

The Implementation of Taxation Accounting Dictionary: Seizing Technical Terms in English for Specific Purposes

Luh Nyoman Chandra Handayani, Gusti Nyoman Ayu Sukerti, Ketut Arya Bayu Wicaksana

I Nyoman Darmayasa, Ni Nyoman Yuliantini

Politeknik Negeri Bali

Badung, Indonesia

nyomanchandrahandayani@pnb.ac.id, ayusukerti@pnb.ac.id, aryabayuwicaksana@pnb.ac.id

nyomandarmayasa@pnb.ac.id, nyomanyuliantini@pnb.ac.id

Abstract— The dictionary of taxation accounting terms plays an important role for vocational students as an independent learning tool as it provides a specific list of vocabulary to support their study compared to a general dictionary. This learning media was developed based on the adaptation of the ADDIE Model (E. Forest, 2014). The implementation phase was carried out using an experimental research method applied to students majoring in Taxation Accounting. Prior to and following the use of independent learning media in the learning process, quantitative data were gathered from the results of pre-test and post-test. The integrated media is a dictionary of tax accounting terms that is equipped with an online self-evaluation feature through Quizizz application. To determine the effect of using a dictionary on improving student achievement, the results of the pre-test and post-test assessments were analyzed using the SPSS statistical program. The One-Sample Kolmogorov-Smirnov Test was used to test the normality of the pre- and post-test results, and the paired sample t-test was used to determine whether there was a significant difference in the students' performance before and after the use of the dictionary. Meanwhile, scale-type questions from an online survey in the form of a google form were used to collect qualitative data and the results were analyzed to determine student perceptions of learning academic reading and competencies. The questionnaire responses highlight that students had some difficulty comprehending academic texts on taxation and accounting due to the complex vocabulary. According to statistical analysis, the dictionary combined with interactive practice via the digital platform Quizizz had a positive impact on student achievement.

Keywords—technical terms; academic reading; English for specific purposes; taxation accounting; dictionary

I. INTRODUCTION

The Applied English course is one of the courses that emphasizes teaching English for Specific Purposes (ESP) at the Applied Undergraduate Study Program (S1) in Tax Accounting, Department of Accounting, Bali State Polytechnic (PNB). PNB has opened this Study program since

2020/2021 academic year to contribute to preparing human resources in the field of Tax Accounting. The goal to be achieved is to produce professional human resources in the field of financial accounting and tax accounting based on e-taxation. This goal focuses on digital-based tax accounting competencies so that students need to be equipped with English language competencies with a superior level of proficiency. To encourage the achievement of targeted learning objectives, the learning process of English courses needs to be supported by references that can not only improve student competence but also help prepare students to learn autonomously.

This urgency is motivated by the composition of the courses offered in the curriculum where students receive Applied English I and II courses for two semesters during a four-year study period. Thus, it is necessary to develop learning media that can help students develop competencies independently according to the demands of the courses taken until the end of the semester. One of the important competencies to be mastered is the mastery of specific terminology in the field of tax accounting. Mastery of English terminology according to the field of science they are involved in is a fundamental and crucial component for vocational students. In general, the purpose of ESP courses is to equip students with active and passive language skills so that they can be used for academic or work purposes. ESP should be viewed as “the development of the learner's communicative competencies in a specialized field and as a basis for further study and refinement of language skills” [1].

Because it is difficult for language learners to study specialized terminology in isolation, teachers must encourage students to develop skills in using strategies to comprehend the vocabulary they encounter [2]. In English, words associated with specific areas of science have special meanings. Terminology can be learned and understood by studying the relevant scientific background. Word knowledge is a key component of language acquisition, and it is difficult to fully understand academic or technical texts without a sufficient receptive vocabulary [2]. Students should be aware that errors in selecting specific vocabulary in written or

spoken language can have an impact on the meaning of the message being conveyed.

Several studies have been conducted on the significance of vocabulary in foreign language acquisition including a study by [3] which concentrates on the development of dictionary for accounting students and the findings indicate that the dictionary assisted students in acquiring new terms. It is critical to pay close attention to vocabulary learning First, because students frequently use dictionaries rather than grammar books, vocabulary is a good indicator of language proficiency [4]. This demonstrates that learning a large vocabulary is advantageous because it encourages students to speak more and has a positive impact on others. Being requires a large vocabulary. According to research [5], vocabulary is fundamental to foreign language learning. As previously stated, vocabulary learning in English as a second or foreign language research subject is gaining popularity, as vocabulary is a prerequisite for literacy and foreign language proficiency [6] and [7]. To put it another way, vocabulary knowledge determines how well a student comprehends a foreign language.

Although vocabulary learning is one component of language learning, teachers should help students understand that a broad understanding of vocabulary is an important aspect of the learning process that should be maintained over time. One method is to introduce vocabulary learning media in the form of dictionaries that contain lists of technical terms related to the specific area of knowledge that the student is studying. Facilitates the exchange of information between students about the selected subjects. Furthermore, learning tools aim to make the subject easier and more systematic for students to learn [8]. Learning support media enable teachers to continuously and independently inform learners of learning strategies and vocabulary implementations outside of the English classroom. In [9], a printed dictionary was developed, containing a glossary and explanations of abbreviations from the fields of taxation, accounting, customs, excise tax, and tax justice. In this present study, the self-learning kit in the form of a dictionary on taxation accounting covers not only the list of taxation accounting terminology, its translation, and definition but is also equipped with sample sentences in both English and Indonesian and has a feature of self-evaluation. Students can evaluate their competence by scanning the barcode or clicking the link directed to questions in Quizizz. Thus, the implementation of the dictionary in this study is very specific as it focuses on the context of ESP, provides exposure to the usage of the terminologies in a real context, and challenges students to evaluate their learning progress.

II. METHODOLOGY

Thirty students in the Taxation Accounting Study Program participated in the implementation phase using a pre-experimental design methodology. Quantitative data were obtained from the pre-test and post-test in academic reading tests by students before and after the integration of a self-learning kit, in the learning process. In order to determine whether using the dictionary increased students' achievement,

the pre-test and post-test results were compared using the SPSS statistics program. To distinguish the two, statistics from paired samples were used to investigate the average score on the pre and post-test. The paired-sample t-test also focused on whether there was a significant difference between the test results of students before and after using the dictionary. Qualitative data were obtained from an online questionnaire in the form of a google form consisting of scale-type questions. The responses gathered via a questionnaire were examined and analyzed descriptively to define students' views on academic reading text and the challenge they face with the specific technical terms commonly used in the reading passage.

III. FINDINGS AND DISCUSSIONS

Dictionaries have been considered an important learning tool for foreign language learners in developing the four language skills. Often, dictionaries are found in the library's reference section for the benefit of the reader. Therefore, dictionaries are treated as reference books and it is assumed that dictionaries are used by intellectuals for reference purposes. The use of dictionaries has a high influence on language competence. Based on these aspects, language learners need to be given certain techniques and strategies in using dictionaries, both electronic and printed dictionaries in the context of language learning. When dictionaries are used in the learning process in the classroom, it allows students to build their language skills. It also helps in the implementation of collaborative activities such as pair work and group work among language learners.

• *Students' Perception of Learning Technical Terms*

Several previous studies have found that using a dictionary helps students improve their language skills. The use of dictionaries effectively improves learners' language recognition [10]. Furthermore, when compared to monolingual dictionaries, bilingual dictionaries can show differences in reading proficiency [11].

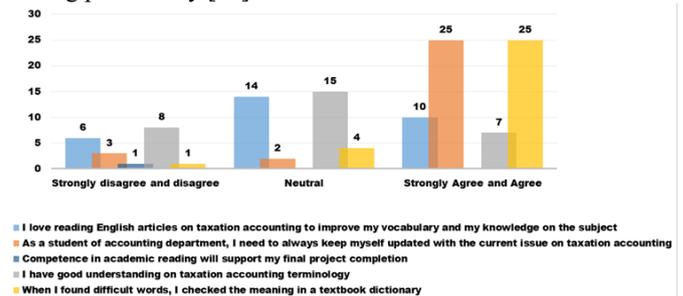
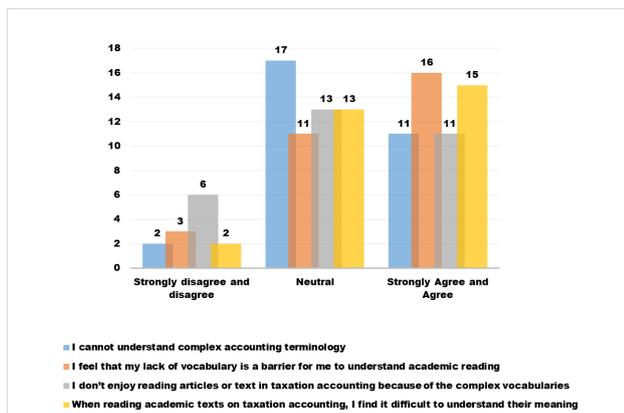


Figure 1. Perception of English Learning

Fig. 1 shows students' perceptions on the aspect of personal view on learning English particularly vocabulary and academic reading as accounting students. Regarding the statement on whether they love reading articles on taxation

accounting to improve their knowledge, 10 students preferred scales 4 and 5 (agree and strongly agree) while 14 students chose scale 3. The same number of students (25 students or 83.3%) showed positive responses to the statements highlighting that they were aware they need to keep updated with the current issues on taxation accounting and that competence in academic reading is crucial as it will support their process in completing the final project. Half of the respondents chose scale 3 on the statement which underlines they have a good understanding of taxation accounting terminology. At last, a majority of students acknowledged that looking up the textbook dictionary when dealing with difficult words. In this particular context, more than half of students (25 students or 83,3%) chose to express a high preference, i.e., scales 4 and 5 signifying agree and strongly agree.



-Figure 2. Perception of Academic Reading

Responses in Fig. 2 emphasized students' perspectives on academic reading mastery in particular. Among four different statements regarding problems that they face, the majority of the population chose scales 3, 4, and 5. This showed that the students are aware of their weaknesses in the area of vocabulary and academic reading competence. On the first statement about whether or not the students can understand complex accounting terminology, 17 students chose scale 3 while 11 other students expressed their agreement by choosing scales 4 and 5. Furthermore, students also acknowledged that their lack of vocabulary mastery is a barrier to understanding academic reading, i.e., 16 students, or 53.3% chose the scale to agree and strongly agree. Two other statements highlight that they have a lack of ability in understanding the meaning of texts on taxation accounting, 15 students, or 50% of the total respondents stated their agreement that they have difficulty understanding spoken English using complex construction. Among 30 students in the population, 11 students or 43.3% preferred scales 4 and 5 meaning that they do not enjoy reading articles or text in taxation accounting because of the complex vocabulary while a quite similar number of respondents (13 students or 36.7%) preferred to be neutral in this context.

These findings coincide with previous studies on students' perception of reading and vocabulary competencies in the context of English for Specific Purposes. Students still encountered some difficulties in ESP reading comprehension, namely technical words, and ESP background knowledge, which were the most common areas of difficulties that students had to face [12], [13], [14]. Thus, students need additional supporting media to improve their knowledge of specific terms used in their major. The self-learning tool implemented in this present study aims to enhance students' exposure to vocabularies in ESP. The display of taxation accounting technology developed by the authors in this study can be seen in the following figure.

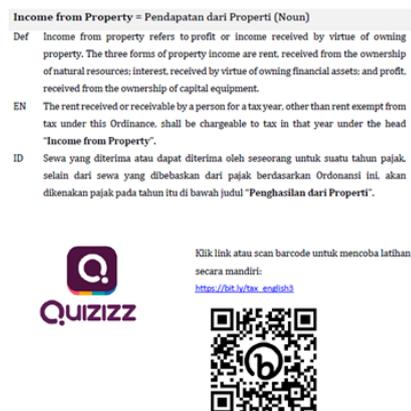


Figure 3. The Display of Data Entry

The learning media in the form of a dictionary developed by the authors aims to provide learning tools to users, namely vocational students with a tax accounting background so that students can increase their exposure to special vocabulary and help improve academic reading competence. The dictionary implemented in this research as shown in Fig. 3, not only provides equivalents of terminology in tax accounting but also provides examples of the use of these terms in a sentence. In addition, the main feature that distinguishes the developed product and other dictionaries that are already available is the presence of hyperlinks for vocabulary and academic reading exercises that can be used by students. The link included in the dictionary section will direct students to the Quizizz page where students can answer questions interactively and get information about their scores. This feature emphasizes that although the developed dictionary is a printed dictionary, it will also be equipped with technology integration in the form of online training and evaluation tools so that students have the opportunity to carry out technology-based language activities.

- *Analysis of Students' Academic Reading Competence*

Based on literature searches, special dictionaries in the field of tax accounting have not been widely developed in Indonesia. This section elaborates on the impact of integrating

the dictionary through pre-test and post-test analysis. The data in this study was taken from the results of pre-test and post-test from 30 students majoring in Taxation Accounting. Before analyzing data using paired sample t-test, the one-sample Kolmogorov-Smirnov test was used to test whether a sample comes from a specific distribution. This procedure aimed to determine whether a sample comes from a population normally distributed.

| | | Hasil Test |
|----------------------------------|----------------|------------|
| N | | 60 |
| Normal Parameters ^{a,b} | Mean | 69,2167 |
| | Std. Deviation | 12,45479 |
| | Absolute | ,075 |
| Most Extreme Differences | Positive | ,075 |
| | Negative | -,063 |
| Kolmogorov-Smirnov Z | | ,580 |
| Asymp. Sig. (2-tailed) | | ,889 |

Figure 4. One-Sample Kolmogorov-Smirnov Test

Based on the figure above, it is known that the significance value of Asymp. Sig (2-tailed) of 0.33 is greater than 0.05. Code 'a' signifies that test distribution is normal, while code 'b' signifies the calculated data. It can be concluded that the data is normally distributed. As the normality test showed the data was normally distributed, then the difference test was carried out using the t-test, particularly paired sample t-test.

| | | Mean | N | Std. Deviation | Std. Error Mean |
|--------|-----------|---------|----|----------------|-----------------|
| Pair 1 | Pre_Test | 62,4333 | 30 | 9,78628 | 1,78672 |
| | Post_Test | 76,0000 | 30 | 11,16336 | 2,03814 |

Figure 5. Paired Samples Statistics

The results of data processing as the outcome of paired sample statistics using the SPSS statistics program show that the students' average pre-test score was 62,43 and the students' average writing score (post-test) was 76,00. In this context, the post-test standard deviation (11.163) was greater than the pre-test (9,786), indicating that the post-test data was superior to the pre-test. Furthermore, according to the comparison of t_{count} and t_{table} , if $t_{count} < t_{table}$ or $-t_{count} > -t_{table}$ then H_0 (there is no positive impact of taxation accounting dictionary on students' achievement) is approved, whereas if $t_{count} > t_{table}$ or $-t_{count} < -t_{table}$ then H_0 is rejected. The level of significance is concluded using a degree of confidence of 95% or an error rate of 5% ($\alpha = 0.05$). Where the 95% confidence level and sig. (α) = 0.05, then the value of df (degree of freedom) or degree of freedom = $(nk) = 30 - 1 = 29$. With a two-tailed test, each side is of $\alpha / 2 = 0.05 / 2 = 0.025$ to determine the value of t_{table} . This can be seen in Figure 6.

| | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|-----------------------------------|--------------------|----------------|-----------------|-------------------------------------------|----------|--------|----|-----------------|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | Lower | Upper | | | |
| Pair 1 Pre_Test - Post_Test | -13,56667 | 14,11696 | 2,57739 | -18,83803 | -8,29531 | -5,264 | 29 | ,000 |

Figure 6. Paired Samples Test

Based on the analysis using the SPSS statistics program at a 95% confidence level (a significant level of $0.001 < 0.05$), t_{count} is -5,264. The result of the data set shows that $-t_{count} < -t_{table}$ ($-5,264 < -18,838$). This suggests that H_0 is rejected and H_1 is accepted (the integration of the dictionary app contributes a positive impact to students' achievement in academic reading competence).

The basis of decision-making is as follows:

1. If the value of sig. (2-tailed) < 0.05 then there is a significant difference between learning outcomes in pre-test and post-test
2. If the value of sig. (2-tailed) > 0.05 then there is no significant difference between learning outcomes in pre-test and post-test. 0.05 = sig alpha level 5%

Because of the value of sig. (2-tailed) of $0.000 < 0.05$, it can be concluded that there is a significant difference between learning outcomes in the pre-test and post-test. In other words, there was a significant impact before and after the integration of the taxation accounting dictionary in the learning process. The statistical analysis highlights the fact that the self-study created for this study is a useful teaching tool for enhancing students' academic reading proficiency.

This finding is consistent with other studies [15, 16] that show electronic dictionaries help language learners improve their reading comprehension. Using a dictionary improves learners' reading comprehension and vocabulary, according to research. Researchers discovered that students who use a dictionary perform better on reading comprehension and vocabulary tests [16]. They also demonstrate that using a dictionary can improve vocabulary retention [17]. It assists readers in paying more attention to words when looking them up in a dictionary and remembering them.

Another study [18] discovered that checking word meanings in a dictionary aided in successful vocabulary acquisition. A study [19] found that combining dictionary use and reading strategy approaches in learning foreign language reading comprehension was effective. A case study survey method was used, with three data collection tools: reading comprehension tests, field notes, and interviews. The findings suggest that a reading strategy approach combined with the targeted use of dictionaries is an effective combination for improving the quality of language reading comprehension learning.

IV. CONCLUSION

This study found that students understand the value of acquiring academic reading to supplement their studies, particularly when dealing with specific tax and accounting

terminology. However, they struggled to understand the jargon, which hampered their comprehension of texts relevant to their major. To address this problem, we incorporated a self-study kit in the form of a tax accounting dictionary into the English learning process and investigated its impact on students' academic text proficiency. Referring to the elaboration analysis, the self-study kit created by the authors and developed for this study is a useful teaching resource for enhancing students' proficiency. The statistics analysis highlights that $(-5,264 < -18,838)$. This implies that H1 (the integration of the dictionary contributes to students' achievement in academic reading competence) is accepted and H0 is rejected. The implication is that students need to be supported by learning media to support their progress in acquiring active and productive skills in English for specific purposes. Additionally, practitioners can develop other media, such as digital media, to enrich students' learning experiences outside the classroom. This allows students to assess their own learning and use media as one of their strategies for solving the learning curve.

ACKNOWLEDGMENT

We would like to express our appreciation for the support from the Department of Center for Research and Community Service Politeknik Negeri Bali in granting a research fund.

REFERENCES

- [1] I. Musikhin, "English for specific purposes: teaching English for science and technology," *ISPRS Annals of Photogrammetry, Remote Sensing and Spatial Information Sciences*. III-6. 29-35. 10.5194/isprsannals-III-6-29-2016.
- [2] B. Quero, & A. Coxhead, "Using a corpus-based approach to select medical vocabulary for an esp course: the case for high-frequency vocabulary" in "key issues in english for specific purposes in higher education" Springer International Publishing Switzerland. 2018.
- [3] L.N.C. Handayani, I.W.D. Ardika, I.B.A. Adnyana, I.M.R.J. Widanta and G.N.A. Sukerti. "Students' perception on bilingual dictionary of financial accounting terminology". *Journal of Applied Studies in Language*, 4(2), pp.202-209. 2020
- [4] P. Pringprom. "Relationship between Vocabulary Size and Reading Comprehension. *FLLT Proceedings*". 182-191. 2011.
- [5] Rashidi N, Khosravi N. "Assessing the role of depth and breadth of vocabulary knowledge in reading comprehension of Iranian EFL learners". *Journal of Pan-Pacific Association of Applied Linguistics*. 14(1), 81-108. 2010.
- [6] Pariyanto & B. Pradipta, "Factors influencing an EFL learner's proficiency: An English teacher's perspective". *Anaphora: Journal of Language, Literary and Cultural Studies*, 2(2), 89-95. <https://doi.org/10.30996/anaphora.v2i2.3369>. 2016.
- [7] K. Che & Abdullah, S. Arman & Shamsuddin, Halimaton & N. Norizan, "The effect of using learning kit material among students". 2019
- [8] H. Hidayat, et.al. "The empirical analysis of electronic engineering education students", *International Journal of Online & Biomedical Engineering*, 17(9). <https://doi.org/10.3991/ijoe.v17i09.25679>. 2021.
- [9] A. Adnan, *Kamus Pajak : daftar singkatan istilah perpajakan, akuntansi, bea dan cukai, serta peradilan pajak disertai dengan penjelasan*. Yogyakarta: Andi. 2019.
- [10] C. Takahashi, "Impact of dictionary use skills instruction on second language writing". Retrieved from <https://tesolal.columbia.edu/article/impact-of-dictionary-use>. 2012.
- [11] M.A. Hayati, "A comparative study of using bilingual and monolingual dictionaries in reading comprehension of intermediate EFL students", *The Reading Matrix*. 5(2), p. 331-353. 2015.
- [12] T. Tran & T. Duong. The difficulties in esp reading comprehension encountered by english-majored students. *Vnu-journal-reading*. 32. 2018.
- [13] R.H. Rosyidah. Students' difficulties in reading esp (english for specific purposes) at Tarbiyah department University Of Muhammadiyah Malang. B. A. Thesis. University of muhammadiyah Malang. 2013.
- [14] N. A. Nguyen, C.T. Pham & T.V.A. Nguyen. Reading comprehension and communicative approach through ESP materials for students of law enforcement in Vietnam. Paper presented at 7th International Conference on TESOL: Innovations in English Language Teaching and Learning, Binh Dinh, Vietnam. 2016.
- [15] Y. Chen, "Dictionary use and vocabulary learning in the context of reading". *International Journal of Lexicography*, 25 (2), 216-247. 2012.
- [16] Z. Shen, "The effects of vocabulary knowledge and dictionary use on EFL reading performance", *English Language Teaching*, 6 (6), 77-85. 2013.
- [17] E. Peters, "Manipulating L2 learners' online dictionary use and its effect on L2 word retention", *Language Learning & Technology*, 11, 36-58. 2017.
- [18] A. Mokhtar, R. Mohd and M. Omar, "The role of dictionary strategy in passive vocabulary knowledge acquisition of Net Generation students". *Journal for the Study of English Linguistics*, 1 (1), 8-20. 2013.
- [19] L. Medina & A. Sergio Alonso. "Effects of Reading Strategy and Dictionary Instruction in an Undergraduate Foreign Language Reading Comprehension Group". *Folios*, (50), 127-138. <https://doi.org/10.17227/folios.50-10226>. 2019.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

