

Do We Need to Apply Problem Based Learning Model to Improve Students' Communication Skills?

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Abstract—This paper reviews the application of problem based learning (PBL) model to improve the communication skills of students in elementary classrooms. Nowadays, elementary school students need to be equipped not only with academic knowledge but also the 21st century skills. Communication skills is the 21st century skills which has gained a lot of attention in recent years. It has become one of the key skills to be implemented in elementary school. Communication skills are the ability to express thoughts clearly in an effective way. However, several studies highlight the teachers' difficulties and challenges in integrating communication skills. For instance, Asian students assume that it is better to be silent than what is said is wrong and can disappoint others. This occurs as a result of cultures in Asia that uphold the value of obedience to teachers. PBL model can be applied as the way to improve students' communication skills. Employing learning activities based on real-life problems is considered as a potential strategy to bridge the gap between the classroom and real world. Also, this method encourages students to be actively involved, conduct group discussions, and deliver classroom presentations which stimulate the students' communication skills. Thus, employing PBL model can improve students' communication skills.

Keywords—*problembased learning, communication skill, elementary classroom.*

I. INTRODUCTION

In the 21st century, everything changes rapidly since the development of technology is coming on apace. The rapid growth of technology is not only limited to communication tools such as mobile phones or computers. Also, transportation, manufacturing, medical, and other technologies are developed quickly. The development of these technologies have impacts on various fields, one of them is education. In the 21st century, people keep on using the technologies that are continuously growing,

yet their contribution to the education field just stays the same.

As the world keeps changing, then education also needs to change in line with technological developments. Education needs to shift from traditional education model to modern education model in order to prepare students for the changing world. Students today need the latest skills needed in the 21st century. As a result, education is not only teaching students on how to acquire knowledge, but also on how to use knowledge so that students are ready to face the changing world.

Students must be prepared to deal with the changing of the world. If the student is truly equipped with the required skills, then the student is expected to be able facing any situation with confidence and success regardless of the uncertain future [1]. Mastering math, reading, and writing is not enough nowadays. Currently, students need a set of common skills belonging to 21st century skills.

There are four common skills classified in the 21st century, namely The 4 C's (critical thinking, collaboration, creativity, and communication) [2], [3]. Critical thinking is the process of conceptualizing, applying, analyzing, synthesizing, and evaluating the information obtained, and generated based on the results of observation as a reference for taking a decision [4]. Collaboration is required to work effectively in diverse teams [5]. Creativity is the ability to generate ideas, alternatives, and other possibilities that are useful for solving problems and communicating with others [6]. Communication skills include the ability to articulate ideas and thought, to decipher meaning through listening, and to be able to converse information both in oral and written or other non-verbal methods [7].

Communication skills have become part of the 21st century skills that are essential to be developed at

very young age [8]–[10]. Communication skill is important for the development of students' literacy and thinking skills [11]. Communication skill is considered as one of the skills that determines one's success in both social life and in the professional one [12]. In daily life, a person is also judged by what is said and how she/he says something [13].

However, several research studies highlight the teacher's difficulties and challenges in integrating communication skills in elementary schools. Delima & Delima's research shows that Asian students are passive learners and recipients of knowledge [14]. They are not active in participating in tutorials and group discussions, and therefore to offer little input to the class. When students do not understand what the teacher is saying, the students remain silent and do not ask questions to the teacher. This silence is one way for students to avoid the process of communication in learning. Students assume that it is better to be silent than what is said is wrong and can disappoint others. This occurs as a result of cultures in Asia that uphold the value of obedience to teachers. As a result, students become diffident, not confident, and passively participate in learning activities. Thus, students' communication skills become impeded and may adversely affect the students' development.

Problem based learning model can be the alternative way to overcome this issue. It can be one of the learning strategies to develop communication skills of elementary school students. Through the process of group discussion as emphasized in the problem-based learning model, it facilitates students to develop their communication skill. In the group discussion, social interactions take place among group members. The social interaction process is not separated from the communication process occurred in groups. Discussion activities provide opportunities for the students to work in team, to interact, and to develop students' communication skills [15]. Moreover, group discussions facilitate students in developing a sense of responsibility as well as volunteerism to contribute in groups, and enhance the students' social sensitivities. Thus, it is expected that student learning activity becomes more dynamic and interactive [16].

In brief, communication skills are part of the 21st century's skills which are important to be taught to students since the elementary school. Problem based learning model can be used to improve students' communication skills. This paper discusses the elementary school learning in the 21st century under topic of the importance of communication skills as part of the 21st century skills. Also, it discusses the solution for the implementation of learning models that can enhance students' communication skill.

II. ELEMENTARY SCHOOL LEARNING IN THE 21ST CENTURY

The traditional learning model is no longer relevant. In the 21st century, teaching students demands a new approach that is appropriate to teach the skills of the 21st century. The new learning approach in the 21st century is expected to accommodate the characteristics of students, to be more inclusive, and to integrate 21st century skills in the learning process [9]. The development of the 21st century skills should not be delayed or only aimed at higher education but it is important to support students in developing competences and meta-cognitive skills from the early stages of formal education or elementary school level [17].

The elementary school is the first stage where students gain a learning experience within a formal education context. Elementary schools have a central role in terms of developing the emotional character, social skills, and provision of knowledge that students need to achieve in high-level thinking tasks such as understanding, analyzing, synthesizing, and evaluating [18]. Thus, learning in elementary schools today must change from the traditional learning model into the 21st century modern learning.

The basic idea of the 21st century's elementary school learning is that students develop their own ideas, test them, share them, and take input from teachers and other students to further develop the ideas [1]. Students need to be trained to use their skills such as high-level thinking, pointing out new ideas and solutions, asking unusual questions, and producing unexpected answers [9], [19]. In addition, learning that emphasizes active engagement among students is appropriate to develop the 21st century skills as reflected in the problem-based learning model [20]. Problem-based learning can provide an opportunity for students to learn authentically and practically, to work in team, and to solve real problems in everyday life [21], [22].

In the elementary school learning of 21st century, it is also important to integrate technology in the learning process especially for developing communication skills. Communication skills take on a more compelling urgency as a component of both collective and individual success in dealing with a rapidly changing global economy that relies increasingly on innovation in the realm of technology [23]. Technology is perceived as an effective tool in improving communication as well as individual and team learning [24]. Technology integration is the use of any technology or device to support, teach, or assess student learning during an instructional period [25]. Teachers must be skilled in technology integration by using it as a method of teaching, communication, and assessment. Technology also holds the potential to increase accessibility of

education and communication among diverse groups [26].

III. COMMUNICATION SKILL

Communication skills have become part of the 21st century skills that are important to develop since the level of primary education [27], [28]. Communication skills contribute to preparing student for their future careers [29]. Communication in the 21st century context refers not only to the skill to communicate effectively both in written or oral forms through the digital tools but also to listening skills [30]. Communication skills have been highlighted as capstone elements of 21st century learning [31]. Communication skills evolve through a series of ongoing processes [32]. The process of communication takes place through the exchange of one way or two-way ideas or information [33].

The exchange of ideas or information through one-way communication is often regarded as written communication. Written communication is done by individuals by writing down ideas or information that need to be submitted to others and hope others can understand the ideas or information well. The exchange of ideas or information through two-way communication is often regarded as a dialogue or conversation. This communication is often done orally. Communication process involves the delivery of ideas or information by communicators and feedback to communicators directly. This involves the process of social interaction. Through social interaction in this communication process, one can develop his or her own capacity of knowledge and skills according to the topics discussed in the dialogue or conversation [34].

Communication can be classified into two, namely verbal and non-verbal communication [35], [36]. Verbal communication can be either written communication and oral communication. Diversity in the way or habit in verbal communication is due to differences of living environment and culture. In addition, non-verbal communication can be in the forms of voice quality, eye contact, facial expressions, pauses when communicating, proximity to the other person, the tendency of the body language when communicating, habits of communication, and gestures. Non-verbal communication also supports the way people communicate to the others.

IV. PROBLEM BASED LEARNING

Problem based learning is a learning model that has been successfully applied for more than 30 years and continues to gain acceptance in various disciplines. Problem-based learning encourages knowledge construction by starting each learning experience with a complex real-life problem that is typically presented to a small group of students in a tutorial setting [37]. Problem based learning is a student-centered learning model, emphasizing

students to conduct research, integrating theory and practice, and employing the knowledge and skills to develop a viable solution to the issues being raised [38]. It is a kind of learning model that emphasizes active involvement among students in order to make an enjoyable and meaningful learning.

The problem-based learning model is seen as an innovative learning model that emphasizes student-centered learning activities with problems as a reference in the learning process [39]. Problem-based learning has an arrangement of steps: step 1 - identify and clarify unfamiliar terms presented in the scenario, step 2 - define the problems to be discussed, step 3 - a brainstorming session to discuss the problems, step 4 - review steps 2 and 3 and arrange explanations into tentative solutions, step 5 - formulate learning objectives, step 6 - private study, step 7 - share results of private study to the group [40]. The problems raised in problem based learning model are selected based on flexible characteristics, development of thinking skills, complexity, open-endedness, support for students 'intrinsic motivation, realism, reasonableness, and orientation to the students' experience [41].

V. PROBLEM BASED LEARNING TO IMPROVE COMMUNICATION SKILLS

The methods applied in the problem based learning and the specific skills developed include the ability to think critically, analyze and solve complex, real-world problems, to find, evaluate, and use appropriate learning resources, to work cooperatively, to demonstrate effective communication skills, and to use knowledge content and intellectual skills to be continual learners [38]. Problem based learning emphasizes students to be actively involved in learning. Active learning methods can promote positive attitudinal or manner shifts and improve skills in communication [42].

Also, problem based learning emphasizes on group discussions that can improve students' communication skills. In line with the previous statement, Husin says that problem-based learning promotes group work or team work, social and communication skills through the discussions [43]. In the process of group discussion, students try to be actively involved in it. Students learn to be more patient in listening to the other students' opinions, thus it encourages less confident students to speak up [44]. In the process of group discussion, students undertake the process of describing, comparing, combining, analyzing, applying, and arguing both verbally or in written forms [45]. Students also interact and learn to express themselves in such small groups without having anxiety or fear of wrong-doing that can hinder students' communication skills.

After conducting group discussions, the students present the result of the group discussion. Presentation can also stimulate students' communication skills.

Problem-based learning promotes communication skills through the presentation of their artefacts. Elementary school students should learn to manage their thinking and present the ideas verbally in casual discussions as well as in more formal presentations [13]. Presentations can also be integrated into technological developments. For example, the use of varied media to support the presentation such as using Microsoft Power Point applications, making videos for learning, collecting photo albums, and so forth. The presentation slides are then displayed in front of the class using LCD projectors to further strengthen the students' communication skills.

VI. CONCLUSION

In brief, the 21st century learning is a learning mode that emphasizes students to develop their own ideas, to test them, to share the ideas, and to consider the input from teachers and other students for further development of the ideas. In addition, the 21st-century students need to be trained to improve their higher order thinking skills, point out new ideas and solutions, asking unusual questions, and suggesting unexpected answers in the learning process. Nowadays, the traditional learning mode is no longer relevant. Therefore, a new approach is required in the 21st century learning process. A new approach to 21st century learning is a learning mode that accommodates student characteristics to be more inclusive and integrates the 21st century skills in the learning process. As part of the 21st century skills, communication skills become essential to be developed since in the age of elementary school. Communication skills are the ability to express thoughts clearly in an effective way. The development of communication skills should not be postponed in order to prepare for the students' future as early as possible. Problem-based learning becomes one of the alternative learning strategies to develop communication skills of primary school students. Implementing life-based learning activities becomes the potential strategies to bridge the gap between classrooms and the real world. The mode also emphasizes the students to be more active in the learning process, conducting group discussions and presentation activities which can improve students' communication skills. Thus, applying problem-based learning can improve students' communication skills in elementary school classrooms.

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