Interprofessional Education: New Paradigm in Collaborative Learning as A Way in Managing Higher Education

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Abstract

The authors consider in this literature review that the collaboration skill is one of the most needed skills in the 21st century which can be improved through collaborative learning. To ensure the notion, they outline how Interprofessional Education (IPE) can reach and fulfil the standardised approach in learning and they offer a short, dense and clear perspective of the learning method applied in health sciences as the example of collaborative learning. The authors also consider that the basic characteristic of IPE which is allowing students from two or more disciplines to learn and study together provides a glimpse of how a collaborative learning can be implemented in higher education. Thereafter, they highlight and exemplify how collaborative approach in IPE can improve and bring out the collaboration skills in students.

Keywords: Collaboration skills; collaborative learning; higher education; interprofessional education;

Introduction

In the era of globalization, the competitive world of job, industry, education and many other things has become real. It is safe to say that this globalized world is the peak of 21st century. Living in this century, for each and every individual, needs some type of skills that will help to fulfil both industries and personal aspects. Generally, it has been known that 21st century skills include communication, collaboration, critical thinking and creativity, also known as 4Cs. Assessment and Teaching of 21st Century Skills (ATC21S) categorize those skills into four, they are: 1) Way of thinking which includes creativity, innovation, critical thinking, problem solving and decision making; 2) Way of working, such as communication skill, collaboration and teamwork; 3) Tool for working (The state as both global citizen as well as local citizen, life development and career as well as the responsibility as social community people; and 4) Skill for living in the world (Basic skill in literature and information, new communication and skill to learn and work through digital social network (Raharjo, 2020). The new era of working needs various new skills to develop and become productive. One of the most needed soft skills to compete in the 21st century is coordinating with others. The collaboration skill and the effective communication have become the most demanded skill in applying for a job in any industry these days. (Temali, 2020). The development of 21st century is marked with the use of the technology of information and communication in every aspect. The technology connects the world without borders, including the learning process. The work field demands changes in competency. Critical thinking ability, problem solving, and collaboration has become the most important competency needed to enter

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the era of 21st century.

Besides those mentioned before, other 21st century skills needed are: 1) life and career skills; 2) learning and innovation skills; and 3) information media and technology skills (Trilling & Fadel, 2009). In which, learning and innovation skills includes: 1) critical thinking and problem solving, in which students are expected to use some reasons, such as inductive or deductive to every situation, use systemic way of thinking, make decisions and solve problems; 2) communication, in which students are able to communicate clearly, individually or in group; 3) collaboration, where students are not only able to work in team but also possess same responsibilities in goals that are to be achieved; and 4) creativity and innovation, students are able to thin creatively, work creatively and invent new innovation in the learning process (Muharam, 2020). To gain those skills is to focus on education in every level, started from primary education to higher education. Based on that, there are some characteristics that need to be underlined in this era in order to offer and get a better quality of education as well its outcomes.

The characteristic of Education in the Era of Globalization

The synthesis towards views related to the characteristic of education nowadays should be related to the four aspects of learning. First, the aspect saying that the *instruction should be student-centred,* means that learning development in this aspect should use the counselling approach which is student-centred. students are the subject of learning that actively develop their interests and their potentials. Second, *education should be communicative and collaborative.* The element of communication target in students to be able to master, manage and make good communication both written and verbal, as well as in multimedia level. With that, students are given time to carry out those skills and use them in interacting with others, in order to deliver ideas, get involved in discussion, solving problems. Third, *learning should have context*. It means that learning is meaningless if it does not give any impact in students' life outside schools. That's why the learning material should be related to students' daily lives. Fourth, *schools should be integrated with society*. In order to prepare students as good responsible citizens, schools should facilitate

them to get involved in their social environment. For example, conducting community service activities, where students can learn to take role and do some certain activities in community (Hayati, 2020). Of those four aspects of characterization, that education should be communicative and collaborative is the point where both communication and collaboration are two skills that should be developed simultaneously and thoroughly as they connect to each other in order to improve them. So, what are actually collaboration skills? And how to enhance them?

Collaboration Skills

Hixson, Ravitz, and Whisman (2012) identified collaboration skills as the state where students are able to work together to solve problems or answer questions, to work effectively, and, respectfully in teams, to accomplish a common goal and to assume shared responsibility for completing a task. Collaboration is often conceived of as a social skill, alongside assertiveness, responsibility and empathy (Malecki & Elliott, 2002). From those two descriptions, the authors consider collaboration skills as the ability of a person to be able to work together and coordinate with other in a specific job, field or aspect which aims at achieving better goals, outcomes and results. Since, collaboration skills are encouraged to be developed since early state in education, right now, collaborative learning has been considered as one of the best and suggested learning methods to be conducted in schools or even in higher educations.

Collaborative Learning

Collaborative learning is generally defined as the state where students working together in an attempt to create knowledge and achieve shared learning goals (Barkley, Cross, & Major, 2014). Collaborative learning has been identified by scholars as an especially promising and effective instructional approach in higher education (Tinto, 1997). having students learn collaboratively is positively associated with academic achievement (Johnson, Johnson, & Smith, 1998); (Springer, Stanne, & Donovan, 1999). Such as, a greater ability to transfer information from one setting to another; and the ability to generate new ideas and solutions (Johnson, Johnson, & Smith, 1991). Learning collaboratively is especially noteworthy in

education and is often singled out as the most important instructional approach in college teaching (Cockrell, Caplow, & Donaldson, 2000).

Collaborative learning techniques can be used for discussion, for problem solving, and for engaging students with writing. Common examples include think-pair-share activities, small-group discussions, and group-based case studies. Successful groups usually contain two to six students to maximize student interaction and involvement (Barkley, Cross, & Major, 2014). Compared with learning individually or competitively, students who learn collaboratively accrue a wide range of educational benefits. For example, research has linked learning collaboratively to outcomes such as better communication and groupwork skills (Terenzini, Cabrera, Colbeck, Bjorklund, & Parente, 2001).

A literature generally suggests that students exposed to collaborative learning activities profit in terms of greater diverse friendships (Hansell & Slavin, 1981). and better attitudes among students who differ in terms of race, gender, religion, culture, and overall background (Sherif & Sherif, 1969); (Watson, 1947); (Williams, 1977). The exposure to collaborative learning led to a greater frequency of students interacting with others who were different from themselves, which in turn led to greater openness to diversity (Loes, Culver, & Trolian, 2018).

The success of collaborative learning method is also the part of teachers' role in education. Mostly, teachers acknowledged that their goals for using collaborative learning were to develop both cognitive and collaborative skills for students. Teachers' common opinion was, 'By working in groups students can improve problem-solving and helping skills' (Le, Janssen, Wubbles, 2017).

Even though, some collaborative learning study has been done in schools, but collaborative learning is frequently employed in higher education (Jin, 2012) and can be used for developing cognitive outcomes e.g., knowledge, social outcomes e.g., communication and collaboration skills, as well as motivational outcomes e.g., attitudes) (Strijbos, 2011). It has been shown that collaborative learning can lead to learning benefits compared to, for example,

individual learning (Kyndt, et al., 2013). The importance of structuring collaborative learning experiences is to challenge students' thinking and scaffold their learning to promote critical and creative problem-solving and enhanced cognitive understandings (Gillies, 2017).

Interprofessional Education (IPE)

According to Royal College of Nursing (2006), Interprofessional Education or IPE is an interactive group-based learning method to create collaborative learning situation to both manifest collaborative practice and deliver an understanding related to interpersonal, group or team, organization and the relation among organization as a professionalism. Meanwhile, Centre for the Advancement of Interprofessional Education (CAIPE) (2002) mentioned that IPE happens when two or more students of different health programs learn together with aim of enhancing teamwork and the quality of healthcare. American College of Clinical Pharmacy (ACCP) (2009) defines that IPE is an implementation of learning followed by two or more various professions to increase collaboration and the quality of healthcare and its implementation can be done in all learning, not only in undergraduate level but also in clinical education to create professional health workers. Another point of view from (Canadian Interprofessional Health Collaborative, 2009) underlined the IPE as interdisciplinary education where health professions learn together about collaboration in interdisciplinary targeting to develop knowledge, skill and the value of professional health workers teamwork.

Generally, the IPE is meant to encourage health profession students to meet and to know the roles as well as to interact with other health professions, so it is expected for students being able to collaborate very well in the process of patient care in the real healthcare (Zwarenstein, et al., 2013). The IPE learning is also to prepare all health science students to work together as the goal of the development of a better and safer patient-care system which is oriented on population or community. According to Interprofessional Education Collaborative Expert Panel (2011), the aim of IPE implementation is to achieve the competency of teamwork and team collaboration in healthcare. The implication of this competency is the educational institution needs improvement an interprofessional

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educational model that enables learners to gain interprofessional learning experiences. Sedyowinarso et al. (2011) mentions that the main purpose of the IPE program is to build up a teamwork which is compatible to each other, so it can tackle the patient problem as to make the collaboration more effective and to increase the healthcare. The collaborative practice as well give positive impact for the patientcare as one of the purposes of IPE.

Sargeant (2009) explains that the purpose of IPE is to create collaborative practice among professions which involves various professions in learning about how to work together by sharing knowledges, skills and behaviours needed to effectively collaborating. Specifically, Buring et al. (2009) say that the purpose of IPE as the medium to train students to understand more about the role of each and every other profession, so it expected for students to be able to collaborate very well. The implementation of IPE in the health sciences is given to the students in order to instil the IPE competencies since early and gradually, so that when students are in the field, they are expected to prioritize patient safety and the increase of the quality of healthcare along with other professions. Another opinion comes from Sullivan et al. (2015) who mentioned that IPE is meant for students of various health profession practicing thoroughly in the education and their training, and in its process, they are able to explore the limits of their practice. At the same time, the learn how to possess an effective interprofessional relation through collaborative skills and knowledges which includes responsibility, accountability, coordination, communication, teamwork, firmness, autonomy, mutual trust, and respect.

Discussion

A study related to IPE elaborates that both medical students and nursing students show an increase of teamwork competence after participating on four IPE workshops compared to them who participated only on two workshops (Brasher, et al., 2016). Another study of IPE mentioned that students are satisfied towards the implementation of half-day IPE, the students are also regarding that the activity becomes the source of new learning and feasible as the recommendation to other students. That positive result is also supported by the facts that students have the basic role of professional and communication. That result can be confirmed that the implementation of IPE activities, even though it is brief and not included in the professional curriculum, can be the solution to dig the IPE deeper at the colleges or universities which conducts the healthcare study program. That activity also can be considered as the effective base to push both the students' interests and staff's interests in the IPE program. The research shows that the gained experience form the implementation of IPE to enhance students' comprehension as well both their roles and other health professions' roles, the IPE activities also can improve professional interaction, and increase the quality of patient care. It can be simply concluded that the implementation of activities related to IPE in the universities implementing health science programs has the potential to help developing students' professional behaviours (Knecht-Sabres, et al., 2016). From the point of view, the authors analysed that after getting involved in IPE activities and programs, students' skills, which is notably as teamwork or professional interaction, are increasing, and those pointing the part of collaboration skill.

To make it clearer, it is said that the impact of IPE implementation which is applied by simulation training and working collaboratively in training ward, it can be stated that the implementation of IPE is feasible and appropriate to be conducted and offered to medical and nursing students. IPE also helps both medical and nursing students in preparing to get involved in the collaborative team approach. By the activity implementation the effect of IPE is identified as there is the realization of the importance of working collaboratively. Another impact is also found in the term of students' gained knowledge and understandings related to the other health profession's roles, the students' awareness that the interprofessional care is a form of a facility. Through the IPE implementation, students are able to practice collaborative communication, especially with patients. Besides that, the implementation of IPE learning in the form of simulation gives students a knowledge about chances and challenges that they will face in joint decision making (Dreier-Wolfgramm, et al., 2016). Similar thing is understood that the interprofessional learning in the practice of base

care residency benefits in some aspect, including personal relation development, the educational increase, patient care increase, and work satisfaction increase. Further, it is said that the interprofessional learning helps the students to develop their personal relation with other health professions, it benefits in the friendship which absolutely will help in the job as health workers. The interprofessional learning also enables students to increase their knowledge related to role and responsibility of other health professions. Besides that, by working in the environment where there are different professions, they are aided to get new understanding about training, value and other profession's roles in the healthcare team, those things also can improve the educational situation in the work place for each individual or the whole. The students realize that interprofessional work has advantages at the quality of care which is offered to the patients, that is overlapping care. By comprehending each profession's skills, the students are able to provide faster and sustainable care to the patients. Having various skills which are always available in the clinic makes it easy and fasten the patient care. Participating in the environment of interprofessional learning and working together with other profession increase the sense of teamness or togetherness which is simultaneously increasing the work satisfaction. In this matter, teamness is understood as the availability of open communication the constants among teams without any hierarchy limitation and the trust to each other that each and every person has willing to help the other in order to achieve the goals, which are the learning increase, the clinic flow and patient care (Carney, et al., 2019). Even though it happens in health science and in the field of healthcare, both collaborative communication and understanding others' roles and responsibilities are considered the positive thing of how IPE affects the mindset of students regarding collaboration. Joining IPE programs for some students enable them to enhance skills needed in 21st century.

Not so different with the notions previously, an IPE program in which students are involved in intervention arm, where the students who are included of some students of different disciplines, have better understanding towards the ability of working together, they also have value when work with others, also they feel comfortable working with others compared to

students who are involved in control arm, where students are those who come from different professional backgrounds. From the statement, it is known that conducting a brief IPE practice which is offered to health students leads to the increase of understanding about the roles and value of interprofessional among health students (Horbal, et al., 2019). Also, there are some changes regarding the behaviour of interprofessional team, which is significantly, an increase of behaviour changes towards the interprofessional teamwork skills and the perception towards the teamwork skills after involving themselves in short-term intervention as well as long-term intervention in which students involved are doing home visit to for senior citizens as the part of IPE program (Renschler, Rhodes, & Cox, 2016). As mentioned before, understanding about the roles and value means possessing a part of collaboration skills. Another changes, such as interprofessional teamwork skills, after completing an IPE program is also an indication that those demanded collaboration skills exist within students' mindset and perspectives which lead the opinion to an effective IPE as a collaborative learning.

Some of the analyses showing the effectiveness of IPE in enhancing students' collaboration skills are regarded as the part of learning management in higher education. Those are mostly can be involved as one of the learning methods applicable in accordance to collaborative learning. More than ever, higher education in the industrial revolution age must develop the capacity not just for analysing and breaking a technical or scientific problem into its constituent parts, but also must emphasize the interconnections between each scientific problem across global scales and interrelations between many dimensions of a problem (Gleason, 2018). Hence, the Clinical Practice Model (CPM Framework) which is offered in higher education, has been developed based on current realities in practice settings, can be utilized to provide a common foundation, bridge gaps between education and practice and support practice education partnerships and interprofessional collaborative practice competency achievement (Christopherson, Troseth, & Clingerman, 2015). It is clear that higher education takes a very important part in term of management to create individuals with good command in collaboration skills. There has

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been a lot of methods to implement as the answer of fulfilling the expected outcomes in educational sector.

Before further ado to the conclusion, it is not arguable that the vast differences in IPE practices exist in health professions education. The most common IPE programs included medical students with students from schools of nursing and pharmacy, and used collaborative or experiential learning. The most common collaboration was between medical and nursing schools. The prevalent format was shared curriculum, often including integrated modules. Small group activities represented the majority of event settings, and simulation-based learning, games and role-play were the most utilized learning methods (West, et al., 2016). So, it is more critical than ever for students and practitioners across health professions to learn about, from, and with each other. As healthcare develops more sophisticated and technically advanced methods of care, the need to effectively coordinate data, communicate, and understand the roles and treatment plan contributions of others is critical. The need to provide safe, high quality, cost effective patient-centred care is central to interprofessional education and collaborative practice. Systematically implementing an IPE and practice community framework assists in creating positive outcomes (Nagelkerk, Coggan, Pawl, & Thompson, 2017).

There is benefit for students in undertaking social or informal learning experiences in IPE programmes. When able to be arranged, living together in shared accommodation as an informal learning experience appears to enhance formal programmes through students participating in and socializing in everyday life activity (Mckinlay, et al., 2016). Ideally the enhanced collaboration skills resulting from this experience will support the student's clinical practice activities and then when they graduate and independently practice.

Conclusion

As a learning method, the analysis of IPE implementation in health sciences which is mostly conducted in higher education shows that through a good application of IPE programs, it surely can increase the students' collaboration skills, which means IPE as an alternative and effective way in enhancing one of 21st century skills as well as in managing higher education as the platform of a bigger innovation in academic field.

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