



Co-Creation: The New Pedagogy

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Abstract

The new era has come up with adverse changes in the society. Accordingly, the learner's needs have been changed. We all have witnessed paradigm shift in every aspect during Covid-19 period. New digital technology is the backbone of the education system now. We know when we banned mobile phones in classroom and all of a sudden education was only possible because of mobile phone. Smart technology tried to make education smart. They created smart learners as well. To foster this, change the new pedagogy: Co-creation was adopted by the teachers which indulged Collaborative and cooperative learning to cater the diverse needs of the Smart learners. Co-creation has brought the change which allowed the teachers to cope up with advance pedagogy along with traditional teaching methods. This paper will throw some light on meaning, need and importance of Co-creation. The tools which can be used and the role of teacher in Co-creation is discussed here.

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1 Introduction

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Co-creation is a process of learning. There has been an increase in interest in research and practice about "students as partners" and collaboratively constructed learning and teaching in higher education. (Bovill, C., 2020) Alison Cook-Sather (2018) investigated how students' collaboration with pedagogy results in successful learning. It was observed by him that the responses from students included how involvement in pedagogical partnerships fosters significant affective experiences with regard to all faculty and to fellow students. It influences students' academic engagement in their own classes, and adds to students' perceptions of their development as active agents in their own and others' development. The development of a collaborative culture in an organization necessitates problem-solving creativity, leadership, knowledge management, institutionalized learning, experiential learning, communication, quality management, and continuous improvement. (Akhilesh, K.B., 2017) Cocreation has become a popular term to describe a shift in thinking from the organization as a value definer to a more participatory process in which people and organizations collaborate to generate and develop meaning. (Ind, N. and Coates, N., 2013) the defined key characteristics of the concept of co-creation of learning were discussed by Kaminskiene, Lina; Žydzūnaite, Vilma; Jurgile, Vaida; Ponomarenko, Tetiana (2020) in their article which include collaborative process, collaborative output, transformative interaction and teacher position, learner's agency, new learning space, self-authorship, learning community and partnership in learning, metacognitive practises, and value co-creation.

Particularly in higher education (HE), the role of the student has changed from passive conceptions of the student as the recipient of knowledge transmitted through teaching (i.e. lecturing) to active and collaborative approaches that regard the student as a contributor in the educational process and co-creators of the educational outcomes, such as knowledge, skills, personal traits, etc. The idea of students as active collaborators in learning has recently become more popular in higher education.

The dictionaries (MacMillan, Meriam Webster, Collins online dictionaries) define the word "co-creation" as "a way of working together where people from different backgrounds are invited to jointly produce a product or service that will benefit all of them",

The attributes of the co-creation concept have been established following the thorough review of scientific literature. (Lina Kaminskiene a, Vilma Žydzūnaite a, Vaida Jurgilė a, Tetiana Ponomarenko a Vytautas Magnus University, Education Academy, Kaunas, Republic of Lithuania, 2020)

- Collaborative process.
- Collaborative output.
- Transformative interaction and teacher position.
- Learner's agency.
- New space for learning.
- Self-authorship.
- Learning community and partnership in learning.
- Metacognitive practices.
- Value co-creation

2 Methods

Researchers have done the literature review for this paper. The workshop was conducted on the teachers of various levels to make them aware about the new Pedagogy : Co-creation.

3 Models Of Co-Creation

Co-creation is a word that has entered our everyday design and marketing lexicon. It is now being used by people who are not in the design or marketing fields. Now, individuals from many fields use it in various ways. This does not improve the concept's clarity, which is still developing. As a result, many people have tried to model or otherwise arrange co-creation to later visualize it. Because they are consistent and immediately display linkages and interdependence, these visualizations are effective aids for learning.

De Koning, Jotte & Crul, Marcel & Wever, Renee (2016) provided an overview of the many approaches in their article to comprehending and capturing co-creation based on the literature that is currently accessible. They have emphasized that co-creation Model should include its definition, the methods involved, and how it links to other disciplines like service design, new product development, open innovation, participatory design, and more.

By analyzing current co-creation models and developing meta-models based on the similarities of the existing ones, they attempt to provide some conceptual clarification for the term co-creation.

De Koning, Jotte & Crul, Marcel & Wever, Renee (2016) have analyzed the current models, and based on the detailed study they have divided Co-creation into three categories, discussed below.

1. Theoretical (the co-creation spectrum and how it links to other concepts)
2. Practical (the various varieties of co-creation and how they relate to one another)
3. Applied (the various processes in a co-creation process).

1. Theoretical Category

The joint space of creation

This category includes the models of: Andreu et al. (2010), Edvardsson et al. (2011), Grönroos (2012, 2013), Laamanen & Skålén (2015), Payne et al. (2007), Prahalad & Ramaswamy (2004, p.), Ramaswamy (2008), Ramaswamy & Ozcan (2015), Skarzauskaite (2013) and Vargo et al. (2008).

It represents two entities and an area where co-creation can occur between the two entities, such as an overlapped area or a space between the two entities. These models depict co-creation in a frequently streamlined manner with value input and production for both sides.

The spectrum of co-creation

This category includes the models of: Customer-Insight (2010), Galvano & Dalli (2014), Lin (2012), Kosaka et al. (2012), Ojasalo & Keranen (2013), Prahalad & Ramaswamy (2004), Ramaswamy (2008), Sanders & Stappers (2008); Coates (2010), Roser et al. (2008) and Wulfsberg et al. (2010).

The co-creation spectrum provides an overview of models that situate co-creation alongside other similar or overlapping approaches / methodologies (ref). It demonstrates how co-creation intersects with other movements and terms like open innovation and participatory design.

There are two major movements that can be identified: (1) co-creation as an open innovation movement and (2) co-creation as a participatory design method.

2. Practical: The types of co-creation

This category includes the models of: Bartl (2009), Fronteer Strategy (2009), Frow et al. (2015), Kang (2014), Kukuru (2011), Muscroft (2011), Prahalad & Ramaswamy (2004), Quintarelli (2010), Rihova et al. (2013), SALES 20|20 (2013), Sawhney et al. (2005), Sense Worldwide (2009), Thorsten et al. (2013) and Vernet & Hamdi (2013). These models distinguish various types or levels of co-creation. A set of criteria or axes is frequently used to define the types. It happens at the point at which co-creation occurs at the start, middle, or end of the design or innovation process, or even during the use phase, the degree of direct benefit or change available to the co-creating end-user and the degree to which the two parties collaborate.

3. Applied: Steps of a co-creation process

This category includes the models of 90:10 (2010), Aarikka-Stenroos & Jaakkola (2012), Castro-Martinez & Jackson (2015), Farrow Partnership (2010), Fronteer Strategy (2009), Grönroos (2012) Grönroos & Voima (2013), IDEO (2011), Lambert & Enz (2012), Muentekunigami (2013), Nagaoka & Kosaka (2012) and Sanna et al. (2012).

A method is a collection of tools, toolkits, techniques, and/or games that have been strategically assembled to address specific goals. Co-creation is a popular method in the field of design. An approach defines the overall mindset required to carry out a process. Co-creation is used in a variety of fields. Because there is no agreement, the meta-model incorporates both the design method and the innovation approach to co-creation.

The above discussed 4 meta-models of co-creation is shown below in Figure 1.

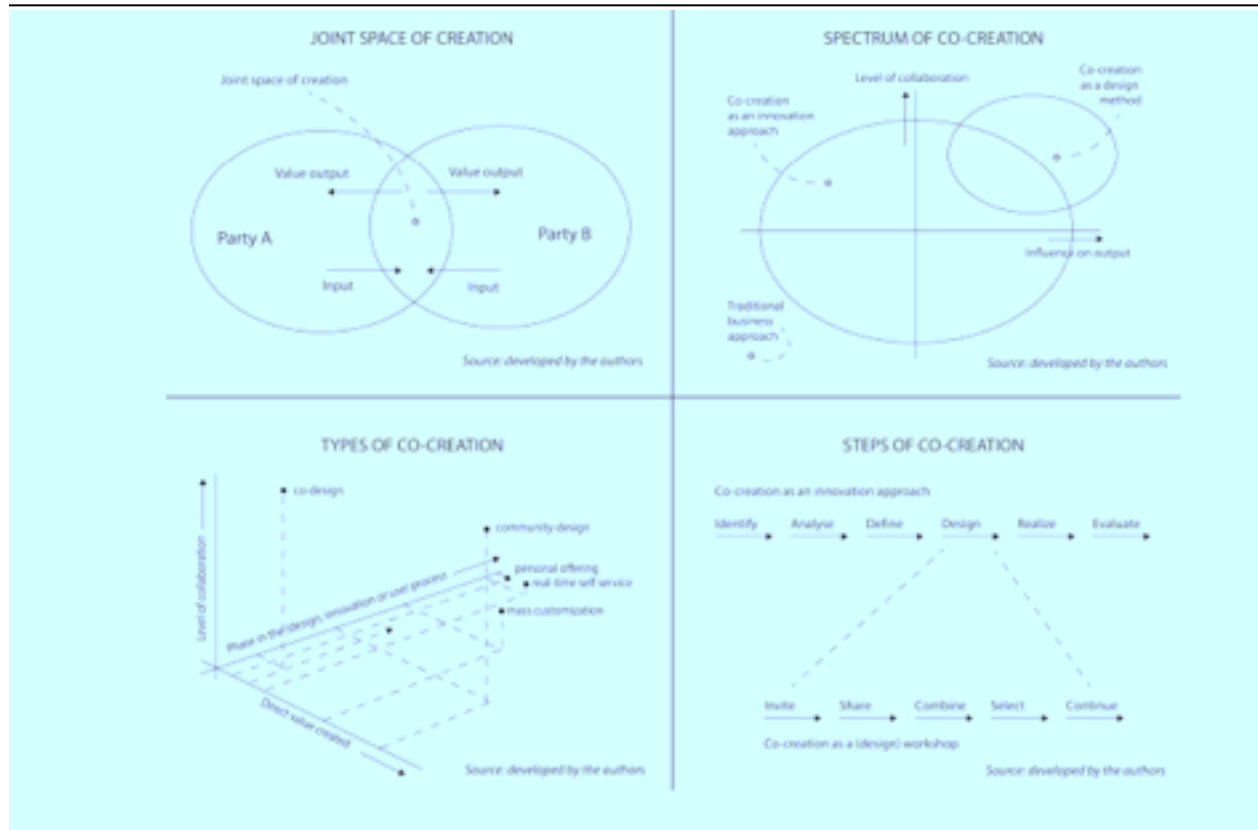


Figure 1: The 4 meta-models of co-creation
Source: De Koning, Jotte & Crul, Marcel & Wever, Renee. (2016)

3.1 Benefits Of Co-Creation

According to the research, effective and innovative pedagogical practises can be used to support and enhance co-creation of learning. They consist of generative conversation, compromise, teamwork, participatory design approach, and others. Co-creation of learning was found to emerge because of non-hierarchical relationships, flexible curriculum and scaffolding practises, formative assessment, and other elements. Co-creation of learning was also found to increase learning ownership, improve engagement with the learning process, and empower learners. (Kaminskiene, Lina; Žydzūnaite, Vilma; Jurgile, Vaida; Ponomarenko, Tetiana, 2020)

Growing focus is being paid to co-creation and active learner participation in the design and development of education in both educational practise and educational research. By considering the viewpoints of various stakeholders and encouraging the professional development of teachers, involving learners in the design of teaching and learning helps to improve educational quality. Additionally, it encourages students by increasing their sense of engagement, ownership, and empowerment. (Cook-Sather A. 2014) Student-faculty partnership in explorations of pedagogical practice: a threshold concept in academic development. *Int J Acad Dev.* 19(3):186–198.

Lubicz-Nawrocka, T. M. (2018). In the study, highlighted the benefits of curriculum co-creation, which is seen as one sort of student-staff partnership in learning and teaching where each partner has a voice and a stake in curriculum development, are examined. According to preliminary research, some faculty and students believe that taking part in curriculum co-creation will benefit them in three ways: (a) by encouraging the growth of shared accountability, respect, and trust; (b) by fostering partners' ability to learn from one another within a collaborative learning community; and (c) by enhancing individuals' satisfaction and personal development within higher education.

Karen D. Könings, Serge Mordang, Frank Smeenk, Laurents Stassen & Subha Ramani (2021) highlighted that Teachers and students can better grasp one another's viewpoints on education through co-creation. As a result, the learning atmosphere may be more encouraging, inclusive, and democratic, and the instructional design may be of higher calibre.

3.2 Role of Teacher in Co-Creating Classrooms

Karen D. Könings, Serge Mordang, Frank Smeenk, Laurents Stassen & Subha Ramani, (2021) described the relationship between the teacher and learner which reflects the role and responsibilities of the teacher.

It is crucial to create a psychologically safe environment where power imbalances between teachers and students are reduced and trust is built in order to encourage an open dialogue between them. In addition to being receptive to making educational change through joint accountability with students, teachers should listen to their students. Institutions and educators should support students in contributing constructively to the design of educational problems and the collaborative development of solutions to difficulties. Bidirectional dialogues can be made more productive and of higher quality by giving students and teachers training in how to provide and receive feedback. The level of learner involvement must be proportionate to their abilities, willingness to learn and engage, and prior experience with co-creation. Participants in co-creation initiatives can gain confidence by starting small and gradually increasing their involvement. Connecting and sharing experiences with colleagues and peers who are also involved in co-creation can foster mutual learning, and faculty developers can help to facilitate the co-creation process.

3.3 Meeting the Learning Styles of today's Students

Researchers have proved that students are updated than the teachers due to the Technological advancements in today's era. Initially focus was on VAK (Visual, Audio, Kinaesthetic) learning styles of the students which tried catering their needs. The Millennium generation is techno savvy and with the advance impacts of technology, their learning styles have changed significantly. Howard Gardner had introduced various intelligences through his Multiple Intelligence Theory where teachers were expected to provide the learning opportunities as per their domain intelligence. He added Musical, Spatial, Naturalistic, Intrapersonal, Interpersonal intelligence along with Logical, Verbal, Kinaesthetic intelligence. Along with this there are special need students in classroom who need special and individual attention. Students in digital age classrooms are Creative, Collaborative, Innovative, Self-Directed, Social and to cater to such needs, even faculty role need to re-defined. Majority students do have certain problems related to learning. Attention span, study habits, memory are the major concerns in learning of the students. One solution for these concerns, is to involve students in teaching learning processes through Co Creation.

4 Results and Discussions

4.1 Various Tools and Techniques for Co-Creation

Byju's, Vedantu, Khan academy, Whitehat Junior is empowering students from out of classroom learning beyond formal study hours. Tech-tools has enriched experimentation in classroom. Faculty and students are exploring various teaching tools for enhanced teaching learning experience. Adoption of YouTube videos (<https://www.youtube.com/>), TeacherTube (<https://www.teachertube.com/>), Webquests (<https://webquest.org/>), Blogs, Volgs, Wiki (<https://en.wikipedia.org/wiki/Wiki>), Wiffiti (<https://wiffiti.com/>), Jing (<https://www.techsmith.com/jing-tool.html>), Diigo (<https://www.diigo.com/>), Glog (<https://github.com/google/glog>), Podcast (<https://podcasts.google.com/>), Scibd (<https://www.scribd.com/home>), Comic Life (<https://plasq.com/apps/comiclife/macwin/>), Google apps (<https://workspace.google.com/>), Vokis (<https://l-www.voki.com/>), Avatars (<https://avtarinc.com/>), Animoto (<https://animoto.com/>), Kahoot (<https://kahoot.it/>), Padlet (<https://padlet.com/dashboard>), Quizziz (<https://quizizz.com/>), Mentimeter (<https://www.mentimeter.com/>) etc. is giving enhanced learnings and effective teachings. New tools exploration as well as teaching tool introduction is bringing paradigm shift in classroom for both Students and Faculty. Tech based teaching learning tools not only engage students in activities but also provides a great learning opportunities to them in their own space. Each of these tool helps you to get engaged in the activity / task given and provides you the opportunity to keep learning new things. They involve the learners in learning process and allows the teachers to be the facilitators.

4.2 Way Forward

Faculty members should train themselves in adopting tech tools.

1. Doing the need analysis of the students.
2. The teachers need to be trained to use the apps and tools.
3. Constant updating of technological knowledge.
4. Understanding students.
5. Finding suitable tools to the students as per their needs and learning styles.
6. Learning from students as they are well versed with new technology.
7. Collaboration and cooperation for improving social relations.
8. Know the curriculum to apply various pedagogies and assessment tools.

5 Conclusion

The new age which is also known as Digital age brought the biggest change in the entire world. The wireless revolution removed the boundaries between the countries and the world has become closer. New tools exploration as well as teaching tool introduction is bringing paradigm shift in classroom for both Students and Faculty. We need to take this paradigm shift in Education positively. As we have seen the list of the tools given above, these tools are not just tools but the learning opportunities for both students and teachers. Tech based teaching learning tools not only engage students in activities but also provides a great learning opportunities to them in their own space. Each of these tool helps a learner to get engaged in the activity / task given and provides them the opportunity to keep learning new things. They involve the learners in learning process and allows the teachers to be the facilitators. The responsibility of a teacher has widened enough so that he has to be the content master, facilitator, motivator and mentor.

Conflict of interest statement

The authors declared that they have no competing interest.

Statement of authorship

The authors have a responsibility for the conception and design of the study. The authors have approved the final article.

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