Needs Analysis for Workplace English Speaking Courses for University Engineering Students in the Kwara State of Nigeria

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Abstract: The globalization of world markets which led to the hegemony of English language over other languages requires graduates from different fields of specialization to equip themselves with English communication skills to communicate effectively in local and international workplace contexts. Thus, this study was conducted to investigate the English speaking skills needed by the engineering students in the Kwara states of Nigeria. A survey was carried out to compare the respondents' (undergraduate engineering students and industry workers in the Kwara State of Nigeria) self-rating of their speaking interaction and production skills and their perception of the importance of speaking interaction and production sub-skills for workplace communication. The study concluded with suggestions on how to create a better perception of the importance of English speaking skills among engineering students and on how to create a better workplace English curriculum so that the students' workplace speaking skills can be improved.

Keywords: Needs Analysis, English Speaking Skills, Workplace, English Speaking Courses, University engineering students

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1. Introduction

Due to the globalization of world markets, the emergence of English as the first language of engineering worldwide has required that graduate engineers be well equipped with not only technical knowledge but also communicative abilities. This is because their success of their professions lies on them having a good command of the English language (Rajprasit, Pratoomrat & Wang, 2015). Kim (2013) corroborated that engineers all around the world are obliged to use English for many aspects of their jobs because English is used as the language of most international organizations and publications in the engineering field. Thus, most non-native English speaking engineers would encounter disadvantages in their professional terms if they are not proficient in the language. Moreover, as Sheth (2016) contended, employers are no more interested in looking for engineering nerds who would spend their working hours busy with calculators and machines. Rather, preference is given to those who are capable of communicating efficaciously in English, expressing ideas clearly within the purview of workplace communicative events.

However, many reports have shown that despite the expertise of graduate engineers in their practical oriented disciplines, a vast number of these professionals lack English speaking skills necessary for technical discussions, business negotiations and daily conversations with their foreign counterparts and customers (Gashaye, 2015; Joungtrakul, 2013). For instance, in Thailand, both novice and experienced engineers are faced with English difficulties resulting in lack of competency in communicating at work, especially in oral and written modes (Jarupan, 2013). Kim (2013) also acknowledged that Japanese graduate engineers who work with well reputed industries lack confidence in commanding good English orally at work, while they are only good at reading and writing. Adnan, Mohd Radzuan, Kassim and Muzab (2014) found out that one of the factors that lead to unemployment of most Malaysian graduate engineers is their inability to showcase the English speaking skills required to communicate efficiently at work.

According to CEFR (2018) (Common European Framework of Reference for Languages), oral communication skills are classified into two kinds namely interaction and production. Oral interaction, is the ability of a language user to employ reception and production strategies with which to act alternatively as a speaker and a listener with one or more interlocutors so as to construct conjointly, through the negotiation of meaning following the co-operative principle of conversational discourse. Oral interaction, according to CEFR (2018), includes transactions, casual conversation, informal discussion, formal discussion, debate, interview, negotiation, co-planning and practical goal-oriented co-operation. Oral production, on the other hand, is the ability of a language user to produce an oral text to be received by an audience of one or more such as public address (information, instructions, etc.), addressing audiences (speeches at public meetings, university lectures, sermons, entertainment, sport commentaries, sales presentations, etc.). This, according to the source, may involve reading a written text aloud, speaking from notes, or from a

written text or visual aids (diagrams, pictures, charts, etc.), acting out a rehearsed role, speaking spontaneously, and singing (Council of Europe, 2018).

Despite the fact that English speaking skills are of great importance to graduate engineers to conduct their workplace activities (Ali & Kazempourian, 2017; Hossain, 2013; Kim, 2013; Tinh Le, 2016), researches have shown some instances of perception mismatch between undergraduate engineering students and industry workers on the workplace English speaking needs of graduate engineers (Ali & Kazempourian, 2017; Bozic & Pintaric, 2018). Moreover, presence of discrepancy is also conspicuous between the English communication skills taught to university engineering students and those required by employers (Atai & Asadi, 2013; Gashaye, 2015). Considering the importance of English speaking skills in the workplace and the reports on frequent mismatch of expectations between the stakeholders on the communicative skills required of graduate engineers, it is essential that a needs analysis is conducted in order to be clear as to the exact speaking skills required of graduating engineers in the Kwara State of Nigeria to carry out workplace activities.

Needs analysis, according to Richards, Platt and Weber (1992) as cited by Khalid (2016) is "the process of determining the needs for which the learner or group of learners required a language and arranging the needs according to their priorities" (p. 41). This information gathering process, according to Dudley Evans and St. John (1998) as cited by Rahman (2015), aims to accomplish the following three objectives:

First, needs analysis aims to know learners as people, as language users and as language learners. Second, needs analysis study also aims to know how language learning and skills learning can be maximized for a given learner group. Third, needs analysis study aims to know the target situations and learning environment so that data can appropriately be interpreted (p. 26).

It is apparent, at this juncture, that identifying the specific English speaking needs of undergraduate engineering students in the Kwara State of Nigeria for their future workplace communication cannot be properly achieved without determining their perceptions on their necessities, wants, and lacks (Hutchinson & Water, 1987 as cited by Penh, 2017).

Thus, the rationale for conducting this study is juxtaposed by the fact that having been informed about the importance of English speaking skills in the workplace worldwide, and the phenomenon of mismatch in view between undergraduate engineering students and industry workers in many parts of the world over the communicative skills that are important at workplace, there is lack of information on the perceptions of these two stakeholders on the importance of English speaking skills at workplace in Nigeria as a whole and the Kwara State in particular. Therefore, making the Kwara state of Nigeria a focus, this study is designed to compare how students and industry workers in the Kwara State of Nigeria self-rate their level of speaking interaction and production skills. It also seeks to identify the perceptions of undergraduate

engineering students on the importance of English speaking interaction and production skills in the workplace in comparison with those of industry workers.

1.1 Use of English in Nigeria

Udofot (2015) affirmed that the development of English language in Nigeria and other African British colonies has been triggered by their past colonial experience and the adopted education system. In recent decades, English has become so widely practiced in Nigeria that it has achieved prominence both in the workplace, in the media and as a language of education along with the three major indigenous languages (Sunday, 2013). Therefore, it is not only made a compulsory subject on its own from the first year of primary education, but also assigned the role of instructional medium for other subjects from the fourth primary year to the tertiary level (Nigerian National Policy on Education, 2013). Switching to English in the fourth year of primary education is, to some extent, proven to be challenging in the rural areas due to shortage of teachers. Nevertheless, classroom instructions are maintained in English from the first year of primary school in urban centers. (Udofot, 2015).

English is maintained as the lingua franca in all sectors of life in the Nigerian society and perceived as one of the valuable legacies left by the British colonialism (Sunday, 2013). The main reason for that from the outset is obviously the fact acknowledged by Afolabi (2016) that Nigeria has a Muslim dominated north and a Christian occupied south with a number of at least 250 ethnic groups who speak 100 absolutely different languages. The language diversity in Nigeria has been the major factor that influences the use of English nationwide and even at open markets (Sunday, 2013; Udofot, 2015).

Moreover, the use of English language at workplaces in Nigeria is prevalent due to the unifying status it enjoys among the different Nigerian ethnic groups at work. It is further elaborated that English is compulsorily used when addressing a superior staff at work regardless of whether the interlocutors can communicate in the same local language. Therefore, most jobs in Nigeria require the prospective workers to possess the competency that would enable them to communicate in English (Christopher, 2016).

2. Literature Review

To start with, the English language, which was once the language of the people of Anglo Saxon origin, is now being used worldwide as the major means of communication regardless of diversity in culture, race, and nationality. The use of English language is widely accepted not only within daily social communication contexts, but also in various fields of study and professions. As

Thanky (2014) contended, English language is regarded as the most widespread communication medium used in the international business, Science, diplomacy and other various professions. It is also a lingua franca among people with diverse cultures and languages at the international level. Narayan, Raj and Raj (2015) also affirmed that people who are involved in different fields and professions widely use English language as a means to acquire information, climbing the ladders in their various academic fields to reach the apex of success in their endeavors, conducting and publishing their studies, as well as discharging their working duties in their respective working areas. In other words, English is perceived as a universal dominant language of communication, education, and occupation (Baker, 2006 as cited by Pandarangga, 2015).

With regard to Science and Technology to which engineering belongs, Foyewa (2015) recapitulated that although English language has never been formally proclaimed by the World Scientists Association as the major language of Science and Technology, nearly all the activities conducted in the field are in English. The demand for good communication skills in engineering is increasingly high due to the globalization influence on all spheres. Thus, high proficiency at English communication becomes not only a requirement for pursuing one's engineering academic career in local and foreign universities, but a major factor that determines the success of graduate engineers at their workplace all around the world. As Ahmad, Esa, Selamat, Asri, Suhaili, Padil and Jamaludin, Jaslina (2015) reported in his study, modern industries highly demand for engineers with proficiency in not only technical skills, but also in non-technical skills like communication, team-work and interpersonal skills. Some other studies even emphasize that communication skills are given more priority than technical skills (Clement & Murugavel, 2015; Gerek & Efeoglu, 2015; Matturo, 2013).

Unlike some other professions, the multifacetedness of engineering requires today's engineers to possess a wide range of communication skills. As Thaky (2013) asserts, the lack or insufficient communication skills only underrates the fame of practicing engineers. As an engineering professional, it is necessary for one to possess a wide range of communication abilities and skills with which to communicate with clients from different fields. Failure to deliver their ideas in a proper and advanced language is definitely a failure to the profession.

Obviously, according to Spence and Liu (2013), oral communication (persuasion, negotiation, oral presentation, group discussion, and socialization among partners) and written communication (e-mails, meeting minutes, presentation slides and project reports) commonly occur in the context of international engineering workplace communication. However, Rajprasit (2015) emphasizes that oral communication skills are given priority by employers in that even though knowledge and tech-savviness are highly required in industry workers, they have to be presented orally with an outstanding level of communication skills. The priority enjoyed by oral communication skills in the workplace is further reported by Keyton et al. (2013) when he identifies the predominant ten communication behaviors in the workplace as listening, asking

questions, discussion, sharing information, agreeing, suggesting, seeking feedback, getting feedback, answering questions, and giving explanation.

To sum up, it is apparent that English language enjoys the status of lingua franca in engineering. Therefore, success of graduate engineers today is largely dependent on their ability to communicate in an outstanding level of English within the context of local and international workplaces.

2.1 Perceptions on the Importance of English Speaking Sub-Skills (Interaction and Production) in the Workplace

Ekola (2016) carried out a study to identify the language needs of Finish professional scientists by focusing on the communicative challenges posed by the use of English among researchers in Finland, and compare between the language needs of these professionals and their current language proficiency in order to identify the vacuum to be filled. In an effort to attain this objective, a quality approach through the use of semi-structured interview was adopted to obtain information from a group of eight academic Science researchers (five men and three women) who were working with the Finish Environment Institute. Moreover, these participants were tested in their English language proficiency with the DIALANG test. The study found the respondents' overall proficiency level at oral communication and speech production skills to be B2 (independent user) according to CEFR, while their proficiency at both reading and writing was C1 (proficient user). When comparing the B2 proficiency level reached by the respondents at speaking with the needs analysis results, there appeared to be a vacuum left to be filled. The findings signaled that spoken interaction skills used to participate in seminars and conferences are important in the workplace although they were found to be challenging. In addition, negotiation skills were also regarded as important by the respondents but need some improvement. The researcher concluded suggesting for the organization of language training in order that the research population be well equipped for workplace communication scenarios.

More so, Zivkonic (2014) conducted his study to present the specifics of coming up with oral presentations for undergraduate students at the College of Applied Technical Sciences & Faculty of Civil Engineering and Architecture, University of Niš, Serbia, in order to improve their presentation competency for the success of their present academic career and their future professional career. Therefore, a questionnaire tailored to the obtainment of important information from the respondents (students of the above college and faculty) about their attitudes (opinions, preferences and reactions) towards the importance of oral presentation skills both in the classroom and workplace was adopted. The analysis of students' responses revealed the followings: Firstly, classes in which oral presentation is used are more interesting than those with traditional methods (teacher-centered pedagogy), for oral presentation assists students to take an active role in forming

new understanding. Secondly, oral presentation skills prepare students to address one of the communicative scenarios in their future workplace. Thirdly, it prepares students to collaborate with their classmates and colleagues and thus, equips them to tackle one of the workplace challenges. Moreover, the findings showed that through oral presentation, students do not only develop critical thinking, but also they get accustomed with other communication skills like discussion and debate with which they can succeed as professionals or academia. Also, it enables students to share ideas with their colleagues through progress report, findings of research and so on. Lastly, the results suggested that being able to produce an effective presentation will improve their leadership skill which is significant in building their career.

Raprasit (2015) carried out a research to explore international communicative situations of engineering, how Thai engineers give self-assessment of their English competency to cope with workplace communicative scenarios, and their perceptions about the use of language at international workplace. In order to obtain sufficient amount of data to respond to the questions posed by the study, the use of mixed method via questionnaire and interview was employed. The questionnaire was used to collect information from a group 40 respondents who were Thai operative engineers working with international companies in Bangkok with branches in Norway, United Kingdom and United States of America. Four of these respondents willingly volunteered themselves to be interviewed. The data collected through questionnaire were analyzed using frequency, mean, standard deviation, and percentage, while the information obtained from interview was transcribed and arranged thematically to answer the research questions. The findings revealed the followings: Firstly, English proficiency was considered as significant for job recruitment, routine work and job promotion. Secondly, interpersonal communication such as persuasion, discussion, social and informal conversation, giving instruction, oral presentation, and negotiation were reported as frequent between Thai engineers and their foreign colleagues at work. Thirdly, English proficiency of respondents seemed to be at a fair level, with reading at a higher level than the other skills.

Dewi, Azlin, Abu Bakar, and Sumaiyyah (2016) also investigated the English communicative events at a Malaysian welding industry as well as the English communication skills required of workers therein. The researchers employed a questionnaire, some parts of which were adopted and adapted from previous related studies and distributed them to a group of undergraduate students of Engineering Technology in Welding from two universities in Malaysia. These students were chosen based on workplace communication experience derived in their previous industrial training program. The findings signaled that out of the four main communicative skills, speaking appeared as the most important in the workplace communicative context, followed by reading, listening and writing respectively. Moreover, the findings revealed that English is usually used in formal meetings, especially with external correspondents, trainings and seminars, external networking, presentations, giving instructions and explanations and teleconferencing. Certain other tasks such as informal discussion on tasks and jobs, dispute

resolution, negotiation with team members, taking part in teleconferencing, building relationship and conversing informally and socially take place in the workplace, but not necessarily in English language. The study thus, recommended that an ESP course be designed, taking into account the workplace specific English speaking needs of university engineering students to help them fit into workplace.

Another related study is the one conducted by Spence and Liu (2013) to identify the English language needs of process integration engineers at a well reputed semi-conductor manufacturing industry in Taiwan. In this study, the researchers prepared an online survey questionnaire and a face-to-face interview which were answered by a group of process integration engineers working in the industry. The results indicate that similar to other Asian Pacific nations, process integration engineers in Taiwan are involved in various frequent English communicative events such as writing and reading of emails, memos and reports, with oral communicative events like teleconferences, meetings and presentations, discussing tasks and job duties, and social conversations with foreign customers/vendors.

Although virtually all the above mentioned studies emphasize on the importance of English speaking skills at engineering workplace as well as some instances of mismatch in the perceptions of respondents on their importance, it can be noticed that not much research has focused on the importance of English speaking skills at the Nigerian engineering workplace. Also, not much needs analysis research has been conducted in Nigeria to investigate the perceptions of undergraduate engineering students and industry workers on the importance of English speaking sub-skills in the workplace. Therefore, this study seeks to compare how undergraduate engineering students and industry workers in the Kwara State of Nigeria self-rate their speaking interaction and production skills. It also seeks to identify how these two groups of respondents perceive the importance of English speaking sub-skills at the Nigerian Workplace.

3. Methodology

This study employs a quantitative method of data collection. It uses a questionnaire adapted and adopted from Habbash and Albakrawi (2014), Common European Framework of Reference for Languages according to the Council of Europe (2018), a webpage of Kyushu University Japan (www.chem.kyushu-u.ac.jp/gcoe/eng/symposium), and Yasmin and Hanim (2014). 200 respondents are involved; 100 of whom are undergraduate students who were randomly chosen from the engineering faculty of a public university in the Kwara State of Nigeria, while the other 100 respondents are graduate industry workers who were purposively chosen from different engineering workplaces in the state.

4. Results and Discussion

The findings of this study are presented on the basis of the data collected. As it is conspicuous through the data collection instrument used (questionnaire) that this study is quantitative in nature, the use of SPSS is adopted, and specifically, the Independent Sample T- Test is used to describe as well as compare and contrast between the variables. Some of the data analyzed are reported in the form of percentage and further presented in line charts.
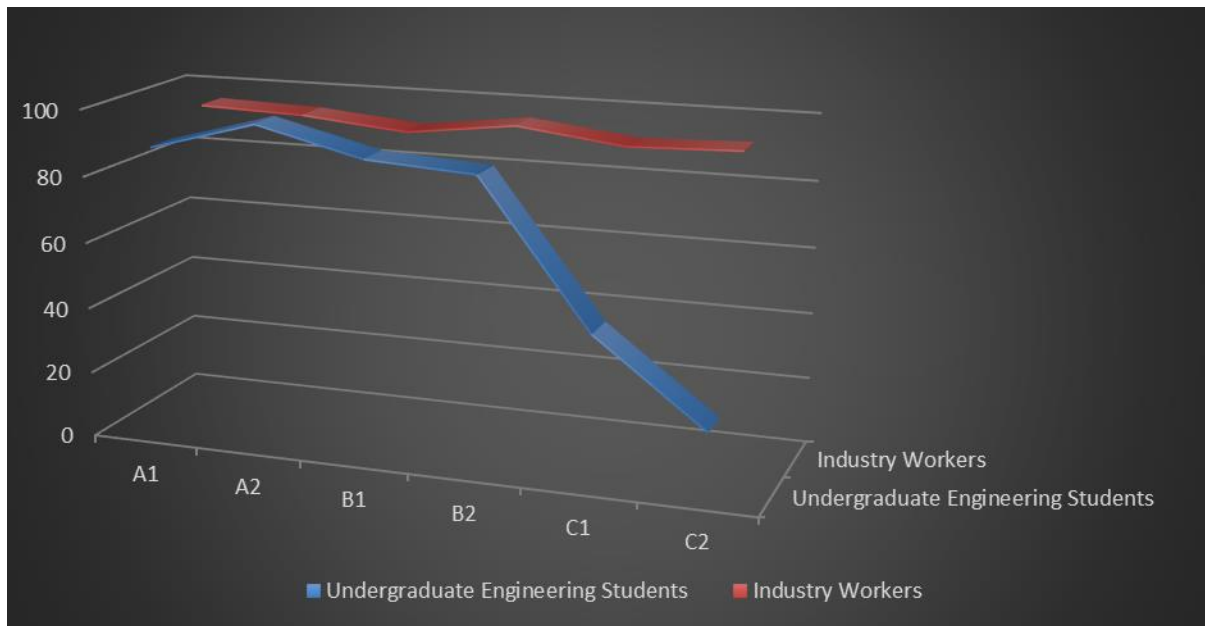

Figure 4.1 Respondents' Self-rating of their English Speaking Interaction Skills

Figure 4.1 presents the descriptive analysis of the respondents' (both students and industry workers) self-rating of their speaking interaction skills. The majority of students rated their speaking interaction skills to be at is B2 (independent user) according to the CEFR, while most industry workers rated theirs to be at C2 (proficient user) level according to CEFR as well.

Specifically, the majority of students (88 percent) perceived they possess the ability to interact in a simple way in English (CEFR rating scale 'A1' i.e. 'basic user'). Also, most industry

9

workers (95 percent) perceived they possess this ability. Most students (97 percent) perceived themselves as having the ability to communicate in simple and routine tasks in English (CEFR rating scale 'A2' i.e. 'basic user').

Similarly, majority of industry workers (94 percent) perceived they also possess this ability. Moreover, the majority (89 percent) of students felt that they can deal with most situations likely to arise while traveling in an area where English is spoken (CEFR rating scale 'B1' i.e. 'independent user'). Likewise, majority (91 percent) of industry workers perceived they possess this ability. Also, the majority (87 percent) of students perceived they have the ability to interact in English with a degree of fluency and ease (CEFR rating scale 'B2' i.e. 'independent user'), while most of industry workers (95 percent) felt that they have this ability.

However, only 44 percent of students perceived they possess the ability to express themselves fluently in English without much thought and planning (CEFR rating scale 'C1' i.e. 'proficient user'), whereas majority (91 percent) of industry workers perceived they possess this ability. Lastly, only 19 percent of students felt that they possess the ability to take part effortlessly in any conversation or discussion in English (CEFR rating scale 'C2' i.e. 'proficient user') although majority (92 percent) of industry workers felt they possess this ability.

Summarily, these findings show that undergraduate engineering students in the Kwara State of Nigeria thought they possess an average level of speaking interaction skills, while industry workers self-rated theirs as high. This signals that the level of English speaking interaction skills expected in the workplace is much higher than what the students are able to do while they are at university. This fact is evident in the industry workers' self-rating shown earlier. Therefore, students should realize the need to improve their level of English speaking interaction skills as an endeavor to prepare themselves for their future workplace communication challenges.
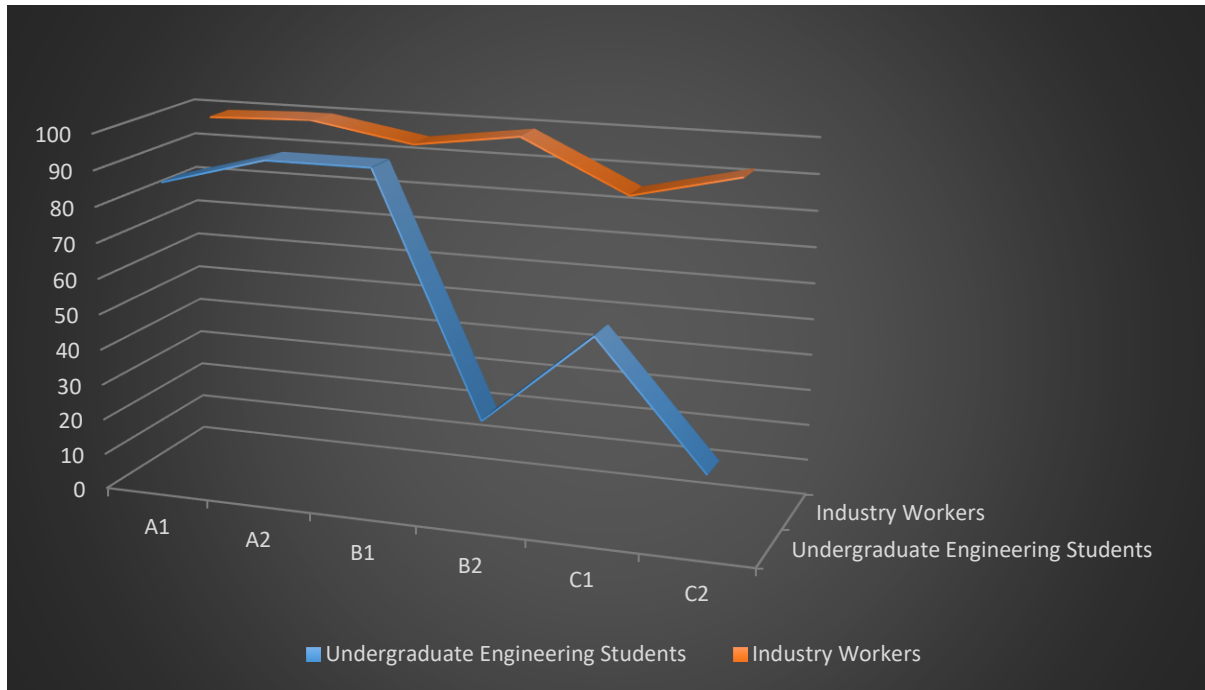
Figure 4.2 Respondents' Self-rating of their own English Speaking Production Skills

Figure 4.2 above presents the descriptive analysis of the respondents' (both students and industry workers) self-rating of their own speaking production skills. Most of undergraduate engineering students rated their speaking production skills to be at the overall level of B1 (independent user) according to the CEFR, while industry workers rated theirs to be at the overall level of C2 (proficient user) according to CEFR as well. Thus, this graph shows a wider gap between students' speaking production skills and those of workers.

Specifically, majority (86 percent) of students felt that they have the ability to use simple phrases and sentences to describe in English where they live and people whom they know (CEFR rating scale 'A1' i.e. 'basic user'). Also, most industry workers (99 percent) perceived they have this ability. Most students (94 percent) perceived themselves as having the ability to use a series of phrases and sentences in English to describe, in simple terms, their families and other people, living conditions and their educational background (CEFR rating scale 'A2' i.e. 'basic user'), while all industry workers (100 percent) felt they also possess this ability. Moreover, majority (94

percent) of students felt that they can connect phrases in a simple way to describe experiences and events, their dreams, hopes and ambitions in English. They can briefly give reasons and explanations for opinions and plans. They can narrate a story or relate a plot of a book or film (CEFR rating scale 'B1' i.e. 'independent user'). Likewise, majority (95 percent) of industry workers perceived they possess this ability.

Nevertheless, only 28 percent of students perceived they have the ability to present in English, clear detailed descriptions on a wide range of subjects related to their field of interest. They can explain a viewpoint on a topical issue giving the advantages and disadvantages of various options (CEFR rating scale 'B2' i.e. 'independent user'), whereas most of industry workers (99 percent) felt they have this ability. 54 percent students perceived they possess the ability to present clear, detailed descriptions of complex subjects integrating sub-themes, developing particular points and rounding off with an appropriate conclusion in English (CEFR rating scale 'C1' i.e. 'competent user'), but majority of industry workers (85 percent) perceived they have this ability.

Lastly, only 20 percent of students felt that they possess the ability to present a clear, smoothly flowing description or argument in English (CEFR rating scale 'C2' i.e. 'competent user') even though majority of industry workers (92 percent) perceived they possess this ability.

To sum up, the overall findings suggest that undergraduate engineering students in the Kwara State of Nigeria felt they possess a low level of speaking production skills compared to industry workers who perceived their skills in this regard as high. Moreover, based on the findings from the research questions two and three, even though they are not highly adept at both, students felt they can do speaking interaction better than production. However, industry workers maintained that they can perfectly do both. The findings of the overall respondents' self-rating of their own speaking interaction and production skills agree with Chen, Chang and Chang (2016) who found that the level of English speaking skills taught to Taiwanese undergraduate students at a Taiwanese college of technology is low compared to the level used in the workplace. At this juncture, students should realize the importance of the aforementioned speaking skills in the workplace and thus, improve themselves to the required standard. More importantly, there is a lot to do by the Nigerian university education policy makers to ensure that the English courses taken by undergraduate engineering students are redesigned in such a way as to contain sufficient oral communication activities with which students can acquire the speaking interaction and production skills that are highly required in the workplace.
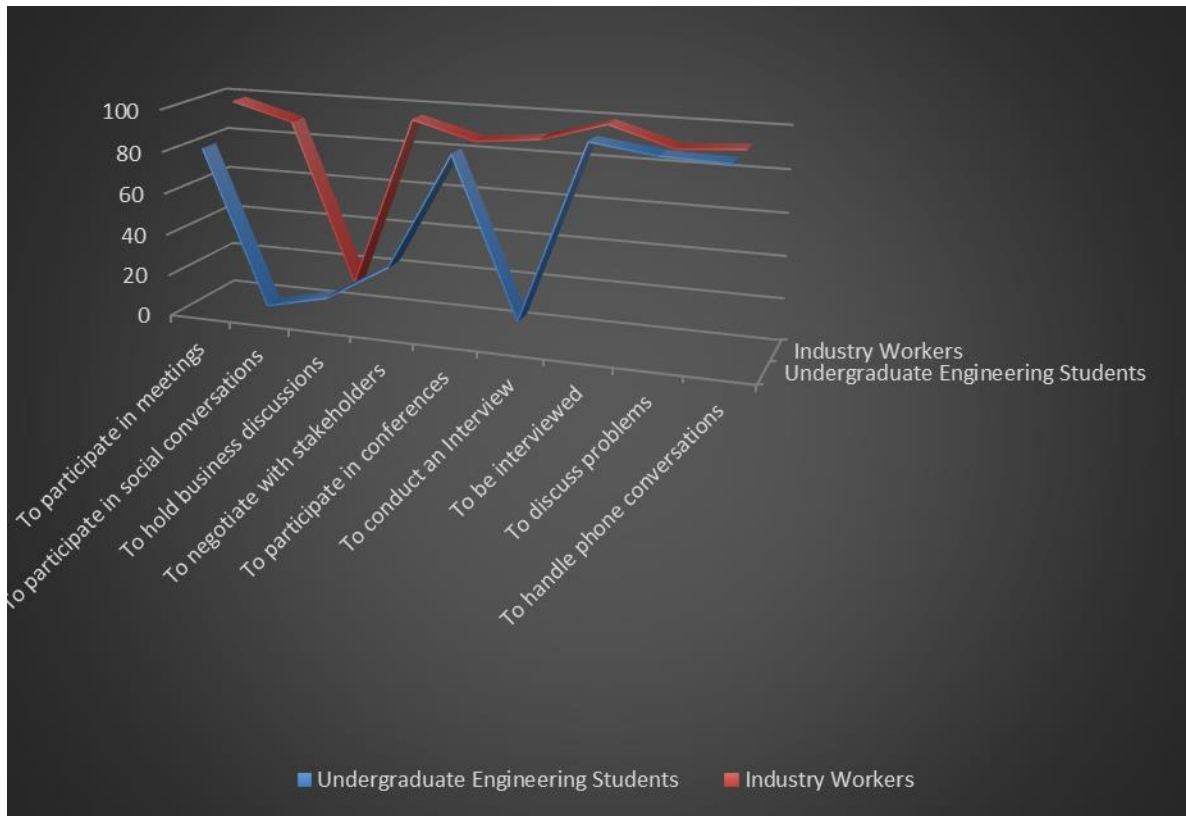
Figure 4.3 Respondents' Perceptions on the Importance of Speaking Interaction Sub-skills at Workplace

Figure 4.3 above presents the analysis and result of respondents' perceptions on the importance of speaking interaction sub-skills in the workplace. The findings showed that, out of the nine speaking interaction sub-skills, there is a major difference in perceptions between undergraduate engineering students and industry workers on three sub-skills. Students saw five speaking interaction sub-skills as important in the workplace, while the remaining four sub-skills were perceived by them as unimportant. Industry workers, on the other hand, saw eight speaking interaction sub-skills as important in the workplace, while only one sub-skill was not considered by them as important.

Specifically, most students (97 percent) perceived being interviewed (To be interviewed) as important in the workplace. Similarly, most industry workers (99 percent) perceived it as important in the workplace as well. Also, majority (93 percent) of students perceived the importance of discussing problems (To discuss problems) in the workplace, while most of industry

workers (90 percent) considered it as important in the workplace as well. Moreover, handling phone conversations (To handle phone conversations) was perceived as important in the workplace by the majority (92 percent) of students, while the majority (92 percent) of industry workers perceived it as important as well. Similarly, participating in conferences (To participate in conferences) was perceived to be important in the workplace by 87 percent each from both students and industry workers. More so, participating in meetings (To participate in meetings) was considered as important in the workplace by the majority (81 percent) of students, while most industry workers (98 percent) perceived it as important as well. Conversely, holding a business discussion (To hold a business discussion) was not considered as important by most of respondents. Only 14 percent of students perceived it as important, while only 13 percent of industry workers perceived it as important.

However, only 32 percent of students perceived negotiating with stakeholders (To negotiate with stakeholders) as important in the workplace, whereas most industry workers (95 percent) perceived it as important. More so, only 13 percent of students perceived the conduction of interview (To conduct an interview) as an important speaking sub-skill in the workplace. Nevertheless, it was perceived as important in the workplace by the majority (90 percent) of industry workers.

Participating in social conversations (To participate in social conversations) was perceived as important in the workplace by only seven percent of students. However, it was perceived as important in the workplace by the majority (90 percent) of industry workers.

Overall, both undergraduate engineering students and industry workers in the Kwara State of Nigeria are unanimous that participating in meetings and conferences, being interviewed, discussing problems, and handling conversations are important in the workplace. Also, they are unanimous that holding business discussions is unimportant in the workplace. Nonetheless, students thought that participating in social conversations, negotiating with stakeholders and conducting an interview are not important in the workplace, whereas they are perceived by industry workers as important. This shows that the perception of students on the importance of speaking interaction skills in the workplace is different from that of industry workers. More specifically, there is a difference that can be regarded as statistically significant between the overall mean score of undergraduate engineering students (M=3.49, SD=0.254) and that of industry workers (M=4.28, SD=0.251); t = 21.9, P = 0.00, P<0.05.

The perception difference found between undergraduate engineering students and industry workers on the importance of English speaking interaction skills in the workplace is in agreement with Kazempourian (2017) who reported a mismatch in perception between university engineering students and practicing engineers in Iran. This, as stated earlier, suggests a lack of strong link between the higher educational institutions in the Kwara State of Nigeria and workplace. One of the consequences of lack of strong relationship between industries and enterprises and universities

is the inadequate awareness of students on the important workplace communication activities for which they are to prepare themselves as future employees.
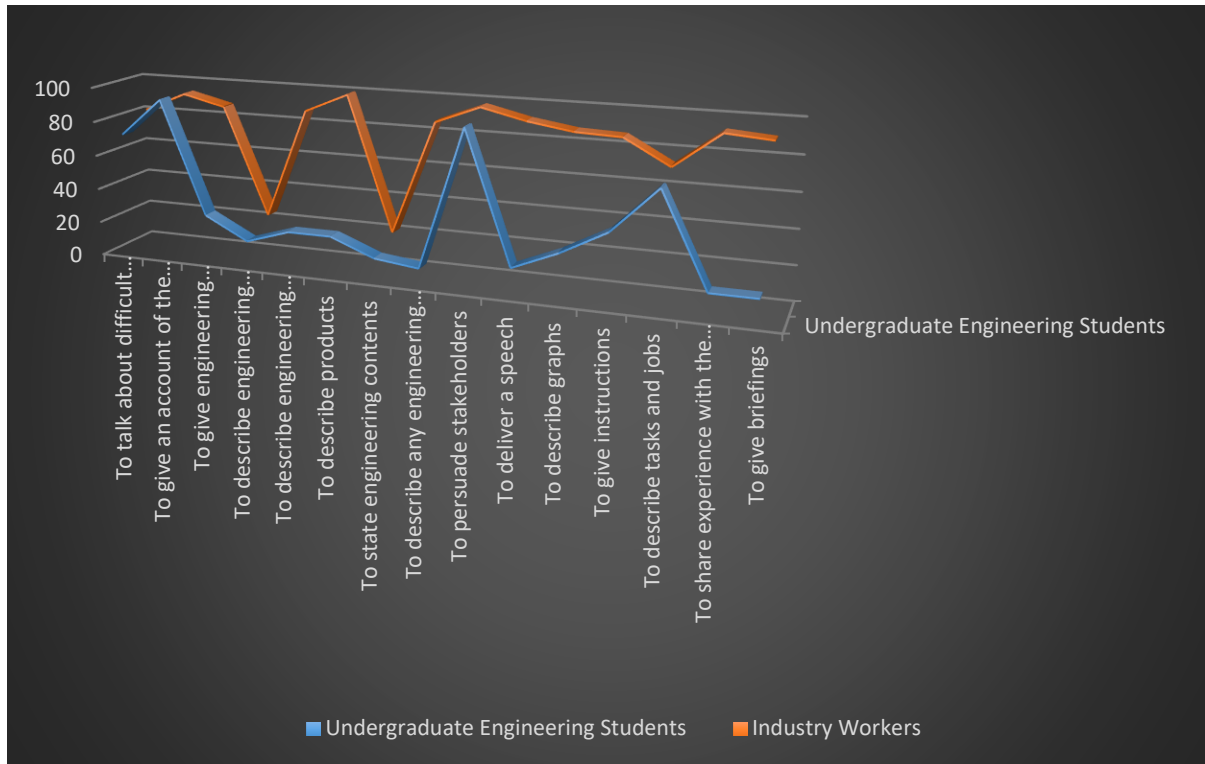
Figure 4.4 Respondents' Perceptions on Speaking Production Sub-skills at Workplace

Figure 4.4 above presents the analysis and results of the respondents' perceptions on the importance of speaking production sub-skills in the workplace. The findings showed a major difference in perceptions between undergraduate engineering students and industry workers in nearly all speaking production sub-skills. Out of the 15 speaking sub-skills grouped under speaking production, students perceived only four sub-skills as important in the workplace, while the other 11 sub-skills were not considered by them as important. However, industry workers perceived all these speaking sub-skills as important in the workplace, apart from two sub-skills which were not considered by them as important.

Specifically, most students (94 percent) perceived giving an account of the available engineering services in the company (To give an account of the available engineering services in the company) as important in the workplace. Likewise, the majority (93 percent) of industry workers also perceived it as important. Moreover, persuading stakeholders (To persuade stakeholders) was perceived as important in the workplace by the majority (91 percent) of students. Similarly, most industry workers (97 percent) considered it as important too. Talking about

difficult engineering concepts (To talk about difficult engineering concepts) was perceived as important in the workplace by a large number (72 percent) of students, while the majority (82 percent) of industry workers felt that it is important. Furthermore, a huge number (67 percent) of students perceived describing tasks and jobs (To describe tasks and jobs) as important in the workplace. Likewise, it was perceived as important in the workplace by a large number (72 percent) of industry workers.

Conversely, describing engineering instruments (To describe engineering instruments) was considered as important in the workplace by few respondents. Only 15 percent of students perceived it as important, while only 24 percent of industry workers felt it is important. Similarly, only 13 percent of students perceived talking about engineering contents (To state engineering contents) as important in the workplace. Likewise, only 21 percent of industry workers perceived it as important.

Nevertheless, only 23 percent of students perceived giving engineering presentation (To give engineering presentations) as important in the workplace, while it was perceived as important by the majority (87 percent) of industry workers. Moreover, only 23 percent of students perceived the importance of describing engineering measurements (To describe engineering measurements) in the workplace, whereas the majority (88 percent) of industry workers perceived it as important. Also, describing products (To describe products) was perceived as important by only 23 percent of students, while it was perceived as important by most industry workers (99 percent). Giving the description of an engineering process (To describe any engineering process) was considered important in the workplace by only 10 percent of students. However, it was perceived as important by the majority (87 percent) of industry workers. In addition, only 16 percent of students perceived the delivery of speech (To deliver a speech) to be important in the workplace, while most of industry workers (91 percent) perceived it as important. More so, only a small number of students (27 percent) perceived the importance of graph description (To describe a graph) in the workplace, whereas the majority (87 percent) of industry workers considered it as important. Giving instructions (To give instructions) was perceived important by a number of students less than average (41 percent). However, it was perceived to be important by the majority (86 percent) of industry workers. Also, only 14 percent of students felt that sharing experience with the public (To share experience with the public) is important in the workplace, while most industry workers (92 percent) perceived it as important. Lastly, giving briefings (To give briefings) was perceived to be important in the workplace by only 14 percent of students, whereas the majority (88 percent) of industry workers perceived it as important.

Overall, the majority of undergraduate engineering students and industry workers in the Kwara State of Nigeria are unanimous that talking about difficult engineering concepts, giving an account of the available engineering services in the company, persuading stakeholders, and describing tasks and jobs are important within the purview of workplace communication scenarios.

In addition, the majority of these two groups of respondents are also unanimous that describing engineering instruments and talking about engineering contents are not important in the workplace.

Nonetheless, there is a mismatch in perceptions between students and industry workers on the importance of other speaking production sub-skills in the workplace. The following speaking production sub-skills are considered unimportant in the workplace by students, whereas they are all perceived as important by industry workers: giving engineering presentations, describing engineering measurements, describing products, describing any engineering process, delivering a speech, describing graphs, giving instructions, sharing experience with the public, and giving briefings. This altogether suggests a difference that can be regarded as statistically significant between the two groups of respondents given the overall mean score of undergraduate engineering students (M=3.06, SD=0.36) and that of industry workers (M=4.04, SD=0.20); t = -23.95, P =0.004, P<0.05.

The perception mismatch between the two groups of respondents found with regards to the importance of speaking interaction sub-skills in the workplace has also demonstrated itself in the speaking production skills. This shows that even though oral communication skills have been prioritized by employers over a decade (Rajprasit and Hemchua, 2015), most of the novice engineers are still being rated at largely deficient level (Rajprasit, Pratoomrat and Wang, 2015). For this perception gap to be properly bridged, there is need for a holistic orientation to guide students into the real picture of workplace communication and to inculcate in their minds the fact that their success as practicing engineers in future lies on their ability to showcase their English speaking skills within the realm of workplace communicative events. This will help them to realize the importance of all speaking sub-skills perceived to be important in the workplace by industry workers and thus, improve their level in them accordingly.

5. Conclusion

This study sought to compare how undergraduate engineering students and industry workers in the Kwara State of Nigeria self-rate their own English speaking interaction and production skills, as well as identified their perception on the importance of English speaking interaction and production sub-skills in the workplace. The results of the data analyzed through the use of SPSS indicate that students rated themselves to be up to B2 of CEFR rating scale (independent users) at speaking interaction skills, while industry workers rated themselves to be up to C2 of CEFR rating scale (proficient users) in this regard. Also, students rated themselves to be up to B1 of CEFR rating scale (independent users) at speaking production skills, while industry workers rated themselves to be up to C2 (proficient users) in this regard. With regard to the importance of speaking sub-skills in the workplace, industry workers perceived more speaking interaction and production sub-skills as important in the workplace than students.

This study serves as an important source for ESP course designers in their efforts to prepare a suitable workplace English speaking course for undergraduate engineering students in the Kwara State of Nigeria as an attempt to produce graduate engineers who would not only be tech-savvy, but also capable of communicating effectively in English language within the scope of workplace communicative events.

It is well understood that this study focused on the importance of workplace English speaking skills for undergraduate engineering students, further studies are suggested to investigate the importance of other communication skills such as listening, reading, and writing as they are also part of what students should be prepared for with regard to their future workplace events.

In addition, as this study was conducted in a public university in the Kwara State of Nigeria, it is suggested that further studies be carried out in the other two universities with engineering faculty in order to have a holistic picture of the perceptions of all Kwara State university engineering students with regard to the importance of English speaking skills in the workplace.

Moreover, based on its findings, this study recommends that an ESP course on workplace English speaking skills for undergraduate engineering students be designed as a measure to fill in the communication vacuum between students and industry workers. While in the course of designing this course, the followings are further recommended: The course should focus mainly on the English speaking skills considered to be important at the target situation (i.e. workplace) of the undergraduate engineering students. Specifically, the aforementioned speaking sub-skills and others regarded as important at the engineering workplace should be addressed thoroughly in the suggested course. The course should have a focus on language functions along with forms so as to ensure that students are equipped with the exact engineering workplace English speaking needs. Having designed the course, the materials to be selected or developed should make use of authentic engineering workplace English speaking learning materials (such as video CD, audio CD, and so on) that give the real picture of the engineering workplace communication activities and thus, help students to practice the workplace English speaking skills right from their school environment.

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