# ELT Echo : The Journal of English Language Teaching in Foreign Language Context (2023), Vol 8(2)

DOI: 10.24235/eltecho.v8i2.14842

Published by English Language Teaching Department, IAIN Syekh Nurjati Cirebon, Indonesia. p-ISSN: 2579-8170, e-ISSN: 2549-5089



ELT Echo : The Journal of English Language Teaching in Foreign Language Context

journal homepage: https://syekhnurjati.ac.id/jurnal/index.php/eltecho



# ESP MATERIALS EVALUATION: INFORMATICS STUDENTS' PERSPECTIVES

Viar Dwi Kartika\*, Yuni Awalaturrohmah Solihah

Universitas Catur Insan Cendekia, Indonesia

\*Corresponding author: Viar Dwi Kartika, Cirebon, West Java, Indonesia, E-mail addresses: viardk@cic.ac.id

#### article info

#### abstract

Article history: Received: 16 August 2023 Accepted: 20 December 2023 Available online: 30 December 2023

Keywords: ESP ESP materials Informatics Students Students' Perspectives English for Specific Purpose is a significantly crucial course to be learnt for students of Higher Education relating to their own major studies. Along with this, ESP materials evaluation is a must after the learning process. This study investigated the students' perspectives on ESP materials for the Informatics students. The qualitative research used 15 questionnaires to collect the data from 50 students of Informatics in the third semester of Universitas Catur Insan Cendekia. The questionnaires were distributed through Google Form using the Likert scale, namely Strongly Agree (SA), Agree (S), Disagree (D), and Strongly Disagree (SD). The findings showed that they had a positive perspective from the students to evaluate the ESP materials that were implemented for one semester. The ESP materials evaluation involves four main points. Firstly, the ESP materials are helpful and interesting. Then, ESP materials make the students more confident to learn independently. ESP materials develop the students' critical thinking skills. Lastly, the ESP materials are presented attractively. This present study suggests the ESP teachers/practitioners to develop ESP materials to be applied in the ESP classroom.

# **INTRODUCTION**

In previous years, the development of science, technology, economics, and communication makes teaching English for Specific Purposes (ESP) the required branch of subject for students to master before becoming trustworthy professionals in the workplace (Al-Isaa, 2006; Rahmi 2019). In addition, Sikumbang and Dalimunte (2021) stated that teaching ESP is a student-centered approach to develop communicative competences in various majors such as academics, medical, accounting, business, IT and engineering. It means that the students could master English competences based on their major. It also affects the importance of teaching ESP for their future workplaces. It is supported by Richards (2010) stating that improving ESP could assist the students to develop their English competences in their major studies. The students' competency of ESP is concerned in Higher Education (Jordan & Jordan, 1997; Tarnopolsky, 2012). It means that teaching ESP is a significantly crucial course for students of Higher Education relating to their own major studies. According to Triristina (2021), the goal of ESP is to teach students English that is relevant to their field. ESP is also referred to as a teaching method that focuses on the needs of students with specific goals. ESP is primarily concerned with teaching specialized languages. This involves providing learners with specific skills and languages to learn to meet the needs of a specific purpose, profession or field (Hassan 2023). Solihah et al., (2023) stated that by learning ESP, the students could master the subject in different terms according to their own major. In other words, ESP refers to building the skills needed in a particular subject, profession, or workplace. ESP is not a kind of language or methodology, but rather an approach to language learning whose contents and methods are

based on learners needs (Hutchinson & Waters in Huan Nguyen and Thu Nguyen (2017). Similarly, Dudley-Evans and St- John (1998) view ESP as an approach, not a product, as a result of transmission of science and technology, internal and international communication.

In Universitas Catur Insan Cendekia, English for Specific Purposes (ESP) is the subject of English in the third semester of students, especially in Informatics Engineering, Information System, and Accounting. The students are taught about specific fields in English relating to the study program. For example, the students of Informatics Engineering master the specific English terms related to the Informatics. In other words, the students could master English as a subject in their Higher Education based on their expertise. It could be helpful in their future workplace. The students in this department are expected to have knowledge of computer science, particularly how to solve computer problems, how to design computer networks, and an understanding of computer components. Therefore, it is possible to get a job immediately after graduating from the department. One way so it's better to prepare the students for the expected performance is by teaching them English. If students are qualified, they can apply for jobs.

The ESP materials for the Informatics students in Universitas Catur Insan Cendekia focus on the English for Information Technology. It consists of 14 sections, including Jobs in IT, Rules in IT Workplace, Meeting in IT Workplace, IT System Specification, Interface, Multimedia Hardware, Output Devices, Internet Browsing, Network, Mobile Computing, Email, Databases, Web Hosting, and IT Current Changes. Those sections involve vocabulary building, activities from four skills of English: Listening, Speaking, Reading, and Writing, and the language features.

The term ESP has been defined as goal-oriented language learning (Robinson in Khoirunissa, Suparno, & Supriyadi 2018). In addition, Hutchinson & Waters (2018) stated that ESP is a students' need based on approach to language learning. This means that the content and methods of ESP lessons are based on the students' needs. This is related to Xhaferi (2010) who states that ESP courses are primarily concerned with language in context and not with usage of grammar rules or ways of structuring language. The skills taught and developed in the classroom are exactly what students need. It means that ESP is an approach to language learning designed to master the needs of students in specific fields and professions.

In teaching ESP, the lecturer creates materials based on the specific fields of English. According to McDonough et al. (2013), the lecturer is considered to discover what materials would be taught relating to the study program. According to Sikumbang and Dalimunte (2021), ESP materials are organized relating to the purpose and needs of students in their own major. It means that the lecturer is supposed to arrange the ESP materials based on the specific fields of English. The goal of the ESP course is to equip the learner with a specific level of English that corresponds to the context in which the language is used, i.e., the intended need. It means that decisions in designing a language teaching program in the context of ESP should depend on the learner's needs when learning English. Therefore, ESP materials should be carefully justified in terms of relevance and learner motivating potential.

Furthermore, there are some scholars investigating students' needs in ESP courses, especially in students of Higher Education. ESP course evaluation was carried out for the students of non-English major (Jaya & Subiyanto, 2017; Asmat el al., 2021; Sikumbang & Dalimunte, 2021; Satriani & Resmini, 2021; Sofa et al., 2022, Solihah et al., 2023). Those previous studies concerned the students' perspectives toward the ESP materials evaluation relating to the major studies. The study of Jaya and Subiyanto (2017) showed that the ESP problems in learning ESP were the vocabulary, course contents, grammar, lack of students' language skills and boring classes. The studies of Asmat et al. (2021) and Sikumbang and

Dalimunte (2021) focused on discovering students' perception toward the implementation of ESP courses in biology and medical studies. Those studies showed that the students gave positive perception in the ESP course due to the relevant materials to the biology and medical studies. In addition, Satriani and Resmini (2021) showed that the ESP materials developed the students' confidence to fulfill the tasks in the textbook. Sofa et al. (2022) showed that ESP Teachers' performances in Business major had their own strength to find out students' need for analysis, teaching method, teaching materials, teaching media, and assessment.

Regarding the previous studies above, there is limited study to examine the ESP learning materials for Informatics students. Therefore, this study concerns the ESP learning materials used for Informatic Engineering Major. According to the background of the study, the research question discussed in this study is: How is the students' perception of the ESP materials for Informatics students in Universitas Catur Insan Cendekia?

## **METHOD**

Qualitative descriptive method is used for this study. It aims to find out the phenomena holistically, through verbal and written descriptions, in a particular natural setting, and by applying a variety of natural methodologies (Moleong, 2011). This method examined the students' perception of ESP materials, especially in Informatics majors. As Oppenheim (2000) and Fraenkel, et.al (2012) noted, the purpose of using questionnaires was to collect a huge amount of information from a large population within only little time and little extended writing from the participants. To collect the data, the questionnaires consisting of 15 questions were distributed through Google Form using the Likert scale, namely Strongly Agree (SA), Agree (S), Disagree (D), and Strongly Disagree (SD). There were 50 students in the third semester of the Informatics Major, Universitas Catur Insan Cendekia as the subjects of this study. Moreover, the use of purposive sampling was used to consider as the subject of this study. From the data of questionnaires, each statement of question was analyzed in the form of percentages to recognize to what extent the percentage of students' perception toward the ESP materials during teaching and learning ESP in the classroom. The percentages of each statement in that questionnaire were represented qualitatively and were related to the previous studies and theories.

# FINDINGS AND DISCUSSION

Based on the research question above, the results of the questionnaires are presented in the following table. The percentages of this finding were calculated quantitatively to support the explanation how the students' perception toward the ESP Materials.

No	Statement of Students' Perception	Percentage (%)				
		Strongly Agree	Agree	Disagree	Strongly Disagree	
1	The learning materials used in ESP classes are very helpful and interesting	30.9 %	70.6 %	-	-	
2	Learning materials contain the latest materials / resources, equipped with illustrations and exercises	23.5 %	73.5 %	1.5 %	1.5 %	
3	Learning materials are presented attractively. (color, transition, and content)	29.4 %	55.9 %	11.8 %	2.9 %	

Table 1. Students' Perception of ESP Materials

4	Learning materials provide new knowledge according to	36.8 %	58.8 %	8.8 %	-
	the learning topic				
5	The learning materials make				
	it easy for students to				
	understand the				
	text/illustrations so that it is	22.1 %	73.5 %	4.4 %	-
	easy to relate them to				
	personal experiences/previous				
_	lessons				
6	The exercises / assignments				
	given can encourage students	29.4 %	67.6 %	5.9 %	-
	to develop skills, imagination, and analytics				
7	Learning materials used in				
'	ESP classes make students				
	more confident in doing	26.5 %	73.5 %	2.9 %	-
	exercises / assignments using	2010 /0			
	English language skills				
8	Learning materials facilitate				
	student activities to be able to	19.1 %	73.5 %	10.3 %	-
	learn independently				
9	The learning material				
	provides different variations				
	of the text so that students are	17.6 %	72.1 %	10.3 %	1.5 %
	motivated and have positive				/
	feelings towards the target				
10	language (English)				
10	Learning materials provide many activities including				
	activities that involve	20.6 %	72.1 %	5.9 %	1.5 %
	students in discussing the	20.0 %	/2.1 /0	5.9 70	1.5 /0
	lesson				
11	In ESP classes, the teacher				
	provides discussion material,				
	questions and answers,	22 4 0/	(1.9.0)	4 4 0/	150/
	guidance, and explanations to	32.4 %	61.8 %	4.4 %	1.5 %
	students about the topics				
	discussed.				
12	The learning materials				
	presented with visualization				
	are easier for students to	27.9 %	63.2 %	10.3 %	-
	understand during the				
12	learning The learning				
13	The learning material				
	presented with "authoring" media (combining text,				
	images, and audio) makes it	27.9 %	64.7 %	8.8 %	2.9 %
	easier for students to				
	understand the lesson				
14	Students are more motivated				
	in doing exercises to make an	17.6 %	77.9 %	7.4 %	-
	interactive class				
15	The learning material				
	presented and equipped with				
	pictures or visualizations	38.2%	63.2 %	2.9 %	-
	makes it easier for students to				
	understand the lesson.				

According to table 1, there are four main points to examine students' perceptions toward the ESP materials to be learnt in one semester. The descriptions are explained below.

# The ESP Materials Considered Helpful and Interesting

According to questions number 1,2,4, and 5, the ESP materials contain the latest resources, equipped with illustrations and exercises. The material also provides new knowledge according to the learning topic. It is also presented with text/illustrations so that it is easy to relate them to personal experiences/previous lessons. Based on the questionnaire result on number 1, the students' perception is presented in the form of percentages. 30.9% of students strongly agree and 70.6% of students agree that ESP learning material used is very helpful and interesting. The questionnaire number 2, 23.5% of students strongly agree, 73.5% agree, 1,5% disagree and 1.5% strongly disagree that the learning materials contain the latest resources, equipped with illustrations and exercise. Moreover, 36.8% of students strongly agree, 58.8% agree, and 8.8% disagree that learning materials provide new knowledge according to the learning topic. In addition, 22.1% students strongly agree, 73.5% agree, and 4.4% disagree that learning materials make it easy for students to understand the text or illustrations and it is related to personal experiences or previous lessons.

Regarding the results above, the ESP materials involve the authentic materials relating to the major that the students were studying. The authentic materials in ESP materials for the students of Informatics consist of exercises with the illustrations. According to Benavent and Pennamaria (2011), authentic materials increase learners' motivation but can be difficult to adapt to the learners' level of language, especially at the beginning level. Khoshhal (2022) stated that authentic materials in ESP are important for improving students' communication skills and preparing them for real-world situations. Furthermore, Satriani (2021) the materials design is an important task in ESP teaching, and good teaching materials should prepare students for the situations they will encounter which accommodate students' success in the teaching-learning process at class activity. Kusumawati (2018) In teaching English to Computer Science department, a lecturer should have appropriate media to make the learning more interesting and thus the students do not feel bored. It means that ESP materials can be very helpful and interesting for learners, but they should be carefully designed and tailored to the specific needs of the learners. Authentic materials can be particularly effective in improving communication skills and preparing learners for real-world situations. Benavent and Penamaria (2011) claimed that the authentic materials consist of real-world materials exploring the students to the specific contents for increasing the professional materials. It provides genuinely learning experiences in specific professional contexts. Irudayasami et.al (2020) added that the students felt the ESP course had a positive impact on their specific language skills for IT majors.

# The ESP Materials Fostering Students' Confidence and Independent Learning

Based on questionnaire number 7, 8, 9, and 14, learning materials used in ESP classes make students more confident in doing exercises/ assignments using English language skills. The materials could ease the student to be able to master the topic given independently. It provides different variations of the text so that students are motivated and have positive feelings in doing exercises to make an interactive class. According to the questionnaire result number 7, 26.5% students strongly agree, 73.5% agree, and 2.9% disagree that learning materials used in ESP classes make students more confident in doing exercises using English language skills. Besides, questionnaire number 8 shows that there were 19.1% students strongly agree, 73.5%

agree, and 10.3% disagree that learning materials facilitate student activities to be able to learn independently. Furthermore, 17.6% strongly agree, 72.1% agree, 10.3% disagree, and 1.5% strongly disagree that the learning material provides different variations of the text so that students are motivated and have positive feelings of English. In addition, 17.6% of students strongly agree, 77.9% agree, and 7.4% disagree that students are more motivated in doing exercises to make an interactive class.

According to Sabelina and Tiarina (2021), ESP learning develops students' independence to learn in class activities. It is related to Kırkgöz (2019) stating that ESP materials help the students to increase their abilities in needs analysis, develop materials, and adapt them to their specific needs. Therefore, the ESP materials make students more confident to do the exercises and develop their competences, especially in ESP in Informatics. Irudayasami et.al (2020) added that the ESP not only facilitates learning but also encourages students to apply their knowledge in specific needs.

# The ESP Materials Fostering Students' Critical Thinking

Regarding questionnaire number 6,10, and 11 the assignments given can encourage students to develop skills, imagination, and analytics that provide discussion material, questions and answers, guidance, and explanations to students about the topics discussed. It is related with Karapetian (2020) ESP learning materials can involve students in problem-solving-based learning, which can help them develop critical thinking skills. Based on the questionnaire result number 6, 29.4% students strongly agree, 67.6% agree, and 5.9% disagree that the assignments given can encourage students to develop skills, imagination, and analytics. Furthermore, questionnaire number 10, 20.6% strongly agree, 72.1% agree, 5.9% disagree, and 1.5% strongly disagree that learning materials provide many activities including activities that involve students in discussing the lesson. On the other hand, there were 32.4% students strongly agree, 61.8% agree, 4.4% disagree, and 1.5% strongly disagree that in ESP classes, the teacher provides discussion material, questions and answers, guidance, and explanations to students about the topics discussed. ESP is an inevitable trend in English language teaching and is now an integral part of higher language programs. Rather than focusing on academic success or language proficiency, this research aims to help language learners improve their critical thinking skills.

Subramaniam & Sulaiman (2022) assumed that a study examined children's critical thinking abilities and found that promoting an ESP-based language learning environment can enhance their critical thinking skills in writing. In addition, collaboration, critical thinking, and information technology abilities are highlighted as the three key components of the ESP online material design project (Fatriana 2022). It means that the ESP materials are designed to enhance students' critical thinking relating to the exercises in the ESP textbook. Moreover, Vanicheva, Kah, & Ponidelko (2015) stated that the ESP course makes students think critically as the important point for the language teachers.

# The ESP Materials Presented Attractively

Related to questionnaire number 3, 12, 13, and 15. The learning materials presented with visualization are easier for students to understand during the learning with "authoring" media (combining text, images, and audio) makes it easier for students to understand the lesson. The learning material presented and equipped with pictures makes it easier for students to understand the lesson. According to questionnaire number 3, 29.4 % students strongly agree, 55.9% agree, 11.8% disagree, and 2.9% strongly disagree that learning materials are presented attractively with color, transition, and content. Besides questionnaire number 12, 27.9% students strongly agree, 63.2% agree, and 10.3% disagree that the learning materials presented

with visualization are easier for students to understand during the learning. Therewith number 13, 17.6% students strongly agree, 77.9% agree, and 7.4% disagree that the learning material presented with authoring media, combining text, images, and audio makes it easier for students to understand the lesson. It could be seen that 38.2% of students strongly agree, 63.2% agree, and 2.9% disagree, because the learning material presented and equipped with pictures or visualizations makes it easier for students to understand the lesson.

Apostolovski (2019) stated that ESP learning material development, an attractive presentation can be achieved using attractive colors and lots of white space. A presentation on material design in ESP suggests providing students with interesting practice activities that focus on the topic. Materials can support a course by revising basic skills or language, or enhance a course by providing extra topics for discussion. In this study, the ESP materials include the visualization from the images, authoring media, combining text, and audio recording. Those materials make students not be bored to study ESP. In addition, those materials are full of color that attract the students to the topic given in the ESP materials.

# CONCLUSION

From the results of the data in this study, the writer concluded that; First, students have a positive perception of the materials they use when studying ESP. The materials that teachers provide for the learning process are very diverse. This material is supported by a learning site on the Internet to increase students' knowledge of the material they are studying. Students also claim that the study materials help them self-study. Activities and tasks are more varied than face-to-face classes. Students also have a positive perception of the provision of learning materials that teachers use for teaching ESP. Apart from that, students also have negative perceptions. The learning materials they use in their ESP learning process are considered more difficult than those used in general or basic English. Some revisions need to be made to the learning materials provided.

# ACKNOWLEDGEMENTS

The writers would like to express their most profound appreciation to all those who provided us the possibility to complete this research paper. We also would like to thank our students from the third semester of Informatic Engineering Major at Universitas Catur Insan Cendekia who support the research for their patience to complete the questionnaire to formulate the results.

# REFERENCES

- Al-Issa, A. (2006). The cultural and economic politics of English language teaching in Sultanate of Oman. *Asian EFL Journal*, 8(1), 194–218.
- Benavent & Peñamaría (2011). Use of Authentic Materials in the ESP Classroom. Colegio Diocesano-Ávila, Universidad de Salamanca, 89-94.
- Dudley-Evans, T., & St-John, M. J. (1998). Developments in English for specific purposes: A multi-disciplinary approach: Cambridge University Press.
- Fatriana, N., Hamidy, F. (2022). Collaborative ESP Online Material Design Project and English Education Students's 21<sup>st</sup>Century Skills. Proceedings of 4<sup>th</sup> International Conference on Progressive Education 2022 (ICOPE 2022). DOI <u>10.2991/978-2-38476-060-2\_67</u>
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). How to design and evaluate research in education (8th Ed.). New York: McGraw-Hill Humanities.

- Hassan, A.; Alawawda, M.; Alzahrani, F.; and Naz, N. (2023) "Developing an ESP-Based Language Learning Environment to Help Students Improve Critical Thinking Skills in Written Output," Information Sciences Letters: Vol. 12 : Iss. 4, PP -. Available at: https://digitalcommons.aaru.edu.jo/isl/vol12/iss4/31
- Huan Nguyen and Thu Nguyen. (2017). English for Specific Purposes (ESP): Perceptions of Students and Teachers of Learning Needs at a Vietnamese School. *International Journal of Advanced Research (IJAR)*. <u>http://dx.doi.org/10.21474/IJAR01/3877</u>
- Irudayasami, J., Souidi, N. M., & Hankins, C. (2020). Impact of an ESP Language Proficiency of Undergraduate Engineering Students: A Case Study at Dhofar University, International Journal of Higher Education, 9 (2), 309-320. <u>https://doi.org/10.5430/ijhe.v9n2p309</u>
- Jordan, R. R., & Jordan, R. R. (1997). English for academic purposes: A guide and resource book for teachers. Cambridge University Press.
- Karapetian, A. O. (2020). Creating ESP-based language learning environment to foster critical thinking capabilities in students' papers. *European Journal of Educational Research*, 9(2), 717-728. <u>https://doi.org/10.12973/eu-jer.9.2.717</u>
- Khoirunnisa, Suparno & Supriyadi (2018). ESP Teacher's and Students' Perceptions on Teaching Speaking for a Tourism Program. *Dinamika Ilmu, 18*(1), 37-49. http://dx.doi.org/10.21093/di.v18i1.945
- Kusumawati, Darmawan, and Latifah. (2018). English Language Teaching Educational Journal (ELTEJ) 1(1), pp-13-21.
- Kırkgöz, Y. (2019). ESP in teacher education: a case study. In S. Papadima-Sophocleous, E. Kakoulli Constantinou & C. N. Giannikas (Eds). ESP teaching and teacher education: current theories and practices, 13-26. <u>https://doi.org/10.14705/rpnet.2019.33.923</u>
- Apostolovski, M. M. (2019). Developing Teaching Materials for ESP Courses: The Last Option Many ESP Teachers Resort to. SEEU Review Volume 14 Issue 2. Language Center, South East European University, Tetovo, North Macedonia. DOI: 10.2478/seeur-2019-0009
- McDonough, J., Shaw, C., & Masuhara, H. (2013). Materials and methods in ELT: A teacher's guide (3rd edition). London: Blackwell.
- Moleong, L. J. (2011). Qualitative Research Methods. Revised Edition. Bandung: PT Remaja Rosdakarya.
- Oppenheim, A. N. (2000). Questionnaire design, interviewing, and attitude measurement: Bloomsbury Publishing.
- Rahmi, Abduh. (2019). Students Perception of ESP Business English Teaching Implementation in Makassar National Informatics Polytechnic. Jurnal Adminitrare: Jurnal Pemikiran Ilmiah dan Pendidikan Adminitrasi Perkantoran, 6 (2), 167-176. <u>https://doi.org/10.26858/ja.v6i2.12514</u>
- Richard, J.C., & Schmidt, R. (2010). Longman Dictionary of Language Teaching and Applied Linguistics (4<sup>th</sup> Edition).
- Satriani, I. & Resmini, S. (2021). ESP coursebook evaluation: Students' Perception on Activities and Tasks. *ELT in Focus*, 4(1), 20-25.
- Sikumbang, R.S. & Dalimunte, A.A (2021). Medical Students' Perceptions and Target Needs in English for Specific Purposes Courses. *Language Literacy: Journal of Linguistics, Literature and Language Teaching*, 5(2), 553-559. <u>https://doi.org/10.30743/ll.v5i2.4511</u>
- Solihah, Y. A., Kartika, V. D., & Setiawan, F. (2023). Challenges on Teaching and Learning English for Specific Purposes (ESP) for Indonesian Undergraduate Students. *LET: Linguistics, Literature and English Teaching Journal, 13*(1), 50–67. <u>https://doi.org/10.18592/let.v13i1.9090</u>

- Subramaniam & Sulaiman (2022). Enhancing Students Critical Thinking Skills in Writing by promoting ESP- Based Language Learning Environment. *Journal of Positive School Psychology*, 6(4), 3717-3730.
- Sofa, N., Mariam, I., and Saputro (2022). Student Perception of ESP Teachers' Performance at Indonesian State Polytechnics. *ASSEHR* 719, pp. 22–, 2022. <u>https://doi.org/10.2991/978-</u>2-494069-83-1\_5
- Triristina, Khabib. (2021). Students' Perception of Effectiveness of Teaching ESP for Social and Political Science Program. SHE Journal: Social Science, Humanities and Education Journal, 2(2) 83-95. <u>http://dx.doi.org/10.25273/she.v2i2.9228</u>
- Tarnopolsky, O. (2012). Constructivist blended learning approach: to teaching English for specific purposes. *Walter de Gruyter*.
- Vanicheva, T., Kah, M., & Ponidelko, L. (2015). Critical thinking within the current framework of ESP curriculum in technical universities of Russia, *Procedia - Social and Behavioral Sciences*, 199, 657 – 665.
- Xhaferi, B. (2010). Teaching and learning ESP vocabulary. *Revista De Lenguas Para Fines Específicos*, 16, 229–255. Retrieved from https://ojsspdc.ulpgc.es/ojs/index.php/LFE/article/view/135