# A Study of Technical Terms in Shipping Science

Kurniaty Kurniaty<sup>1</sup>,<sup>\*</sup> Ainun Fatimah<sup>2</sup>, Iqra Aswad<sup>3</sup>

<sup>1</sup>Graduate School, Hasanuddin University <sup>2</sup>Faculty of Cultural Sciences, Hasanuddin University <sup>3</sup>Faculty of Engineering, Hasanuddin University <sup>\*</sup>Corresponding author. Email: ainunfatimah@unhas.ac.id

## ABSTRACT

Technical terms consist of one word or several words that are given a specific meaning that applies in a particular scientific field. These technical terms are certainly not found in general dictionaries, so they need to be compiled specifically and intentionally to be included in the terminology dictionary. This research focuses on the excavation and collection of technical terms that apply in the field of shipping science. This research revealed the problems faced by students in terms of the use of technical terms in shipping science so that technical terms can be identified semantically and culturally need to be mastered by shipping science students. The finding of this research reveal that students have difficulty mastering vocabulary and its use in a cultural context and students really need to master technical terms in the field of shipping, especially technical terms of numeralia.

Keywords: Technical terms, Shipping science, Cultural context

## 1. INTRODUCTION

There are two things contained in learning English, namely general English and English for specific purposes. General English is the language utilized as an overall language for all ages who will learn about general English since English is known as a general language whose meaning can be understood in general. Meanwhile, English for Specific Purposes (ESP) is an English course aimed at various types of student associations according to their needs, for example in medicine, pharmacy, engineering, economics or others. ESP itself intends to address certain student problems as a solution in everyday life.

Furthermore, there is an English for Special Purposes section called Technical terms that people can understand the specific meaning of that terms. Technical terms are concepts that have particular importance in a particular field of knowledge. Technical terms can be found in all areas of human activity: science, technology, medical practice, pharmacy, law, economics and linguistics. Sometimes common, everyday words can be used technically, in a special sense. For example, the word future can be colloquial and understood by all English speakers in sentences such as "Some people may be able to predict the future", "There will be no discussion of this issue in the future", or the same word can be used. In a special sense it can be calculated a type of business contract for the future supply of a type of goods such as petroleum futures.

Technical terms play a role in replacing the rising terms used to describe them. Without technical words, speakers cannot describe or communicate correct information to others. To be accurate, certain technical terms will be used. As specific terms took over from other terms, these tech words began to be put into practice. An example of a technical term used in PIP Makassar is the word "bridge" when someone travels by ship or cruise ship. They'll find the cabin crew saying "bridge". Some people will think that "bridge" is a railroad track or other obstacle, because they cannot realize that what is meant by "bridge" here is "a platform on which ships can be commanded" not the bride defined in Google as "a structure that carries road, track, railroad, or canal across a river, ravine, highway, railroad, or other obstacle".

However, the best place to learn a language is where you can hear someone speak the language itself. This research refers to (ESP) English for Special Purposes as an essential subject to learn and research on technical terms as a very important lesson to learn. Furthermore, the researchers analyzed the students' needs for technical terms used in the PIP Makassar and the classification of technical terms. The technical term used in PIP is also called English for Specific Purpose. For some reasons why the researchers collects data on the semantic analysis of technical terms used at at the PIP Makassar to prove that technical terms or English for certain purposes should be taught. It aims to provide a classification of technical terms used in the PIP Makassar.

For the phenomena that have been mentioned above, the researchers conducted a study entitled "Analysis of Technical Terms Used in Shipping Science". In general, English has different meanings, does not have a general meaning but depends on the context and situation known as language expression, therefore this research will provide benefits in all aspects of science in particular; linguistics, engineering, and several other disciplines.

## 2. LITERATURE REVIEW

A study requires several relevant studies to support the implementation of further research. Therefore, researchers use several international journals and books that contain different objects or analytical approaches. The following are two previous studies that are most closely related to this study.

The first is, Asa Markland (2011) entitled "Translation of Technical Terms". This thesis analyzes the translation of technical manuals into the field of study of hydroelectric power. The aim is to define and apply practical theories of translation while general technical words are interpreted. Trade terms and contract terms. The theoretical basis for the thesis consists of the localization model by Eugene Nida and Vinay & Darbelnet, as well as the terminology hypothesis of Rune and Teresa Cabré. Technical words are identified during the translation process, and then translated using one or more of the mentioned theories. The results are then evaluated and classified. Although the analysis is not detailed enough to draw substantial conclusions, the results show that to make the best possible translation in terms of systematized jargon, equivalent to general technical terms. Therefore, the findings show that structural modeling is very important, so that the degree or exact word location can be calculated. In addition, experience and knowledge of the translator's topic and willingness to consult parallel texts are very important for translation results.

## 2.1. Theoretical study

#### 2.1.1 ESP Theory

In fact, the purpose of ESP is solely so that students can understand and master English in a certain field of science. For example, students with a pharmacy background, then they must understand English for pharmacy, or if they are shipping students, they must know English for shipping, or if they work in travel, then they must master English specifically for travel itself, and of course, if they are maritime students, then they must master maritime English as a basis of knowledge.

Uniquely, ESP is used in foreign language teaching for certain uses in certain fields of science and

professions. This goal is generally understood as a benefit in the role of English as a means of communication both spoken and written because it is considered the language of the world's unity. Therefore, ESP is not only essential but also considered as an approach, basic concept and method that is different from English in general. ESP is an approach to teaching English that has different approaches, perceptions, designs, materials, evaluations, and goals. ESP material refers to the needs of students (understudies' requirements) and graduate users themselves. Mc Donough also said the same about the definition and concept of ESP. "ESP courses are courses in which the syllabus and materials are determined in all important respects by a prior analysis of the student's communication needs." [2]. Donough's opinion shows that the material and syllabus as well as the objectives of the ESP must be designed and developed based on the needs of students and graduate users because students both while studying and when going to work partially open materials or materials that are unlocked must meet their needs because students will enter the world as the next generation. That's why, ESP here is seen as an approach called a bottom-up approach and its function clearly gives a specific meaning to the meaning of a term depending on the field of science.

In addition, it can be concluded that ESP is not a new product, but an approach in learning English that is different from English in general. ESP refers to learning English that is oriented to the special needs of students according to the field of science and work. ESP material based and developed based on needs analysis.

English for Special Purposes (ESP) have the characteristics. According to Hutchinson and Waters (1987, p.19) they define ESP not only method but also as an approach to language teaching in which all decisions about content and methods are based on the learner's reasons for learning. Also, Robinson (1991, p. 1) sees ESP in language teaching as a company that involves education, training, and practice and makes use of the three main realisms of knowledge namely language, pedagogy, and student/participant areas of special interest. Richards and Rodger (2001, p.107) see ESP in learning activity as a movement that seeks to serve the language needs of learners who need English to perform certain roles and who need to acquire world-class content and specific skills, manifests through its medium rather than mastering language for its own effect in real life.

ESP is also not only a new approach in learning English but also ESP has general and distinctive characteristics that are different from general English learning known as General English. This is also different from learning other English languages such as English as a Second Language (ESL) or English as a Foreign Language (EFL) in any classes.

In the world of education, there are several ESP experts who have provided input regarding the

characteristics of ESP in the varied process of learning English. (Strevens, 1988) in Kristen Gatehouse, Key Issues in English for Specific Purposes (ESP) Curriculum Development says that there are four main characteristics of ESP as an English learning approach, namely a) ESP is designed to meet the needs of learners, b) substance and content ESP is related to themes and topics in certain fields of science, certain types of works or activities, c) focuses on linguistic forms that are in accordance with activities and fields of science or works such as syntax, lexical, discourse, semantics, and so on, and d) ESP is different from General English.[3]

On the other hand, Robinson revealed that there are three main characteristics of ESP in particularly: 1) Students learn English not because they want to know language as a language and the culture it contains, but students learn ESP because they have specific, specific and specific goals in the academic and professional fields of each other. 2) ESP substance is designed and developed based on the concept of needs analysis. The concept of needs analysis aims to specialize and connect and bring closer what students need in both academic and professional fields. 3) ESP is more aimed at adult learners than children or adolescents. This is logical because ESP is generally taught at the secondary and higher academic and professional levels or in the workplace.[4] Slightly different from (Strevens, 1988) and Robinson, Evens and Maggie) stated the characteristics of ESP by using absolute characteristics and variable characteristics as two main terms [5].

The certain points above set it apart from General English or English a Foreign Language (EFL). Hoadley-Maidment (1980) in McDonough (1984) suggests that there are three main sources of information in conducting needs analysis, namely a) teachers, b) students, and c) stakeholders).[6] revealed that ESP should be designed to meet the needs of teachers and students. In meeting these needs, the essence of ESP meeting the needs of students means focusing on the needs of students, taking place effectively, according to the needs of students, and enabling students to learn successfully according to the designed time frame. With regard to needs analysis so that the substance of ESP is truly appropriate and meets the needs of students, Second, ESP realizes methodologies and activities that are in accordance with the intended field of science or studied and taught. This means that the methods and activities carried out in classroom learning must be in accordance with the fields of science, work, and profession that reflect the diversity and diversity of the essence of ESP itself. Third, as a new approach, the focus of ESP is the use of typical language (grammar, lexis, registers), skills, discourses, genres that are appropriate to the activity. In this case, the scope of linguistics in ESP both at the level, grammar, lexical and register in certain ways is different from General English (General English).

According to Evens and Maggie, other fundamental characteristics of ESP are language skills, discourse, and genre. In ESP learning, consideration of the language skills being taught is an important thing that must be considered. In academic and professional or occupational contexts, the focus of skills tends to differ from one academic and professional field to another. There are academic fields or professions that emphasize and prioritize speaking skills on the one hand, but there are also academic fields or professions that are dominant with writing skill or another skill.

Then this fundamental characteristic, ESP also has variables that also show another essence of ESP and this variable can be explained with these examples:

- a) ESP must use special learning situations and different teaching methods from general English in class,
- b) ESP seems to be more appropriate and suitable for adult learners in both academics and higher-level professions or professional workplaces, but ESP can also be used for intermediate-level learners.
- usually ESP is designed and designed for intermediate and advanced level students, but some ESP lessons are also possible for beginner level students.

From the description above, there are two important things that can be drawn as conclusions:

First, the absolute nature and nature. Absolute and fundamental means that these characteristics are mandatory and must exist and be used in the development of ESP learning and are final and permanent.

Second, characteristics that are optional or rather can be categorized using the word 'should' or the word or phrase 'better or more appropriate'. This means that these characteristics can still be changed, developed and or adjusted partially or completely in ESP learning. Such changes and adjustments depend on the context of the ESP itself.

#### 2.1.2 Semantic Theory

Semantics is a language group that deals with significance. Semantics is defined as the study of linguistic meaning. It involves words and sentences with linguistic structure. As Katz (1972:1); "Semantics is the study of linguistic meaning. It is considered by what sentences and other linguistic objects are expressed, not by arrangement with their syntactic parts or by their pronunciation.

Semantics has been a topic of science for a long time. It is said that in the late 19th century, the word semantician itself was added to the English language. The term semanticus comes from the etymologically based Greek word semantikos which means 'significant'; semainein means 'to indicate, signify' or 'marked with a sign'; from sema means 'sign'. However, the term 'definition' is quite subjective and experts disagree on how it is expressed. For many examples, some specialists use the word semantics:

- 1) Hornby (1972: 798) explains "Semantics is the branch of linguistics that studies the meaning of words and sentences."
- Lyons (1977: 1) explains "Semantics is generally defined as the study of meaning." Semantics deserve to be researched and defined. Semanticism is important and deserves to be analyzed for many reasons.

One of them is the meaning of communication is very closely related. Throughout the human journey, a certain meaning can be carried through contact. First, the human method of knowing the essence of language requires the application of logic and interpretation through intellectual power. As defined by Leech (1989), "Semantics is central to the study of communication; and as communication becomes an increasingly important factor in social organization, the need to understand it becomes even more pressing. Semantics is also central to the study of human thought processes, cognition, and conceptualization." Semantic Typology.

According to Bohnemeyer, in linguistics, semantic typology is a cross-linguistic study of semantic categorization. When we speak, we choose the aspect of an idea that we want to communicate and put it into a semantic category expressed by the words and phrases of the language we use. Languages vary widely in this category.

One of the aims of this research is to design the number of components of a language as their vocabulary (Nation, 2001) dividing it; into certain levels such as high frequency words; academic vocabulary; technical vocabulary; and low frequency words. High frequency words are the 2,000 most used words in the English language. West (1953) calls these words general service vocabulary because they are useful (or service) no matter what language is used to do so. It is impossible to learn a language without words or vocabulary to support it (Rivers, 1981). This shows that people cannot do anything in communication if they do not know the words or vocabulary. Longman (1987) defines vocabulary as a list of words, usually in alphabetical way and with the specific explanation of their meaning and also less complete than a dictionary. That means we have to understand what it means.

#### 2.1.3. Terminological Theory

Terminology has fundamental importance in the definition of logic. Terminology is mainly concerned with the relationship between objects in the real world, as applied in semantics, which is interested in the relationship of the meaning of names. In this case, to generalize from different objects that exist in the real world to arrive at a definition or class of objects, logicians use a form of abstraction. Theoretical problems of the definition of terms then arise when, as an output of practice itself, terms began to be structured in certain specific areas.

Linguists paid particular attention to terminology since the first half of the twentieth century as their concern; they linguist began to show their concern only from the 1950s onwards, and didn't even go into detail of that substance. In general, it is very strange that linguists are not interested in the study of terminology; instead, they are concerned with establishing a framework to explain the rules that govern all human language, but are less obsessed with the various aspects of language used as a medium of communication. Terminology is given a role in linguistic research only under this last method. As what was sparked by Sager (1990) that the discipline has scientific principles that form the basis of terminological practice.

Everything important that can be said about terminology is more accurately said in the context of linguistics or information science or computational linguistics. We view terminology as a set of practices that evolve around the creation of terms, their collection and elaboration, and ultimately their shared presentation in print and electronic media. Practice, however established, is not a discipline, but there is undeniably a long history of methodology which in itself requires a theoretical foundation. Discipline builds knowledge; methodology is just a means to an end, in terms of terminology, how to do things, in line with what Sager says.

The theory used by Bourigault on Terminology and Artificial Intelligence is fundamentally used as a method of collecting, defining, processing and displaying in one or more languages the words of a particular field of study, not an end in itself, but addressing the needs of society and aims to optimize contact between specialists and experts by providing assistance either directly or to translators dealing with language standardization. This more realistic and functional interpretation of language is more in line with the demands of contemporary culture, where a more realistic view has been replaced through epistemological reflection. Dealing in the fastest and most reliable way for actual communicative needs has replaced thinking about the concepts underlying the terminological problems and about how to fix these problems.

Thus, we can conclude that terminology theory originated and is still being developed through current scientific research, which in turn is motivated by the need to find terminology-dependent solutions to communication problems. In addition, the main thing in the terminology itself is to fulfill social concerns and aims to optimize communication between professionals and experts by providing assistance either directly or to

Table 1. Technical terms in shipping science

translators or people who are concerned with language standardization.

## 3. METHOD

In this study, the researchers used qualitative descriptive with open-ended questions in the questionnaire. The purpose of this research is to reveal the terms used in Shipping Science as their technical terms, and whether the Maritime Science needs those terms.

Data collected by two instruments. The first is an open-ended question in the questionnaire. The questionnaire has certain questions related to the research question. The questionnaire is a research instrument consisting of a set of "guided" questions that aim to collect information from all respondents. Secondly, using literature study as the main data support.

Researchers used descriptive qualitative method in collect data. In the descriptive qualitative method, the researchers gave a questionnaire with open-ended questions. And the researchers used library research as secondary data to support the main data. Qualitative methods refer to samples that were collected intentionally due to the requirements of the study. Also, researchers used library research method as one of the data collection methods to support the main data.

#### 4. RESULT AND DISCUSSION

This research showed that there are problems for Makassar PIP students in mastering technical terms in shipping science. This is shown in the percentage of the lack of vocabulary mastery by 52 percent and the lack of understanding of the cultural context by 48 percent. This showed that the basis in the language learning process is vocabulary. Mastery of vocabulary will determine the level of one's ability to use words properly and correctly in this case technical terms in shipping science. The more vocabulary mastered, the more fluent the Makassar PIP student's ability to understand or apply the use of language in communicating both orally and in writing while working on land or at sea. Mastery of a large vocabulary can enable a person to receive and convey information that is broader and complex. The quality of a person's language mastery, of course, depends on how much the vocabulary they have. The understanding and vocabulary mastery referred to in this study is the students' vocabulary mastery including: 1) technical terms of numeralia, 2) technical terms of navigation and ships, 3) names of activities in navigation or shipping activities, 4) names of the organs or equipment of the ship and their functions.

]			
Technical terms	Number of data	Data	Meaning
Techoical, terms of numercalia	110	Drillship	This term indicates the meaning of a ship equipped with a drilling rig (drill tower) and its own propulsion engine. The ship's position is fixed with the presence of dynamic positioning equipment. The maximum drilling depth is about 2,000 meters.
	113	DWT	This term denotes the meaning of a unit of ship capacity for cargo, fuel, goods and crew, which is measured in units of tons which is equivalent to 1,000kg. Dead weight (dwt) of the ship is the total weight that can be carried by the ship during the process of loading goods.
	221	Fathom	This term denotes fathom meaning; measures 6 feet (1.83 meters); length that a stretched male arm can reach. One fathom of wood means that it has a volume of $\delta r \delta \delta r $
	247	HSS - Highspeed Sea Service	This term denotes the meaning of the concept of a fast ferry with a double bull or multi hull with a carrying capacity of up to 1500 passengers and about 400 cars.
Technical terms of navigation and ships	35	Bone	This term denotes the meaning of foam found on the propeller of a moving ship which is usually rarely known or noticed.
	36	Booby Hatch	This term denotes the meaning of a gliding movable enclosure commonly found in small ship cabins, storage rooms or crew offices.
	37	Bound	This term shows the meaning of the process towards a certain goal or a specific place.
Names of activities in navigation or shipping activities	3	Accommodation Unit / Elected	This term denotes the meaning in Typically dives are equipped with cabins, food facilities and offices capable of accommodating up to 800 construction personnel or offiltore platform operators. An accommodation unit is usually also equipped with work space and storage facilities.
	29	Belay	This term denotes the meaning of arresting, or canceling, stopping something; fasten a rope by wrapping it around a nail, or other object.
Names of the organs or equipment of the ship and their functions.	23	Barque	This term denotes a sailing vessel with three or more masts, i.e. the rear mast which is attached to the bow and stern, and the other mast which is attached to the middle of the ship.
	31	Berth	This term denotes the place where a ship is being moored or secured; a place around a ship that is anchored or to be thrown at anchor; accommodation is divided into ships; crew recruitment; Place the ship in the desired place.

In this study, the researchers classified the technical terms as follows: First, technical terms of numeralia are intended for shipping terms related to the range of concrete numbers. This term is shown in data 110, 113, 221, and 247 namely drillship, dwt, fathom and hss-highspeed. For example, this *drillship* data relates to the maximum drilling depth which consists of 2000 meters.

Second, technical terms of navigations are intended for shipping terms related to navigation and ships. In this term, data 35, 36, and 37 are shown, namely bone, bonby hatch, and bound. For example *bone*, this term denotes the meaning of foam found on the propeller of a moving ship which is usually rarely known or noticed. *Bonby batch*, this term denotes the meaning of a gliding movable enclosure commonly found in small ship cabins, storage rooms or crew offices.

Third, the names of activities in navigation or shipping activities are intended for shipping terms related to navigation and shipping activities. This term is shown in data 3 and 29, namely accommodation unit / floatel and belay. For example, *accommodation unit / floatel*, this term denotes the meaning in typically dives are equipped with cabins, food facilities and offices capable of accommodating up to 800 construction personnel or offshore platform operators. An accommodation unit is usually also equipped with work space and storage facilities. Also, *belay*, this term denotes the meaning of arresting, or canceling, stopping something; fasten a rope by wrapping it around a nail, or other object.

Fourth, the names of the organs or equipment of the ship and their functions are intended for shipping terms related to the organs and equipment of ships and their functions. This term is shown in data 23 and 31, namely *barque*, this term denotes a sailing vessel with three or more masts, i.e. the rear mast which is attached to the bow and stern, and the other mast which is attached to the middle of the ship. Also, *berth*, this term denotes the place where a ship is being moored or secured; a place around a ship that is anchored or to be thrown at anchor; accommodation is divided into ships; crew recruitment; place the ship in the desired place.

## **AUTHORS' CONTRIBUTIONS**

The first and second authors have contributed greatly in the completion of this research, in this case in the form of ideas. The third author provides support in the technical completion of this research.

## ACKNOWLEDGMENTS

The researchers would like to thank their teammate; Suhartina Hamzah for supporting them in this research. Along with that, the writer would like to thank their colleges in English Department and Hasanuddin University Family.

## REFERENCES

- [1] Boem.gov. (2020). Importance of Maritime Commerce.
- [2] Bohnemeyer, Jurgen et al. (2007). Principles of event segmentation in language: the case of motion events. Language 83.3: 495-532.
- [3] Bourigault, Didier, And Anne Condamines. (1993). Terminology and Artificial Intelligence. Toulouse: Université de Toulouse. 134 p.
- [4] Chung, T. M. (2003). Identifying technical vocabu`lary. Unpublished Ph.d. thesis, Victoria University of Wellington.
- [5] Ellis, R. (1999). Learning a second language through interaction. Amsterdam: John Benjamins.
- [6] Evens-Dudley Tony, Maggie Jo st.John. (1998). Developments in ESP: A multi-disciplinary approach. Cambridge: Cambridge University Press.
- [7] Farrel, P. (1990). Vocabulary in ESP: A lexical analysis of the English of electronics and a study of semi-technical vocabulary. CLCS Occasional Paper No.25 Trinity Collage.
- [8] Flowerdew, J. (1993). Definitions in sciences lectures. Applied Linguistics, 13(2), 202-221.

- [9] Hutchinson T. & Waters, A. (1987). English Specific Purpose: A Learningcentered Approach. Cambride: Cambrideg University Press.
- [10] Hoadley- Maidment. (1980). ESP in Perspectives: A Practical Guide. London: Collin Educational Publishing.
- [11] Hornby, Albert Sydney. (1972). Kamus pembaca: Inggeris-Melayu. Fajar Bakti, Kuala Lumpur.
- [12] International Maritime Organization. (1989). International Convention for the Safety of Life at Sea. IMO, London.
- [13] International Maritime Organization. (2003). COLREG: Convention on the International Regulations for Preventing Collisions at Sea, 1972 (Consolidated ed., 4th ed). London: International Maritime Organization.
- [14] International Maritime Organization and International Maritime Organization (2011).
  MARPOL Consolidated edition 2011: articles, protocols, annexes, unified interpretations of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the 1978 and 1997 protocols (5th ed). London: International Maritime Organization.
- [15] Jo.Mc. Donough. ESP in Perspective A Practical Guide. (1984). London: Collin ELT
- [16] Kamus pelayaran nasional dan international, https://www.indonesiashippingline.com/shipping/ 3852-istilah-%E2%80%93-istilah-pelayaranatau-kamus-pelayaran-nasional-daninternationa.html
- [17] Katz, J.J. (1972). Semantic Theory. New York: Harper & Row.
- [18] Leech, Geoffrey. (1981). Semantic: The Study of Meaning. England: Penguin Books Ltd.
- [19] Longman dictionary of contemporary English. (1987). Harlow: Longman.
- [20] Lyons, John (1977). Semantics. Cambridge University Press, Cambridge; New York.
- [21] Marklund, Asa. (2011). Translation of Technical Terms. A study of translation strategies when translating terminology in the field of hydropower generation. School of Language and Literature: Linnaeus University.
- [22] Nation, I. S. P (2001). Learning vocabulary in another language. Cambridge University Press, Cambridge.
- [23] Nurul Rahma M. (2021). An analysis of Technical Terms Used in Politeknik Ilmu Pelayaran. Indonesia: Makassar
- [24] Notoatmodjo, Soekidjo. (2010). Metodologi Penelitian Kesehatan. Jakarta: Rineka Cipta
- [25] Palmer, F. R. (1976). Semantics a new outline. Cambridge University Press.



- [26] Paulina, Robinson. (1990). English For Specific Purposes. Oxford: Pergamon Press, Ltd.
- [27] Paulina, Robinson. (1991) ESP Today: A Practioner's Guide. New York: Prentice Hall.
- [28] Strevens. (1988). Kristen Gatehouse. Key Issues in English for Specific Purposes (ESP) Curriculum Development.
- [29] West, Michael Philip (1953). A general service list of English words (Rev. and enlarged ed). Longman, Lond.
- [30] Wüster, Eugen and United Nations. Economic Commission for Europe. (1968), The machine tool: an interlingual dictionary of basic concepts: comprising an alphabetical dictionary and a classified vocabulary with definitions and illustrations., [1st ed.], Technical Press, London.
- [31] Zeid, Mestika. (2004). Metode Penelitian Kepustakaan. Jakarta: Yayasan Obor Indonesia.