

An Introspective Stance on EST Graduates' Learning Needs in Tlemcen University, Algeria

وقفة تأملية لطلبة الماستر بخصوص احتياجات التعلم خلال درس اللغة الانجليزية للعلوم و
التكنولوجيا في جامعة تلمسان بالجزائر

✍ Somia Meziani

Somia.meziani@hotmail.com

Oran 2 University(Algérie)

Reçu le:22 /10/2022 Accepté le:20 /02 /2022 Publié le:05/04/2023

ABSTRACT:

ملخص البحث

The learner's needs and present situation analysis are a paramount step in the Needs Analysis process. More so during a virtual classroom setup. 43 students from the Tlemcen University Electronics and Industrial Engineering First-year Masters classes answered a questionnaire investigating: learning needs, language activities, learning tools, and materials' rating.

The study found that EST courses were conducted online, using forums and promoted conversations. It consisted of speaking and listening activities. The students were satisfied with the teacher and peers' involvement during classes. The study highlighted limitations concerning the relevancy of the materials, and students' satisfaction with materials and assessments. The issues of instructors' perceived mastery of both English and subject matter knowledge warrants further research and invites proper NA course.

Keywords: Learning Needs Analysis, English for Specific Purposes, English for Science and Technology, English Course Evaluation.

تعد احتياجات المتعلم وتحليل الوضع الحالي خطوة أساسية في عملية تحليل الاحتياجات. خصوصا أثناء إعداد الفصل الدراسي الافتراضي. 43 طالبا من جامعة تلمسان من الإلكترونيا والهندسة الصناعية، فصول الماستر السنة الأولى أجابوا على استبيان يبحث: احتياجات التعلم ، والأنشطة اللغوية ، وأدوات التعلم ، وتقييم المواد.

وجدت الدراسة أن حصص EST أجريت عبر الإنترنت ، باستخدام المنتديات و روجت للمحادثات و تتألف من أنشطة التحدث والاستماع. كان الطلاب راضين عن مشاركة المعلم والأقران خلال الحصص. سلطت الدراسة الضوء على المشاكل المتعلقة بملاءمة المواد، ورضا الطلاب عن المواد والتقييمات. تتطلب قضايا إتقان المعلمين لكل من اللغة الإنجليزية والمعرفة الموضوعية مزيدًا من البحث وتدعو إلى دروس مبنية على تحليل الاحتياجات.

الكلمات المفتاحية: تحليل احتياجات التعلم، اللغة الإنجليزية لأغراض محددة، اللغة الإنجليزية للعلوم والتكنولوجيا، تقييم دورات اللغة الإنجليزية.

1. Introduction:

The late 1960s saw the emergence of ESP as a specialized English teaching and learning approach. The emergence of the science and technology field and the economic expansion of oil-rich countries consolidated the position of English as a science and technology communication language. The learning also shifted towards acquiring professional skills and performing activities (Richards, 2001). Mackay and Mountford (1978, p7) puts it bluntly by stating: 'success or failure in science is in large measure, a consequence of success or failure in English'.

ESP intends to prepare the learner to use English within academic, professional, or workplace environments (Basturkmen, 2006, p17). This view of ESP is reiterated by (Hutchinson and Waters, 1987, p.8) when saying: 'Tell me what you need English for, I will tell you the English you need. While characterizing ESP (Dudley-Evans and St. Johns, 1998, p.4) claim it is needs-driven and emphasizes practical outcomes.

1.1. Needs in the ESP context

To be needs-driven, ESP consists of a needs assessment and analysis as a vital investigation step to tackle before proposing consequent new learning programs (Brown, 1995). The NA procedure boils down to establishing the course's what and how (Dudley-Evans & St John, 1998).

Needs analysis refers to collecting and assessing course design relevant information. It is a continuous process where instructors adapt their teachers in function with their understanding of the learners and the effectiveness of their approach. Learners' Needs incorporate many aspects, the learner's goals, background, proficiency, reasons for learning preferences, and situations they aim to communicate (Hayland, 2006).

The analysis results drive the syllabus design (Robinson, 1991). NA development historically focused on objective needs in the beginning. It soon started to take an ethnographic critical stance to investigate idiosyncratic and environmental influences on the NA process (Johns & Makalela, 2011).

Needs analysis comes in different models, TSA (Target Situation Analysis), PSA (Present Situation Analysis), LSA (Learning Situation Analysis), MA (Means Analysis), and Language Audit make up any NA process. Many theoretical models emerged for the NA: Munby (1978), McDonough (1984), Hutchinson & Waters (1987), Robinson (1991), West (1994), Jordan (1997), and Dudley-Evans & St. John (1998) (Jordan, 1997). An ESP course design driven by needs analysis is termed a learning-centered approach (Hutchinson and Waters, 1987). They mainlined the importance of lively and intriguing teaching and learning styles in subsequent materials.

1.2. How to analyze needs

Conducting NA calls upon the use of many research tools, namely surveys, questionnaires, interviews, attitude scales, intelligence tests, language tests, job analysis, content analysis, statistical analysis, fixing of objectives, observation, informal consultations with stakeholders (learners themselves, the teaching institutions, and the user-institution). It takes into account the resources, objectives, methods of assessment, and curricula (Richterich & Chancerel, 1977).

“Learner needs” or “needs” are interpreted following two tenets:

- **Goal-oriented:** relating to what the learner wants to do with the language and the learning objective (Dudley-Evans & St John, 1998; Widdowson, 1978; Robinson 1991) called objective needs by (Berwick, 1989), the leading concept is communicative needs advocated by (Munby, 1978) and target needs (Hutchinson & Waters, 1987).

- **Process-oriented:** relating to what the learner needs to do to acquire the language, accounting for variables such as the learner's attitude, motivation, awareness, personality, wants, expectations, and learning styles (Brindley, 1989). This view is called subjective needs (Widdowson, 1978).

Needs are treated from the perspective of the EAP, where a special focus is given to macro-level skills (Jordan, 1997, Hyland, 2006). For instance, academic writing was subject to great interest by researchers in academic settings (Paltridge, 2009).

1.3. Learning Needs

Learner's needs are approached from two angles; target needs and learning needs (Hutchinson and Waters, 1987). This study focuses on the second approach: learning needs.

The approach refers to numerous factors, including who the learners are, their demographics (age, gender), their sociocultural and learning background, specifically of specialized contents. Their knowledge of English language and their attitudes towards it, and the culture of English-speaking world. It also spans their interest in studying English, suitability of pedagogical resources and the individual learning styles.

From an organization's perspective, aspects that become relevant in the ESP and NA context are the knowledge of the specialized contents on behalf of the instructor, suitability of the teaching materials, time of the course, the appropriateness of the learning and teaching methods in use, Institutional context, and organizational culture, (Hutchinson and Waters; Dudley-Evans and St John, 1998; Berwick, 1989; Brindley, 1989; Richards, 2001). All of these factors are deemed to be impactful on both the ESP course and the NA process.

Additionally, the incorporation of the learner's background knowledge has been highlighted (Richerich & Chancerel, 1977) as well as the effects of voluntary learner interest in ESP courses (Eggly, 2002). There is also a general principle that the learner needs to play an active role in the learning process (Horwitz, 1999) and that the learning circumstances may have a major influence on the learner's beliefs and strategies of instruction. The NA process is also believed to be subject to influence from the commonsense thinking of the practitioner, and by subjective interpretations and use of the data during assessment (Berwick, 1989).

The context plays a central role in both ESP teaching and learning (Holliday & Cooke, 1982; Jordan, 1997; Richerich & Chancerel, 1977) and if inadequately considered, might be detrimental to course goals (Long, 2005b) as well.

Even from the NA researchers perspective, ESP suffered historically from methodology neglect (Widdowson, 1983, p87). For instance, (Hutchinson and Waters, 1987) and (Swales, 1978) found that the syllabuses did not reflect the findings from the NA assessment.

This study investigates the learning needs of the students of first-year Master's students of Electronics and Industrial Engineering at the University of Tlemcen in Algeria. The study aims to approach learners' preferences and current perception of the ESP setting highlights disjunction and pointing to pitfalls regarding the current practices.

The study investigates the following aspects:

- Assessing electrical engineering graduates learning needs in the current EST setting.
- Investigating the learning/teaching practices and preferences during an online EST course.
- Observing current perception of the EST course.

To assess these variables a questionnaire has been used and following sections detail the study procedure and findings.

2. Methods

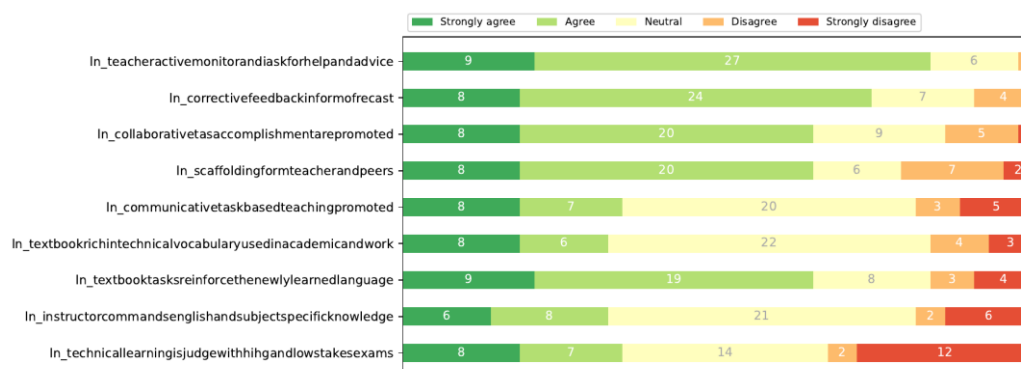
The learning needs are investigated using a questionnaire form. Each item presented 7 items Likert scale, a 5-star rating, and order according to preference questions. The investigator presented the questionnaire to the students at the university, explained the questions, and clarified learners' requests while filling out the questionnaire.

The questionnaire included sections about learning needs, learning activities preferences, current rating of learning materials, and ESP course setting. The results are quantitative frequency measures and proportions (percentages).

The study included 43 students from the Master first-year students at the university of Tlemcen, Algeria. Students belong to two classes, Electronics and Industrial Engineering. The mean age of the participants was 24 years, and 29 of them were males.

3. Results and findings

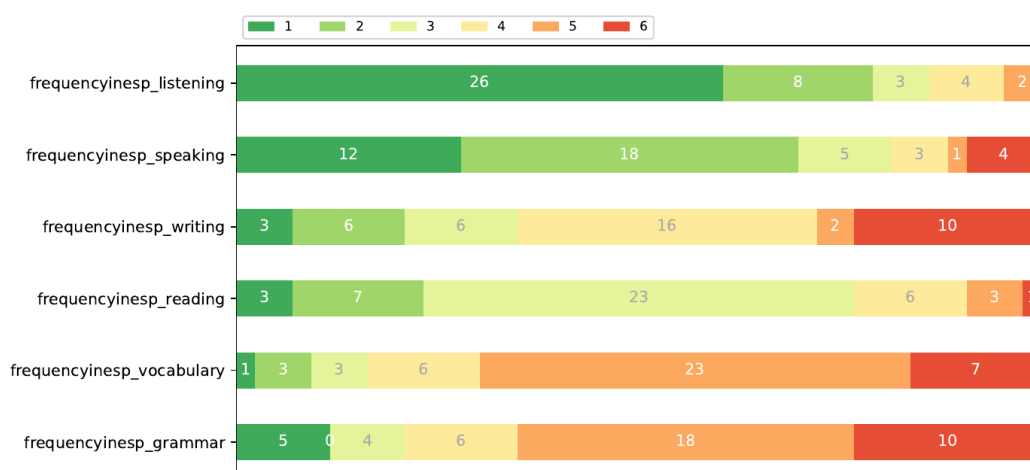
3.1. Learning needs



Firstly, the interest into the current ESP setting and how it related to the major learners' needs were assessed. The participants largely agreed to the involvement of teachers in monitoring and responding to questions (84%) and in getting corrective recast (74%). Similarly, (65%) of participants affirmed that the class promoted collaborative task accomplishment, and scaffolding feedback was present from peers and teachers. (65%) of our participants positively attested that textbook tasks reinforced the newly learned language skills.

Meanwhile, (65%) and (67%) of respondents were either neutral or disagreed to the communicative task based teaching being promoted, and that the textbook were rich in technical vocabulary relevant to work and academia respectively. (67%) of the participants were neutral or disagreed completely with their instructor command of both English and subject matter knowledge. (65%) of respondents were neutral or disagreed. Twelve respondents strongly disagreed that the technical English is judged with high and low stakes exams.

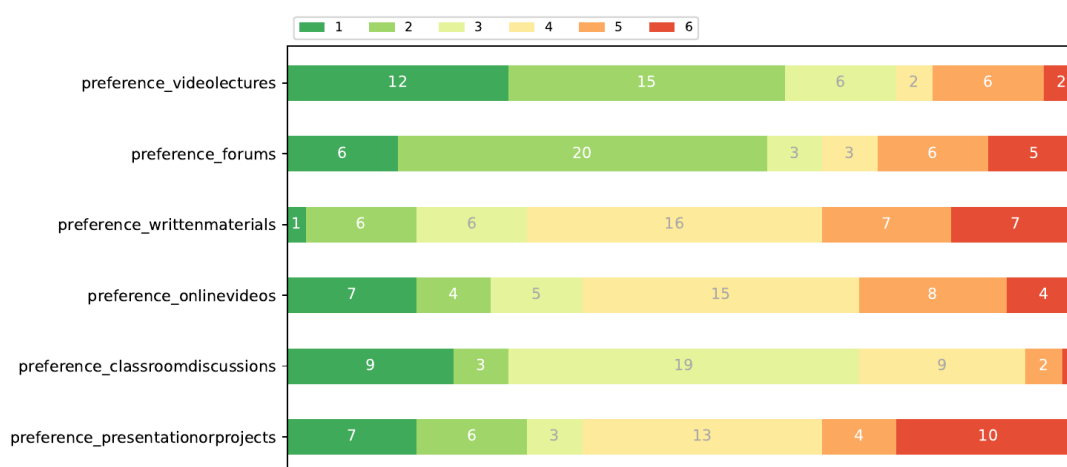
3.2. Frequency of activities in ESP course:



The frequency of ESP activities in class showed the predominance of communicate tasks with 79% and 70% of our respondents ranking listening and speaking at first and second most frequent activity in class respectively.

Reading activities comes as the third most frequent task with 23% of the participants putting it in the first three ranks. Writing tasks are slightly less frequent than reading with 20% respondents ranking it at the first three positions. Grammar and vocabulary activities shared the least frequent ratings coming at 5th and 6th rated by 11% and 9% of our respondents respectively.

3.3. Learners' account of teaching tools:

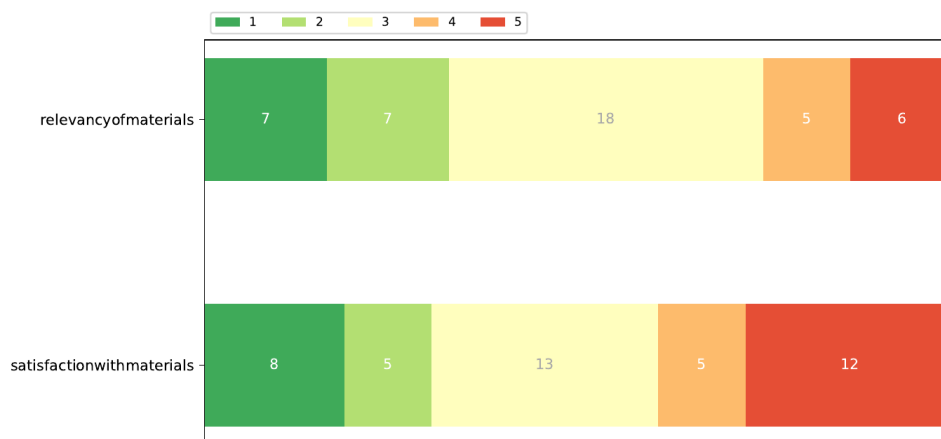


When investigating learners' preferences for the teaching/learning tools, learners ranked the available tools as follows: 27 participants put video lectures as first or second most preferable, 26

participants picked forums instead. The other mediums such as classroom discussions were mostly preferable with 12 participants giving them the first two ranks and 19 ranking it as the third most preferable tool.

Our participants rather disliked the written materials only 7 participants gave them the first two ranks. Similarly, the online videos were mostly ranked below fourth. The presentation projects was ranked in the top two ranks by 13 participants, meanwhile it was mostly rated as fourth most preferred or below.

3.4. Relevancy of the course materials:



26% of the learners were happy with the relevancy of the materials giving 4 or 5 stars rating to the current. Meanwhile, 30% gave the item 3 stars rating. 32% of the participants were rather dissatisfied rating the materials as 1 or 2 stars only.

Similarly, 39% of the learners were satisfied with the materials used in the current ESP course. 30% of the participants gave a 3 stars rating, whereas 30% gave below average ratings when judging their satisfaction with the materials.

4. Discussions:

The findings of the study complement previous work done by the researcher investigating target situation needs and language skills auto assessment (Meziani, forthcoming) and aims to investigate the learning needs and satisfaction of the learners with the current ESP settings. This is achieved through Investigating learning needs, teaching tools, students' preferences, and satisfaction with the materials and setting.

The study found that the ESP course at the university of Tlemcen, for Electronics and Industrial Engineering classes is mainly focusing on listening and speaking activities, and to a lesser account reading and writing. Very few activities related to grammar or vocabulary directly. The course is delivered through video lectures and is taking advantage of online forums, where classroom discussions seem to be favorable to the learners. Lesser focus is given to writing materials, videos, or presentation projects. This is related to the use of the Microsoft Teams(R) platform to conduct the courses during the application of the covid sanitary precautions. Overall, the learners were mostly neutral or discontent with the relevancy of the materials used in the course. Understandably, they were dissatisfied with the materials used in a whole. The findings highlight the need to take care of proper NA-driven course design to achieve higher satisfaction and therefore heighten the course's effectiveness.

The learning needs of the students within the ESP classroom were positive as far as the teacher involvement and peer feedback and support are concerned. This is reassuring since the online nature of the course seems to have enabled students to act more freely and collaborate on the course discussions. The textbook materials, when used, seem to be reinforcing the learned skills. This a positive finding although, the overall satisfaction of the materials was low. This can be because the written materials were used rarely during the course. These findings are positive in the sense that it affirms that the teachers were able to give the learners a positive sense of presence and support during the course regardless of being in a virtual setup.

The course seems to fail to promote communicative tasks, which might be due to the online setup which might hinder the extent to which in-between communications might happen. Besides, actively engaging in communication tasks requires setting up multiple channels and dividing groups to avoid a messy conversation room including the entire classroom. The written documents, when present, fails also to satisfy students' needs concerning vocabulary at work and in academia. This can be achieved by integrating the relevant vocabulary and grammar in communicative activities following a genre analysis and needs analysis to build relevant materials that satisfy students and compel them to learn.

If we focus our analysis solely on the professional discourses with their vocabularies it would be a partial viewpoint. A viewpoint paralleled to their being a single English represented by its grammar and skills. An English which is usable across situations. Parting with this idea would enable us as researchers and teachers to see that students' difficulties are not proficiency issues or laziness. This disruption would also restore us from believing that additional grammar classes would help correct the situation. The new vision encourages us as ESP practitioners to integrate language teaching and learning with the discipline and professions (Hayland 2022).

One alarming finding is when the learners disagreed with the item stating their instructors commanded both English and subject matter knowledge. This is mostly due to the instructors being trained exclusively on one and not necessarily on the other. Disrupting the faith of the learner might cause him to lose involvement and influence his motivation which is crucial to his learning effectiveness. This is supported by the fact that most participants disagreed that their learning in the ESP course is judged with proper high and low-stakes exams. Presenting the course as a peripheral one to the concurrent engineering classes fails to convey the importance of English language acquisition for future work and academic environments.

The view that ESP teachers are subservient to their subject matter peers (Hayland 2022) would not have any positive results and our findings attest to this fact. Consequently, it is important to consider a collaborative atmosphere where the learner is put first.

5. Conclusion:

The investigation of the current learning needs satisfaction, and ESP course current situation revealed important concerns.

Fundamentally, the view of the course as peripheral and considering ESP training as subservient to the subject matter knowledge proved detrimental to the learning experience.

This negative effect was revealed by high materials dissatisfaction and low relevancy ratings. The

course was communicative in nature, nevertheless, no communicative task based teaching was promoted potentially.

On a more positive stance, the course happened online and the online presence, participation, monitoring and tools use were preferable and positively perceived.

Some learning needs remains to be addressed, where the risen concerns suggest that a proper NA driven ESP course can help mend the gap and satisfy the pending learners' needs.

6. References:

1. Basturkmen, H. (2006). *Ideas and Options in English for Specific Purposes*. Lawrence Erlbaum Associates, Publishers.
2. Berwick, R. (1989). Needs assessment in language programming: From theory to practice. In R. K. Johnson (Ed.), *The Second Language Curriculum* (pp. 48–62). Cambridge University Press. <https://doi.org/10.1017/CBO9781139524520.006>
3. Brindley, G. (1989a). Assessing achievement in the learner-centred curriculum (Vol. 5). Nceltr.
4. Brindley, G. (1989b). The role of needs analysis in adult ESL programme design. In R. K. Johnson (Ed.), *The Second Language Curriculum* (pp. 63–78). Cambridge University Press. <https://doi.org/10.1017/CBO9781139524520.007>
5. Brown, J. D. (1995). *The Elements of Language Curriculum: A Systematic Approach to Program Development*. Heinle & Heinle Publishers, 20 Park Plaza, Boston, MA 02116.
6. Dudley-Evans, T., John, M. J. S., & John, M. J. S. (1998). *Developments in English for Specific Purposes: A Multi-Disciplinary Approach*. Cambridge University Press.
7. Eggly, S. (2002). An ESP program for international medical graduates in residency. *English for Specific Purposes*, 105–115.
8. Flowerdew, L. (2012). Needs Analysis and Curriculum Development in ESP. In *The Handbook of English for Specific Purposes* (pp. 325–346). John Wiley & Sons, Ltd. <https://doi.org/10.1002/9781118339855.ch17>
9. Grellet, F., Grellett, & Francoise, G. (1981). *Developing Reading Skills: A Practical Guide to Reading Comprehension Exercises*. Cambridge University Press.
10. Holliday, A., & Cooke, T. (1982). An ecological approach to ESP. *Lancaster Practical Papers in English Language Education*, 5, 123–143.
11. Horwitz, E. K. (1999). Cultural and situational influences on foreign language learners' beliefs about language learning: A review of BALLI studies. *System*, 27(4), 557–576. [https://doi.org/10.1016/S0346-251X\(99\)00050-0](https://doi.org/10.1016/S0346-251X(99)00050-0)
12. Hutchinson, T., & Waters, A. (1987). *English for Specific Purposes*. Cambridge University Press.
13. Hyland, K. (2022). English for Specific Purposes: What Is It and Where Is It Taking Us? *ESP Today*, 10(2), 202–220. <https://doi.org/10.18485/esptoday.2022.10.2.1>
14. Hyland, K. (2006b). The 'other' English: Thoughts on EAP and academic writing. *The European English Messenger*, 15(2), 34–38.
15. Johns, A. M., & Makalela, L. (2011). Needs analysis, critical ethnography, and context: Perspectives from the client and the consultant. *New Directions in English for Specific Purposes Research*, 197–221.
16. Jordan, R. R. (1997). *English for Academic Purposes: A Guide and Resource Book for Teachers*. Cambridge University Press.
17. Long, M. H. (2005). *Second Language Needs Analysis*. Cambridge University Press.
18. Mackay, R., & Mountford, A. J. (1978). *The teaching of English for special purposes: Theory*

- and practice. *English for Specific Purposes*, 2–20.
19. Maleki, A. (2008). ESP teaching: A matter of controversy. *ESP World*, 1, 17.
 20. Meziani, S., & Zaghar, F. (Forthcoming 2023) Graduate Electrical Engineer's Target Needs Fullfillment in Current ESP Courses: Learner's Assessments & Aspirations. *ASJP*
 21. Munby, J. (1981). *Communicative Syllabus Design: A Sociolinguistic Model for Designing the Content of Purpose-Specific Language Programmes*. Cambridge University Press.
 22. Nation, P. (n.d.). *Designing and Improving a Language Course*. 14.
 23. Needs analysis in language teaching | *Language Teaching* | Cambridge Core. (n.d.). Retrieved October 11, 2022, from <https://www.cambridge.org/core/journals/language-teaching/article/abs/needs-analysis-in-language-teaching/3A0AA342947388957E960EBD31B17FBD>
 24. Paltridge, B., Harbon, L., Hirsh, D., Shen, H., Stevenson, M., Phakiti, A., & Woodrow, L. (2009). *Teaching academic writing: An introduction for teachers of second language writers*. University of Michigan Press Ann Arbor, MI.
 25. Rahman, M. (2015). English for Specific Purposes (ESP): A Holistic Review. *Universal Journal of Educational Research*, 3(1), 24–31.
 26. Richards, J. C. (2001). Program factors in effective foreign and second language teaching. *Journal of Southeast Asian Education*, 2(2), 373–412.
 27. Richterich, R., & Chancerel, J.-L. (1978). *Identifying the Needs of Adults Learning a Foreign Language*. Manhattan Publishing Co.
 28. Swales, J. (1987). Communicative language teaching in ESP contexts. *Annual Review of Applied Linguistics*, 8, 48–57.
 29. Seedhouse, P. (1995). Needs analysis and the General English classroom. *ELT Journal*, 49(1), 59–65. <https://doi.org/10.1093/elt/49.1.59>
 30. Skills, Abilities, and Contexts of Reality | *Annual Review of Applied Linguistics* | Cambridge Core. (n.d.). Retrieved October 11, 2022, from <https://www.cambridge.org/core/journals/annual-review-of-applied-linguistics/article/abs/skills-abilities-and-contexts-of-reality/2850EC22F8BDF9316D0096536AF1D8B3>
 31. TECHNOLOGICAL CHANGE AND ENGLISH TEACHING: A DELPHI STUDY OF AMERICAN, BRITISH, AND CANADIAN ENGLISH EDUCATORS' VIEWS OF THE FUTURE OF SECONDARY ENGLISH TEACHING (WORD-PROCESSING, MEDIA, LITERACY) - ProQuest. (n.d.). Retrieved October 11, 2022, from <https://www.proquest.com/openview/875ee93e00e23047afbc18009868b641/1?pq-origsite=gscholar&cbl=18750&diss=y>
 32. Widdowson, H. G. (1978). *Teaching Language as Communication*. OUP Oxford.
 33. Widdowson, H. G. (1998). Communication and community: The pragmatics of ESP. *English for Specific Purposes*, 17(1), 3–14. [https://doi.org/10.1016/S0889-4906\(97\)00028-8](https://doi.org/10.1016/S0889-4906(97)00028-8)