

Vocabulary Notebooks as a Noteworthy Powerful Instrument in Technical Vocabulary Learning

This research paper attempts to investigate the organization and effectiveness of vocabulary notebooks by distinguishing several benefits the implementation of this technique brings in the acquisition of technical terminology through an ESP course. When tackling with language learning, it is needless to emphasize the noteworthiness and the importance of vocabulary in this process. Appertaining to technical terminology, this plays entirely pertinent. Various studies have concluded that vocabulary notebooks (henceforth VN) are efficient in exposing different learners' strategies within this single strategy, which led us to conduct a research on VN. This research data were obtained mainly by applying the observational research technique, a vocabulary oral exam and a comprehensive questionnaire on the effectiveness of the Vocabulary Notebook. Students of Mechanical Engineering, Textile Engineering, and Hydrotechnical Engineering at the Polytechnic University of Tirana were selected to obtain the data. The observation is partly overt and partly covert. Students of Mechanical Engineering and Textile Engineering (75 students) are the treatment group wherein the Mechanical Engineering students are an overt group and the Textile Engineering students serve as the covert observational group while on the other hand the Hydrotechnical Engineering (45 students) students are the control group. The data were obtained during and at the end of the semester. Throughout the observation all along the 1st semester, it was perceived that most of the students organized their VN by utilizing mainly Microsoft Word downloaded on their Smart Phones, while the rest used the traditional paper notebook to organize their technical VN. The organization of the VN reflected the strategies each of the students implemented to learn technical terminology. At the end, students were tested on their acquired terminology through an oral exam and then a questionnaire was handed to them. The students of the overt group making use of a digitalized form of a Notebook resulted to have acquired most of the technical vocabulary. In the main, the overt group outperformed the covert group on the acquisition of the technical vocabulary, while the control group's score on the oral exam was significantly below, compared to the all-inclusive treatment group. Students' questionnaire revealed that overall students had a positive approach to this strategy and they embraced the autonomy acquired throughout the semester by implementing this strategy. With the exception of the effectiveness on vocabulary acquisition, which was on higher levels, this strategy proved itself once again to be an enhancer and promoter of learner autonomy.

Keywords: *Vocabulary notebooks, autonomous learning, technical terminology*

Introduction

Vocabulary is essential apropos of communication be it spoken or written, but its significance and importance is indispensable when dealing with English for Specific Purposes. As future professionals, for the purpose of understanding the

1 meaning of the terms, be it while reading or listening to certain content with
 2 technical terminology, a considerable receptive vocabulary (professional and
 3 scientific papers or books, etc.) is needed, while on the other hand in order to
 4 express yourself writing or speaking (drafting reports, making presentations of
 5 certain projects etc.), professionals will need an appreciable expressive
 6 vocabulary. Wilkins (1972) defines best the role of vocabulary in communication
 7 by stating, “Without grammar, very little can be conveyed, without vocabulary
 8 nothing can be conveyed”¹. A considerable number of technical vocabulary is
 9 requisite and pivotal for students of ESP in order to operate as well as possible in
 10 their future professional fields. As ESP lecturers, throughout the years we have
 11 noticed that students, as Knight (1994:285) says, consider vocabulary as “...their
 12 number one priority”². Students are aware of the role terminology has on their
 13 future professional careers. It is unquestionable that without a terminology stock in
 14 the English language, their future as engineers will not blossom the same.

15 “Vocabulary learning is one of the major challenges that foreign language
 16 learners face during the process of learning a language” (Ghazal 2010, p. 84,
 17 M.A.I.M 2017)³. Therefore, we assume that it is imperative in the field of ESP
 18 learning to emphasize the importance of vocabulary learning and to devote more
 19 time and attention to this aspect of language learning because the absence of a rich
 20 vocabulary can be a hindrance to enhancing listening, reading, writing and
 21 speaking skills. This statement is fully supported and complemented by Baba
 22 (2009) who says that learners are aware that their limited vocabulary will hinder a
 23 good quality of writing ⁴.

24 In light of the fact that this part of language acquisition is regarded as being
 25 crucial, importance is given to the strategies students should use in order to acquire
 26 and practice this terminology as effectively as possible. This poses a challenge,
 27 especially for teachers who have to apply different teaching and learning strategies
 28 in order to, ultimately, have an effective technical terminology learning and
 29 teaching process.

30 According to Nation 2001 (Azimurad A. Osman A, 2019), the use of
 31 vocabulary learning strategies in learning vocabulary helps in facilitating the
 32 process of vocabulary acquisition⁵... and ...a large and rich vocabulary can be
 33 acquired with the help of Vocabulary learning strategies ⁶. Vocabulary learning
 34 strategies serve as a guide and an organizer of different techniques and activities

¹Wilkins, D. (1972). *Linguistics in language teaching*. London: Arnold. Seen in <https://files.eric.ed.gov/fulltext/EJ499453.pdf>

²Knight, Susan (1994), *Dictionary Use While Reading: The Effects on Comprehension and Vocabulary Acquisition for Students of Different Verbal Abilities*

³Ghazal, L. (2010) *Learning vocabulary in EFL contexts through vocabulary learning strategies*. Novitas-Royal, 1(2), 84-91.

⁴Baba, K. (2009). *Aspects of lexical proficiency in writing summaries in a foreign language*. *Second Language Writing*, 18, 191-208.

⁵Nation, I. S. P. (2001). *Learning Vocabulary in Another Language*. Cambridge: Cambridge University Press.

⁶Nation, I. S. P. (2001). *Learning Vocabulary in Another Language*. Cambridge: Cambridge University Press, seen at Bookengasen and Intaraprasert (2014) *English Vocabulary Learning Strategies Employed by Thai Tertiary-Levels Students with Different Genders and Levels of Vocabulary Proficiency*

1 students refer to, to learn vocabulary. On the other hand, students/teachers
 2 implement these strategies in accordance with students' learning types. During the
 3 process of vocabulary development, students need to be directed and guided by
 4 their teachers to manage study time in order to optimize learning both inside and
 5 outside of the classroom (Rogers, 2018)⁷. Teachers should come to recognize
 6 students' needs, strengths and weaknesses.

7 There have been various vocabulary learning strategies among scholars such
 8 as Schmitt (1997), Gu and Johnson (1996), and Nation (1990) etc.

9 However, among these different strategies, there is a common denominator,
 10 which is the vocabulary notebook. Vocabulary notebooks (henceforth VN) refer
 11 to strategies within a single strategy of vocabulary acquisition and this makes it an
 12 easy adaptable instrument from all types of learners taking into consideration
 13 Bookengsaen and Intaraprasert (2014) stating that different students or learners
 14 may use different strategies⁸.

15 Mohseni-Far (2007: 146), while presenting his attitude towards vocabulary
 16 acquisition in general touches upon vocabulary notebooks while stating “getting
 17 information about a lexical unit, learners may take notes, in the form of vocabulary
 18 notebooks... Note-taking is one of the basic strategies often recommended by
 19 researchers in the field of vocabulary learning.”⁹

20 According to Zhang and Wu (2020), the use of vocabulary notebooks can
 21 enhance students' vocabulary acquisition, especially in terms of vocabulary
 22 depth¹⁰. The use of a vocabulary notebook, according to Hsieh (2019), can
 23 improve students' vocabulary learning and retention while encouraging active
 24 involvement and independent study.¹¹

25 Other scholars have given their contribution to this vocabulary learning
 26 strategy, among which Schmitt and Schmitt 1995¹², Fowly (2002)¹³, Dennison
 27 (2014)¹⁴.

28
 29 Schmitt and Schmitt 1995 focus on VN has been on the theoretical
 30 framework and some practical suggestions on the organization of these notebooks.
 31 Spotlight has been on vocabulary acquisition from different perspectives and

⁷Rogers, J. (2018). teaching/developing vocabulary through metacognition. The TESOL Encyclopedia of English Language Teaching. h

⁸Bookengasen and Intaraprasert (2014) English Vocabulary Learning Strategies Employed by Thai Tertiary-Levels Students with Different Genders and Levels of Vocabulary Proficiency

⁹ Mohseni-Far, M. (2007). Techniques and Strategies Utilized for Vocabulary Acquisition: the necessity to design a multifaceted framework with an instructionally wise equilibrium. *Porta Linguarum*, 8, 137-152.

¹⁰Zhang, L., & Wu, Y. (2020). The Effect of Vocabulary Notebooks on Vocabulary Acquisition of English Majors. *International Journal of Technology-Enhanced Learning*, 2(2), 34-42.

¹¹Hsieh, H. P. (2019). The Effectiveness of a Vocabulary Notebook on Taiwanese EFL High School Students' Vocabulary Learning. *International Journal of Technology-Enhanced Learning*, 1(1), 7-14

¹²Schmitt, N., & Schmitt, D. (1995). Vocabulary Notebooks: Theoretical Underpinnings and Practical Suggestions. *English Language Teaching Journal*, 49(2), 133-43.

¹³Fowle, C. (2002). Vocabulary Notebooks: Implementation and Outcomes. *English Language Teaching Journal*, 56(4), 380-388

¹⁴Dennison, L. (2014). Lexical notebooks in the EFL classroom. *Issues in EFL*, 10(2), 55-74.

1 activities relevant to different linguistic approaches and attitudes of learners while
2 fostering independent learning.

3 Fowly 2002, conducted a study regarding VN at the end of which he shared
4 similar perspectives by emphasizing the effectiveness of this strategy on
5 vocabulary acquisition and on fostering autonomous learning.

6 Dennison 2014, didn't share the same result in his study's outcomes
7 compared to Fowly. It concluded that students showed reluctance rather than
8 willingness in keeping VN. However, even though keeping a VN has some
9 restrictions, like time consumption in choosing words, prudence in judging the
10 usefulness of terms and in comprehending these terms, that students may face, we
11 assume that the advantages of a VN overshadow these drawbacks.

12 **Methodology**

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16 This study aims to pinpoint:

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18 • The techniques students used to organize their VN and acquire technical
19 terminology
- 20 • The effectiveness and benefits of VN in acquiring technical vocabulary.

21 **Participants**

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24 The sample consisted of 120 students, 45 of whom were students of
25 Mechanical Engineering, 30 students of Textile Engineering and 45 students of
26 Hydrotechnical Engineering at Polytechnic University of Tirana.

27 Students of Mechanical and Textile Engineering serve as the experimental
28 group, while the Hydrotechnical Engineering students are the control group of this
29 research.

30 Within the control group, there is a division into the covert and overt group.
31 Mechanical Engineering students are the overt group being knowledgeable of the
32 study while the Textile Engineering students are the covert group who have no
33 information that they are being observed until the vocabulary oral exam.

34 **Instruments**

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37 Observation

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39 Seeing is believing. One of the tools implemented in this study is observation.
40 Students of both control and experimental group have been on the loop throughout
41 a full semester. Students of the treatment group have had the guidance of the
42 teacher during the organization of the notebook and on the other side there has
43 been a close observation on students regarding their strategies on organizing and
44 learning the terminology of their correspondent field of study. Special attention is
45 given not only to students' attitudes towards VN, but also to their attitudes towards
46 different activities carried out in class.

1 Vocabulary Oral Exam and Short Vocabulary Test

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3 During the last week of the semester an oral exam on vocabulary acquisition
4 in conducted. Students were asked questions on terms definitions and translations
5 but also comprehension questions of these terms. The main purpose of this choice
6 was to test students' verbal communication skills by making use of the
7 terminology included in their VN. Oral exams help students develop authentic
8 communication skills in their discipline. Sayre suggests that oral tests help her
9 students learn how to talk like scientists. Oral tests allow students to develop the
10 ability to communicate in skill areas they will need later in the workplace (Sayre,
11 2014; Hazen, 2020).¹⁵ Short Vocabulary Test duration was 15 minutes.

12 Questionnaire

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15 All participants of the treatment group were willing to share the whole
16 process of the notebook vocabulary organization and terminology learning
17 truthfully through the completion of the questionnaire on notebook effectiveness.
18 The questionnaire consists of 8 questions handed to ME and TE students. The
19 focus on these 8 questions is on students' techniques used during the completion
20 of the Vocabulary Notebook and their attitude toward this strategy. The
21 questionnaire was filled in by 74 students out of 75 total. It was handed to them
22 manually after failing to complete it online. Students showed a reluctance of
23 completing the questionnaire online, therefore we proceeded manually.

24 Procedure

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27 The research was initiated the second week of the semester. Students of
28 Mechanical Engineering and Textile Engineering were asked to organize a
29 Vocabulary Notebook. This Notebook would be part of the teaching and learning
30 process in class and during their study time at home. Only students of ME were
31 notified that this VN, serving as a comprehensive assessment tool, will be blended
32 in with other elements for the final assessment. The choice was personal on
33 whether it would be a paper Notebook or a digital one. Students were required to
34 include the new terms they would encounter throughout the semester during
35 lectures, in other authentic texts reading and other sources. Students of TE had no
36 information they would be part of a research until the end of the semester.

37 The strategies they implemented to acquire and retain these terms were
38 entirely personal. Still, the teacher mentioned only once some basic techniques
39 such as: 1. Source Language definition, pictures especially when dealing with
40 tools or machineries, authentic materials on a specific term, translations on target
41 language, synonyms or antonyms of the term and illustrations through a sentence
42 or short paragraphs. Only these basic techniques were mentioned in order to foster
43 autonomous learning and let students figure it out themselves the whole process.

¹⁵Sayre, 2014; Hazen, 2020 <https://tlconestoga.ca/oral-assessments-benefits-drawbacks-and-considerations/>

1 However, the Mechanical Engineering students were under teacher's constant
2 supervision and guidance every week, by giving each student the opportunity to
3 share his/her approach and strategies on organizing the notebook and learning the
4 terms. Also, different activities were presented by the teacher on vocabulary
5 acquisition and students' attitudes toward these activities were observed.

6 On the other hand, students of Textile Engineering were asked once in three
7 weeks about their ongoing work with the notebook.

8 Data collection ended the last week of the semester, the 14th one, where
9 students of both Mechanical and Textile Engineering performed an oral exam on
10 the terminology acquisition, and a short vocabulary test as well as a questionnaire
11 on the effectiveness of this VN was handed to them.

12 The students were invited to voluntarily contribute the results of their oral
13 exam and questionnaire to the research.

16 Findings

18 Data obtained from this study will be analyzed from different perspectives.

19 The data obtained from the questionnaire and the oral exam on technical
20 terminology will be analyzed from two viewpoints: overt and covert group.

21 While the data from the Observation is on two categories: Traditional paper
22 vocabulary notebook and digital vocabulary notebook.

24 Usage of traditional paper vocabulary notebooks and electronic Notebooks

26 Technology's involvement in the learning and teaching process is not a
27 novelty anymore in today's educational system. Teachers try to incorporate
28 different technologies such as Video Projectors, Videos, PPT presentations, etc.,
29 whenever it is possible in their teaching process in class by making language
30 classes more interactive, flexible, and innovative due to various online resources as
31 tools for valuable professional development as stated by Cosgun & Savas(2019)¹⁶
32 and students too, on the other hand, are prone to and willing to integrate digital
33 technologies in their autonomous self-governing learning process and as (Cripps,
34 2020)¹⁷ and (Panmei & Waloyo, 2023)¹⁸ point, students enjoyed using
35 technological tools and indicated that digital technologies had become an
36 important skill to bring them closer to the rich environment of the target language.
37 Findings from the observation resulted in a division of students into two groups.
38 The first group decided to make use of traditional paper notebooks and the second

¹⁶Cosgun, G. E., & Savas, P. (2019). Use of information and communication technology by in-service English teachers for self-directed professional development. *Electronic Journal of Foreign Language Teaching*, 16(2), 230-249.

¹⁷Cripps, T. (2020). We are mobile magicians but digital refugees: Helping prospective English teachers explore technology and ubiquitous learning. *Electronic Journal of Foreign Language Teaching*, 17, 168-189.

¹⁸Panmei, B., & Waluyo, B. (2023). The pedagogical use of gamification in English vocabulary training and learning in higher education. *Education Sciences*, 13(1), 1-22. <https://doi.org/10.3390/educsci13010024>

1 group decided to organize their VN through a digital tool, Microsoft Word (in
2 most of the cases) downloaded on their smartphones.

3
4 *Table 3.1* Traditional Paper Notebook and Electronic one (Overt group)

Traditional Paper Notebook	Electronic Notebook
10 Students	35 students

5
6 *Table 3.1.2* Traditional Paper Notebook and Electronic Notebook (Covert group)

Traditional Paper Notebook	Electronic Notebook
23 Students	7 students

7
8 These two tables indicate that the majority, a great number of students
9 organized their notebooks electronically, especially the overt group ME students.
10 Almost 80% of ME students decided themselves to embrace technology and use it
11 for educational purposes. There is a significant difference in the use of paper
12 vocabulary notebooks between the two groups, where 7 TE students out of 30
13 made use of Electronic Vocabulary Notebooks which means 15% compared to the
14 80% of ME.

15 Overall, during the observation, when asked on why they chose this technique
16 most of the students implied that they found it easier and considered it a more
17 effective and productive way of organizing notebook vocabulary and learning
18 vocabulary via Microsoft Word (a Word Doc.).

19 During the observation, it was noticed that all students made use of a
20 notebook, even the ones who decided to organize their VN in an electronic form.
21 They initially wrote down the word in a paper notebook, and then they proceeded
22 with the VN in a Word Doc. This statement is a partial reflection of what
23 nowadays is referred to as hybrid learning which according to Doering (2006)
24 refers to the blending and mixing of the learning environments: face-to-face
25 classroom instruction and online environment.¹⁹

26 A considerable number of TE students and just a few of ME, reflected some
27 burdensomeness in organizing this VN. Nevertheless, throughout the semester,
28 their commitment to the VN flourished compared to their perspective at the
29 beginning which was not positive. Some of them showed enthusiasm in creating
30 somehow their own dictionary.

31 It can be assumed that ME students' awareness on the research since the
32 beginning and the fact that this VN will be a prerequisite in the final evaluation,
33 served as incentives and great motivational tools for them to implement this
34 strategy while learning technical vocabulary.

35 Collaboration among students of ME was noticed during the discussion on
36 VN organization while students exchanged their techniques with one another and
37 during various activities on terminology acquisition provided by the teacher in
38 class. Students of ME engagement with internet sources was discernible while
39 they made use of Documentaries on their field of study, YouTube videos, TikTok,

¹⁹Doering, A. (2006). Adventure learning: transformative hybrid online education. *Distance Education*, 27(2), 197-215

1 and Instagram short reels to understand concepts and terms and then expand,
2 perceive and master their technical vocabulary.

3 Traditional paper VN organization on students of TE and 5 of ME was
4 restricted only to two-three techniques: definition and translation to Albanian, few
5 providing sentence examples for each. However, their interest in different
6 activities and games on terminology during lectures was considerable.

8 **Students' Oral Exam and 15 Minutes of Vocabulary Test**

9
10 During the last week of the semester students performed an oral exam on their
11 VN terms and a short vocabulary test on the technical vocabulary of the textbook
12 and lectures. Part of their VN were terms from the textbook, during lectures and
13 terms they had attached from other sources.

14 They were asked for definitions, translations, synonyms or antonyms, phrases
15 with the terms and implementations of certain terms in different contexts.

17 **Students' results on technical vocabulary acquisition (Relevant to the terms 18 from textbook and lectures) Short Vocabulary Test**

	Students	Definitions/Translations	Synonyms/Antonyms	Usage in Sentences	Usage in Context
Overt Group	45	40/45	36/45	35/45	37/45
Covert group	30	19/30	16/30	15/30	18/30
Control Group	45	35/45	25/45	23/45	24/45

20
21 From the results, one can conclude that the overt group outperformed the
22 covert and control group. Students of ME, being aware of the significant and
23 considerable importance of the VN in their final evaluation, devoted lots of time
24 and effort to it by consequently acquiring and retaining much more terms
25 compared to TE students.

26 However, in terms of the treatment group and control group, the control
27 group's performance was significantly below compared to the treatment group.

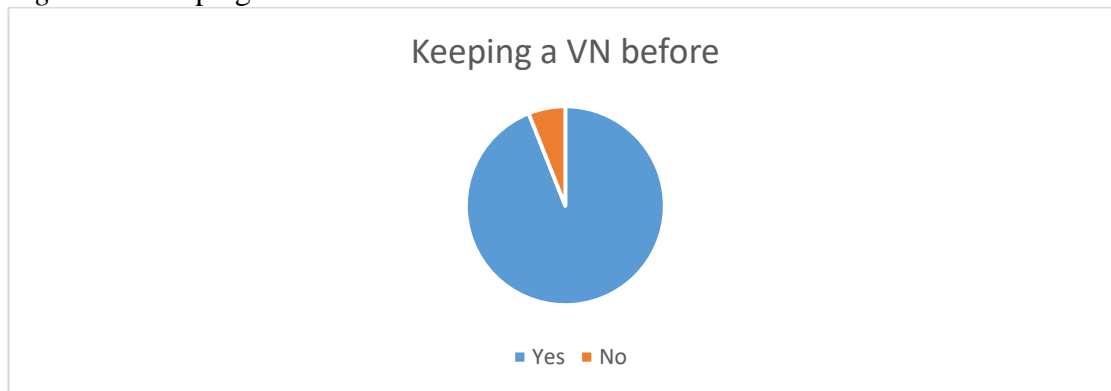
28
29 The oral exam aimed to measure the receptive and expressive technical
30 vocabulary of the students. Taking into consideration that both groups have been
31 working with the same textbook during lectures and seminars, they were asked the
32 same questions on topics from textbooks and terms they themselves had attached
33 to the VN. Students of ME outperformed the covert group of TE, whose
34 commitment to the VN compared to ME students had been trivial.

35 Students of TE had restricted themselves to learning just the definition and
36 translation of the terms. Contextual comprehension was remarkably lacking from
37 TE students compared to ME. We can assume that video assistance for students of
38 ME in completing VN had a considerable effect on this aspect.

Questionnaire’s findings

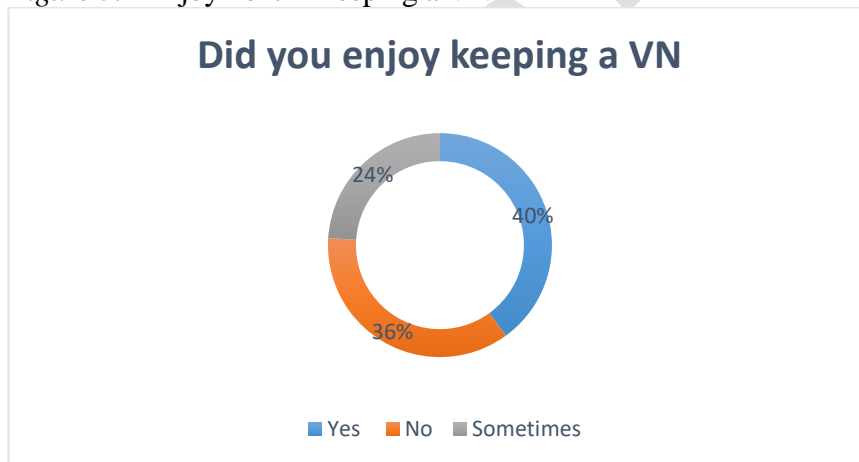
The questionnaire aimed to reveal students’ perspectives on keeping a VN. Most of the students were familiar with keeping a VN, mostly implemented in private courses of English Language in Albanian rather than in high school.

Figure 3.1 Keeping a VN before



As expected not 75/75 enjoyed the organization of VN, and when asked if they would continue to keep this VN more than 70% 60/75 answered no.

Figure 3.2 Enjoyment in keeping a VN



When asked about the main techniques implemented in the organization of the VN the answers varied.

Techniques Implemented on the Organization of the VN and the Acquisition of the Terms

Definitions in EL	58/75
Translation in Albanian	75/75
Antonyms and Synonyms	38/75
Sentence Examples	50/75
Pictures	45/75
Consulting each other	40/75

1 “Others” answers of students (Electronic VN)
2

TikTok/Instagram Reels	35/75
YouTube Videos	40/75
Documentaries	40/75

3
4 One of the points of this question was “others” where students were asked to
5 individually complete the answer. More than 75 % of students belonging to the
6 overt group and 10 % of the covert group listed the above techniques.

7 Students answered on the number of terms included in their VN varied. 90%
8 of the terms included in the VN of TE students were terms they were presented to
9 during lectures. Students of ME had more than 30% of words found by themselves
10 in other authentic documents or in other sources such as documentaries or videos
11 via the abovementioned platforms.

12
13 The Most Effective Techniques according to Students
14

Definitions	67
Translations	60
Pictures	57
Videos	45
Synonyms/Antonyms	25
Sentence Examples	35

15
16 As for the penultimate question of the questionnaire on the most effective
17 techniques in term acquisition through this VN, they distinguished definitions
18 predominantly with pictures attached, and short videos on social media in order to
19 grasp synonyms or antonyms and to have a productive learning of main concepts
20 mainly related to the field of mechanical engineering and translation of the word in
21 Albanian as the most effective ones.

22 The least effective ones based on students’ answers were synonyms and
23 antonyms.

24
25 The concluding question of the questionnaire referred to students’ attitudes
26 towards the usage of Vocabulary Notebooks in ESP subject.

27
28 Students’ attitude towards VN
29

.	YES	NO
It helped me gain autonomy during my learning process	70	5
After having watched videos, I formulated my own definition of the term and wrote it down	23	52
It was much easier for me to look up a certain term in my VN	57	18
I had it with me in every ESP class.	75	0

I consulted my peers while completing it	60	15
It helped me organize my own dictionary regarding ME /TE	60	15
Having them organized facilitated the acquisition of the terms	63	12
It helped me understand ME/TE concepts	40	35
I think I will keep this after finishing the final exam.	10	65

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Discussion

The findings of the research affirmed the noteworthiness and effectiveness of Vocabulary Notebooks in learning technical terms. Students' final results on their Vocabulary test and Oral Exam prevailed teachers' expectations of terminology acquisition via this Vocabulary Notebook.

The results of this study were consistent with the study of Fowly (2002) where students also proved to gain independence while learning and had generally a positive attitude towards keeping a VN. Students executed a self-evaluation of their capacities and their best-to-implement techniques for the purpose of having the desirable achievement in terminology acquisition and in the overall performance in ESP subject. The majority of students proved to be really self-demanding concerning various techniques implemented while organizing the VN and learning the terms even though at the beginning students of TE manifested a strong reluctance on keeping the VN. Some explanation for this attitude could refer to the fact that they were not knowledgeable of the significance of this VN in their final assessment.

Embracing technology by exploiting it in the best way possible, by creating a VN using a CLIL approach (via Microsoft Word) is a significant indicator of ME students' interest in learning and retaining ME terminology, while it can also be a more convenient choice due to the commodity of having the VN with them wherever they are.

Since they are a part of what nowadays is referred to as GENERATION Z and are constantly using cellphones, preferring collaborative learning, using a Word document resulted to be more convenient and comfortable for them. In addition to that, students' commitment to online platforms such as YouTube Videos or Reels in Social Media platforms such as Instagram, TikTok, and YouTube contributed as a revelation of this study. Students availed themselves of these videos in order to have a better understanding of mechanical engineering concepts. They consulted lots of videos in order to understand different operations, actions, and concepts especially related to the mechanical engineering area. The videos consisted of different contents, be it on tools, part of types of machinery, mechanical operations, and engines operations relevant to the same content students have been introduced to in lectures and seminars. etc. The assistance of visual aids especially videos, made it easier for students to understand the concept and the term, to formulate their own definition of the term and to write it down in the VN which over and above these, it enhanced their autonomous approach towards learning. Additionally, when watching a video, students are exposed to

1 the message through two different channels: the oral channel because the
2 information is presented through words, and the visual channel because the
3 information is made available to them through real and in their field-of-interest
4 context.

5 More over as Bazo et al (2016) state, “When applied to a CLIL context,
6 Vocabulary Notebook can help teachers reduce the excessive time that is usually
7 dedicated to teaching specific vocabulary in class”, which we presume is an
8 appreciable benefit of VN. Teachers allocated a considerable time to activities in
9 the heart of which was developing a deep understanding of engineering concepts.
10 Different activities were implemented during lectures in order to boost and foster
11 terminology learning and to widen the methodology of their VN completion.
12 Games were part of these activities because Martinson and Chu (2008; 478) state
13 “Games are effective tools for learning because they offer students a hypothetical
14 environment in which they can explore alternative decisions without the risk of
15 failure. Thought and action are combined into purposeful behavior to accomplish a
16 goal. Playing games teaches us how to strategize, to consider alternatives, and to
17 think flexibly.”²⁰ For students studying at university, games are a great way to
18 improve their vocabulary skills. They provide them with an opportunity to practice
19 their understanding of the language while having fun. Games served as a very
20 effective complementary instrument in helping students acquire terminology and
21 the presence of VN encouraged it.

22 Even though gender was not a focus of this research, it has affected the
23 outcomes. Students of ME, 90 % of whom were males, having a captivating
24 interest in their field along with the grown interest in Mechanical Engineering
25 Industry in Albania, prevailed the other students of TE being 95 % females in
26 every aspect concerning VN (in strategies employed and in the retention of
27 engineering terminology). In a study conducted by Bookngsaen and Intarapraser
28 (2014)²¹, there was an opposite outcome concerning gender roles in Vocabulary
29 learning strategies, where female students had a more effective and diverse
30 application of strategies.

31 Students’ attitude towards VN was eventually positive based on the
32 questionnaire, but their predisposition on keeping this VN even after finishing the
33 ESP subject was low. This result of the research was consistent even with Vela
34 and Rushidi (2016) study where only a few students asserted, they would maintain
35 the VN²².

²⁰Martinson, Barbara, and Sauman Chu. “Impact of Learning Style on Achievement When Using Course Content Delivered Via a Game-based Learning Object.” In Handbook of Research on Effective Electronic Gaming in Education, edited by R. E. Ferdig, 478-488. Pennsylvania: IGI Global, 2008

²¹Bookengasen and Intarapraser (2014) English Vocabulary Learning Strategies Employed by Thai Tertiary-Levels Students with Different Genders and Levels of Vocabulary Proficiency, 59-70

²²Vela.V & Rushidi.J (2016). The effect of keeping vocabulary notebooks on Vocabulary acquisition and learner autonomy 201-208

Conclusions

In the main, from this research, we can conclude that,

1. Students' perspectives while completing the Vocabulary notebook were miscellaneous. First, there was an apparent division in "hand-in-hand with technology" students embracing a kind of hybrid learning and "let us stick to-traditional paper notebook" students. They applied different techniques, but in the main they adhered to English Language definition, Albanian translation and visual aids.
2. Metacognitive strategies employed by students while organizing and learning the engineering terminology via VN included also visual aids and their presentation to the students through Videos in digital online platforms was a revelation of this study.
3. Teachers' feedback and assessment throughout the completion serve as a simulator and motivator for students to devote as much effort as possible to the VN.
4. Vocabulary Notebooks proved to be a promising and noteworthy student-centered approach, wherein students were able to enhance and foster their own autonomy while learning and, as Benson (1997) states, "autonomous learning is more or less equivalent to effective learning". By means of this, having "furnished" students with the right methodology and knowledge on how to learn a language (technical terminology regarding Mechanical Engineering, in this case), is a goal accomplished.

Current research proposes that further investigation be done in other engineering fields of study. Furthermore, it would be more interesting if there was a solely deep investigation on Digital Vocabulary Notebook and its effect on technical vocabulary.

Limitations of the Study

This study has various constraints that impacted the discussion of the results as well as the veracity and accuracy of the research questions. The first limitation was the quantity of time available to carry out the present research. We could have discovered more additional data to help answer the research questions if the study was extended to a year. A second restriction concerns the survey sample. A broader variety of replies would result in more reliable outcomes.

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