

# The Urgency of 4 C Skills in the 21<sup>st</sup> Century in English Learning

Ratna Sari Dewi

{ratnasari@umsu.ac.id}

Universitas Muhammadiyah Sumatera Utara, Medan, Indonesia

**Abstract.** The learning process changed from teacher centered learning to the students centered learning. This concept actually already existed in the Law No 20 2005. In facing 21st century, the mastery of more than one languages also needed to adopt the new technology in doing teaching and learning process. So, the educational institutions especially universities have great responsibilities to produce competent graduates. The purpose of this research is to know about the urgency of the implementation of 4C skill in the 21 century in English learning in English Department at Muhammadiyah University of Sumatra Utara. Descriptive qualitative method used in this paper. The data taken not only from the literature review but also from questionnaires given to the students especially in English department at Muhammadiyah University of Sumatra Utara. Then, the data displayed in percentage. The result showed that most of students (87.5%) agree to implement 4C skill otherwise only 12.5 % students don't agree. Therefore, the educational process in the university must be carried out the 4 C skills namely critical thinking and problem solving, communication, creative thinking skill and collaboration. These 4C skills can be applied in all methods of learning including learning English.

**Keywords:** 4C Skill, 21st Century Education, English Learning

## 1 Introduction

Technological developments in the era of globalization certainly have an impact on various sectors of life, including implementation in the field of education [1]. Therefore, to create graduates who have superior competence is of course the responsibility of educational institutions, one of which is higher education. Graduates who have superior competence and competitiveness can of course be formed from the educational process at universities so that later they can meet the needs of the 21st century. To welcome the era of society 5.0, of course 21st century competence is a fundamental indicator that graduates must have. There are three indicators that form the basis of the main skills in the 21st century including: (1) learning and innovation skills, (2) career and life skills, and (3) expertise in using digital technology media [2]. Furthermore, the Ministry of Education and Culture conducted socialization regarding 21st century competencies as 4C (2017), namely the ability to think creatively, problem solve and think critically, communicate, and collaborate.

The needs to enter the jobs in the world today for university graduates is one of the roles of university [3]. Modern learning made revolution in the field of education. The design of learning provide competence to students in the cognitive, affective and psychomotor domains.

Theoretical knowledge about various disciplines according to their educational program through the lecture process also provided for the students. After students have mastered the theory enough, then students put the theory into practice through practical courses as well as internship activities, assistance, KKN, and others. Not only mastery of theory and practice, students are also provided with affective provisions related to attitudes or character. Therefore, in the educational process, students are also forged their character so that they have a positive character that can be useful when they were in the society.

In this era of globalization, based on the challenges of community needs, academic institutions must be able to develop a more optimal system. Educators such as teachers and lecturers play an important role in helping students learn material that is relevant to real life needs. This can be done by equipping students with basic skills so that students can achieve their goals, dreams and success in their future lives. The educational process has an important role in developing knowledge, skills, attitudes and values competencies that can later contribute and provide benefits for the future in an inclusive and sustainable manner, quoted from the OECD Learning Framework 2030. From this statement it can be concluded that academic institutions try to learn how to design goals learning that is relevant to life goals, forms a social sense of working with others with different perspectives, and finds opportunities and identifies various solutions to big problems in the future. Therefore, it is the responsibility of educators to prepare and equip graduates with the skills and competencies they need to be more active, responsible and able to socialize with the surrounding community.

In accordance with data from the National Association of Education, it is stated that the learning process that has been carried out for years is certainly not a reference for success in the university environment, career and world of work, as well as collaboration with 21st century society. In many years ago, to master 3 skills such as reading, writing and arithmetic were enough to compete to get a good job in the work place but now because of the development of all the sectors including the use of technology these 3 skills weren't enough to compete in this global society, it should be added other skill like proficient communication, creation, critical thinking and collaboration. These additional skills can't be deniable to be implemented in education from the primary, secondary until the higher education.

Preparing superior students to be able to adapt to society 5.0 is the biggest challenge in the world of education (4). Based on the results of data analysis from the World Economic Forum (WEF) (2020) there are 10 main abilities needed by individuals to be able to adapt and collaborate in order to face the industrial revolution 4.0 era, including: cognitive and flexibility, intelligence in communication, oriented to excellent service, ability to evaluate and make decisions effectively, emotional intelligence, the ability to collaborate and coordinate with others, good human management skills, creative and critical, able to solve problems systematically. In the era of the industrial revolution 4.0, of course an individual must fulfill competencies that are relevant to the needs of society so that later they are oriented towards success in life [4]. This ability is very relevant in facing the era of society 5.0. In addition to the competencies that have been described, in the era of society 5.0 there are six basic literacy skills, including: Data literacy which includes the ability to understand the context of reading and the use of information (big data) and digital data analysis. Furthermore, technological literacy, ability to use technology (coding, artificial intelligence, engineering principles, biotech, and machine learning). The final part is human literacy related to communication, humanities, and socio-culture [5].

At the tertiary level, 21st century competencies (4C) are obtained from academic and non-academic fields. In the academic field, The 4C competencies are obtained from process of

learning in the classroom using various models of lecture. In the non-academic field through student activity units (UKM), students can forge 4C competencies like English debate, entrepreneurship, student creation group, etc. Through various activities held, students can practice problem solving, critical thinking, communicating, and collaborating. Students can also make achievements through the UKM they participate in. Thus, during their education, students not only learn theoretically according to disciplines, but also students gain a lot of experience that can be used to prepare them to enter the world of work.

By designing a learning process that is in accordance with 21st century skills, students are expected to be able to fulfill life skills that are in line with the needs of the global community, of course by adapting to the various opportunities and challenges that will be faced. in the era of advances in technology and information. Expert opinion states that it is very important for every graduate to master various 21st century skills so that it becomes the key to success for living in a world that is developing very fast and dynamically [6].

Muhammadiyah university of Sumatera Utara as one of the universities in Indonesia also participated in implementing this 4C skill in teaching and learning process especially in the English department. The students as well as the lecturers don't use the traditional method in the learning process but they adopted this model in order to get the competent graduate so that the graduated students can compete in getting a job in the 21st century. Of course, it becomes one of the challenges for all the lecturer and students to adopt this skill. So, there are some changes and improvement in doing teaching and learning process. Then, the university welcome this system by adding infrastructure in the class like putting lcd in the classroom, Wi fi connection, Moodle system which known as eLearning that could be traced by the website [elearning.umsu.ac.id](http://elearning.umsu.ac.id) digital library and so on. All these facilities hoped can help the lecturer as well as the students to improve and change the system of learning. Therefore, it needed the efforts from all the elements in the university to make this program successful. It is actually hard to change the model of learning, but English department has tried to implement this model in the learning process. It needs time to bring a better condition and situation. However, although all efforts and facilities are available in the campus, we still find some weakness in implementing this skill because the first the lecturer must change the students' concept from lecturer's cantered learning to the students cantered learning and next to motivate the students more creative and interesting in presenting the material in the learning process.

## 2 Research Methods

This research used qualitative methods. It conducted in English department at Muhammadiyah University of Sumatra Utara. To be the data in this paper taken from some literature reviews related to the topic and the questionnaire that spread to the students via google form that contain some questions. The subject of this research is the students in the seventh semester. The data collected from the questionnaire and literature review. Then the data collection from the questionnaires analyzed and the last calculated in percentage using this formula:

Where  $P = F/n$   
P: result  
F: number of data  
N: total data

### 3 Result and Discussion

There are 4C skill that are used in the teaching and learning process in English department based on 21st Century Competencies in order to get competent graduates and become superior human resources. These 4C skills can be described as follows:

a. Communication

In doing socializing among humans, they use language. It is proved that language is recognized as the most effective media to communicate or do interaction between individuals for some activities such as counseling or coaching, process of teaching and learning and meetings of workplace [7]. Students are always accustomed to active opinions both during learning in class and outside the classroom in the educational process. Presentation and discussion models are very useful for practicing communication skills. In addition, to use good and correct language in various contexts practised by university students. Communication is not only interpreted as a process of delivering messages, but more broadly, namely communication as a strategy to achieve goals in the world of work. For example, in presenting a proposal to company officials, a employees must be able to attract sympathy through their performance. In order to perform well, it must be done with a good communication strategy. The university students already used this communication especially the usage of good and correct language in the teaching and learning process in the classroom.

b. Collaboration

Students do not always work on assignments or projects alone, but students must also be able to collaborate with other students in the learning process. For example, in presenting a paper assignment, students must collaborate with other students in the same class. In doing the assignments given by the lecturer, students go through a long process starting from determining group members, dividing the tasks of each group member, working on assignments, and presenting assignments in front of the class. Students will gain experience when different opinions, dealing with friends with different characters, cultures, thinking abilities that are not the same, and so on. Students will also gain experience on how to work together to solve problems so that they can achieve the desired goals. This process causes students to become strong individuals and can work together. It is necessary to get the ability to collaborate specially to equip students when working. At work, a person does not always work individually, but often collaborates with others, for example in working on a project given by his superior. Working in a team is also often one of the requirements in recruiting employees. Therefore, the ability to work together or collaboration must also be mastered by students. Students will get used to collaborating with other students. Collaborative learning can be carried out flexibly and informally, meaning that the learning process is not carried out in the classroom and in its implementation is random and unstructured but still through a cooperative learning model. [8]. To make the learning process will be more meaningful, the students used this collaborative model. Meanwhile, in exploring information and building meaning, students need to be encouraged to be able to collaborate with their classmates [6].

The students sometimes used this model in learning process that is suitable with the topic discussion and gave the good result.

c. Critical Thinking and Problem Solving

In doing higher education, students hoped to think differently when they were in senior high school. At this level, students should see, respond and think something critically and hoped they can solve the problem in the best way. Critical thinking skill is the ability of individuals to argue in an organized manner [7]. Critical thinking is the ability to evaluate personal opinions weight and evaluate the weight of opinions of others systematically. The purpose of this skill is not only to evaluate the weights of personal opinions systematically or the opinions of others but also to achieve deep understanding. This model is a bit difficult to be implemented for some students because of some reasons like their laziness to give opinion, the lack of the knowledge, difficult to find the solution, etc.

d. Creativity and Innovation

Other skill that students needed to become competent graduates and become superior human resources is creative and innovative. Creativity is the activity of an imaginative mind that embodies (embodiment) the mind ingenuity which is capable to generate a product or solve a problem in its own manner [8]. This skill is very important in the work world to explore new, more up-to-date ideas. Companies will recruit fresh graduates who are rich in fresh ideas and re-created with the assistance of seniors, because companies want unusual ideas in order to compete with other companies. The students still lack to create a new creativities and innovation in learning process so that they must be forced to get new ideas to be more creative.

In order for students to have 21st century competence, learning must also be in accordance with their demands, namely learning that can equip students with 4C. Learning that can equip students with 4C skills can be implemented with the following learning models:

a. Discovery Learning

Discovery learning is to be the first model. The students are required to find new things, the process of finding new things requires creativity in the discovery learning model, so that the discovery learning model and the syntax in it can improve students' creative thinking [11]. This statement is in accordance with the opinion of Schlenker [12] which states that through inquiry-based training can improve scientific logic, critical thinking and increase creativity, then students can be more skilled in exploring and analyzing information from various aspects. This model needs the students search more information from the various sources related to the subject discussion. The more they search the more they get the knowledge. This model has been implemented in the learning process and give more challenges for the students to improve their knowledge by themselves.

b. Inquiry Learning

The next model is inquiry model. The inquiry learning model is used to update student learning processes. The use of the inquiry model will create more enjoyable learning activities and ultimately affect the understanding of the concepts found [13]. In principle the purpose of teaching inquiry is to help students how to formulate questions, find answers or solutions to satisfy their curiosity and to help their theories

and ideas about the world. By using this model, the students prepare to make more questions, answers or solution to the problem discussion. This model will also challenge the students.

c. Blended Learning

This model becomes familiar among the students especially during Covid-19 crisis that prohibit face to face learning. This model is not limited by time and space. It can be done anywhere and anytime. This model combined with the modern technology in learning process. Blended learning is a learning pattern that combines one learning pattern with other learning patterns (for example, online and offline learning). Many institutions or practitioners have developed and provided definitions in their own language, according to the typology of blended learning practices themselves. The main advantage of face-to-face lectures is the occurrence of direct interaction between educators and students and students with other students. This interaction creates a stronger feeling of connection to the instructor/lecturer. The weakness of face-to-face learning is that the learning process that occurs is limited by space and time so that learning is perceived as less than optimal by educators [6]. This model has also been implemented and more frequently used during Covid-19 in the classroom. It isn't limited by time and space. It can connect between the students and lecturers anytime.

d. Problem Basic Learning

In the model (PBL) students are required to be able to solve problems so that later aspects of critical thinking can increase. Students are invited to have communication skills so they can optimize the interactive process of evaluating what they know, identifying what they need to know, analyzing and gathering information, then collaborating in evaluating hypotheses based on the data they have collected through problem-based learning. [14]. This model maximizes the role of students so that the teacher acts more as a tutor and facilitator in exploring and finding hypotheses, as well as formulate conclusions. Students do not only study problems based on concepts, they will learn directly about more concrete objects. This tends to provide new knowledge to students based on the realities of existing life.

e. Project Basic Learning (PJBL)

This model provides stimulation to students to focus on specific questions and problems, problem solving, decision-making techniques, extracting data from various sources, teamwork in a collaborative form, and at the end of the activity presenting real works/products. This model not only learns about the relationship between theory and practice information, but also provides a motivational stimulus to be able to reflect on what they learn about activities in real life. Students can work in teams by simulating real-world activities so they can produce more realistic products. The basic principle of this model is a more flexible learning process. The application of this model looks quite difficult because you have to prepare projects related to the topic of discussion, but the results of this activity will produce an extraordinary learning process.

- f. **Production Based Training (PBT)**  
 This model is defined as a learning and training process that is integrated with the production process. Students are given contextual experience that is relevant to industrial workflow starting from the planning stage based on order requests, implementation, product quality identification (including the product manufacturing stage), to post-production service forms [15]. Focused on student potential, regional potency needs to generate professional graduate, has high relevancy, to take into account the effectiveness and efficiency principles became the model's implementation. Students can get a role to increase the regional potential empowerment to rise the growth of economic to be the main target for this model. There will be a challenge and prospects to use this model in learning process, but there will be a great obstacle among the students who aren't accustomed to using this model because some students don't like a complicated and procedural system.
- g. **Information and Communication Technology (ICT)**  
 In the current era of globalization, Information and Communication Technology (IT) Based Learning has become a very important requirement to support the effectiveness and quality of the learning process so that it can optimize learning objectives. by utilizing computer information technology, collaboration and interaction between education management can be maximized by learning implementers (teachers and students) to improve the quality, productivity and effectiveness of education. [16]. The use of technology to obtain more information can't be deniable in all the fields in the world such as working area, agriculture, production, education, etc. The students have their mobile phone to access more information from the internet.
- h. **Production Based Training (PBT) Production Based Educational Training (PBET)**  
 The eight model is Production based training. This model is actually different from others. This model has a significant difference with the others.  
 The concept of this model is to integrate the education and training process with the production process. This can provide an understanding to students regarding learning in contextual situations which include planning, implementation, evaluation, quality control, to post-production management steps [11]. Focused on student potential, regional needs to produce graduates who are professional and have high relevance, taking into account the principles of effectiveness and efficiency to be carried out from this model. The students can get a role to increase the regional potential empowerment to rise the growth of economic to be the main target for this model. With this model train the students to create the products which will be commercial among the societies. The lecturer as well as the students can cooperate to produce to create something from the learning process. This model is rare used in the all-learning processes, but it can be used for the vocational school that needed special skill to face the job world.
- i. **Teaching Factory (TEFA)**  
 This model will be the last model which called TEFA. This TEFA learning means production/service-based learning at the SMK level that refers to standards and procedures that apply in the industry and is carried out in an atmosphere similar to what happens in the industry. The absolute involvement of the industry as a party that

is relevant in assessing the quality of educational outcomes in Vocational High Schools are required in this TEFA. the integration and participation from the government, local government and stakeholders in making regulations, planning, implementing and evaluating it needed in the application of this model [11]. Although it is specifically for the SMK level, this TEFA model can also be used at the PT level to train students to practice directly in industry, for example in the form of apprenticeships. This model needs more creativities from the students to modify their intelligence and skill in the industry field so that the students can know and learn the way how to work based on the standard and procedural level in the real work.

From some model of learning, the researcher tried to spread a questionnaire that contained some questions to the students in English department, then the writer got the data can be described as below : The students that say agree to implemented the 4C skill in 21st century is higher than that say no 87.5% and 12.5 % respectively. It means that the students especially in English department are ready to accept this model in the learning process. This 4C skill must be known for all the students in the university because from the data shown that 62.5 % students don't know about this term and it decreased almost half around 37.5% students familiarized and ever heard this term. It means that only a small number of students understand and know about this term and it needed the head department to implemented and efforts to make it popular among students. The highest percentage among 4C skill that ever been used in learning is communication 56.25%, 37.5% critical thinking and problem solving and the lowest one is collaboration 6.25%. Finally, the most methods that always used is discovery learning 37.5% followed by blended learning as much as problem-based learning 25%.

#### **4 Conclusion**

Based on this description above, it can be concluded that university as an institution producing superior human resources must be able to produce competent graduates according to 21st century demands competencies. Competent graduates are students who master 6 basic literacy skills, 4C, and have a student profile of Pancasila. In order to produce competent graduates, university educates students both academically and non-academically. In the academic field, university provides quality education by using lecture models that can support 21 st century's competence. In the non-academic field, students are required to actively participate in UKM according to their respective talents and interests. Among 4 C skills, communication got the highest percentage and the lowest one is collaboration. And to be the most favourite model for learning is discovery learning because the students challenge to search more information and knowledge by themselves.



## Acknowledgement

The writer would like to express her gratitude to the Muhammadiyah University of Sumatera Utara that supported the writer to finish this full paper.

## References

- [1] Wijaya, E. Y., Sudjimat, D. A., and Nyoto, A. (2016). Transformasi Pendidikan Abad 21 Sebagai Tuntutan Pengembangan Sumber Daya Manusia di Era Global. *Prosiding Seminar Nasional Pendidikan Matematika*.
- [2] Trilling, B., & Fadel, C. (2009). *21st-Century Skills: Learning For Life In Our Times*. Jossey-Bass A Wiley Imprint.
- [3] Hamid, E. S. (2020). *Webinar Kampus Merdeka Belajar Menakar Kesiapan SDM Indonesia dalam Menghadapi Era abad 21*.
- [4] Arnyana, I. B. P. (2019). Pembelajaran untuk Meningkatkan Kompetensi 4C (Communication, Collaboration, Critical Thinking dan Creative Thinking) untuk Menyongsong Era Abad 21 Vol. 1, Issue 1.
- [5] Nurani, D. (2021). *Menyiapkan Pendidik Profesional di Era Society 5.0*. Jakarta: Direktorat Sekolah Dasar Kemdikbud.
- [6] Sari M. (2014). Blended Learning, Model Pembelajaran Abad Ke-21 di Perguruan Tinggi. *Jurnal Ta'dib*, Vol 17, No 2. <https://ojs.iain batusangkar.ac.id/ojs/index.php/takdi b/article/view/267/264>
- [7] Muhtadi, A. S. (2012). *Komunikasi Dakwah Teori Pendekatan dan Aplikasinya*. Bandung: Simbiosis Rekatama Media.
- [8] Warsono & Hariyanto. (2012). *Pembelajaran Aktif: Teori dan Asesmen*. Bandung: Remadja Rosdakarya.
- [9] Johnson, E. B. (2009). *Contextual Teaching And Learning. Edisi Terjemahan Ibnu Setiawan*
- [10] Suratno. (2005). *Pengembangan Kreativitas Anak Usia Dini*. Jakarta: Depdiknas.
- [11] Rudyanto, H. E. (2014). Model Discovery Learning dengan Pendekatan Saintifik Bermuatan Karakter untuk Meningkatkan Kemampuan Berpikir Kreatif. *Premiere Educandum : Jurnal Pendidikan Dasar Dan Pembelajaran*, Vol 4, No 1. <http://e-journal.unipma.ac.id/index.php/PE/article/view/305/277>
- [12] Trianto. (2007). *Model-Model Pembelajaran Inovatif Berorientasi Konstruktivistik*. Jakarta: Prestasi Pustaka Publisher.
- [13] Juniati, N. W. dan I. W. W. (2019). Penerapan Model Pembelajaran Inkuiri untuk Meningkatkan Hasil Belajar IPA. *Jurnal Ilmiah Sekolah Dasar*, Vol. 1, No. 1, pp.20–29.
- [14] Nurdyansyah, N. (2018). *Model Pembelajaran Berbasis Masalah pada Pelajaran IPA Materi Komponen Ekosistem*. Universitas Muhammadiyah Sidoarjo. <http://eprints.umsida.ac.id/1611/>
- [15] Barus, D. R. (2019). Model-Model Pembelajaran yang Disarankan untuk Tingkat SMK dalam Menghadapi Abad 21. In: *Prosiding Seminar Nasional Teknologi Pendidikan Peran Teknologi Pendidikan dalam Mengembangkan dan Meningkatkan Keprofesionalan Pendidik di Era Revolusi Industri, 4(0)*.
- [16] Anih, E. (2016). Modernisasi Pembelajaran di Perguruan Tinggi Berbasis Teknologi Informasi dan Komunikasi. *Judika (Jurnal Pendidikan Unsika)*, Vol. 4, Issue 2.