

Uncovering the Hidden Dimension of Global Business English Proficiency: A Fractal Analysis

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Abstract

This study used the fractal statistical analysis to explain the Business English proficiency of 137,000 employees in multinational companies across 77 countries. Using the Global Business English Index (BEI) in 2013, this study compared and contrasted the natural and the normal states of English proficiency in three contexts of English use following the Kachruvian model: English as a Mother Tongue (EMT), English as a Second Language (ESL) and English as a Foreign Language (EFL); and subsequently, described the local characteristics of these countries to account for the fractal deviation. The results revealed that countries such as Bulgaria, Singapore, India, Sweden, Finland, and Belgium and the Philippines deviated from the natural state with BEIs of 6.076 to 6.575 (Basic Proficiency) and 7.95 (Intermediate Proficiency) respectively. The fractal variation could be attributed to two local characteristics of these countries: the sociolinguistic profile of the test takers and the provision of language training in multinational companies.

Keywords: Business English Index, Business English proficiency, fractal dimension, language proficiency

Introduction

English proficiency is a crucial skill in the globalized workplace of the 21st century. The increasing interconnectedness of global business entails the knowledge and application of English language in various forms of media to facilitate successful communication and operation within and outside the business organizations and across countries. The widespread use of English in this context reflects its noticeable influence on business outside its country of origin.

The rapid spread of English and the internationalization of the economy transformed English into a global corporate

language (Cook, Gauthier, & Scheirlinck, 2000) to facilitate communication across diverse geographical location and to promote global business performance (Neeley, 2012). Among ASEAN member countries, the goal of establishing the ASEAN economic community (AEC) in 2015, resulted in the increased impetus in the use of English (Kimura, 2015), a spinoff of being the primary working language of this organization. Further, Barbin and Nicholls (2012) explained that the realization of economic opportunities offered by AEC is in large part dependent on the improvement of business English proficiency.

Among the member countries of the AEC like the Philippines and Singapore, the learning of English has been considered as an essential element of an interconnected global economy, thus, the primacy of learning business English as the language of trade, finance, and technology. Although India is not a member of AEC, it has forged ties with some AEC member countries and English is also considered as a second language. This language played a significant role in India's globalization (Kirkpatrick, 2016) and modern transformation (Hussain, 2014). In fact, India ranked first in the 2004 Offshore Attractiveness Index due to the staggering number of human resources which are proficient in English (Lazaro & Medalla, 2004).

Although English is a foreign language in some European countries, business English has been the lingua franca or lingua economiya in many multinational companies due to the progressive internalization of its economy. For example, the internationalization of the Finnish economy stressed the role of English in inter-office communication (Nuolijärvi, 2010) and looks at English as the vehicle in making business arrangements (Ammon, 2001). In point of fact, some companies like Nokia have enforced the encoding of documents in English (Piekkari, Oxelheim, & Randy, 2013). Further, Jakšić and Rakočević (2012) observed that in many European countries to include Finland, Belgium, and Sweden, streamlining of English for specific purposes is evident with Finland offering the most number of this type of courses.

Looking at the role of English in business across the globe, there is a critical need for global business English research. However, only very few studies have been conducted in a large-scale scope. Du-Babcock and Bhatia (2013), Gerhards (2014), Louhiala-Salminen (2015, 2011) reported studies on Business English in Asian and European countries. The first strand of work by Du-Babcock and Bhatia (2013) revolved around sociolinguistic analyses of communication styles between interlocutors from the same Asian culture (mainland Chinese), between interlocutors

from different Asian cultures (Japanese and Hong Kong Chinese), and between communicators from Asian and European cultures (mainland Chinese and Finnish). Using the Eurobarometer dataset, Gerhards (2014) analyzed the differences in English proficiency both between and within European countries using multilevel techniques. A research program was also undertaken by Louhiala-Salminen and Kankaanranta (2011) focusing on the global communicative competence in three levels: multicultural competence, competence in BELF (English as a Business Lingua Franca) and the communicator's business know-how. A fractal analysis of BEI is yet to be conducted.

It is apparent that language scholars and teachers need to analyze the global business English proficiency index focusing on its fractal dimension. In particular, there is a need to explore the possible factors which could account for the differences in the BEI of 77 countries belonging to the three different groups of English language speakers- the English as a Mother Tongue (EMT), English as a Second Language (ESL) and English as a Foreign Language (EFL). It is expected that EMT workforce has a more advanced English language proficiency than those in the ESL and EFL groups. However, the 2013 BEI revealed otherwise. The top three countries which received an intermediate BEI belonged to the ESL and EFL groups while those in the EMT countries have BEI ranging from beginning to basic scale. It is, therefore, the intent of this study to compare and contrast the expected (fractal) and the actual states of English proficiency in three contexts of English use and describe the local characteristics of these countries that explain the fractal variation

Examining the fractal dimension of the BEI is an innovative method of discovering the factors which affect the English competency of global workers and subsequently derive a theory that can explain this phenomenon. The research findings could serve as bases to design and intensify business English programs to increase the BEI of the global workforce.

Conceptual Framework

This study is anchored on the concepts Business English and Business English Proficiency. Business English is one key area in English for Specific Purposes (ESP) involving individuals who are in the domain of international trade and “who come together for the purpose of doing business” (Bargiela-Chiappini & Harris, 1997; Bargiella-Chiappini & Nickerson, 1999) with English-speaking companies and countries. Moreover, BE refers to spoken and written communication that usually takes place within a corporate setting, whether physical or virtual.

Generally, BE is taught as a subject to adult learners, either at a higher education institution or in a workplace setting, whose first language is not English, but who need to know and use it for commerce purposes. Thus, BE is focused on the language (grammar, vocabulary, and style), communication skills (speaking, listening, reading, writing) and genres (business presentations, negotiations, meetings, correspondence, reports) appropriate to business activities.

Another important concept is the proficiency of the global workforce which refers to the degree of competence in a given language demonstrated by an individual at a given point (Briere, 1972, p. 332). Considering this definition, Business English Proficiency can be defined as a person’s competency to use English in business settings. This competency is measured by the Business English Index or BEI in the workplace. BEI represents the four levels of competency that are used to benchmark the workforce’s business English skills, particularly knowledge of the grammar of English and ability to understand written and spoken English (GlobalEnglish, 2013).

In the four Business English Indices, the lowest index labeled as Beginner ranges from 1 to 3. In this level, the English language user can read and communicate using only simple questions and statements, but cannot communicate and understand basic business information during phone calls. The next is the

Basic level with a BEI of 4 to 6. This means that a person can understand business presentations and communicate descriptions of problems and solutions, but can take only a minimal role in business discussions and the execution of complex tasks. The third level, the intermediate stage, has a BEI of 7 to 8. In this level, a person can take an active role in business discussions and perform relatively complex tasks. Last, is the advanced level with a BEI of 9 to 10 which means that a person can communicate and collaborate much like a native English speaker. It is assumed that the BEI, determinant of Business English Proficiency, differs across geographic locations due to the English language proficiency of the test participants and language training programs.

These factors could be two of the hidden dimensions which could account for the natural state of the global Business English proficiency. In fractal studies, Mandelbrot (1983) theorized that the natural state of order is fractal, that is, there are smaller values than larger values as opposed to their normal state. This fractality is brought by interventions to the natural processes. For example, it is expected that the natural state of the Business English proficiency is for the native speakers of English (EMT setting) to have a high BEI and for the non-native speakers of English (ESL & EFL settings) to have a low BEI. However, the outcome in the 2013 BEI showed otherwise. This requires a postulation of possible interventions which cause the deviation.

Objectives

This study aimed to investigate the states of English proficiency from a fractal perspective. Specifically, it intended to

1. Determine if the business English proficiency deviated from their fractal state;
2. Compare and contrast the business English proficiency of the countries across settings using the Kachruvian model; and
3. Explain the factors causing the deviation or lack thereof.

Methodology

This study predominantly used an exploratory research design. This involved data mining as a method involving the analysis of existing data on BEI generated by GlobalEnglish (2013). Then fractal analysis was applied to determine the countries that deviated from their natural state. In this case, the countries that departed from the normal assumption that those test takers from the EMT context would outperform the takers from the ESL and EFL contexts. This is a normal assumption because English is the first language of the takers. The fractal analysis could unveil a pattern of asymmetry in the data – the countries that depart from the said assumption.

The gathered data were the BEI of 137,000 respondents representing six (6) multinational companies across 77 countries. From the 77 countries, the researchers conducted the test of fractality to determine if the English proficiency of global workers deviated from their natural (fractal) state; explain the deviation or lack thereof in light of possible interventions, and analyze the local characteristics of fractal observations. In conducting the test of fractality, the researchers translated the raw data into histograms and examined the exponential distribution of the data. Since the preliminary histogram was not exponential, the researchers trimmed down the data until it achieved its fractal state. To show that the data were fractal in nature, it was transformed using the formula $Y = \theta * \text{Exp}(X_i)$ where theta is the minimum value of X_i .

To compare and contrast the BEIs of the represented countries, the researchers first categorized them in three contexts of English use: EMT, EFL, and ESL using the Kachruvian model. Through this model, the researchers were able to determine the normal conditions of English language use in each of these domains. Then the natural (fractal) state of countries deviating from the normal states were accounted for based on literature review. Particularly, the researchers delved into the possible factors causing the deviation.

Results and Discussion

Figure 1 presents the distribution of the data of Business English Index across 77 countries. As can be seen in the preliminary histogram, the data have a roughly exponential distribution. This means that the data should be trimmed to identify its fractal state.

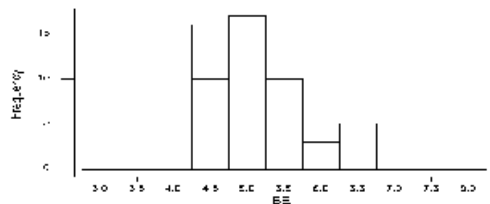


Figure 1

Figure 2 shows the exponential distribution of the trimmed data involving 22 countries only. The rest of the 55 countries were not factored in; they had to be eliminated to come up with an exponential distribution. On the other hand, Figure 3 shows that it is now fractal. This fractal state indicates that there are more countries with low BEI than countries with high BEI. This finding is in consonance with the fractal theory that there will be a higher number of smaller variations than larger ones (Padua, 2015).

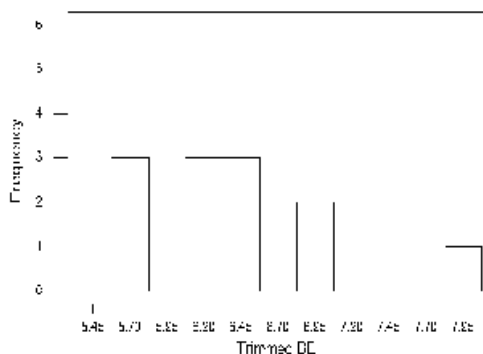


Figure 2

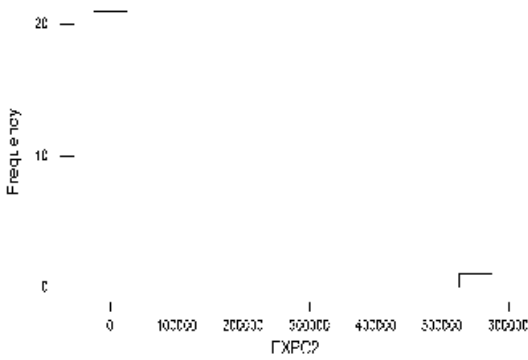


Figure 3

Fractal analysis requires the accounting of the smaller variations and in this case, the countries found at the right portion of Figure 3. These are the countries that deviated from the normal curve or in this type of analysis the countries that deviated from their fractal state. To identify these countries, it is important to look at Figure 2 again. This observation results in the identification of seven countries with BEIs of 6.076 to 6.575 (Basic Proficiency) namely Bulgaria, Singapore, India, Sweden, Finland, Belgium, and the Philippines with a BEI of 7.95 (Intermediate Proficiency).

Now that the countries which depart from the fractal state were identified, they were classified according to the context of English use. This is shown in Figure 4.

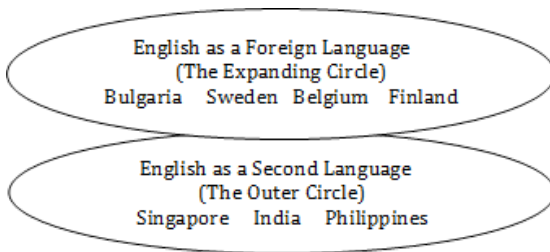


Figure 4. The context of English use.

Figure 4 above is based on Kachru's (1997) concentric circle that intends to show the divide in the English-speaking world. This concentric circle consisted of three interlocking circles – the Inner, Outer, and Expanding Circles. The inner circle consists of the native English-

speaking countries like the USA, Canada, and Australia. The outer circle includes countries that are former colonies and where English is considered as a second language. Examples of these countries are the Philippines, India, Singapore, Nigeria, and Africa. In the expanding circle, English is known as a foreign language, and it is becoming an important aspect of science and technology, business, and education. Examples of countries in the third circle include Belgium, Japan, Bulgaria, Sweden, Belgium, Finland, and China. It is assumed in the normal state that those countries from the inner circle will receive the highest BEI, but no country from the inner circle made it to the list.

The fractal variation could be attributed to the local characteristics of these countries which include the profile of the test takers and the training provided to employees in multinational companies. The result may first be attributed to the English language proficiency of the test takers. Global English selects non-native speakers of English from multinational companies. Looking at Figure 2, these are the countries that deviated from the natural state. Singapore, India, and the Philippines are Southeast Asian countries which use English as a second language or as the official language of communication in the academe and business settings. Thus, the majority of the population are speakers of English, which may be a reason for the differences in the BEI of the participants.

The English proficiency of the takers from these three countries can also be a result of the progressive internationalization of their economy. For AEC like the Philippines and Singapore, the realization of economic opportunities dovetails the use of English (Barbin & Nicholls, 2012) to promote effective communication across Southeast Asia and to increase their business performance in the region (Neeley, 2012). India's case is a bit different; it is not a member of AEC. However, English has been identified as a significant factor in India's modern transformation (Hussain, 2014). In 2004, Lazaro and Medalla noted that India dominated the Offshore Attractiveness Index due to the number of English proficient

human resources.

Jakšić and Rakočević (2012) reported that in Finland, Belgium, and Sweden, courses on English for Specific Purposes (ESP) are required subjects in the university with Finland offering the most number of ESP courses. This curricular development must be instrumental although not yet sufficient in obtaining a basic level of business English proficiency compared with other countries where English is also a foreign language. The English language practices of the global companies in these countries must have also influenced the language proficiency of the takers. For example, it has been documented that in Finland, English is used in inter-office communication (Nuolijärvi, 2010; Piekari, Oxelheim & Randy, 2013), in making business arrangements (Ammon, 2001), and in encoding other forms of written documents (Piekari, Oxelheim & Randy, 2013). Similarly, English in Bulgaria has gained prominence as a byproduct of economic activities. Nowadays, one rarely finds a Bulgarian under thirty who does not speak English (Stein, 2003).

It is highly possible that the test participants from the six countries that deviated from the natural state and the Philippines were better users of Business English than those from other countries, and this level of proficiency is influenced by international business engagement. Welch, Welch, and Piekari (2001) said that when parent companies decide to create global subsidiaries, they most of the time choose to establish in countries where English is widely spoken. In all of the cases above, the status of English and the country's international economic ventures somehow shaped the English language proficiency of its workforce.

To account for the low BEI of those takers from countries where English is spoken as the first language, it can be argued that since the takers of the tests are non-native speakers of English, then, the participants from the said countries may have lower Business English Proficiency. Based on the BEI result by industry sectors, those working in the construction, utility, transportation, education, government,

real estate have low BEIs ranging from 2.82 to 3.99 (GlobalEnglish, 2013). It is possible that the takers from those in the first world countries where English is used as the first language involved migrants who are working in these sectors, which do not emphasize the use of Business English. The GlobalEnglish test where the BEI is taken measures the testee's ability to respond to prompts related to business socializing, telephoning, giving presentations, and travel. The kind of English used in these sectors is conversational and academic, and this does not match the Business communication skills tested by GlobalEnglish.

Another factor which could be ascribed for the BEI is the intensive training on Business English in multinational companies. In the Philippines, for instance, private multinational companies like the BPO have forged a partnership with academic institutions to further strengthen the prospective applicants' English language proficiency through its Advanced English Proficiency Training (ADEPT) Program to access jobs in the global workplace. Transnational companies also provide in-house training for new and senior employees to enhance their English language proficiency. Also, the emerging modes of business communication both synchronous and asynchronous platforms necessitate the strategic conduct of training to enhance the Business English skills of employees who engage in transnational work using the emerging modes of communication (Cook et al., 2000).

The need to create programs that aim to increase the English language proficiency of the global employees may be brought by the fact that three out of four multinational companies manage systems of more than 28 overseas operations (John, Gillies, Cox, & Grimwade as cited in Feely & Harzing, 2002). Managing these 20 or more overseas operations poses challenges due to geographic, cultural, and linguistic diversity. The geographic variation is addressed by the creation of virtual organizations that facilitate global communication; however, this business strategy also intensifies the adoption of a corporate language – the English language.

In the paper of Lazaro and Medalla (2004), English is recognized as the language that connects the plurilingual world, and it is the language of trade, finance, and technology. This means that the global workforce needs to access Business English training because it will increase the productivity of workers and improve customer relations (GlobalEnglish, 2013). In fact, GlobalEnglish acceded that the BEI increase can be credited to the varied English language support program provided to the global workers to enhance their English proficiency.

Conclusion

Based on the findings it can be concluded that the global business English proficiency is not determined by the genetic nativeness of the English language speakers. The BEI does not indicate the level of business English proficiency of first language speakers of English, but it is reflective of the English language proficiency of the non-native speakers of English. Also, the results suggest that the job functions of the testees and the Business English training that they have received have an influence in the business English index published in 2013.

A limitation of the study is the lack of a complete profile of test takers. The data only indicate the BEI of the non-native speakers of English from the 15 industry sectors and 77 countries. A description of other sociolinguistic attributes of the global respondents should have been made.

Given those sectors and countries with low BEIs, multinational companies could intensify their training on business communication skill development in English. This is to ensure global competitiveness in a fast-changing marketplace. Studies on the business English needs of different sectors and differences in communication practices across cultures may also be conducted. Also, considering that one of the motivations of learning business English was to boost economic performance in the globalized business community, the government through the Commission on

Higher Education could examine the English language subjects to determine if the contents are responsive to the demands of the industries. They could spearhead the examination of the curriculum and propose ESP subjects to address the gap between the academe and the industry. This entails the construction of ESP materials that are anchored on intercultural awareness, business English, and genre analysis.

To ensure the success of the program, it is recommended that teachers are provided with opportunities to immerse in the target industry not only to document the English language needs of the different business sectors but also to study the spoken and written conventions of these companies, specifically inter-office communication and inter-cultural business communications and negotiations. If possible, a genre analysis should be conducted to provide a pattern of discourse moves that can be integrated into the making of instructional materials and ESP training-workshops. Regular monitoring of ESP programs and updating of syllabi and materials may also be considered.

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