

**ENGLISH AND TECHNOLOGY ARE KEYS FOR 21<sup>ST</sup> CENTURY  
TO EMBRACE INDUSTRIAL REVOLUTION 4.0**

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**ABSTRACT**

*Role of English language in digital era cannot be avoided to face the industrial world which has led to the rise of Industrial Revolution 4.0 (IR 4.0). A combination of cyber – physical systems, the Internet of Things, the internet of system, and big data make industry 4.0 is the future challenge. This new digital industrial technology can make factories become more efficient and productive in any regions. The IR 4.0 brings many positive opportunities for classroom practices to prepare students for better learning outcomes to embrace IR 4.0. Therefore, English teachers have to be professional to develop their ways of teaching in adapting the changes in digital era, especially in keeping learning new things. In addition, integrating classroom practices through blended learning offers more flexibilities. Interesting and challenging classroom practice could give positive achievement in the learning process. Thus, graduate students are ready to have opportunity to work in any industries in IR 4.0. This paper prepare both English teachers and students strategies for innovative learning in 21<sup>st</sup> Century to embrace Industrial Revolution 4.0.*

**Keywords:** *digital era, industrial world, industrial revolution 4.0, classroom practices.*

**INTRODUCTION**

In this industrial 4.0 foreign companies are found in most developed and developing countries including Indonesia. The rapid development of science and technology in the era of industrial revolution 4.0 has great impacts on education. One of them is in the field of English Language Teaching either at schools or universities. English and technology can not be separated. Therefore, beside teaching English Language, being able to use technology for both English teachers and students cannot be avoided.

In the next phase of linguistics field, the application of computers science in teaching

a language is needed rapidly. For example, Human Language Technology can create software tools embedded with the knowledge of human language to facilitate the communication between human to human with different language and human to machine (Rashel, 2011). Human Language Technology (HLT) is the speech synthesis that can produce human like voice in using google map to remind the drive about direction. To make English class interesting, English teachers should be able to use HLT. Speech recognition can be found in Google Voice Recognition Technology. If English teachers can add their English materials using HLT as supplementary materials for their main syllabus, students can get more exposure to native speakers conversations. At the same time, the teachers can increase the students motivation because the English class is more interesting and the students enjoy learning. Harmer (2007) points out that there are two types of motivation in learning a language; intrinsic and extrinsic motivation. In this context the students deals with two types of motivation. They enjoy studying English because they like their teacher because of interesting class. Besides, the issue in using technology in their campus is great, just like in other campuses.

A lot of articles have discussed what the English classes were like before 21<sup>st</sup> century. There are many approaches and methodologies that can be used in English classes such as Direct Method, Task Based Language Teaching (TBLT), and Communicative Language Teaching (CLT). These approaches and methodologies have been used to make students are good at speaking and writing in which fluency and accuracy cannot be avoided. However, from research findings, in the countries in which English is not the first language (L1) the students are not so fluent in English, yet, they are still poor in writing. Except, the countries which were colonized by British, for example, Malaysia, India, Pakistan, and Brunai. In these countries, English is used as the 1<sup>st</sup> Language (L1).

In the country such as in Indonesia, most English teachers deal with CLT, however some teachers still focus on Role-Play activities in which the teacher still gives the students roles to read and memorize dialogues instead of giving exercises in responding to conversation. In this 21<sup>st</sup> century, English teachers should change their way of teaching in which CLT can be extended by giving awareness-raising tasks to develop their communicative competence of the target language. The awareness-raising tasks can be given start from English for children until English for Adults. There are a lot of published materials that have been designed dealing with the awareness-raising task. To reach English for children many interesting materials can be found in Youtube. Besides, teachers can design their own materials that deal with learners ages and interest, in the context of English for

children until English for adults.

Adult learners have to change their way in studying, including in learning a language. At university levels, lecturers have to prepare their students to face the changes to live, to work, to study, and to interact with others, as Schwab (2017) points out that the new industrial revolution has shifted not only across all industries, but also towards society... that can influence system of education too. This industrial era requires people to be creative, to be good at collaborative team work, to adapt culture differences, to be good at intercultural and interpersonal skills (Penprase, 2018). This means English lecturers have to cultivate students capacities and skills as well as their English skills and computer skill. Studying not only in classes but also in self-directed learning done by the students. The impact brought by education 4.0 has resulted the needs of industries to deal with smart machines working alongside human-professionals, establishing lifelong learning to grow and survive to get better role in the society (Fisk, 2017). In sociolinguistics of immobility, focuses not on language –in-place but on language –in-motion used within society (Blommaert, 2011). This statement can mean language used in the global world care actually based on the current needs of society.

Regarding English and Technology are keys for 21<sup>st</sup> century to embrace industrial Revolution 4.0, producing quality graduates of English as a Foreign Language (EFL) and English as a common link, have always been important with the crucial challenges.

## **FINDINGS & DISCUSSION**

### **English Learning Environment for The 21<sup>st</sup> Century**

English Language Teaching (ELT) classroom environments in any schools in any countries today should help students cope with the challenges of the 21<sup>st</sup> century. There are four crucial challenges of the 21<sup>st</sup> century pointed out by David Johnson and Roger Johnson (2014): (1) global interdependence, (2) the increasing number of dumb cracies throughout he word, (3) the need for creative entrepreneur, and (4) the importance of interpersonal communication related to personal identity. These challenges can lead to the success of interesting learning process of ELT that are needed in all fields of professional setting. In this 21<sup>st</sup> century, teacher-centered teaching methods are not applied much. However, there are still a few English teachers who still deal with teachers talk in the English classrooms. The learning process in teaching a language in the 21<sup>st</sup> century has to focus on a new learning environment which is more to learner-centered activities either in classroom or outdoor activities that lead to innovative learning environment. Besides, English lecturers at universities have to do

collaboration with industries. By doing this, the students will know what industries need to open job opportunity for their future. The world keeps changing all the times.

Preparing students to do field practice in industries, in the learning process is a kind of challenge for them regarding their direct experiences in the job settings. What language people do in their job. This is the situation in which people acquire knowledge and the real language used in professional contexts. Doing field practice in the industries is a vital opportunity for the students to deal with individual experiences. They can share with other students their experiences that have value for self development.

Communicative activities in learning strategies have to be done related to use English in the real world. In conversation or discussion, every student is active to express his/her ideas without a lot of interruption from lecturers. A teacher or has a role as a controller to let the students interact in conversations or discussions. The ideas the students express can be from their experiences they get when doing field practices in industries.

The topics of the discussion have to deal with the students interest related to their needs. Therefore, teachers/lecturers should understand their students. In Public Speaking class, for example, many students can talk about the system of their offices. In Pamulang University (UNPAM) many students are employees/workers, therefore, they take evening classes. These groups of learners, they are highly motivated students and are more mature than the morning classes. Besides, they are much smarter than the morning ones. Their experiences from their job settings can help them to be fluent in using English because the knowledge experiences they get in their job settings have given a great value in their learning process. Talking about a system in an office is a real topic for this group of students. In applied linguistics class in Pamulang University, in the subject of a Course Design, the students can work in group of 3 or 4 to design an English Course for young learners. In their group, they are free to choose the name of the course, for example, the name of the course is "An English Conversation for Young Learners". In their group they are given time for a week to design the syllabus, duration of the course and the materials. To design this course, the students in the learning process can participate actively or experientially involved in the level of active learning. When working in groups, the students share their knowledge, skills, and experiences. They have discussion to solve the problem until they can complete the course design. In this context, they deal with CLT because in designing the course for the young learners the students can develop their oral skill. In addition, this task can promote collaboration focusing on fluency regarding communicative abilities in the target language.

In the Public Speaking class after a student presented his/her topic, the rests of the class were asked to ask questions, for example the topic were about “The Attendance System in My Office” and “The Salary System in My Office”. Both of these topics were real. For them these topics were real as most students work in offices. They could ask questions related to their own experiences. In the task of designing an English Course for young learners, it is a CLT task that involves brain-storming that create awareness of the topic given. What types of English Language Young Learners in the English speaking countries usually used. The students can search and retrieve from the internet.

These two classes have focused on using CLT and TBLT in which the learners interacted based on their experiences in their offices and asked questions spontaneously related to the task given. In the skill of using technology, they could use their mobile phones to search and retrieve the data sources needed for their tasks. Besides, these classes were learners-centered environments that produce results for English Language Teaching (CLT) in the 21<sup>st</sup> century.

### **Computerized Teaching Materials**

To dramatic increase in the use of computers and other digital resources such as mobile phones has made the needs and the environment of English teaching learning change. Although many students and teachers still prefer to do most of their learning and teaching through a course book (Ur, 2012), they have to follow the changes. The acronym ‘CALL’, or computer-assisted language learning has been used widely since 1990s and early. In addition to this, a large number books and journals have been published to help English teacher and students regarding this change, see, for example, Dudley and Hockly, 2007, or the journal *ReCall*([www.curocall-language.org/recall/index.html](http://www.curocall-language.org/recall/index.html)). Both English teachers and students have to be aware that there are a lot of benefit of using computer and other digital as they are flexible, adaptable when using it. Besides, big ranges of informational sources and various interactive options of computer hard-and software can be found. Therefore, English teachers and students have to be able to use them, for example assignments given to students could now be done much quicker and easier through presentation software like Microsoft Word or Powerpoint.

Other facilities in learning English Language are tools that enable students and teachers to hear when reading and correcting pronunciation. Besides, communication through email outside the classroom is not new. More recently, interactive tools such as, wikis, blogs, discussion forum in E-learning program have been used in many schools and universities.

Furthermore, in the classroom or outside, various internet-based facilities could be used by both English teachers and students.

## CONCLUSION

To embrace the Industrial Revolution 4.0 (IR 4.0), English teachers and students have to change their way of teaching a language and students have to be ready in accepting the changing because this changing could give advantage for them. What societies need in the 21<sup>st</sup> century has made learning environment challenging and interesting. The use of English and the real world and the students experiences in their job setting has led to innovative learning in their communicative tasks. CLT method and the awareness-raising tasks could develop the students communicative competence. Furthermore, the students have also used computer and other digital resources such as internet to complete their tasks.

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