Needs Analysis of Engineering Students’ English Needs at the University of Tabuk

Dr. Manssour Mohammad Habbash*
Preparatory Year Program, English Language Center, University of Tabuk, Saudi Arabia
E-mail of the corresponding author: m_habbash@ut.edu.sa

Dr. Hussein Theeb Albakrawi
Community College, University of Tabuk, Saudi Arabia
halbakrawi@ut.edu.sa

Abstract
This study aimed to identify the English language needs of the engineering students at University of Tabuk in the academic year 2013/2014 in Saudi Arabia. More specifically, it attempted to address the following question: What are the English language needs of the engineering students at University of Tabuk in Saudi Arabia? The sample of the study consisted of one hundred and fifty four students, twelve teachers from the University of Tabuk. A questionnaire was developed by the researcher and addressed to the students and teachers. The findings of the study revealed that there are some real special English language needs and interests of students in engineering faculty at the University of Tabuk. These needs motivate students to learn and build their self-confidence towards the learning process. It is recommended that curriculum designers make use of the resulting identifying these needs and to conduct similar studies for other specializations in Saudi Arabia and further afield.

Keywords: ESP: English for specific purposes, Communicative Needs Processor, needs analysis

1. Introduction
English has become the primary means of communication between many people around the world. Moreover, ESP is viewed as lingua franca. The prevalence of English as a global language is of greater interest in specific context such as when English is a foreign or second language, as Essen (2000) claims. Another consideration is that many L2 students, regardless of their majors or linguistic backgrounds, wish to learn English so they can become as close as possible to NSs, usually in terms of communication and ability to speak and discuss fluently. Many researchers (e.g. Jenkins 2000; Strevens 1992) have highlighted this native-like competence as being a goal of English language teaching based on the NS model and culture in the EFL context. Opposed to this is, the fact that three-quarters of English speakers are not actually native speakers and that there are different variations of English given its status as a global language. Certain learning forums and blogs including the British Council and BBC Learning websites are centered on one theme: how to speak English like NSs. In contrast, in the EIL context where English is used as a global lingua franca, the NS model and culture need not be internalized by NNSs who can assert ownership of the English language (e.g. Kachru 1992; Mckay 2003; Smith and Nelson 2006) various terms such as EIL, ELF and World English are interchangeably used by academics who recognize that English is used as a lingua franca for international communication etc (see Erling 2004, 2005).

This study focuses on Saudi Arabia, one of the expanding circle of countries, and its engineering environment within which English is spoken as a lingua franca among stakeholders of this "context", i.e. students, professors, engineers, workers etc.). The need for engineering students to strongly adhere in their future professional context to NS models of English learned from the 'inner circle' must be considered in a situation where a shift to EIL, ELF or World English is occurring. To examine these engineering students’ needs in relation to the EIL perspective, the researcher has conducted this study, which employs both qualitative and quantitative measures (i.e. interviews and questionnaires), to answer the following research questions:

What English model does engineering students at University of Tabuk need/prefer?

In fact, English as lingua franca as defined by Seidhlofer (2007: 339), English is a way of referring to communication between speakers with different first languages which seems to suit the needs of our engineering students rather well. A possible solution therefore is to incorporate certain varieties from the Saudi engineering students’ syllabiwich, can be achieved in accordance with the findings of needs analysis studies and levels of exposure to different varieties. In fact, when considering the rapid increase of NNSs (e.g. Fraser 2006; Jenkins 2000; Kachru 1992; Mckay 2003; Strevens 1992). According to Jenkins (2000), in such a situation, standard accents such as RP and GA should not be considered as the norms for 'correct' pronunciation, instead features of pronunciation, which can ensure mutual intelligibility, should be focused on. To investigate the needs, it is imperative that the researchers establish how the students perceive English through current available variety in context and what they need as L2 learners. If the shift is to be achieved, it must be reflected in Saudi engineering students’ attitudes towards varieties of world English, taking advantage of their experience with a multinational
stated available at the present situation at their college. With exposure to such English, these students' stereotypical attitudes may change towards accepting other non-native varieties of English.

2. Needs Analysis and ESP Courses

Since its main focus is the learner, English for Specific Purposes puts a great emphasis on the thorough analysis of students' needs when designing a course. According to Songhori (2008), the role of needs analysis is indisputable and its place is central in any ESP course. A possible definition for Needs Analysis (NA) provided by (West, 1994, p. 1) is what learners will be required to do with the foreign language in the target situation, and how learners might best master the target language during the period of training. Needs analysis was mainly concerned with linguistic and register analysis in the earlier periods, Songhori (2008). As described by Dudley-Evans and St. John (1998), needs were seen as distinct language items of grammar and vocabulary. Later, Munby’s Communicative Syllabus Design (1978) which tried to solve the problem of the disguised General English courses, named ESP courses as a communicative area lacking a rigorous system for deriving appropriate syllabus specification from adequate profiles of communication needs.

A shift was subsequently made in the process of needs analysis, moving the learner's priorities to center stage in its framework. This yields the paramount notion of target 13 needs, thus the function and situation have been proved by research as fundamental following this movement, the term Target Situation Analysis was introduced and first used by Chambers in his 1980 article (p.29) referring to communication in the target situation. Focusing on communication, this draws attention to the issue raised by Munby (1978) when he argues that ESP in recent years has become of major developmental focus in the area of communicative syllabus design. Cooper (1968) and Hymes' views of communicative competence both illustrate that effective communication requires more than linguistic competence; according to them, a speaker must know what to say, when, with whom and where, i.e. certain contextual competencies, besides the linguistic competence. In other words, knowledge of the target language may not be sufficient for effective communication to occur in that language. For instance, Cooper points out that in social situations where such communication takes place, more than one variety of the language may be required as the 'linguistic repertoire' needed by the second language speaker (Munby, 1978).

As Songhori (2008) puts it, the predominant element that is considered as the basis of Munby's approach to needs analysis is the Communication Needs Processor (CNP). This establishes the profile of needs through the processing of eight parameters that give us a detailed description of particular communication needs. They are summarized as follows.

Purposive domain: This parameter can determine the type of ESP and what purposes.

Setting: This indicates the physical aspects of the situation where English will be used, together with the different environments specified in the psychological setting wherein English will be used.

Interaction and Instrumentality Interaction identifies the learner's interlocutors and predicts relationship between them, whereas instrumentality refers to the medium, in which the distinction between speaking and writing is made, mode, channel and non-verbal medium.

Dialect: Munby points out the necessity of identifying the dialects of the target language, which the participant will have to command receptively and productively as an important part of his/her communication requirements. He further explains that an account of the features of grammar, vocabulary, and pronunciation that characterize a particular dialectal variety of English should be taken as required information at the linguistic encoding stage. Apart from this, he holds that one has to deal with the stereotypes of the members of the role-set, with whom interaction is taking place, and that the specification of dialect and accent could depend on information about to the fact that whether or not participants wish to use or just understand a regional dialect, many of them will need Standard English. Taking all this into consideration the participant's role-set and occupational purposes. In his discussion of geographical or the question of what kind of English is being used at a student's professional workplace, accent and pronunciation in particular, needs to be investigated and the findings reported to the respective course designers and language teachers so that they can act accordingly.

The needs analysis approach was given its full form mainly by Munby (1978), who presented a modal based on the assumption that the learners' needs should be specified as the first step in determining the course content. The target communicative situation can benefit from the needs analysis in determining the language elements needed in terms of functions.

Munby's model was implemented successfully in many courses. However, some scholars criticized it. Chambers (1980) agrees with Munby's argument that the syllabus specification can be directly derived from the previously identified communicative needs of the learner or group of learners, but he disagrees with the other side of the argument where Munby suggests that it is possible to start with the learner and then work ahead in a systematic way to formulate the syllabus specifications that relate to the target communicative competence.

Shutz and Derwing (1981) believe that Munby's analysis is ambiguous because its most complete specification for a given participant contains no specification whatsoever of the actual language forms which will realize these needs. They suggest an alternative model with more practical and feasible steps, including
distribution of questionnaires and data collecting instruments to reach the shared needs and interests of the learners, which would determine the parameters to be followed. However, this criticism may not be valid if we know that Munby is talking about an ideal design.

Finally, the researcher concluded that the key point in Munby's model is that the target needs must be determined as a first step, taking into consideration that the target population (the learner) must be identified. E.g.: if the participant needs, the language to communicate with a tourist in a hotel or with a native speaker in some other setting.

3. Data and methodology:

3.1 Population
The population of this study consisted of 16 sections, all of them engineering students from the engineering faculty at University of Tabuk for the academic year 2013/2014. These students are between nineteen and twenty two years old. It is assumed that they have had similar opportunities for learning English because of the centralized nature of the education system in Saudi Arabia. Their teachers hold a minimum of a M.A. and PhD. The total number of students in the population in faculty of engineering at University of Tabuk is 684.

3.2 Sample
The sample for the study consisted of five sections; the first is for needs assessment, consisting of one hundred and fifty four male students and twelve instructors teaching different courses of engineering. The student sample was selected from the engineering sections affiliated with the following specializations: civil, mechanical, electric, chemical and industrial engineering. The University of Tabuk runs all of these specializations.

Most students were General Basic School graduates of public schools. Taking into account that the majority of the secondary schools graduates were over eighteen years old. The researcher can infer that general education did not provide them with the skills necessary to get a good job. Another thing, which should be taken into account, is that all students were adults.

The needs assessment describes here did not stop with the information gathering and analyses. During the study, the students mentioned new needs, which were taken into account.

Table 1 shows the distribution of the students’ sample according to specialization, numbers and the percentage.

<table>
<thead>
<tr>
<th>No.</th>
<th>Specialization of engineering</th>
<th>Number of students</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Civil</td>
<td>32</td>
<td>20.7%</td>
</tr>
<tr>
<td>2</td>
<td>Mechanical</td>
<td>34</td>
<td>22.1%</td>
</tr>
<tr>
<td>3</td>
<td>Electronic</td>
<td>28</td>
<td>18.1%</td>
</tr>
<tr>
<td>4</td>
<td>Chemical</td>
<td>31</td>
<td>20.1%</td>
</tr>
<tr>
<td>5</td>
<td>industrial</td>
<td>29</td>
<td>18.9%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>154</td>
<td>100%</td>
</tr>
</tbody>
</table>

The teachers were chosen from the following specializations: civil, mechanical, electric, chemical and industrial engineering.

3. Data Collection Procedures
The questionnaire technique was selected for the needs assessment, but before designing and developing the items of the questionnaire, the researcher reviewed the literature on how to develop the items in needs assessment studies.

In an effort to become acquainted with the curriculum for the English for engineering purposes course, the researcher consulted recommended books used in some private institutes for engineering training in Saudi Arabia. Needs analysis, was a proper way to provide the relevant information needed to design an English-for-engineering purposes. The questionnaire consisted of 47 items and was addressed to students and teachers.

3.1 Instruments of the Study
The students' questionnaire was distributed to engineering students chosen from the engineering faculty in the University of Tabuk. The students evaluated themselves and expressed their real needs. The means and the frequencies of the items on the questionnaire were calculated. Most of the skills consisted of five or more sub-items.

The teachers' questionnaire was distributed to 12 teachers chosen from the engineering faculty in the University of Tabuk. The researcher used the same procedure in the students’ questionnaire for analyzing the teachers’ questionnaire.
The results of the two questionnaires of the study were then compared with each other.

3.2 Students' Questionnaire
In developing the students' and teachers' questionnaires, the researcher consulted Albakrawi, (2005) Johns (1981), Ostler (1980), Zughoul and Hussein (1985), and Kandeel (2003). The questionnaire was distributed in Arabic for the students and in English for the teachers.

The students' questionnaire consisted of 47 items including language skills, sub-skills, and language use. The students' questionnaire was divided into the following sections: (1) questions 1-25 were to obtain data on listening and speaking skills and sub-skills; (2) questions 26-34 were to obtain data on the reading skills and sub-skills most needed to ensure success in engineering; (3) questions 35-47 were to obtain data on the writing skills and sub-skills most needed to ensure success in engineering education and jobs; and (4) open questions were included to obtain data on students' views regarding the priority of language skills and language use and about improving the English language abilities of engineering students in Saudi Arabia.

3.3 Teachers' Questionnaire
The teachers' questionnaire consisted of the same items as in the students' questionnaire, but with slightly different phrasing in order to enable teachers to evaluate students' language performance.

3.4 Validity of the Questionnaires
To establish the validity of the content, the questionnaires were given to three specialists: a professor of TEFL, a supervisor of English, an experienced teacher. The judges were asked to judge the validity of the two questionnaires. The questionnaires were revised according to their comments before administering them.

3.5 Reliability of the Questionnaires
The students' questionnaire was distributed to fourteen students who were chosen from the population of the study but did not take part in it. Two weeks later, the questionnaire was distributed again to the same students. The correlation coefficient was computed for the test results and it was 0.91, which is suitable for the purpose of the study. The teachers' questionnaire was distributed to two teachers chosen from the population of the study. Two weeks later, the questionnaire was distributed again to the same teachers. The researcher used the same procedure above. The correlation coefficient for the teachers was 0.90, which is suitable for conducting.

4. Findings and Discussion
The following are the opinions and suggestions of the teachers of different engineering specializations, and several students.
1. Most of the sample members welcomed this study and suggested different programs or curricula for teaching ESP and for other specializations.
2. The (majority) of the sample members expressed lack of knowledge about ESP.
3. The majority of the sample members agreed with designing ESP texts with topics related to the students' needs, so as to familiarize the students with the vocabulary used in their future jobs and that will also enable them to have ability in understanding concepts in their study.
4. Most of sample members called for emphasizing all language skills.

The results that are related to the needs analysis in this study reflect true needs in engineering ESP learning, which form the basis of any proposed ESP curriculum. The study showed that the listening exercises needed are: listening to one person talking and listening to orders and instruction. In real-life situations, engineering dialogues and other workers listen to one person at a time and normally receive orders from clients. Trainees at engineering sites usually listen to foreign persons during work duties; that persons are usually foreigners.

In speaking, the results also showed that the speaking-related activities should include: two persons talking (conversation) and one person addressing a group (lecturing, giving instructions to a group). These and other forms are reflections of the main speaking activities that usually occur in lectures and workshops and even in academic classes at faculty oriented toward their engineering specialization.

In reading, the results pointed out that the reading activities that most engineering ESP learners need in their educational or occupational life includes reading advertisements, instructions, brochures, tables, graphic charts, lists and tables.

The language functions identified by the study cover most workplace needs. At field sites and workshops, clients tend to be treated informally. Reading and understanding what they read are a basic rule for successful business. Advising clients and explaining engineering symbols are usually an essential part of the job for engineers that will make work comfortable.

The results of the analysis of the questionnaires of the study and personal observations showed that
students were more enthusiastic than teachers for the language sub-skills and functions suggested in the study. But teachers were more enthusiastic than students about the activities proposed in the new course because it makes the process of teaching engineering courses easier than the current situation. Such enthusiasm for a new engineering ESP curriculum leads to three observations about the engineering students in general:

a. The current general EFL curriculum does not meet the needs and interest of engineering students.
b. The same students are dissatisfied with the current general EFL curriculum.
c. The proposed ESP computerized program is important in meeting engineering needs and interests.

Teachers and students showed greater interest in engineering ESP materials than administrators for engineering faculty, and other faculties at the University of Tabuk. The results may be due to the following:

a. Teachers and students were more directly influenced by the present ESP engineering study.
b. Most engineering teachers are not responsible to teach ESP courses in context. This encourages the introduction of relevant ESP materials for this specialization. Still, writers should incorporate real content (topics and themes) that relate to engineering field.

The procedure followed with needs assessment as the starting point and an evaluation questionnaire as the second phase of conducting the study.

The need showed that ESP teachers should acquire a scientific approach to language teaching and should experiment with new techniques and procedures based on the learners' language needs. This requires cooperation with teachers of engineering courses, other ESP teachers, and administrators in order to provide the necessary resources.

In this category, language needs are examined from the point view of students and teachers at the engineering faculty in University of Tabuk in Saudi Arabia. In these questionnaires, the students and the teachers were asked to rank the language needs in terms of need for students' success in the engineering courses and future jobs. The Open question asked to order the four language skills according to their importance for the engineering students.

The sampled students and teachers approved most of the English language needs presented in the questionnaire. These needs are divided into four main categories.

As for the most prominent needs that teaching materials should mostly have, the top areas of English uses in the abovementioned needs included the following:

a. There should be listening exercises in which students practice listening to one person talking, as well as other exercises in which students practice listening to idioms and concepts.
b. Teaching materials should include speaking exercises in which two persons have specialized engineering words and concepts.
c. Reading texts should include as exercises instructions, charts, graphics, advertisements, articles, brochures, lists, tables, and notes.
d. There should be writing exercises for writing lists, instructions, writing notes, and applications.

As it is clear from the answers to the open question in the questionnaire the four basic language skills are ordered in importance as the follows:

- Reading
- Writing
- Listening
- Speaking

Although reading is the most highly evaluated skill by the sample members, material writers should not ignore the other skills. The way the four skills are ordered above suggests that they should be activated and focused on in an engineering ESP syllabus proportional with each skill's rank.

Students agreed that the most needed skill for success in future engineering job is reading with understanding, and they felt that writing and listening ranked next to reading and was followed by speaking which was ranked last and the teachers arranged the language skills in a similar order: reading, writing, listening and then speaking.
Table 2 ranks the sub-skills within the listening and speaking skills from the point of view of engineering students and teachers.

<table>
<thead>
<tr>
<th>NO.</th>
<th>Sub-skill</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>To pronounce the names of different engineering materials</td>
<td>3.54</td>
</tr>
<tr>
<td>13</td>
<td>To understand what foreign engineers ask in the project.</td>
<td>3.45</td>
</tr>
<tr>
<td>8</td>
<td>To explain the available engineering office services.</td>
<td>3.37</td>
</tr>
<tr>
<td>25</td>
<td>To express about any engineering process.</td>
<td>3.30</td>
</tr>
<tr>
<td>11</td>
<td>To understand what professors say in engineering lecture</td>
<td>3.26</td>
</tr>
<tr>
<td>19</td>
<td>To tell the types of engineering.</td>
<td>3.25</td>
</tr>
<tr>
<td>7</td>
<td>To ask for difficult engineering concepts</td>
<td>3.25</td>
</tr>
<tr>
<td>14</td>
<td>To understand the engineering processes.</td>
<td>3.24</td>
</tr>
<tr>
<td>9</td>
<td>To express the procedures of making engineering establishment</td>
<td>3.23</td>
</tr>
<tr>
<td>12</td>
<td>To introduce himself</td>
<td>3.19</td>
</tr>
<tr>
<td>1</td>
<td>To understand what colleague says about the details of engineering work</td>
<td>3.18</td>
</tr>
<tr>
<td>3</td>
<td>To communicate with others in engineering speech acts.</td>
<td>3.15</td>
</tr>
<tr>
<td>17</td>
<td>To give a brief account of the available engineering services</td>
<td>3.15</td>
</tr>
<tr>
<td>4</td>
<td>To understand audio or video films about engineering duties</td>
<td>3.07</td>
</tr>
<tr>
<td>5</td>
<td>To give a brief oral account of the history of engineering development.</td>
<td>3.06</td>
</tr>
<tr>
<td>18</td>
<td>To describe the engineering instruments and measurements</td>
<td>3.04</td>
</tr>
<tr>
<td>16</td>
<td>To give a good engineering presentation.</td>
<td>3.02</td>
</tr>
<tr>
<td>20</td>
<td>To mention the ingredients of some engineering contents</td>
<td>3.02</td>
</tr>
<tr>
<td>2</td>
<td>To understand an engineering reports</td>
<td>2.96</td>
</tr>
<tr>
<td>15</td>
<td>To organize engineering agreements</td>
<td>2.81</td>
</tr>
<tr>
<td>22</td>
<td>To compare between the deferent types of engineering</td>
<td>2.78</td>
</tr>
<tr>
<td>23</td>
<td></td>
<td>2.76</td>
</tr>
<tr>
<td>10</td>
<td>To pronounce the names of different engineering materials</td>
<td>2.72</td>
</tr>
<tr>
<td>24</td>
<td>To understand what foreign engineers ask in the project?</td>
<td>2.63</td>
</tr>
<tr>
<td>21</td>
<td>To explain the available engineering office services.</td>
<td>2.43</td>
</tr>
</tbody>
</table>

Table 2
Ranking of the listening and speaking sub-skills from the sample members’ point of view

Table 2 indicates the most important oral sub-skills (listening and speaking skills). All members of the students sample emphasized listening to instructions and to the orders of foreign boss engineers.

Table 3 shows ranks the sub-skills within writing skill from the point of view of sample members, students and teachers.

<table>
<thead>
<tr>
<th>NO.</th>
<th>Sub-skill</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>44</td>
<td>To write a report an engineering establishment</td>
<td>2.83</td>
</tr>
<tr>
<td>41</td>
<td>To write a short letter to the boss on personal matters</td>
<td>2.79</td>
</tr>
<tr>
<td>46</td>
<td>To fill in a engineering form</td>
<td>2.66</td>
</tr>
<tr>
<td>36</td>
<td>To write detailed c.v.</td>
<td>2.62</td>
</tr>
<tr>
<td>37</td>
<td>To fill in related bills and receipts</td>
<td>2.58</td>
</tr>
<tr>
<td>40</td>
<td>To write some points in order to discuss them with the boss</td>
<td>2.58</td>
</tr>
<tr>
<td>42</td>
<td>To compose a written order to the subordinates</td>
<td>2.58</td>
</tr>
<tr>
<td>35</td>
<td>To fill in an application form</td>
<td>2.54</td>
</tr>
<tr>
<td>38</td>
<td>To write a short report about the work</td>
<td>2.50</td>
</tr>
<tr>
<td>43</td>
<td>To write complaints about the work to the boss</td>
<td>2.45</td>
</tr>
</tbody>
</table>

Table 3
Ranking of the writing sub-skills from the sample members’ point of view

Table 3 shows the most needed sub-skills within writing: writing engineering reports and memos received the highest degree of evaluation and importance in writing area. Most of the sampled members in the two categories emphasized positively writing curriculum vitae, as well as filling in engineering applications.
### Table (4)

**Ranking of the reading sub-skills from the sample members' point of view**

Table 4 ranks the sub-skills within the reading skill. Reading the engineering reports and memos is the most emphasized sub-skill among the reading sub-skills. However, the sample members also emphasized other reading sub-skills, such as reading charts, graphics, advertisements, brochures, lists, and articles. There were no significant differences between the responses of the two sample groups.

The new trend in syllabus design reflects the similarity in the responses of all two groups—students and teachers. Thus, any proposed hotel ESP curriculum may emphasize the language skills and sub-skills identified in this study and ESP courses for other engineering should do likewise. The only difference would be in the choice of content to suit the specialization.

In general, course designers and curriculum developers can make use of the results of this study in order to materials, for engineering students in general and engineering students of University of Tabuk in particular, through ascertaining the English language skills and functions that these students may need for their education or for their future jobs and emphasizing the use of English language, especially for engineering field to help students mastering the language.

### 5. Conclusion

1. Emphasizing topics and themes which are related to students' needs and interests and compatible with their background, experience, and abilities motivates students to learn and encourages them to build self-confidence and positive attitudes learning to increase English proficiency.
2. Engineering learners may modify what they acquire in engineering ESP Materials to be used in general English. This is because engineering ESP language is relevant to general English. Materials are much relevant to general English especially in structure and some vocabulary, which play a central role in designing ESP courses.
3. The literature related to ESP supports the claim of its being communicative in nature. The communicative movement leads directly to the development of ESP. Thus, the strong innate communicative ESP courses enhance language acquisition.
4. Based on the results of the study, this study may draw the attention of the scholars, educationalists and course designers to conduct similar studies for other classes and levels and other specializations in order to make the results more valid and more widely applicable.

### References


The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage: http://www.iiste.org

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform. Prospective authors of journals can find the submission instruction on the following page: http://www.iiste.org/journals/ All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: http://www.iiste.org/book/

Academic conference: http://www.iiste.org/conference/upcoming-conferences-call-for-paper/

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar