

Collaboration as 21st Century Learning Skill at Undergraduate Level

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Abstract

This research work is about collaboration as an important learning skill of the 21st century skill set. Collaboration means to work to gather or to work as team to attain some certain common objectives. This research study highlights different advantages to work as a collaborative team. It covers both quantitative and qualitative aspects of the topic. Detailed interviews are conducted from students and as well a survey was also conducted to check to what extent students are using this skill of collaboration in their learning process. Six students from BS English and BS Education were selected for interview section and 200 students from BS English and BS Education were surveyed in this study. Both quantitative and qualitative results are analysed and conclusion is drawn on the basis of results. Convergent parallel mix method design is used to analyse the data. Data analysed with simple descriptive statics and thematic analysis of the conducted interviews. The results of this study shows that collaborative tasks are used among students in their process of learning but not at a larger scale. Group work and combine projects and assignments are included but just for once or twice in a semester.

Keywords: 21st Century Learning Skills, Collaboration, Undergraduate Level

Introduction

21st century skill set includes different abilities and skills including creativity, communication, critical thinking and collaboration. These are vital and important skills for students to thrive in 21st century and perform successfully in accordance with the needs of time. 21st century skills are very important skills for the survival of the learner as product of education with reference to job market. Collaboration and team work now has become as twenty first century need and trend that is essential skill in every sphere of life. The need in this society related to education is to think collectively and to work collectively for common benefits and goals to get high achievements and results. Learning through collaboration is an important educational method and style to the process of teaching and learning that involve multiple clusters and teams of learners to work together to solve many problems. It is to find solutions of problems, to complete a task and to create a product collectively in collaborative manner. The collaborative learning as a learners have the opportunity to compare, contrast and opposite with fellow peers, to present and defend different ideas by exchanging diverse and different beliefs. In this way learners question on others theoretical and conceptual frameworks and can also be actively engaged. Johnsons (2009) elaborated that there are three ways in which an individual learner take different actions in relation to the actions of the others. One student or learner actions can effectively promote the success of the other learner and can as well hinder the success of other learner, and in another scenario groups or teams may not have any positive or any negative effect on the success or failure of other students. In other words if the learners may be working and learning something together cooperatively to accomplish the shared learning goals and working against each other to achieve a goal that only one or a few learners can attain. 21st-century learning skill set at a larger scale must be able to lead and guide students to think at higher levels and have good collaboration skills among them to complete the work. (Evans, 2020). Collaboration as 21st century learning skill has been found and originated to rise and develop the learners' social adjustment skill and competency that is highlighted as conflict, a clash resolution and resolving skills, use of collaboration to help different types of behaviours in work and in educational self-concept of the learners in learning process. (Ginsburg-Block, Rohrbeck, & Fantuzzo, 2006). Along with all that,

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there is an increasing need of these social skills for students to make them to apply and implement their acquired knowledge skills and also the problem-solving abilities and skills in social settings (OECD, 2013). So there is a great importance and requirement to highlight the true role of collaboration in learning process at different level of teaching and learning. The researcher and advocate of collaborative learning and cooperative teaching, Thayer-Bacon (2000) emphasized on the position and value of learners bond and interactions through other students in class for the process of development of critical thinking skills and other skills important for learning.

Objectives

- To identify collaboration skill among students in learning process at undergraduate level.
- To find the practices of collaboration as skill of 21st century learning at undergraduate level.

Research question

- How effectively students are using collaboration skill in learning at undergraduate level.
- To what extent students at undergraduate level using collaboration as 21st century learning skill.

Statement of the problem

This research study aims at identifying the collaboration skill among at undergraduate level. Collaboration is known one of the most important and essential skills of 21st century learning skill set. So this research paper aims at to highlight its importance as skill of 21st century and to identify how well students are using this skill in their learning process. Learners as good product can only work and survive in a positive way when they are fully equipped with all these skills necessary for the survival in twenty first century and collaboration is one of the essential skills to work and survive in twenty first century working environment.

Significance of the study

This research study can be helpful in many ways within the education department at higher level of education. This study can help students at undergraduate level, teachers teaching in universities, policy makers, educational mangers, curriculum designers and researchers and scholars to get benefit in term of practices. It can be helpful especially for students at undergraduate level in a way that they can learn the importance of collaborative learning and can mix different learning aspects in their learning. For teachers teaching at undergraduate can be benefited with research as they can get knowledge about the cooperation as 21st century skill and can improve their pedagogy in this regard to make students a good product in job market and life as well. Curriculum designers and developers can take help in the process of curriculum designing and developing curriculum at undergraduate level to add content related to cooperation as skill in process of teaching and learning. For researchers in the field of education can get help to work in this area by identifying different gaps at different level. Scholars can be benefited with this research study to highlight the aspects important in 21st century education especially need of cooperation as learning skill.

Review of the Literature

As Gokhale (1995) mentioned that learning through collaboration is an instructional technique and method of learning in which students at numerous presentation levels and working together in different small groups and teams toward a common objective. It means that each member of this represented group is responsible and accountable for one another's learning process as well as responsible for their own learning in progress. In this way the success and achievement of one student always helps in achievement of the other students to be successful. Collaboration is always a systematic process of learning in which educators and instructors work together as one team to analyse and have an impact of professional practice to improve the individual and collective results. Administrative and learning support for collaboration in classroom learning is used as an essential for success of the individual learner. The concerned principals and administration members must provide time and resources during the work day for collaborative teams and different groups to meet goals and also require multiple teams to think and link their efforts on specific achievement of goals and objectives. For collaborative and combined successful activities, this process cannot be taken as irregular process. It cannot happen irregularly or on infrequent basis. It must not be random, and it must not be rush and in haste from topic to topic change and variation without any structure. Collaborative problem solving capability and aptitude is the ability of an individual learner in efficient and effective manner to involve and to work in a process where two or more than two agent's effort and try to solve a problem. As sharing the respectful and different efforts which are compulsory to

come towards an answer of the problem and to combine their abilities, knowledge, skills and different efforts to find a solution. Collaborative learning is progressively becoming an important skill in educational organizations especially in schools and universities. It is a process by which learners and team members of groups interact in small groups to learn and acquire the knowledge (Slavin, 2014). Students' achievements and efficiency mostly rely on their environment, their positive relationship and connection with the people around them, especially their classmates. This point of "new era" and changes must be made and dealt in educational system, process to confirm and ensure that all students leaving their school must be prepared and equipped to face all the challenges of a redefined new world. Collaborative learning also includes a wide collection of different approaches and theories that differ the concerning quantity of with in-class and out-of-class timing devoted to collection, team work and combine activities (Thornburg & Collins, 2000). These activities of collaborative learning involve a face-to-face conversations, discussions and work on computers to conduct different discussions with social media resources, connected mediums and social media networks etc. Regardless of the all teaching approaches and theories approved the collaboration among different learners. The teachers established an important and a vital element in learning and especially in the language learning. Project base learning and activity -based learning are different examples and types of collaborative learning technique. There are many research studies on the collaborative learning that have concentrated and focused on different suggestions and helped in arousing positive interdependence in higher education institutions. Teacher and students supposed and perceived great multiple hindrances towards an effective student collaboration and educational achievement (Chandra, 2015). The centre and main point of this research article is practice of the skill of collaboration and cooperative learning. Collaboration has also been acknowledged as an important educational development and outcome not just as earning producer but to develop or measure the knowledge pool which is learned by a commitment and practice (Kuhn, 2015). Collaboration is also labelled as an effective skill that always stimulates and promote the learning instruments with multiple methods to be enacted (Dillenbourg, 1999). This is linked to current educational developments and progresses by using technology, gadgets which have been unlocked new ways and different opportunities for learners, how the collaboration as skill can be indorsed (Salas, Cooke, & Rosen, 2008). The usage of different social tools used by individual learners in learning and individuals through the organizations has become a useful mode and style of enquiry (Blaskovich, 2008). Communicative collaboration include both oral skills and written communication skills in the local mother tongue, communication in foreign languages, team-working with different groups especially in wide-ranging environments and progressiveness. Cultural awareness, ability to raise the value of the different cultures and to intentional paradigm and to build a cross cultural interactions, connections and networks. Leadership, open-mindedness, novelty, ability of decision taking and entrepreneurship are multiple leading skills. Collaborative learning technique is generally defined as a condition in which two or more than two people learn something or make effort to learn something together as team and more precisely as a source for collective problem solving (Dillenbourg, 1999). Rochelle and Teasley also well-defined collaboration, more specifically as a combine appointment and work of different members in a well-coordinated effort to solve different issues and problems together. As Van Boxtel, et al. (2000) also explained that the learning activities in collaboration also allow students and learners to provide explanations and make more clarifications of their understanding. In this way they can help many students to elaborate, reorganize their own work and knowledge. Social connections, interactions arouses the clarification and description of theoretical knowledge as team companions who try, attempt to understand, and validates that provide clarifications and recovers a student understanding of different concepts. Collaborative tasks always require planning, work understanding, decision-making, and providing feedback. Team members should have to talk and share with one another for the completion of the tasks by being supportive and by encouraging rather than by being competitive. The structures of encouragement should be used. Cooperative learning structures and multiple constructs are claimed to activate their different critical thinking skills. Students with strong critical thinking skills, aspects, analysis and their natures can be better collaborators. Hayman, (2008) mentioned that many different social interactions and experiences of learners can form reasoning ability about the trustworthiness of different rights by including different tasks. As Turner (1995) debates that collaboration always brings different chances for students to interact and experience imbalance which cultivate, bough sharp inquisitiveness and interest. Collaborative skills provide

different chances for peer demonstration technique, and these representations of successful student can be more inspiring and encouraging to many other learners.

Methodology

Type of study

This study is based on mix method approach both quatitive and qualitative.

Research setting

The research setting for this research paper was public sector universities teaching students at under graduate level. BS English and BS Education students were taken as population of this research study.

Population

Population of this study was students of BS English and BS Education in public sector universities of Rawalpindi division both for interview and survey at undergraduate level. Students are taken from BS English and BS Education from social sciences. 5th and 7th semester students in both disciplines of English and Education were included in this research study as population. Students of public sector universities were selected as population for this study.

Sample

Two hundred students were selected as sample of this research study. Stratified random sampling technique was used. Firstly strata made on the basis of universities and then students sample selected by further making strata in BS program of English and Education in these selected universities.

Instruments

The data was collected for this research study by using two instruments: interviews and survey questionnaire.

Interviews

Interviews were used as an instrument to collect in-depth knowledge of students about collaboration as 21st century skill and its use in their learning process. Proper semi structured questioner was used for interview from students at undergraduate level to collect information regarding 21st century skill of collaboration in learning.

Survey Questionnaire

A survey questionnaire administered among students based on statements related to collaboration as 21st century learning skill. Questions or statements were about the collaboration as 21st century skill and its importance in in the process of learning. This survey questionnaire gave details on the quantitative aspect of this phenomena that to what extent leaners use these activities and practices of collaborative learning at undergraduate level.

Delimitation of the study

This research study is delimited to BS program of public sector universities and further delimited to students of BS English and BS Education in 5th and 7th semester.

Research Ethics

Research ethics are very important part of a good research. Confidentiality is the primary need of research to make the respondent comfortable. Research ethics are followed in this research study while conducting data collection and as well throughout procedure of the research. Formal permissions from universities and students were taken. Topic and purpose of this research study was also explained in detail. Respondents were not asked to mention their names. Preparedness of all respondents were also considered. Proper referencing were given to the researchers' works.

Data Anaylsis procedure

Data of this research study is analysed by using convergent parallel design for data analysis. This study was based on mix method research, so the analysis technique is also used based on mix method data analysis technique. Quantitative data is examined by using descriptive statistics and qualitative data was analysed by thematic analysis. Both results are compared and analysed. Results are drawn from analysed data which lead towards conclusion and recommendations.

Results and Discussion

Quantitative Results

Mean score of Collaboration as 21st Century learning skill (N=200)

In your classes, how often you are asked as students to do the following.	Mean	Remarks	Degree/ Ranking
Work in small groups or pairs for class work	2.61	1-3 times in a semester	Moderate
Work with other students to set goals and create a plan	2.35	A few times in a semester	Low

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Creation of combine products in activities	2.400	A few times in a semester	Low
Presentation of group work on different tasks	2.561	1-3 times in a semester	Moderate
Work as team to incorporate feedback	2.455	A few times in a semester	Low
Provision of feedback to peers in class activities	2.62	1-3 times in a semester	Moderate
Pair and group discussion	2.711	1-3times in a semester	Moderate
Think-pair and share in different tasks	2.435	A few times in a semester	Low
Discussion and debate method in groups	2.517	A few times a semester	Moderate
Role play and drama method in classroom	2.012	A few times in a semester	Low
Group presentations of assignments and projects.	2.645	A few times in a semester	Moderate

Scale interpretation: **Low** = 1.00 to 2.500 **Moderate** = 2.51 to 3.50 **High** =3.51 to 5.00

The quantitative data shows that to what extent learners are incorporating and practicing collaborative activities in their learning process in direct classrooms teaching. This table of collaboration shows the mean score of collaboration as 21st century learning skills and eleven subscales or statements were used to check the level of this skill among learners at undergraduate level. The mean score of class activities and tasks in pairs and in small groups was 2.61 at moderate degree, mean score of work with other students for setting goals and creation of different plans was 2.35 at low level and creation of combine products in class activities mean score was 2.400 at low degree. The mean score of presentation of group work in different classroom tasks was 2.561 at moderate degree, the mean score of provision of feedback to peers in classroom tasks and learning process was 2.455 at a low level and mean score of pair and group discussion on different tasks was 2.711 at moderate rank. The mean score of think pair and share in class activities was 2.435 at low degree. The mean score of discussion and debate method in classroom was 2.517 at moderate degree, mean score of drama method and role play method was 2.012 at low degree of practice and group assignments and presentation mean score was 2.645 at moderate level.

Qualitative Results

Collaboration as 21st century learning skill is analysed by using interview method. The interviews from students were based on different questions related to the concept of collaboration in light of objectives of this research study. Interviews from students are transcribed and analysed by doing the thematic analysis of the data collected. Major theme of the interview was collaboration as 21st century learning skill and sub themes were basic concept of collaboration as 21st century skill among students, work in pairs and small groups, peers assessment and feedback, activities like think pair and share /write pair and share. Students were also questioned in interview related to group research based assignments, projects and different challenges related to the use of collaboration in tasks and activities. The light of these themes related to collaboration as 21st century skill are discussed with students and in the light of their responses and statements, the data is analysed. As respondent one said, " *collaboration means group work and discussion.*" Participant six stated, " *have no proper knowledge about collaboration skill and how to use it in learning process.*" As participant four said, " *pair work demanded once or twice in a semester.*" Participant three highlighted, " *as some teachers use small group work and pair work on weekly basis but these are very few.*" As participant five also stated, " *group work presentation is only asked to do one time in a semester for all assigned courses*". Participant four stated, " *No idea how to give peer feedback in class, they never used to do it.*" Participant two mentioned, " *presentations are mostly verbal and individual.*" Participant one described, " *group presentations are only asked once in a semester or sometime group work is not assigned throughout the semester.*" Participant six stated, " *it is very rare that think pair and share and write pair and share technique is used in class work*".

Discussion

As quantitative results shows that on different tasks and activities related to practice of collaboration as 21st century learning skill at undergraduate level is not at high degree in practice. Mostly the subscale of collaboration fall in low and moderate degree of practice of all these skills which shows that these practices are not as frequently practiced as required for students in this century. Mostly the practices and activities related to collaboration are at low degree practice. Until these practices are not used at frequent level of practice, the collaboration skill is hard to be learn and made the part of the

learning process. Work in small groups, discussion and use of role play method, combine efforts for creation of products, feedback in group for different tasks, group discussion for different tasks, debate method and group assignments and presentation are important aspects of collaboration in class. Activities related to these themes enhance the collaboration skills among students at under graduate level, if used properly at their level required frequency and practice. In the light of this research study data, it is found that these activities related to the collaboration are less practiced in classroom teaching. And in this way less used and incorporated in learning process at undergraduate level. Mercer (1996) suggested that the group tasks and activities require students to be more collaborative and more communicative with each other in direction to solve the problems and issues that will always affect the quality aspect of the group dialogue and group exposition. In the light of all above qualitative statements and discussion with students, it is analysed that students have understanding of the word collaboration but they don't have conceptual understanding of the term collaboration as 21st century skill important in learning process. As all these activities and tasks are used in classroom learning process of the students at undergraduate level but it is used on a very smaller scale. Sometimes once or twice in a complete semester or sometimes not used throughout the semester. Nelson (1994) provided some signs and hints as to how collaboration skill in learning can rapidly work for reasoning and mind development among students at college level. As students group work and other tasks are missing which are very important for the incorporation of collaboration as 21st century learning skill at undergraduate level to make learner more effective product. Education and knowledge from multiple cooperative work and tasks denotes to the life long, enduring achievement and achievement of expertise within a professional community for learning. Qualitative aspect of this research study shows that students are using these skills and practicing these activities of collaboration on a very low degree. Researches in this area recommends that a real and good use of collaboration in the classroom learning have a very powerful effects on the student learning.

Conclusion

On the results of quantitative data and qualitative data it is concluded that collaboration as 21st century learning skill is not practiced at its best level of practice among students at undergraduate level in our public sector universities. It is practiced but at very low or moderate level of practice in few activities. Pairing and small grouping for different tasks, group work and presentation of these tasks in groups and teams, peer assessment and feedback on different tasks is not properly practiced but it is greatly needed to be included and incorporated in the process of teaching and learning at undergraduate level. There is need to make these practices more and more part of direct teaching and learning process in classroom to make students more and more aware of these collaborative skills.

Recommendations

- Students at undergraduate level must be trained for collaborative work in different teams for different tasks.
- Teaching activities must be designed in a way that include more and more collaborative tasks in classroom teaching.

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