessaloniki, speakers of Italian as a first language, classified the words according to the language level on the basis of their teaching experience, as there exist no lists of words categorized by level of language proficiency for Italian L2/foreign learners, according to the CEFR. Seven of the words were classified at level B1, seven of them were classified at level B2, and the remaining seven were classified at level C1. Four of the words that were characterized as level C1 were pseudo-words. The pseudo-words were unknown to the teachers. On the other hand, the teachers of the Italian language in the department were asked to spontaneously characterize the words without having been informed of the existence of pseudo-words in the e-questionnaire. Pseudo-words were perceived as neologisms by the teachers of the Italian language and as unfamiliar words by the students. The teachers of Italian language probably classified them at level C1, as one of the highest levels of language proficiency corresponding to the proficient user of the language [14].

Lastly, the frequency of the words, including the six pseudo-words, was checked with the help of the corpus for the Italian language (it TEN TEN20) available for researchers in the Sketch Engine, which incorporates 14,514,566,714 tokens. The search in the corpus confirmed the successful formation of pseudo-words, since the frequency with which they were detected ranged from 0.0% to 0.03%, considering that each word created could be a real word (Table 3). This is because authentic words are fundamental for the knowledge of a language; therefore, the notion of a possible word is the general scaffolding of lexical items, which contributes to language productivity [35].

Table 3. Word classification.

Word	Morphological Transparency (CT = Completely Transparent; PT = Partially Transparent)	Language Level	Frequency in Sketch Engine per Million Tokens	Word	Morphological Transparency	Language Level	Frequency in Sketch Engine per Million Tokens	Word	Morphological Transparency	Language Level	Frequency in Sketch Engine per Million Tokens
lavora-zione	CT	B2	38.06%	let-tore	CT	B1	69.93%	aliena-tura	PT	C1	0.01%
pettina-zione	PT	B1	0%	circola-trice	PT	C1	0.01%	forni-tura	CT	C1	28.03%
puni-zione	CT	B2	12.56%	investiga-trice	PT	C1	0.17%	immobil-izzo	PT	B2	0.09%
nol-eggio	CT	C1	22.77%	cambia-mento	CT	B1	96.57%	stamp-izzo	PT	C1	0%
pass-eggio	CT	B1	2.41%	insegna-mento	CT	B1	44.35%	vocal-izzo	PT	B2	0.47%
cammin-o	CT	B1	45.55%	telefona-mento	PT	B1 B1	0%	conquist-a	CT	B2	29.01%
consum-o	CT	B2	86.94%					sost-a	CT	B2	33.33%
lum-o	PT	C1	0.03%								

4.3. Is Morphological Segmentation and Discovery of the Meaning of a Word Connected, According to Students' Answers to the Questionnaire?

After completing the e-questionnaire, the students' answers regarding morphological segmentation and the discovery of the meaning of the 21 words, along with the pseudo-words (pseudo-words are written in dark gray), were collected and grouped as correct (✓) (Table 4). According to the responses, 58% of the answers involving conversion were correct. The corresponding percentage of students' responses to words formed with productive morphology amounts to 47%. This difference in results is probably due to the less complex nature of inflectional versus derivational suffixes, since in the latter case students should be familiar with the different deverbal derivational markers used for the formation of nouns in Italian.

Table 4. Research participants' responses on morphological segmentation and the discovery of the meaning of words in numbers and percentages.

Morphological Segmentation			Discovering of the Meaning of the Words		
Word	Number of Answers	Percent-Age	Word	Number of Answers	Percent-Age
cammin-o	N	%	cammin-o	N	%
✓	27	60	✓	19	42.2
consum-o	N	%	consum-o	N	%
✓	22	49	✓	34	81
lum-o	N	%	lum-o	N	%
✓	36	80	✓	22	49
conquist-a	N	%	conquist-a	N	%
✓	16	35.5	✓	29	64.4
sost-a	N	%	sost-a	N	%
✓	29	64.5	✓	33	73.3
noll-eggio	N	%	noll-eggio	N	%
✓	7	15.5	✓	18	40
pass-eggio	N	%	pass-eggio	N	%
✓	9	20	✓	31	68.9
lavora-zione	N	%	lavora-zione	N	%
✓	25	55.5	✓	28	62.2
pettina-zione	N	%	pettina-zione	N	%
✓	24	53.3	✓	30	66.7
puni-zione	N	%	puni-zione	N	%
✓	26	57.8	✓	42	93.3
cambia-mento	N	%	cambia-mento	N	%
✓	36	80	✓	40	88.9
insegna-mento	N	%	insegna-mento	N	%
✓	28	62.2	✓	38	84.5
telefona-mento	N	%	telefona-mento	N	%
✓	31	68.9	✓	23	51.1
aliena-tura	N	%	aliena-tura	N	%
✓	11	24.4	✓	13	28.9
forni-tura	N	%	forni-tura	N	%
✓	23	51	✓	17	37.8

Table 4. Cont.

Morphological Segmentation			Discovering of the Meaning of the Words		
Word	Number of Answers	Percent-Age	Word	Number of Answers	Percent-Age
let-tore	N	%	let-tore	N	%
✓	6	13.3	✓	38	84.4
circola-trice	N	%	circola-trice	N	%
✓	23	51.1	✓	11	24.4
investiga-trice	N	%	investiga-trice	N	%
✓	19	42.2	✓	29	64.4
immobil-izzo	N	%	immobil-izzo	N	%
✓	13	28.9	✓	22	48.9
stamp-izzo	N	%	stamp-izzo	N	%
✓	29	64.4	✓	18	40
vocali-izzo	N	%	vocali-izzo	N	%
✓	26	57.8	✓	9	20

The cumulative percentages of responses show on average that the students managed to segment the words correctly at a rate of 49.3%, while they understood their meaning at a rate of 57.8%. In our research, qualitative variables were expressed as a number and percentage of the participants in each category of the variable. To check the relationship between two qualitative variables (morphological segmentation and its connection with the discovery of the meaning of words), the control Pearson χ^2 was used. The statistical analysis in the context of this paper was carried out using the statistical program IBM SPSS Statistics 25.0. In addition, $p < 0.05$ was used as the level of statistical significance.

In high-frequency words or in words with semantic transparency, no relationship was observed between the morphological segmentation and the understanding of their meaning, e.g., in the word *lettore*, which appears to be a high-frequency lexicalized word from the responses of the participants. On the contrary, a high correlation between the morphological segmentation and the discovery of the meaning of the word was found in the pseudo-words of the present research (*pettinazione* ($p = 0.041$), *alienatura* ($p = 0.004$), *telefonamento* ($p = 0.008$), *circolatrice* ($p = 0.008$), *stampizzo* ($p = 0.036$), and *lumo* ($p = 0.038$)), for which the level of significance (p) was <0.05 .

4.4. The Contribution of Morphological Segmentation to the Understanding of the Meaning of the Words, According to the Focus Group Discussion

Morphological segmentation is a popular strategy among L2 students of the Italian language in the academic environment. The present study aimed to explore the contribution of morphological segmentation as a strategy to understand the meaning of unknown words. Beyond statistics, which highlighted the strong correlation between morphological segmentation as a strategy to discover the meaning of pseudo-words, the discussion in the focus group was based on two axes (Figure 5): (a) may morphological segmentation affect the understanding of the meaning of deverbal nouns in Italian as a foreign language; (b) may knowledge of other languages, especially of English in our case, contribute to this process?

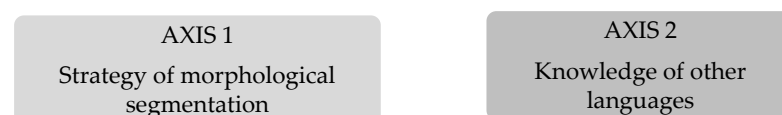


Figure 5. The axes of the discussion in the focus group.

During the focus group discussion, all students, 10 out of 10, agreed that morphological segmentation helped them understand the words' meanings, whether existing words or pseudo-words. Importantly, in the latter, this process proved to be statistically significant. By way of illustration, in the below-presented extract of the students' discussion, the students attempted to determine the meaning of the derivational suffix *-zione*.

The following is an excerpt of the first focus group discussion:

- Therefore, from what I can see in word *lavorazione*, the suffix must be *-zione*. That's how I understand it . . . (S1);
- Furthermore, this *-zione* gives me the feeling that it refers to a process. In contrast, it is the other word *consumo* which ends in *-o*. There is a difference. That is, a word which ends in *-o* has a different meaning. That's how I understand it . . . I do not know if I am right. (S2);
- Let me say something more for another word ending in *-zione*. *Pettinazione* may be the process of combing one's hair, the hairstyle, as an action, while *pettinatura* is the hairstyle. So, what hairstyle do you have? For example, I have my hair in a bun. That is, there is a difference between the morpheme at the end of the nouns and what it means. (S10);
- S10, all these things you say are very interesting, that *-zione* can mean a process. It's a very interesting observation because I think it helps students in a way. I have the teaching process in my mind right now . . . (S3).

Students also aimed to discover the meaning of the pseudo-words by segmenting them into morphemes. Despite suspecting that the words did not exist, they considered that their formation could be converted into real words, according to the process of forming neologisms [36].

The following is an excerpt of the second focus group discussion:

- Did anyone know *pettinazione* as a word? (R);
- No. (S4);
- I think this word does not exist. (S5);
- I did not write the meaning of this word. I saw this word for the first time. (S4);
- Can I tell you something? I wrote that this word means "hairstyle". One can say that it does not exist but there are too many words that are used, words that are new, and the dictionary may not include them. (S7);
- I cannot say either . . . Can we say that the word does not exist? Does the dictionary tell us that it does not exist? This is something relevant, where a word does not exist in the dictionary. (S6).

Other languages can support multilingual students' effort to understand the meaning of the morphemes. All students who took part in the research were trilingual, also speaking Greek and English. Some students emphasized the fact that the knowledge of other foreign languages could also contribute to this process. In particular, the students identified the knowledge of other foreign languages, mainly English, as probably important for this process with respect to foreign words of the Italian language.

The following is an excerpt of the third focus group discussion:

- Did any other languages help you understand what these words mean? I refer to the words *circolatrice*, *lettore*, and *investigatrice*. (R);
- We know the word *consumo*. It is almost the same in English. (S7);
- The word *circulation* comes from the verb *circulate*. (S6);
- How did you find the suffix for the word *insegnamento*. (R);
- For this word, English helped me once again, because I thought of words such as achievement, accomplishment, disappointment, and abolishment with the suffix *-ment*. (S9);
- Did you discover the suffix from English? (R);
- Yes. (S9);

- Thus, you thought that, since it is -ment in English, it would become -mento in Italian. You did not know the suffix. (R);
- No, I knew it, but the first connection I made in my mind was with English. I do not know why ... (S9).

5. Discussion

All languages have at least some of the basic morphological processes, which is an indication of the universality of morphology [37]. On the other hand, the relationship between lexicology and morphology is obvious, since morphology focuses on the study of the internal structure of words [38].

RQ1: Are morphological segmentation and discovery of the meaning of a word connected?

The research presented in this paper is part of a broader study exploring the possibility of linking theoretical approaches concerning the morphological analysis of words with teaching practices, specifically with the implementation of the strategy of morphological segmentation. In other words, an attempt is being made to investigate the extent to which it is possible for students to implement morphological analysis/morphological segmentation in practice, based on what is proposed on a theoretical level in languages including Italian [39–41]. Findings also revealed that understanding the meaning of morphemes contributes to the development of reading comprehension [28,42–45].

An L2 learner can implement morphological segmentation in order to discover the meaning of a word as revealed by its smallest parts, which are morphemes [9]. This does not mean that it is necessary for the learners of a language to know the metalanguage corresponding to the smaller forms (morphemes) constituting a word. It is a question of being able to implement the strategy of morphological segmentation to elicit the meaning of the word within the text in order to immerse in the process of word comprehension. The afore-mentioned reasoning was investigated through this research.

All words in the e-questionnaire were characterized by the researchers/linguists as completely or partially transparent, as they were derived via the formation of nouns from verbs. They were also found to be appropriate for the teaching of the Italian language from level B1 to level C1 by two native speakers of Italian (language teachers in the department of Italian Language and Literature). This finding also aligns with the frequency of the appearance of words in the corpus for the Italian language. A lower frequency of a word in the corpus for the Italian language (it TEN TEN20) led to a more appropriate characterization for a higher language level according to the teachers of the Italian language. In fact, four of the six pseudo-words, as the teachers were not aware of them, were characterized as suitable for teaching at the C1 language level. However, according to the Profilo della Lingua Italiana [15] (which is the adaptation of the CEFR to Italian as regards the target language), the inflectional and derivative suffixes required to understand these words are proposed to be taught to learners of the Italian language at level B1. However, the course on the morphology of the Italian language was not taught. Thus, students were not able to implement them.

The results of this study revealed no correlation between morphological segmentation and understanding of the meaning of words except in the case of pseudo-words which were completely unknown to the research participants. These findings are in line with the scientific view that the morphological analysis of words can contribute to the understanding of their meaning [46] as long as the students have been taught morphology, such that they can recognize the morphemes and discover the meaning of unknown words. This process is much more important when students are potential teachers of the Italian language, as in our case, and have to develop their CALPS [13].

RQ2: Can the knowledge of other languages affect students' effort to understand the meaning of a word in L3?

Within the focus group discussion, students' answers were divided into two axes: adoption of the strategy of morphological segmentation and knowledge of other languages that supported their effort in understanding the meaning of the words.

Regarding the implementation of the strategy, students attempted to distinguish inflectional and derivative suffixes, especially those derivational suffixes with a high frequency and productivity, such as *-zione* and *-mento* [32,47], and to interpret the meaning of deverbals nouns by understanding the importance of the knowledge of the internal structure of words (Excerpt 2). Furthermore, students seemed to understand the importance of morphology courses in improving both their language and their linguistic skills. The teaching of morphological segmentation can support their efforts to enrich their vocabulary in Italian [24,28].

L2 learners of the Italian language considered all words possible and aimed to identify the morphemes from which they were composed. In their attempt to apply morphological segmentation to pseudo-words, students not only understood its importance to a greater extent but also realized how neologisms are created, and how they enter the dictionaries of a language [48] (Excerpt 2). For them, every word that can be formed, and every possible word, as they indicated, can become real. This is how the vocabulary of a language expands [36].

Lastly, students implemented a translanguaging practice and derived the meaning of word from its form by referring to similar words and morphemes in the English language (Excerpt 3). The students referred to words and suffixes with a similar form and the same meaning in the English language, such as the word *consumo* (the verb *consume* in English) and derivational suffixes such as *-ment*. García and Wei [18] defined these educational situations, where all language resources are used in order to enhance learning, as translanguaging practice. Other languages, such as English in our case, can probably assist multilingual students in retrieving the meaning of words [49].

Furthermore, students' attempts to negotiate the meaning of words and the use of knowledge from other languages (specifically from English) refer to Cummins' theory [50] of common underlying language ability, since they retrieve knowledge from all available language inventories, and not only Italian. Following the line of common underlying language ability, regardless of the language which a person uses, the thoughts that accompany speech, reading, writing, and listening come from the same central mechanism [51]. Regardless of how many languages the individual possesses, there is still one source of thought. Bi-/multilingualism are possible because people have the ability to easily store two or more languages in their brains and use them with relative ease [13,50].

6. Conclusions

The overall responses of the students in this study revealed that they managed to segment the words correctly at a rate of 49.3%, while they understood their meaning at a rate of 57.8%, without knowing their morphology. Morphological segmentation was adopted by students for words unknown to them in order to discover their meaning. Lastly, knowledge of other languages seemed to contribute significantly to understanding the meaning of the deverbals nouns under consideration. Thus, the translanguaging practice, which is of the essence in a multilingual interconnected world towards sustainable language practices and efficient intercultural communication, takes on a special significance.

At the time of the research, all language courses were conducted remotely due to the COVID-19 pandemic. An attempt was made to determine whether foreign language learners during distance education adopted different strategies in terms of understanding vocabulary in reading. Our preliminary results showed no statistical significance. Other existing research refers to the decline in social strategies [52] and the increased use of software such as Quizizz to enhance the vocabulary achievement [53].

This is the first study on the implementation of the strategy of morphological segmentation by foreign language learners in tertiary education in Greece. It would be interesting to investigate the extent to which the understanding of the meaning of words by L2/foreign learners can be improved through the development of morphological knowledge, particularly derivational suffixes, after attending morphology courses. In this context, morphological segmentation, which is one of the preferred strategies of teachers for the

teaching of vocabulary [54], can be transformed into a metacognitive sustainable strategy for students. Further research on this aspect is in progress.

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References

1. Lieber, R. *Introducing Morphology*, 2nd ed.; Cambridge University Press: Cambridge, UK, 2017.
2. Nation, P. *Learning Vocabulary in Another Language*; Cambridge University Press: Cambridge, UK, 2001.
3. Laufer, B. The Lexical Plight in Second Language Reading: Words You Don't Know, Words You Think You Know and Words You Can't Guess. In *Second Language Vocabulary Acquisition: A Rationale for Pedagogy*; Coady, J., Huckin, T., Eds.; Cambridge University Press: Cambridge, UK, 1997; pp. 20–34.
4. Spencer, M.; Muse, A.; Wagner, R.; Foorman, B.; Petscher, Y.; Schatschneider, C.; Tighe, E.L.; Bishop, D.M. Examining the Underlying Dimensions of Morphological Awareness and Vocabulary Knowledge. *Read. Writ.* **2015**, *28*, 959–988. [CrossRef] [PubMed]
5. Laufer, B. Vocabulary in a Second Language: Selection, Acquisition, and Testing: A Commentary on Four Studies for JALT Vocabulary SIG. *Vocab. Learn. Instr.* **2014**, *3*, 38–46. Available online: <http://vli-journal.org/wp/> (accessed on 2 March 2022).
6. Nation, P.; Meara, P. Vocabulary. In *An Introduction to Applied Linguistics*, 2nd ed.; Schmitt, N., Ed.; Hodder Education: London, UK, 2010; pp. 252–267.
7. VanPatten, B.; Williams, J.; Rott, S.; Overstreet, M. *Form-Meaning Connections in SLA*; Routledge: London, UK, 2004. [CrossRef]
8. Nation, P. *Teaching and Learning Vocabulary*; Newbury House: Nottinghamshire, UK, 1990.
9. Alvermann, D.; Stephen, P.; Ridgeway, V. *Content Area Reading and Literacy: Succeeding in Today's Diverse Classrooms*; Pearson: Boston, MA, USA, 2007.
10. Cummins, J. The construct of language proficiency in bilingual education. In *Current Issues in Bilingual Education: Georgetown University Round Table on Languages and Linguistics (GURT) 1980*; Alatis, J.E., Ed.; Georgetown University Press: Washington, DC, USA, 1980; pp. 81–103.
11. Pilar Moreno-Recio, P. Sheltered Instruction. PPT Presentation. Available online: <https://image2.slideserve.com/4213298/cummins-dual-iceberg-model-l.jpg> (accessed on 29 September 2022).
12. Cummins, J. *Bilingual Education and Special Education: Issues in Assessment and Pedagogy*; College Hill: San Diego, CA, USA, 1984.
13. Cummins, J. BICS and CALP: Clarifying the Distinction. *ERIC* **1999**. Available online: <https://files.eric.ed.gov/fulltext/ED438551.pdf> (accessed on 20 September 2022).
14. Council of Europe. *Common European Framework of Reference for Languages: Learning, Teaching, Assessment*; Cambridge University Press: Cambridge, UK, 2001. Available online: <https://rm.coe.int/1680459f97> (accessed on 29 September 2022).
15. Spinelli, B.; Parizzi, F. *Profilo della lingua italiana Livelli di riferimento del QCER A1, A2, B1, B2*; La Nuova Italia: Milan, Italy, 2010. Available online: https://www.unistrapg.it/profilo_lingua_italiana/site/index.html (accessed on 29 September 2022).
16. Pizzuto, E.; Caselli, M. The acquisition of Italian morphology: Implications for models of language development. *J. Child Lang.* **1992**, *19*, 491–557. [CrossRef]
17. Phillips, L.; Pearl, L. *Evaluating Language Acquisition Strategies: A Cross-Linguistic Look at Early Segmentation*. Irvine, CA, USA: MS, UC, 2015. Available online: https://www.socsci.uci.edu/~lpearl/courses/readings/PhillipsPearl2015Manu_CrossLingSeg.pdf (accessed on 29 September 2022).
18. García, O.; Wei, L. *Translanguaging: Language, Bilingualism and Education*; Palgrave Macmillan: Basingstoke, UK, 2014.
19. Laufer, B.; Girsai, N. Form-focused Instruction in Second Language Vocabulary Learning: A Case for Contrastive Analysis and Translation. *Appl. Linguist.* **2008**, *29*, 694–716. [CrossRef]
20. Laufer, B.; Hulstijn, J. Incidental vocabulary acquisition in a second language: The construct of task-induced involvement. *Appl. Linguist.* **2001**, *22*, 1–26. [CrossRef]
21. Nation, P. How large a vocabulary is needed for reading and listening? *Can. Mod. Lang. Rev.* **2006**, *63*, 59–82. [CrossRef]
22. Oakhill, J.; Cain, K.; Carsten, E. *Understanding and Teaching Reading Comprehension: A Handbook*; Routledge: London, UK, 2015.
23. Tankersley, K. *Literacy Strategies for Grades 4-12: Reinforcing the Threads of Reading*; Association for Supervision and Curriculum Development: Alexandria, VA, USA, 2005.

24. Angelelli, P.; Marinelli, C.V.; Burani, C. The effect of morphology on spelling and reading accuracy: A study on Italian children. *Front. Psychol.* **2014**, *5*, 1373. Available online: <https://www.frontiersin.org/articles/10.3389/fpsyg.2014.01373/full> (accessed on 16 May 2022). [CrossRef]
25. Rousouloti, T.; Melissaropoulou, D. Development of vocabulary in second language through strategies: The case of morphological analysis of words. *Pasithe* **2021**, *1*, 1071–1081. Available online: <https://pwpl.library.upatras.gr/icgl/article/view/3740> (accessed on 17 September 2022). (In Greek).
26. Carlisle, J.F. Fostering morphological processing, vocabulary development, and reading comprehension. In *Vocabulary Acquisition: Implications for Reading Comprehension*; Wagner, R.K., Muse, A.E., Tannenbaum, K.R., Eds.; The Guilford Press: New York, NY, USA, 2017; pp. 78–103.
27. Laufer, B. The development of passive and active vocabulary: Same or different? *Appl. Linguist.* **1998**, *19*, 255–271. [CrossRef]
28. Vernice, M.; Pagliarini, E. Is morphological awareness a relevant predictor of reading fluency and comprehension? New evidence from Italian monolingual and Arabic-Italian bilingual children. *Front. Commun.* **2018**, *3*, 11. [CrossRef]
29. Mitsiaki, M.; Anastasiadis-Symeonidis, A. Morphological Segmentation in Strategy-based Instruction: Towards a Graded Morphological Syllabus of Modern Greek. In *Situating Language Learning Strategy Use: Present Issues and Future Trends*; Gavriliadou, Z., Mitis, L., Eds.; Multilingual Matters: Bristol, UK, 2021; pp. 221–241. ISBN 781788926713.
30. Yin, R.K. *Case Study Research Design and Methods*, 5th ed.; SAGE Publications: Thousand Oaks, CA, USA, 2014.
31. Burani, C.; Thornton, A.M.; Iacobini, C.; Laudanna, A. Investigating Morphological Non-words. In *Crossdisciplinary Approaches to Morphology*; Dressler, W.U., Burani, C., Eds.; Verlag der Österreichischen Akademie der Wissenschaften: Wien, Austria, 1995; pp. 37–53.
32. Grossmann, M.; Rainer, F. (Eds.) *La Formazione Delle Parole in Italiano*; Max Niemeyer Verlag: Tübingen, Germany, 2004.
33. Pavesi, M. “Same word, same idea”. Conversion as a word formation process. *Int. Rev. Appl. Linguist. Lang. Teach.* **1998**, *36*, 213–231.
34. Badiie, M.; Wang, S.C.; Creswell, J.W. Designing community-based mixed methods research. In *Qualitative Strategies for Ethnocultural Research*; Nagata, D.K., Kohn-Wood, L., Suzuki, L.A., Eds.; American Psychological Association: Washington, DC, USA, 2012; pp. 41–59. [CrossRef]
35. Pinker, S. Rules of Language. *Science* **1991**, *253*, 530–535. [CrossRef] [PubMed]
36. Ahmad, K. Neologisms, Nonces and Word Formation. In Proceedings of the Ninth EURALEX International Congress, Munich, Germany, 8–12 August 2000; Heid, U., Evert, S., Lehmann, E., Rohrer, C., Eds.; Universität Stuttgart: Munich, Germany, 2000; Volume II, pp. 711–730, ISBN 3-00-006574-1. Available online: https://www.scss.tcd.ie/Khurshid.Ahmad/Research/OntoTerminology/2000_NeologismNonceWordFormation.pdf (accessed on 12 April 2022).
37. Ralli, A. *Morphology*; Patakis: Athens, Greece, 2005. (In Greek)
38. Xydopoulos, G. *Lexicology. Introduction to the Analysis of the Word and the Dictionary*; Patakis: Athens, Greece, 2012. (In Greek)
39. Scalise, S. *Generative Morphology*; Foris Publications: Dordrecht, The Netherlands, 1984.
40. Thornton, A. *Morfologia*; Carocci: Roma, Italy, 2005.
41. Scalise, S.; Bisetto, A. *La Struttura Delle Parole*; Il Mulino: Bologna, Italy, 2008.
42. Pacheco, M.B.; Goodwin, A.P. Putting Two and Two Together: Middle School Students’ Morphological Problem Solving Strategies for Unknown Words. *J. Adolesc. Adult Lit.* **2013**, *56*, 541–553. Available online: <https://eric.ed.gov/?id=EJ1013110> (accessed on 20 May 2022). [CrossRef]
43. Colé, P.; Duncan, L.G.; Blaye, A. Cognitive flexibility predicts early reading skills. *Front. Psychol.* **2014**, *5*, 565. Available online: <https://www.frontiersin.org/articles/10.3389/fpsyg.2014.00565/full> (accessed on 15 March 2022). [PubMed]
44. Ramirez, G.; Chen, X.; Geva, E.; Heidi, K. Morphological awareness in Spanish-speaking English language learners: Within and cross-language effects on word reading. *Read. Writ. Interdiscip. J.* **2010**, *23*, 337–358. [CrossRef]
45. Traficante, D.; Marelli, M.; Luzzatti, C.; Burani, C. Influence of verb and noun bases on reading aloud derived nouns: Evidence from children with good and poor reading skills. *Read. Writ. Interdiscip. J.* **2014**, *27*, 1303–1326. Available online: <https://eric.ed.gov/?id=EJ1038935> (accessed on 1 August 2022). [CrossRef]
46. Clarke, M.; Silberstein, S. Toward a realization of psycholinguistic principles for the ESL reading class. *Lang. Learn.* **1977**, *27*, 134–154. [CrossRef]
47. Varvara, R. Constraints on nominalizations: Investigating the productivity domain of Italian-mento and-zione. *Zeitschrift für Wortbildung/J. Word Form.* **2020**, *4*, 78–99. [CrossRef]
48. Marelli, C. New words and new forms of linguistic purism in the 21st century: The Italian debate. *Int. J. Lexicogr.* **2020**, *33*, 168–186. [CrossRef]
49. Karlsson, A.; Larsson, P.N.; Jakobsson, A. Multilingual students’ use of translanguaging in science classrooms. *Int. J. Sci. Educ.* **2018**, *41*, 2049–2069. [CrossRef]
50. Cummins, J. *Negotiating Identities: Education for Empowerment in a Diverse Society*, 2nd ed.; Association for Bilingual Education: Los Angeles, CA, USA, 2001.
51. Baker, C. *Foundations of Bilingual Education and Bilingualism*, 3rd ed.; Multilingual Matters: Bristol, UK, 2001.
52. Shamsan, M.; Kaid, M.; Hezam, T. Online Learning Amid COVID-19 Pandemic: A Case Study of Vocabulary Learning Strategies. *Arab World Engl. J.* **2021**. Available online: <https://ssrn.com/abstract=3851763> (accessed on 5 October 2022).

53. Huei, L.; Hashim, H. Strategy to Improve English Vocabulary Achievement during COVID-19 Epidemic. Does Quizizz Help? *J. Educ. E-Learn. Res.* **2021**, *8*, 135–142. Available online: <https://eric.ed.gov/?q=quizizz&pr=on&ff1=subElementary+School+Students&id=EJ1300463> (accessed on 5 October 2022). [CrossRef]
54. Rousoulioti, T.; Tegou, C.; Ypsilantis, G. Initial renaissance of vocabulary strategies in a digital community. *J. Natl. Counc. Less Commonly Taught Lang.* **2020**, *29*, 164–197. Available online: <https://ncolctl.org/wp-content/uploads/2020/11/Effective-Vocabulary-Strategies.pdf> (accessed on 15 June 2022).