proceedings

International Academic Symposium of Social Science 2022

3 July 2022 | Kota Bharu, Malaysia
iassc.my

MDPI

Proceeding Paper

A Study on Needs Analysis in English Teaching and Learning Skills for Sultan Salahuddin Abdul Aziz Shah Polytechnic Engineering Students Pursuing Degree †

Seeni Mehraj Begam Bt V. K. S. Vyzul Karnine [1,2,*]**, Abdul Shakour Duncan Preece** [1,*] **and Siti Salmiah Binti Muhammad** [1,3,*]

1   Kulliyyah of Education, International Islamic University Malaysia, Kuala Lumpur 53100, Selangor, Malaysia
2   General Studies Department, Sultan Salahuddin Abdul Aziz Shah Polytechnic, Persiaran Usahawan, Seksyen U1, Shah Alam 40150, Selangor, Malaysia
3   Faculty of Major Language Studies, Islamic Science University of Malaysia, Bandar Baru Nilai, Nilai 71800, Negeri Sembilan, Malaysia
*   Correspondence: mehrajraf@hotmail.com (S.M.B.B.V.K.S.V.K.); shakour@iium.edu.my (A.S.D.P.); msalmiah@usim.edu.my (S.S.B.M.)
†   Presented at the International Academic Symposium of Social Science 2022, Kota Bharu, Malaysia, 3 July 2022.

Abstract: It is known that one of the most vital indicators in scaffolding teaching and learning is carrying out a needs analysis which is considered part of continuous improvement of the curriculum design. In order for the students to gain knowledge and to achieve success in their future goals, the needs are met through a needs analysis. The aim of this study is to investigate appropriate categories of skills in English language learning required for degree-level students in engineering. A total of 53 students from Electrical and Civil Engineering departments from Sultan Salahuddin Abdul Aziz Shah Polytechnic were involved in this research. A survey questionnaire was used in this investigation. Descriptive statistics were used for the analysis, and it was discovered that the prospective engineering students perceived learning English as highly important. The results also revealed that the highest skills in needs and order were writing, speaking, listening and reading. The students encountered challenges and difficulties pertaining to grammar, pronunciation, idioms, and vocabulary even though the students' ability level is Intermediate Upper in English. The needs analysis suggests directions for future research on improving the related skills.

Keywords: English language learning skills; needs analysis; importance; purpose; level of ability

1. Introduction

Graduates' unemployment is a long-standing issue that has recently became a matter of growing distressing concern amidst the COVID-19 pandemic outbreak and global economic downturn [1]. Engineering graduates are not spared. In fact, similarly to many other graduates, engineering students have to possess good English language proficiency skills in order to secure positions in this highly competitive and demanding work environment, both in public and private sectors. In addition, Mohamad et al. [2] reported that soft skills in graduates are considered vital in contrast with the accomplishment achieved from their academic performance. It is known that the industries are demanding very highly skilled employees to be recruited. The needs of the industries need to be fulfilled by applying appropriate pedagogical implementations in Malaysia higher education institution which in the end is expected to produce an expert labor force. This problem statement is clearly highlighting an indication of demand from the industries, the first step that needs to be implemented is to carry out a continuous improvement in the course delivered for the students in higher education institutions. Continuous improvement involves knowing the respondents' needs and wants through a needs analysis. The keystone for English for

Specific Purposes (ESP) is a needs analysis in order to carry out an attentive course [3]. Thus, a needs analysis will be an effective step in preparation for a language course to evolve. The analysis will ensure that high-standard pedagogy materials can be embedded in the teaching and learning of the course. Hence, it will lead to an effective teaching and learning. According to Chostelidou [4] an effective and efficient curriculum, syllabus and course evolution and layout can be achieved from a unique structure in the ESP scope which requires a needs analysis as the foundation. The studies in the research on ESP have been globally carried out, namely in Israel [5], the United States [6,7], Iran [8,9], Taiwan [10] and Turkey [11,12]. The previous studies which have been carried out in different contexts indicate that there is a need for a study in Malaysian context. Hence, the needs from the students pursuing their studies in tertiary level will be a vital information for this study. Therefore, the students in one of the Malaysian institutes of higher learning have been selected as a focal point of this study.

2. Methodology

This study aims to investigate the needs of degree-level students at Sultan Salahuddin Abdul Aziz Shah Polytechnic from the perspective of English language learning skills as well as the mode of teaching and learning of English course. This study sampled two different groups of students from two different departments, Facilities Management students of the Civil Engineering Department and Medical Electronics students from the Electrical Engineering Department.

The goal of this study is to reveal the main aspect of the needs; hence, this study is exploratory in nature. The preliminary stage of the study attempted to discover the needs of respondents in the process of learning the courses in their programme. The scaling method was used to gather the data in this research. According to Taherdoost [13], there are two main categories in scaling methods: namely, open-ended questions and close-ended questions in which an instrument can be constructed using scaling as one of the mediums for a measurement. In this quantitative study, closed questions were used to measure the disagreement and the degree of agreement using Likert Scale. In addition, one of the commonly used scaling methods is adapted from Davis and Cosenza [14] known as attitude scale. The sub-scale used under attitude scale is the Likert scale which is used to obtain the attitude score pertaining to the variety of statements on the respondents' choices of answer which will display their attitude.

A total of 35 items were used in the survey questionnaire. The items for this study have been adopted and adapted from a survey questionnaire by Kayaogly and Akbas [15] in their study. Some minor changes have been applied to the questionnaire. The survey questionnaire involves eight diverse themes using a five-point Likert scale format The themes are level of ability in English (5 components), the significance in the enhancement of speaking skills (4 components), the significance in the enhancement of listening skills (4 components), the significance in the enhancement of writing skills (5 components), the significance in the enhancement of reading skills (5 components), the learning context preference in an English course (3 components), the significance of learning English (3 components) and the intention of learning English (6 components).

The researchers obtained the consent from the Civil Engineering Department and Electrical Engineering Department to carry out the study. The questionnaires were given to fifty-three students who volunteered to be the respondents. The respondents took about fifteen to twenty minutes to complete the questionnaire given.

3. Validity, Reliability, and Ethical Consideration in Research

Recent literature has been examined to ensure the study's validity. This study had identified another study with a similar purpose [15] that is suitable to be adopted and adapted. The adaptation was undertaken because the current study is more applicable to degree-level students who are pursuing their engineering programs at Sultan Salahuddin Abdul Aziz Shah Polytechnic.

The components have a Cronbach's Alpha higher than 0.70, which means the questionnaire has an acceptable level of reliability [16–19]. Therefore, the questionnaire has used reliable and valid items. As part of the requirements of the ethical consideration, the information of the respondents has been kept private and confidential. The protection of the respondents' confidential information and the broad accountability of the researcher of the society must be balanced [20]. The respondents were informed about the goal of this study before the data collection. The questionnaires were completed voluntarily by the respondents. It is a violation of privacy if there is no consent obtained from the respondents [21].

4. Procedure in Analyzing the Data

The best strategy in the process of quantifying the analysis and data collection is using quantitative research [22] because the sample used in quantitative research can reflect a larger population [23]. Quantitative analyses can be performed faster by using Statistical Package for the Social Sciences (SPSS) [24]. This study used SPSS statistics for Windows (Version 25.0) which was released in 2017 and manufactured by IBM Corp. Armonk, New York. The frequency of each data was revealed using descriptive statistical analysis in SPSS, which suggested a common pattern.

5. Result and Conclusions

The table presented below demonstrates the findings from this research. The items used in the questionnaire are presented in Table 1.

Table 1. Engineering Students' Intention Learning English.

What Is Your Intention in Learning English?	$\bar{x}$	σ
To enhance communication with individuals	4.58	0.53
To carry out tasks relevant to my program	4.43	0.67
To write a paper/report	4.41	0.66
To facilitate academic gatherings (seminar, meeting with experts etc.)	4.37	0.81
To communicate with English speaking experts	4.33	0.65
To accomplish an ample grade in exams	4.22	0.64
Number of Sample (n = fifty-three)		

The intention of the students in learning English at Polytechnic is shown in the respondents' opinions (see Table 1). It is discovered that the central purpose of the respondents in acquiring knowledge in English was to enhance communication or interaction with individuals as this intention score the highest means of 4.58. This is similar to the findings in Kim's research [25], which indicated that daily conversational English is the most significant in engineering context. The respondents also indicated that the objective in learning English is to carry out tasks relevant to their program and this was shown as the second highest in the mean score. The study also discovered that the students had other intentions to learn English such as writing papers or reports, participating in any academic purpose gathering for example seminars (4.37), meeting with experts, etc., communicating with English-speaking experts in their field (4.33). Interestingly, though means score is still high, the intention to accomplish an ample grade in exam involving language under the scope of the study score the lowest means which is 4.22.

The questionnaire includes the significance of learning English as the second theme which is indicated in Table 2. It was shown that the respondents gave serious attention to their future as the future engineers. Thus, for them, the significance of learning English as a person and as a student with a degree is not important compared to their future as an engineer. This is indicated in very high means of 5.00 for the significance of learning English as a future engineer as compared to means 4.70 and 4.64 for the first two significance of learning English namely 'how learning English is important for you as a person' and 'as a student with a degree' respectively

Table 2. The Significance of Learning English.

How Learning English Is Important for You?	x̄	σ
As a person	4.70	0.50
As a student with a degree	4.64	0.62
As a future engineer	5.00	0.57
Number of Sample (n = fifty-three)		

In Table 3, the learning context preference in an English course which is the third theme also shows high means scores. It is quite intriguing and unexpected that the respondents prefer a conventional classroom compared to open and distance learning classroom and hybrid learning context as the means score for both are 4.42 and 4.11, respectively. Open and distance learning classroom score lower in the students' preferences, with means 3.30 only. It is not known why the students are not interested to learn in open and distance learning platforms; this could be investigated in the future studies.

Table 3. The Learning Context Preference in an English Course.

Which Learning Context Do You Prefer in Learning English Course?	x̄	σ
Conventional classroom	4.42	0.84
Hybrid learning	4.11	0.93
Open and Distance learning style of classroom	3.30	1.08
Number of sample (n = fifty-three)		

Table 4 indicates that the respondents considered that the most significant reading sub-skills were reading technical papers and reading handbooks/manuals in their engineering scope of study. This was in comparison to reading laboratory procedures, course notes and books related to course. All of the sub skills core high means with the highest means of 4.51 is for reading skills in technical paper, while the lowest means core of 4.19 is for reading skills involving other course related books.

Table 4. The Significance in the Enhancement of Reading Skills.

Sub-Skills: Reading	x̄	σ
Technical paper in engineering scope	4.51	0.67
Handbook/Manuals in engineering scope	4.45	0.70
Laboratory procedures	4.28	0.74
Course notes	4.26	0.68
Course related books	4.19	0.76
Number of Sample (n = fifty-three)		

Writing is vital for human communication and has been perceived with a very high percentage of importance in learning English [26]. The respondents indicated that they want to improve their writing skills when they write and prepare lab reports and this can be seen in Table 5. Writing projects have been given the second highest importance. Their field of study in polytechnic requires them to have these two writing sub-skills. In addition, the respondents are also involved with many tasks which are related with their course where they need to prepare lab reports and documents relevant to their projects in their respective departments. However, less importance was given to the other sub-skills in writing, which included making notes from written sources/origin and writing tasks for assignments and responding to exam questions. The results showed that improvements might be required in terms of their writing ability which includes producing a piece of work in writing and gaining feedback from a facilitator or an instructor, reviewing comments and subsequently, the frequent engagement in the entire process of writing [27].

Table 5. The Significance in the Enhancement of Writing Skills.

Sub-Skills: Writing	$\overline{x}$	σ
Lab reports/record	4.66	0.52
Projects description	4.58	0.60
Making notes from written source/origin	4.57	0.64
Tasks for assignments	4.47	0.67
Responding to exam questions	4.40	0.69
Number of Sample (n = fifty-three)		

The next theme, which is the significance of the enhancement of listening skills, is displayed in Table 6. It is discovered that the respondents faced problems in concentrating or listening to the lecture as well as standing in a class performing an oral presentation as all the three show significantly high means scores with listening to lecture score the highest means of 4.53 and listening to procedures score the lowest means of 4.28. Therefore, comparing audio and video sources related to courses as well as listening to procedures, it is emphasized that the respondents desire to accomplish an improvement in both sub-skills on listening.

Table 6. The Significance in the Enhancement of Listening Skills.

Sub-Skills: Listening	$\overline{x}$	σ
Lecture	4.53	0.75
Oral presentations	4.41	0.75
Audio and video sources related course	4.41	0.72
Procedures	4.28	0.82
Number of Sample (n = fifty-three)		

The questionnaire also laid out the seventh theme which is the significance in the enhancement of speaking skills, as shown in Table 7. Asking questions in the class was the highest speaking sub-skill that had been indicated for improvement by the respondents. The respondents also identified another speaking sub-skill that they need to improve, which was performing an oral presentation in class. This is a very significant finding because most of the tasks in their field of study need to be understood before being carried out. Hence failing to ask questions in class will prevent them from receiving appropriate feedback from lecturers. Consequently, the students will struggle more during their presentations in class for two major reasons: lack of understanding and low confidence level.

Table 7. The Significance in the Enhancement of Speaking Skills.

Sub-Skills: Speaking	$\overline{x}$	σ
Making enquiry in class	4.60	0.63
Performing oral presentation in class	4.39	0.69
Carrying out discussion with classmates	4.32	0.64
Project presentation to audience	4.26	0.65
Number of Sample (n = fifty-three)		

Table 8 shows half of the respondents (50.9%) have indicated that they encounter difficulties with vocabulary, idioms, grammar and pronunciation even though they have pointed out that intermediate upper is their current level of English. This finding is consistent with the studies by Alastal and Shuib [28] and Ulum [29], which indicated that majority of students claimed that they have a weakness in using grammar correctly. Significantly, many other studies have also highlighted the same findings [30–32]. This intermediate level enables them to converse in a comfortable way in a common or everyday situations and issues. However, about 41.5% of the respondents' are in advanced level. Thus, they can converse naturally with fluency on most of the topics with few difficulties

in the acquisition of vocabulary, understanding idioms, proper utilization of grammar and using a correct pronunciation. Another 7.50% of the respondents indicated that intermediate lower is their present level of ability in English. Hence, this shows their communication can be carried out with fluency but with different topics and some difficulties in vocabulary acquisition, idioms, grammar, and pronunciation. The results revealed that the students' capability in English is not entirely weak. On the other hand, the struggle shows that even though they are in a higher education institution which is considered to be the tertiary level of education, poor knowledge of grammar can be challenging because it is highly needed for interactions and conversations in real life [33,34].

Table 8. Level of Ability in English.

Please State Your Current Level of Ability in English (Choose One Only)	(f)	Percentage
Mother tongue influences the vocabulary, grammar and pronunciation heavily: Basic Lower	None	None
Survival level of knowledge of vocabulary, grammar and idiom with wrong pronunciation, short conversation on small number of anticipated topic: Basic Upper	None	None
Some difficulty with vocabulary, idiom, grammar with English fluency in communication: Intermediate lower:	4.0	7.50
Some difficulty with vocabulary, idioms, grammar and pronunciation, manageable in familiar situation comfortably with familiar issues: Intermediate upper	27.0	50.99
Little difficulty with vocabulary idioms grammar and pronunciation but able to converse or communicate fluently and naturally on most issues: Advanced	22.0	41.50
Number of sample (n = fifty-three) (f) = frequency		

6. Conclusions

The data which is required from the degree-level students have successfully demonstrated the needs analysis by adapting and adopting the questionnaire created by Kayaoglu and Akbas [15]. The study has fulfilled its purpose of discovering the respondents' needs. The next step by the researchers is to plan an effective course for the degree-level students. This course is expected to fulfil the needs of the respondents in this study. This needs analysis will enable the course designer to determine the scope that is suitable for the students' level of proficiency locate the scope of the language which need to be suitable with the students' level of proficiency [35]. In addition, a needs analysis would open an opportunity for the development of a material or program by providing information on learners' knowledge, perceptions of their learning, information on their learning styles as well as their interest [36,37]. In relation to this, the main skill which the respondents are facing difficulty is writing skill. Hence, the course developed should be catering to the needs and problem areas faced by the respondents which will be the goal to be achieved in a course. This is supported by Basturkmen [38], who stated that in designing a course, a 'narrow angled' course should be produced towards an objective determined. Hence, the course provided will match the needs and wants from the engineering students.

Furthermore, teaching material can also be produced to scaffold the teaching and learning process for continuous improvement. The needs analysis has some directions for future course planning. The scope which needs improvement is listening, reading and speaking skills. A well-planned course such as English for Specific Courses should be suitable and effective for higher education teaching and learning [39]. Therefore, when the institutions recognize their students' needs, the students' motivation in learning can increase producing a positive outcome and career prospects [40,41]. This needs analysis is significant because it offers the opportunity to fulfill the needs and wants of the degree-level students which will enable the formation of a teaching and learning environment which is conducive to degree-level students. An effective course design can be constructed, which

will ensure the students at the tertiary level can develop the skills necessary for them to become successful engineers with worldwide employability potential.

Author Contributions: Conceptualization, S.M.B.B.V.K.S.V.K., A.S.D.P. and S.S.B.M.; methodology, S.M.B.B.V.K.S.V.K., A.S.D.P. and S.S.B.M.; validation, S.M.B.B.V.K.S.V.K., A.S.D.P. and S.S.B.M.; formal analysis, S.M.B.B.V.K.S.V.K., A.S.D.P. and S.S.B.M.; investigation, S.M.B.B.V.K.S.V.K., A.S.D.P. and S.S.B.M.; resources, S.M.B.B.V.K.S.V.K., A.S.D.P. and S.S.B.M.; data curation S.M.B.B.V.K.S.V.K., A.S.D.P. and S.S.B.M.; writing—original draft preparation, S.M.B.B.V.K.S.V.K., A.S.D.P. and S.S.B.M.; writing—review and editing, S.M.B.B.V.K.S.V.K., A.S.D.P. and S.S.B.M.; visualization, S.M.B.B.V.K.S.V.K., A.S.D.P. and S.S.B.M.; supervision, S.M.B.B.V.K.S.V.K., A.S.D.P. and S.S.B.M.; project administration, S.M.B.B.V.K.S.V.K., A.S.D.P. and S.S.B.M. All authors have read and agreed to the published version of the manuscript.

References

1. D'Silva, V. More and More Graduates Are Facing Unemployment in Malaysia. Available online: https://www.nst.com.my/news/nation/2020/02/562309/more-and-more-graduates-are-facing-unemployment-malaysia (accessed on 2 March 2020).
2. Mohamad, N.H.; Selamat, A.; Ibrahim, B.; Salleh, B.M. Exploration of spiritual elements in holistic-entrepreneur (Holistic-e) among TVET graduate students. *J. Tech. Educ. Train* **2019**, *11*, 72–83. [CrossRef]
3. Rahman, M. English for specific purposes (ESP): A holistic review. *Univ. J. Educ. Res.* **2015**, *3*, 24–31. [CrossRef]
4. Chostelidou, D. A needs analysis approach to ESP syllabus design in Greek tertiary education: A Descriptive account of students' needs. *Procedia Soc. Behav. Sci.* **2010**, *2*, 4507–4512. [CrossRef]
5. Deutch, Y. Needs analysis for academic legal english courses in Israel: A model of setting priorities. *J. Engl. Acad. Purp.* **2003**, *2*, 125–146. [CrossRef]
6. Bosher, S.; Smalkoski, K. From needs analysis to curriculum development: Designing a course in health-care communication for immigrant students in the USA. *Engl. Specif. Purp.* **2002**, *21*, 59–79. [CrossRef]
7. Hoekje, B.J. Medical discourse and ESP courses for International Medical Graduates (IMGs). *Engl. Specif. Purp.* **2007**, *26*, 327–343. [CrossRef]
8. Mazdayasna, G.; Tahririan, M.H. Developing a profile of the ESP needs of iranian students: The case of students of nursing and midwifery. *J. Engl. Acad. Purp.* **2008**, *7*, 277–289. [CrossRef]
9. Dehnad, A.; Bagherzadeh, R.; Bigdeli, S.; Hatami, K.; Hosseini, F. Syllabus revision: A needs analysis study. *Procedia Soc. Behav. Sci.* **2010**, *9*, 1307–1312. [CrossRef]
10. Liu, J.Y.; Chang, Y.J.; Yang, F.Y.; Sun, Y.C. Is what I need what I want? Reconceptualising college students' needs in English courses for general and specific/academic purposes. *J. Engl. Acad. Purp.* **2011**, *10*, 271–280. [CrossRef]
11. Ulucay, S.; Demirel, Ö. Perceptions of Professionals, Academicians and Current and Graduate Students on Designing an ESP Curriculum for Logistics Department. *Procedia Soc. Behav. Sci.* **2011**, *15*, 794–800. [CrossRef]
12. Akyel, A.S.; Ozek, Y. A language needs analysis research at an english medium university in Turkey. *Procedia Soc. Behav. Sci.* **2010**, *2*, 969–975. [CrossRef]
13. Taherdoost, H. Measurement and scaling techniques in research methodology: Survey/questionnaire development. *Int. J. Acad. Res. Manag.* **2016**, *6*, 1–5.
14. Davis, D.; Cosenza, R.M. *Business Research for Decision Making*, 3rd ed.; Wadsworth Publishing: Belmont, CA, USA, 1993; ISBN1 0534932495. ISBN2 9780534932497.
15. Kayaoğlu, M.N.; Akbaş, R.D. An Investigation into medical students' english language needs. *Particip. Educ. Res.* **2016**, *3*, 63–71. [CrossRef]
16. Durdu, L.; Özden, M.Y.; Delialioğlu, Ö. Design, development and implementation of a web-based support material for English as second language. *J. Teach. Educ.* **2012**, *1*, 84–110.
17. Ganapathy, M.; Shuib, M.; Azizan, S.N. Malaysian ESL students' perceptions on the usability of a mobile application for grammar test: A case study of ESL Undergraduates in Universiti Sains Malaysia. *3L: Lang. Linguist. Lit.* **2016**, *22*, 127–140. [CrossRef]

18. Ali Mohsen, M. The use of computer-based simulation to aid comprehension and incidental vocabulary learning. *J. Educ. Comput. Res.* **2016**, *54*, 863–884. [CrossRef]

19. Abdelhalim, S.M. Developing EFL students' reading comprehension and reading engagement: Effects of a proposed instructional strategy. *Theory Pract. Lang. Stud.* **2017**, *7*, 37. [CrossRef]

20. ILTA. Codes of Ethics. 2016. Available online: http://www.iltaonline.com/images/pdfs/ilta_code.pdf (accessed on 2 May 2019).

21. Loizos, P. Video, Film, and Photographs. In *Qualitative Researching with Text Image and Sound: A Practical Handbook*; Bauer, M.W., Gaskell, G., Eds.; SAGE: Thousands Oak, CA, USA, 2000; pp. 93–107.

22. Becker, S.; Bryman, A.; Ferguson, H. *Understanding Research for Social Policy and Social Work: Themes, Methods and Approaches*, 2nd ed.; Policy Press: Bristol, UK, 2012; ISBN 978-1847428158.

23. Powers, D.E.; Powers, A. The incremental contribution of TOEIC® listening, reading, speaking, and writing tests to predicting performance on real-life English language tasks. *Lang. Test* **2015**, *32*, 151–167. [CrossRef]

24. Connolly, P. *Quantitative Data Analysis in Education: A Critical Introduction Using SPSS*; Routledge: London, UK, 2007; ISBN 9780415372985.

25. Kim, H.H. Needs analysis for english for specific purpose course development for engineering students in Korea. *Int. J. Multimed. Ubiquitous Eng.* **2013**, *8*, 279–288. [CrossRef]

26. Tang, Z.; Cheng, L.; Chen, C.C. *Improving Engineering Students' Writing Skills in a Computer-Based Course Using an Automated Writing Evaluation System*; The Hong Kong Polytechnic University Hung Hom: Kowloon, Hong Kong, 2016.

27. Burstein, J.; Chodorow, M.; Leacock, C. Automated essay evaluation: The criterion online writing service. *AI Mag.* **2004**, *25*, 27. [CrossRef]

28. Alastal, A.A.; Shuib, M. Investigating the academic English language target needs of undergraduates at the faculty of applied science at Al-Aqsa University: Students' perceptions. *Asian ESP J.* **2012**, *8*, 5–26.

29. Ulum, Ö.G. A Needs analysis study for preparatory class ELT Students. *Onl. Sub.* **2015**, *1*, 14–29. [CrossRef]

30. Alqunayeer, H.S.; Zamir, S. Needs analysis of Saudi EFL female students: A case study of Qassim University. *J. Curric. Stud.* **2016**, *5*, 87–104. [CrossRef]

31. Moslemi, F.; Moinzadeh, A.; Dabaghi, A. ESP needs analysis of Iranian MA students: A case study of the University of Isfahan. *Engl. Lang. Teach* **2011**, *4*, 121–129. [CrossRef]

32. Prachanant, N. Needs analysis on English language use in tourism industry. *Procedia Soc. Behav. Sci.* **2012**, *66*, 117–125. [CrossRef]

33. Budiarta, I.K.; Krismayani, N.W. Improving speaking skill and developing character of the students through collaboration of think-pair-share and the concept of Tri Kaya Parisudha. *J. Santiaji Pend.* **2014**, *4*, 73–80. [CrossRef]

34. Syakur, A. Using cooperative learning strategies to improve the student's reading comprehension. *J. Edu. Kaj. Ilmu Pend.* **2018**, *4*, 97–110.

35. Tzotzou, M. Designing and administering a needs analysis survey to primary school learners about EFL learning: A case study. *Presch. Prim. Educ.* **2014**, *2*, 59–82. [CrossRef]

36. Huang, W. *6th International Education, Economics, Social Science, Arts, Sports and Management Engineering Conference (IEESASM 2018)*; Atlantis Press: Amsterdam, The Netherlands, 2019; pp. 249–256.

37. Zhang, J. College English curriculum group: The construction based on needs analysis. *Engl. Lang. Teach* **2018**, *11*, 80–85. [CrossRef]

38. Basturkmen, H. *Developing Courses in English for Specific Purposes*; Palgrave Macmillan: New York, NY, USA, 2010; ISBN 978-0-230-29051-8.

39. Chostelidou, D. Needs-based course design: The impact of general English knowledge on the effectiveness of an ESP teaching intervention. *Procedia Soc. Behav. Sci.* **2011**, *15*, 403–409. [CrossRef]

40. Aysan, E. Learning science and science education in a new era. *Ann. Med. Surg.* **2015**, *4*, 158–161. [CrossRef] [PubMed]

41. Agussani, A. The Approach to Indonesian Language and Literature Curriculum in the Industrial Revolution Era 4.0 and Society 5.01. Available online: https://publication.umsu.ac.id/index.php/ht/article/view/244 (accessed on 8 February 2021).