

Engaging students – Is co-creation the answer?

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Consumer satisfaction has long been a question of great interest in a wide range of fields. Existing research recognizes the critical role played by student satisfaction in higher education. It has been noted that students have changing and variable needs. A considerable amount of literature has been published on the fact that higher education institutions have to react promptly and satisfy students' needs in order to keep their students and rankings. As student satisfaction is highly dependent on teaching quality, it is essential for higher education institutions to implement new teaching methodologies. Therefore, the aim of this paper is to analyze the concept of a teaching methodology, namely co-creation, and to examine its applicability in the field of economics. With the methodology of co-creation, teachers are able to involve students into the creation of curriculum, which might enhance student involvement and increase student satisfaction.

Keywords: co-creation, higher education, teaching methodology, quality, curriculum

1. Introduction

Student satisfaction has been in the center of research interest in the past decade. Many key aspects have been identified to have an effect on the satisfaction of the students. Teaching quality has been named as one of the most crucial determinants of student satisfaction (Ribes-Giner 2016). However, teaching quality is a notion involving many different aspects, one of which is teaching methodology.

Teaching methods can have a high influence on students perceived teaching quality, which might also affect their satisfaction. Therefore, it is essential to investigate how different teaching methods influence the classroom and the engagement of students, who represent a younger and younger generation with constantly changing needs for development. The new generation, namely the millennials have different characteristics, and according to the International Education Advisory Board, they have certain characteristics that differentiate them from other generations (Chemi–Krogh 2017, p. 2). They were born into the technological world, so they use and adapt to new technology easily, they are likely to take risks, they are inclusive, accepting and like to take control and share information with others, so they collaborate easily. New teaching methodologies have to adapt to the needs of this new generation, while preparing them for a future with yet unknown problems (Chemi–Krogh 2017).

One of the newly emerging topic in higher education methodologies is co-creation, which – in education – means the co-creation of curriculum to a certain extent. There have been numerous studies appearing in this topic in education (Chemi–Krogh 2017, Dollinger et al. 2018). Therefore, the aim of the current study is to provide a review of already existing definitions and applications of co-creation,

both in other research fields and in education, with special emphasis on the field of economics. The paper also aims to investigate the different methods, steps and phases of co-creation to provide a theoretical basis for educators who might use this concept in their classroom.

This paper is comprised of five chapters. After the introduction, the second chapter investigates the notion of co-creation and its different theoretical implications. In the third chapter, co-creation is studied from the viewpoint of education and tertiary education, while in the fourth chapter co-creation methodologies are reviewed. Chapter five concludes the paper and implies practical recommendations.

2. Co-creation as a notion

The concept of co-creation first appeared in the business world and was detailed by Prahalad and Ramaswamy (2000). They highlighted the role and active participation of the consumer in the value (product and services) creation process. As consumers require a growing amount of information, they also demand better value. Therefore, companies have recognized the need to involve their customers actively in the creation process of their products and services (Ribes-Giner et al. 2016).

Prahalad and Ramaswamy (2004) were among the first to realize the importance of co-creation. They initially recognized its importance in the field of business and applied it for value creation by strengthening the relationship between the customers and the market. They found out that if a consumer was included in the process of making the products, it could enhance customer experience. They created a 'DART' (dialog, access, risk, transparency) model, in which they regarded dialog, access, risk and transparency as the most crucial factors of co-creation (Prahalad–Ramaswamy 2004).

Since its first appearance in literature, co-creation has had different approaches and definitions. After Prahalad and Ramaswamy (2000; 2004) defined it as an active participation of consumers in creating products and services and new value creation, other definitions surfaced. Consumers become increasingly important in the value-creation process and companies have to collaborate with them to absorb competence (Lusch et al. 2007). According to Witell and colleagues (2011), the customer is an active agent in the co-creation process, as co-creation involves 'activities in which customers actively participate in the early phases of the development process by contributing information about their own needs and/or suggesting ideas for future services that they would value being able to use' (Witell et al. 2011, p. 9). Based on an extensive literature review, Ribes-Giner and colleagues (2016) defined co-creation to 'allow final product/service to be obtained according with consumer requirements' (Ribes-Giner 2016, p. 73). Additionally, co-creation can be characterized by keywords such as customer participation and involvement, precise communication, and transparent feedback (Ribes-Giner 2016, p. 73).

Chemi and Krogh (2017) grasped the essence of co-creation as it is the process of creative (original and valuable) generation of shared meaning and development. According to them, co-creation means the following: 'the concept is intuitively perceived and understood, as is the experience of shared values across different

stakeholders.’ (Chemi–Krogh 2017, p. ix). Iversen and Pedersen (2017) stated that co-creation engages stakeholders in a collective learning process, which requires facilitation (Iversen–Pedersen 2017, p. 17), and ‘co’ means it is a social process, ‘creation’ means that something new appears as a consequence (Iversen–Pedersen 2017, p. 22).

Since its earlier appearance, co-creation has already emerged in numerous fields of life and has proven to be applicable in many of them. The fields in which co-creation has been used include design thinking (Sanders–Stappers 2008), product innovation, organizational development (Camargo-Borges–Rasera 2013), social innovation/management research (Voorberg et al. 2014), student direction and conceptual research. One of the most recent field of co-creation application is education, as it could be used as a pedagogical tool (Chemi–Krogh 2017, Dollinger et al. 2018).

All in all, we can conclude that co-creation has been widely researched in the previous decades. Numerous approaches appeared regarding the conceptualization of the notion and it has been broadly applied in numerous fields, including higher education and creation of curriculum together with various stakeholders. Therefore, in the next chapter, the concept of co-creation is introduced from the viewpoint of higher education.

3. Co-creation in education

In today’s global economy and education, a continuous need for educational and pedagogical development has appeared. As the technological environment changes quickly, education has to prepare students to be able to adhere to changes. The new trends in higher education include focusing more on research, teaching methods and effective learning, while the central aim is to create a curriculum that brings innovation and is creative. It can also be observed that students and teachers are both motivated to help each other create an experience that enhances study experience (Dollinger 2018). However, the increasing number of HEI students does not make it easier for educators to apply new methods. Even though we would like a change in the education system and the way of teaching, most of the education takes place exactly the same as how it took place years ago. Taking a look at the classrooms, the furniture that is turned towards the teacher’s podium implies that students need to listen to the lecturer only (Iversen–Pedersen 2017). With each new method comes the challenge to get it accepted by students, as new teaching methods can either engage them or deter them. If used wisely, these new methods can prepare students for future challenges and teach skills instead of factual knowledge (Chemi–Krogh 2017).

The most current application of co-creation is in the field of higher education, in which it is widely applied, sometimes together with different other methodologies. Co-creation in higher education has numerous approaches. Among others, it is defined by Chemi and Krogh (2017) as the ‘process of creative (original and valuable) generation of shared meaning and development’ (Chemi–Krogh 2017, p. viii) and as an ‘experience of shared values across different stakeholders.’ (Chemi–Krogh 2017, p. ix).

Relevant methods for effective co-creation include collaborative approaches, such as Problem-Based Learning, which includes students having a great

responsibility in working on problematic situations, while the teacher only has the role of a facilitator or a supervisor. Similar methods can make students more engaged and involved (Bovill et al. 2011). Chemi and Krogh (2017) also enlisted learner-led teaching, student-centered approaches, assessment, art-based methods, collaborative dynamics, interconnection of cognition/emotion, and creativity as closely related fields to co-creation. Though the concept and definition might be intuitive and easily understandable, it is still not clear how it could be interpreted in practice and whether it can be viewed as a separate pedagogical tool (Chemi–Krogh 2017). In the current paper, due to restrictions of length, only the concept of co-creation is detailed.

The current changes in society and labor markets, and the shift from industrial to information and learning economy have had a serious effect on the jobs people have and will have in the future. These changes require people to have different approach to educating the future workforce (Jensen–Krogh 2017). The early definition of Prahalad and Ramaswamy (2000) is applicable to higher education in some respects. Jensen and Krogh (2017) take three characteristics (or we can also call them criteria for successful co-creation) from the definition for education, which are respect for students, importance of students' active participation and their openness to contribute and create value in the educational process. According to Dollinger et al. (2018), 'the process of co-creation can allow for institutions and students to work together to improve student experience and enhance students' ability to act as partners' (Dollinger 2018, p. 210).

Numerous benefits have been found as a result of co-creation in education. Students could be a crucial source of information and additional input to certain classes. However, their importance is often overlooked. Many schools opt for teaching practices that have been used for decades and lack novelty in terms of curriculum. Teachers and faculty staff could be more open to challenge and engage students in a classroom (Bovill et al. 2011).

Student engagement is considered an important aspect when learning enhancement is discussed. Bovill et al. (2011) defines engagement as 'serious interest in, active taking up of, and commitment to learning' (Bovill et al. 2011, p. 2), where students actively participate in the learning process and teachers act as facilitators. This concept does not only let students offer their opinion of the education system and methodologies, but they can become the ones who are going to change based on their own needs (Bovill et al. 2011).

4. Co-creation methods in higher education

As we could see in the previous chapters, co-creation is widely used in education and in other respects of life too. In the current chapter, different methods of co-creation in higher education are discussed to find out how the concept could be used in the field of economics.

In an educational context, co-creation is the strengthening of relationships among teachers, students and staff, to enhance learning experience (Ribes-Giner 2016, p. 74). This way, students gain more responsibility in the creation of their own curriculum and might result in more positive outcomes.

4.1. Types of co-creation in higher education

We can differentiate between different types and applications of co-creation. Degnegaard (2014) makes a distinction between different applications of co-creation, which are the following:

- Co-creating shared meaning
- Co-creating user experience and shared value (marketing and service perspective)
- Co-creating technological solutions (ICT perspective)
- Co-creating ideas and new products and services (related to the concept of innovation)
- Human-centered co-creation (settings for design and research)
- Bovill et al. (2011) differentiated between three types of student co-creators:
 - co-creators of teaching approaches
 - co-creators of course design
 - co-creators of curricula

In a program called Students as Learners and Teachers (SaLT), which initiative took place in four different universities in the USA and in the UK, students provided feedback on teaching approaches. This program was comprised of two parts. Firstly, students participated in a semester-long seminar and they wrote weekly blogposts and gave two feedbacks during the semester. Secondly, they had a partnership with a student consultant to volunteer their ideas for development. It is crucial that students who had consultants did not participate in the classes they observed (Bovill et al. 2011).

Bovill et al. (2011) also looked into student co-creators, who were responsible for course design at Elon University. Their method was to create groups of five or six students with one academic developer, who would be motivated enough to work on course designs. First, they defined their goals and then started the discussion about learning assessment and pedagogical strategies. Students can also act as co-creators of curricula, which can include ‘some or all the aspects of the planning, implementation and evaluation of the learning experience’ (Bovill et al. 2011, p. 4). Students at University College Dublin resigned a new virtual learning context for first-year students, which enhanced their learning process and professional conversations online and in class too.

4.2. Application methodologies

When approaching co-creation from a research perspective, methodology and documentation of results seem to vary study by study. This implies that there is no common understanding on how co-creation should take place. As different types of co-creation exist, the methods how it is applied also differ. In this chapter, the different methods for co-creation are discussed and evaluated.

In the studies of Degnegaard (2014), they implemented PBL (problem-based learning) with certain co-creation elements in the classroom at a BA level. Their methodology followed a certain order and rules:

- Talked to experienced students from BA program on meetings
- Collaborated with these experienced BA students to work with new students on the course
- Created principles for co-creation participants
- Created principles they used for co-creation

Principles for participants of co-creation included rules of how the process should go. It involved the respect of students and the establishment of an environment in which students could act as the leaders of their own learning process. Moreover, students are also responsible for creating an excellent study environment, where they are responsible for other students as well. Learners have to choose an interesting and relevant topic in which they would like to work and co-create. However, Degnegaard (2014) stated that the concept might not be successful in every classroom, due to the number of students and mindset of students.

They also differentiated between principles of co-creation, as they defined what co-creation meant for them. In their case, co-creation is the creation of knowledge and peer-to-peer production. Additionally, students have to provide feedback to each other and also lecture each other. The role of the teacher is rather supplementary if at all necessary. The teacher has the opportunity to add material that has been left out by the students beforehand and also has the chance to rely solely on student material (Degnegaard 2014).

Iversen and Pedersen (2017) defined key components of co-creators (students and teachers) working together. They stated that these steps have to be included in the process of co-creation, otherwise it might not be successful. Firstly, there has to be an open communication between students and teachers. Their cooperation must include the teacher's willingness to listen and understand students' needs. It is not only the mutual understanding, but also a co-creation of new ideas. This process might be harder than it seems, as the teacher has to be consciously communicative, flexible, has to balance viewpoints and handle potential conflicts. Co-creation requires full attention from both teachers and students, as those students who are involved in this process not only volunteer their own ideas, but also potentially make their own coursework harder.

Iversen and Pedersen (2017) identified certain characteristics of teachers which make them suitable to be co-creators with students. Teachers who are willing to take on co-creation have to be able to handle failure and success, eager to develop, flexible and handle arguments.

Previous results have shown that students were much more satisfied when a co-creation method was applied in the classroom, so the methodology could be deemed a success in most cases. Therefore, Jensen and Korgh (2017) think that the pedagogical strategy of co-creation can be further strengthened. Though, this is a huge challenge for teachers, as their role changes extremely and they have to rethink the whole curriculum (Jensen–Korgh 2017).

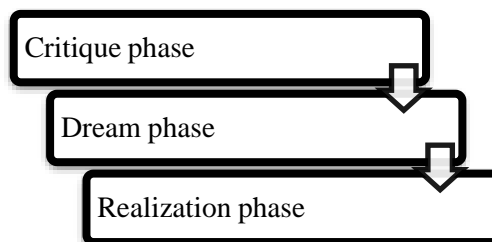
All in all, we can state that co-creation is applied in many different ways, as there is no common understanding of it regarding its methodology. As stated in the previous chapter, its definition declares that ‘the concept is intuitively perceived and understood’ (Chemi–Krogh 2017, p. ix.), and this can also be observed in the case of methodology. Each study is different, each method has its own application depending on the researcher. Most researchers are the facilitators of co-creation in education. Therefore, they are intuitively working together with their students to co-create knowledge. In most of the above-mentioned studies, the study field is less relevant regarding applicability. The most important factors of co-creation are the co-creators themselves, as the studies put the emphasis mainly on them. Consequently, co-creation could be used as a method for co-creating knowledge in the field of economics too.

4.3. Co-creation phases

Researchers also found that co-creation methods were usually divided into different phases, which are identified in certain studies. However, there is also lack of consistency. Similarly to the definition of co-creation, the phases of co-creation are also determined arbitrarily and are not similar in different studies.

In the study of Degnegaard (2014), they identified three different phases of co-creation. The phases can be seen in Figure 1.

Figure 1 Co-creation phases



Source: own construction based on Degnegaard (2014)

In the critique phase, co-creators identify the challenges and problems they have with education and they are likely to hold a ‘future workshop’ to see what might happen in the future. In the second phase, which is called a dream phase, co-creator students state what they wish to do and study throughout the co-created course. This is the phase when they can tell their ideas about the most ideal learning environment without any restrictions. However, in the third phase called the realization phase, co-creators have to face the reality and find out what solutions they can actually implement for the problems that they found.

Additionally, they also determined key success factors in the realization phase, which are the following:

- noting down on paper
- discussing the issues
- writing notes on classroom observations
- meeting student representatives

In another study, Ribes-Giner et al. (2016) found that co-creation has many challenges, but most of all, it has certain phases. The first is exploration, when possible ways of co-creation are explored. The second is creation, when the process of co-creation happens. The final step is evaluation, when the process is assessed and evaluated (Ribes-Giner et al. 2016). The process of co-creation can be seen on Figure 2.

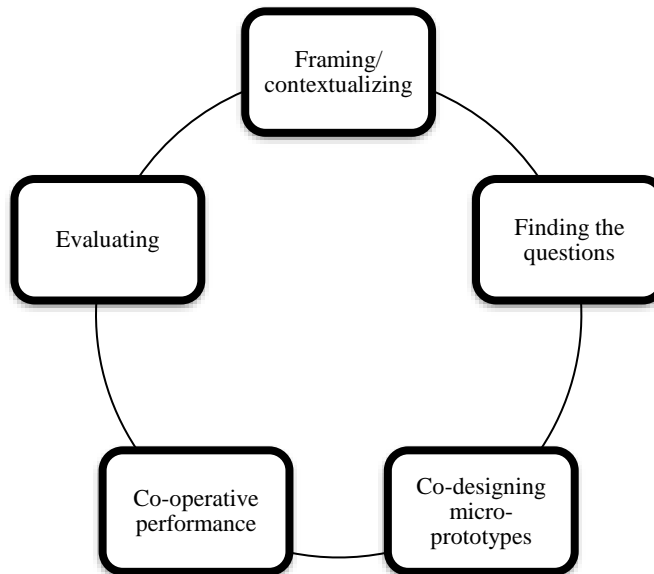
Figure 2 Another differentiation of co-creation phases



Source: own construction based on Ribes-Giner et al. (2016)

In their studies, Iversen and Pedersen (2017) enlisted several steps that are used quite frequently in the case of in-class co-creation of curriculum. These steps include dialogue, field studies, interviews, narratives, and log-writing. In their own research, they put the emphasis on a 5-step design model of co-creation that can be seen on Figure 3.

Figure 3 5-step design model of co-creation: The co-creative learning process wheel



Source: own construction based on Iversen and Pedersen (2017)

In this learning process wheel we can observe five steps. Framing or contextualizing is considered to be the first step, when the parties involved define their intention and understand the field in which they would like to work together. In other words, they define the where and why. The second step is finding the questions, which means finding those challenges that the co-creators would like to work on and

potentially solve. The next step is co-designing micro-prototypes (in this case knowledge production), which involves finding out how the co-creators are going to overcome the determined challenges. Then a co-operative performance follows, when the co-creators carry out their co-created plans, after which they evaluate the results and the process.

Taken together, these studies suggest that similarly to its definition and methodology, there is no common practice on what phases co-creation has. Researchers determine the phases based on their own primary research and experience. Therefore, the previously mentioned stages can be used as an example for co-creation in higher education and in the field of economics.

4.4. Challenges, advantages and opportunities

Previous research has also identified the challenges and opportunities that co-creation brings to the classroom in a higher education context. These factors have to be taken into account when applying co-creation, as they provide an initial insight into what the co-creation process might look like, and researchers and co-creators can prepare in advance.

Challenges of co-creation can be viewed from two different viewpoints, from the teacher's and from the student's. Teachers face the challenge of maintaining less control over pedagogical aspects of their classes. They cannot plan ahead, as the control slightly shifts to students, who also act as co-creators of the course. Co-creation also requires a serious time investment, as teachers have to rethink curricula and work together with students to supervise them and act as a facilitator. By shifting the control partially over to students, another challenge arises. Even though classes are co-created, professional requirements have to be met, the students have to acquire the potential learning outcomes that would enable them to successfully complete the course and have the skills required. Another challenge is choosing who to involve in the co-creation process, as students could be quite different and have different abilities (Bovill et al. 2011).

Additional challenges arise from the viewpoint of students. They have to feel as partners, otherwise they might not be willing to volunteer their ideas (Bovill et al. 2011). The collaboration should be open, students must be taken seriously so that they would be meaningful partners in the whole process. Students, similarly to staff or teachers included, have to be diverse, as ideas and new suggestions can come from any of them. It is also crucial that the process of co-creation has to be repeated, as it might not necessarily be an instant success. Most importantly, students and staff have to be valued for their efforts in co-creation and they also have to evaluate the process themselves (Degnegaard 2014).

Ribes-Giner and colleagues (2016) analyzed the concept of co-creation as a new and innovative approach in teaching methodologies. They determined certain advantages and opportunities co-creation can bring, such as increased communication among stakeholders, growth in productivity and cost reduction at the organization. Moreover, Bovill et al. (2011) found that with co-creation, the commitment of both staff and students could be enhanced and a bridge could be created between students and staff.

The investigation of challenges, advantages and opportunities of co-creation have shown that even though there are numerous challenges that co-creators face, there has been a rising number of educators who turn to this method, as its advantages and opportunities outweigh the challenges. Co-creation has proven to be successful in the field of higher education, so it could also be successful when applied in the field of economics. This application field is further discussed in the conclusion chapter of this paper.

5. Conclusion and discussions

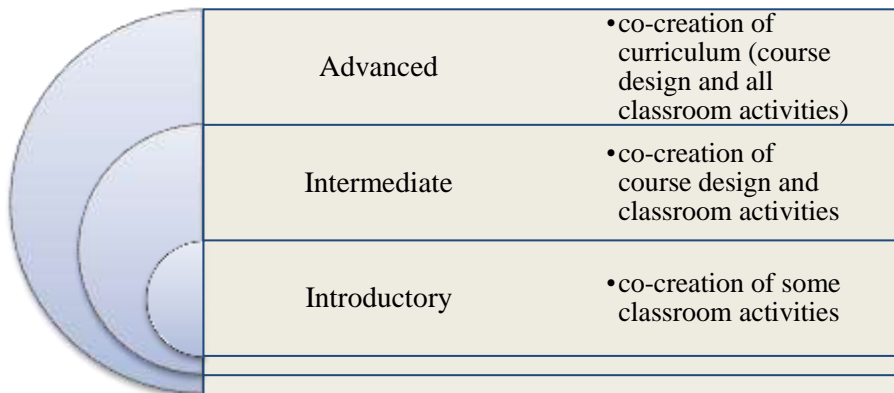
This paper aimed at investigating the notion of co-creation with special emphasis on economics in the field of higher education. It also provided an overview of co-creation's applicability and methodology. The paper also sheds light on how and based on what levels and phases this method is applicable in education.

The issue of co-creation has received attention in the academic field, after first appearing in the business world. As pointed out above, co-creation has many different definitions in general, while its educational notion has only been researched in recent years. Therefore, co-creation in education can be considered a relatively new research direction in higher education. This might be the reason why there is no common understanding regarding the methodology researchers and educators apply. Consequently, co-creation is mostly used intuitively in education.

As we could see from the studies above, co-creation has certain limits regarding its application. However, in contrast to the previously anticipated limits, it is not the field of studies that presents a barrier, but rather the co-creators themselves. In the papers reviewed about the applicability of co-creation, the study field was not taken into account. Researchers mostly concentrated on the ability of co-creators to produce knowledge together. Therefore, one conclusion of this paper is that if the conditions for co-creation are present (students are viewed as partners, there is an enhanced communication, collaboration and dialogues between the teachers and students (Bovill et al. 2011), it can be applied in any field, including economics.

When applying co-creation, many researchers determine phases or steps to be followed throughout the process. These steps are useful for those scholars who intend to start co-creation and do not solely rely on intuitive methods. However, based on evidence from the literature and the lack of co-creation levels determined, I suggest to differentiate between levels of co-creation on the basis of how deeply a teacher involves their students in the co-creation of classroom activities, course design or curriculum. I believe that co-creation can be understood in many different levels similarly to its usage and due to its intuitive nature. Therefore, the proposed levels of co-creation can be seen on Figure 4.

Figure 4 Proposed levels of co-creation



Source: own construction

According to this differentiation, introductory level involves those co-creation activities which are relevant to planning one or some classroom activities of one course. This only includes students in a less intensive way. The second level is intermediate, which involves co-creation of course design and some classroom activities. This way, students help with classroom tasks and they are to determine study rules and codes of conduct of the chosen course. The third and most complex type of co-creation is the advanced level. At this level, students and teachers work together (often without even starting the semester in which the course is held) for a long period of time (one or two semesters) on the whole curriculum to design all classroom activities and course design.

I am convinced that this differentiation could be further detailed. However, at this point of the research regarding co-creation activities in education, these levels might help educators to understand the concept better before trying to apply it in their own classes.

All in all, this paper provided an overview of the concept of co-creation, its notion, methodology and application in education. One of the aims of this paper was to shed light on co-creation's applicability in the field of economics. However, no evidence has been found to prove that this method is only applicable to certain study fields. Another finding of this study is the differentiated levels of co-creation that might provide further insight for those professionals who might incorporate this method into their classes.

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References

- Bovill, C. – Cook-Sather, A. – Felten, P. (2011): Students as co-creators of teaching approaches, course design, and curricula: implications for academic developers. *International Journal for Academic Development*, 16, 2, 133–145, DOI: [10.1080/1360144X.2011.568690](https://doi.org/10.1080/1360144X.2011.568690)
- Camargo-Borges, C. – Rasera, E. F. (2013): Social constructionism in the context of organization development dialogue, imagination and co-creation as resources of change. *Sage Open*, 3, 2, 1–7. <https://doi.org/10.1177/2158244013487540>
- Chemi, T. – Krogh, L. (2017): *Co-creation in Higher Education*. Sense, Denmark.
- Degnegaard, R. (2014): Co-creation, prevailing streams and a future design trajectory. *CoDesign*, 10, 2, 96–111, DOI: [10.1080/15710882.2014.903282](https://doi.org/10.1080/15710882.2014.903282)
- Dollinger, M. – Lodge, J. M. – Coates, H. (2018): Co-creation in higher education: towards a conceptual model. *Journal of Marketing for Higher Education*, 28, 2, 210–231.
- Iversen, A-M. – Pedersen, A. S. (2017): Co-creating knowledge. In Chemi, T. – Krogh, L. (eds.): *Co-creation in Higher Education*. Sense, Denmark, 15–30.
- Jensen, A. A. – Krogh, L. (2017): Re-thinking curriculum for 21st-century learners. In Chemi, T. – Krogh, L. (eds.): *Co-creation in Higher Education*. Sense, Denmark, 1–14.
- Lusch, R. F. – Vargo, S.L. – O’Brien, M. (2007): Competing through service: Insights from service-dominant logic. *Journal of Retailing*, 83, 1, 5–18.
- Prahalad, C. K. – Ramaswamy, V. (2000): Co-creating customer competence. *Harvard Business Review*.
- Prahalad, C.K. – Ramaswamy, V. (2004): Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing*, 18, 3, 5–14.
- Ribes-Giner, G. – Perello-Marín, M.R. – Díaz, O.P. (2016): Co-creation impacts on student behavior. *Procedia – Social and Behavioral Sciences*, 228, 72–77.
- Sanders, E.B.N. – Stappers, P. J. (2008): Co-Creation and the New Landscapes of Design. *Co-Design*, 4, 5–18. <http://dx.doi.org/10.1080/15710880701875068>
- Voorberg, W.H. – Bekkers, V.J.J.M. – Tummers, L.G. (2014): Co-creation in social innovation: A comparative case-study on the influential factors and outcomes of co-creation. *Presented at the IRSPM – conference, Erasmus University Rotterdam*. Retrieved from <http://hdl.handle.net/1765/51069>
- Witell, L. – Kristensson, P. – Gustafsson, A. – Löfgren, M. (2011): Idea Generation: Customer Co-creation versus Traditional Market Research Techniques. *Journal of Service Management*, 22, 2, 140–159.