

Chapter 5. Students as territorial development actors: The importance of developing awareness

James Karlsen¹

Introduction

In this chapter, I continue discussing the development of action research for territorial development (ARTD) by introducing new actors: students. ARTD claims that action researchers — rather than just stakeholders in action research processes — are territorial actors. I develop this idea further to argue that, in the context of their educational processes, students are also territorial actors. Being recognised as territorial actors means that students, in their educational processes, are not merely observers of territorial development but can be active participants by facilitating the reflections and actions of territorial stakeholders. The rationale put forward in this chapter is that action research can be a vehicle for students to take up this role when they are accompanied by their supervisors and work within the frameworks of their universities' collaborative processes with other organisations in a territory. Hereafter, when I refer to the role of students as territorial actors, I refer to this facilitative role framed by action research.

The inspiration for this chapter came from a course I have been teaching for three years now. To develop this course, we used lessons learned from Romano (2017), an action research project called Gipuzkoa Sarean, which was undertaken in the Basque Country, Spain, and EDWOR I, Norway (Greenwood & Levin, 2007), which I participated in myself as a graduate. In short, ARTD is about *how* work is done in complex, territorial development processes in which no single actor has the power to determine the outcome of the process (see this book's introduction for a presentation of ARTD). One solution to such a situation is to co-generate knowledge through dialogue between territorial development actors while being aware that there might be many theoretical solutions; in praxis, however, actors have to reflect, make decisions and take action that can differ from the ideal theoretical solution. However, also the possibility exists that the theories turn out to be completely wrong or the dominant methods are useless in context. It is a two-way street.

As an action researcher, this approach to territorial development has inspired me to further develop the co-generation of knowledge as a concept in emergent strategies for change in universities and their regions, with students as territorial development actors. The course at the core of the action research case is a master's course called Innovation in the Public Sector at the School of Business and Law at the University of Agder, a regional university located in the southernmost region of Norway. Thus, the foundation for this discussion is an action research case in which the role of territorial development was integrated into the teaching of the course. This is a new role developed over three years of practice and is inspired by Schön (1983) reflections on action as well as concepts such as awareness (Freire, 1996), and the co-

¹ University of Agder, Norway and Orkestra-Basque Institute of Competitiveness.

generation of knowledge (Greenwood & Levin, 2007). In the academic literature, this lies at the intersection of action research and discourse about the regional roles of universities.

The structure of the chapter is as follows: in the next section, the role of universities and students as territorial development actors are introduced. Then, key concepts are discussed, including the co-generation of knowledge and awareness, after which the context of the case is presented. The complexity of the knowledge co-generation process makes it hard to present it in full detail within the framework of a single chapter. The focus of the presentation is, therefore, on the critical phase of developing awareness among students as well as the results of this process. The chapter ends with a conclusion examining the broader lessons of the case.

The role of universities and action research

Actors across Europe and in the broader world are challenging the idea that universities are knowledge institutions that engage in regional development (Dunning, 2002; Foray et al., 2012; OECD, 2004, 2009). In the international discourse, this has been called 'the third role', 'the third task' or 'the regional role' (Laredo, 2007; Molas-Gallart & Castro-Martínez, 2007). The regional part of the third role can be described by concepts such as involvement, engagement and interaction with regional actors (Benneworth, Zeeman, Pinheiro, & Karlsen, 2017). The term third role is a logical consequence of the first two roles, which are teaching and research. This abstraction and simplification of universities' missions down to three roles black boxes the complexity of universities as knowledge institutions, as well as their relationship to their host region and society in general. The macro approach in the discourse inadequately communicates the complexity of teaching, research and regional engagement. Secondly, it infers that there are three independent roles that have nothing to do with each other, as though they were independent systems that do not interact. Third, in the discourse, the emphasis is more on the economy, innovation and technology than soft activities and their potential for territorial development (Lucas, Cooper, Ward, & Cave, 2009). The fourth argument is that there is a lack of research on the practice of these roles, and especially their connection, carried out inside the process itself and outside in real time. Students as territorial development actors have roles that are not explicitly discussed in the discourse about their universities' roles. In fact, students are discussed mostly in the context of teaching, and they are often seen as empty boxes that need to be filled with knowledge before they are allowed to enter working life (Freire, 1996). In this chapter, I want to highlight students as territorial development actors, which is a new type of actor in the discourse about the role of universities in territorial development. This resonates with the Morrill Act from the 19th century that initiated the US landgrant universities to do teaching, research, and service to the people of the state they are located in (Greenwood & Levin, 2007).

There is extensive literature on educational action research that addresses methods educators can use to find solutions to the challenges they encounter during the educational process. However, this is not my focus. When advocating for the recognition of students as territorial actors that interact with other actors through action research, I developed my contribution in the framework of ARTD and territorial development processes.

In this context, I approach action research as a pragmatic co-creation of knowledge *with* territorial actors, not *about* them (Bradbury, 2015). This approach connects the action research literature's emphasis on social change (Greenwood & Levin, 2007) with the need to transform universities (Greenwood & Levin, 2016). In the literature, the role of students has been discussed by authors such as Freire (1996), with his pedagogical approach to liberating

students' learning potential, and Stenhouse (Stenhouse, 1975), who viewed teachers as researchers. Greenwood and Levin (2007) organised teaching so that students worked with real-life cases at the undergraduate, intermediate and PhD levels. At the first two levels, teaching's most evident disconnection from an action research process was due to its lack of direct exposure to the field, while on the PhD level, there was more time available for co-generation processes with actors outside the classroom (Greenwood & Levin, 2007). In the specific context of ARTD, Romano (2017) also addressed the relevance of students as territorial actors.

The importance of developing awareness

Co-generation of knowledge is a key concept in action research. The approach used in this chapter is inspired by collaborative learning (Elden & Levin, 1991), the co-generation of knowledge (Greenwood & Levin, 2007), and the co-generation of knowledge in territorial development (Karlsen & Larrea, 2014). Co-generation is both a collective learning process and a process outcome, which can result in new academic knowledge and actionable knowledge for territorial development actors (see Figure 1).

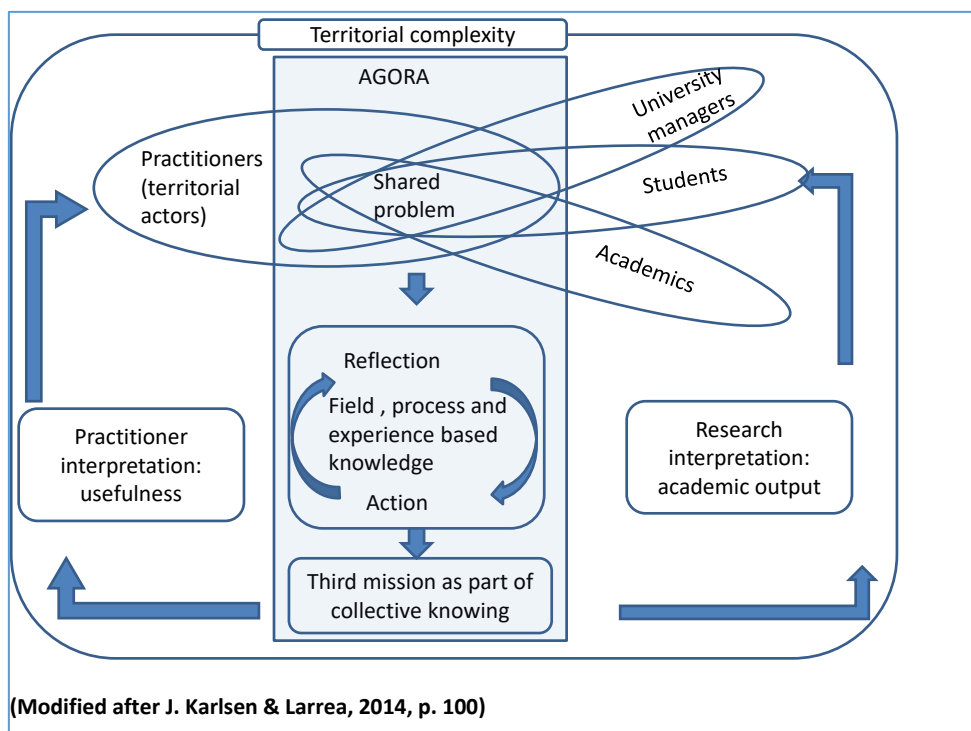


Figure 1. Students as territorial actors in co-generative processes

In this chapter, I will focus on co-generation as a learning process. Co-generation is a learning process in which new methods of co-generation are developed, and common challenges and solutions are considered and tested in practice. The basic idea is that learning processes can be systematised and structured in common arenas (agora), and through dialogue, reflection and action, the basis for learning and the changing of practices can be created. Co-generation is a highly complex process that does not necessarily follow a linear path. For analytical purposes, agora can be represented as different spaces for dialogue. Karlsen and Larrea (2014) differentiated between three spaces for dialogue: awareness, coordination and policy design, and dialogue regarding intervention. The three spaces overlap somewhat, which means that they influence each other.

To cultivate their capability to learn how to co-generate knowledge with practitioners, students must first develop awareness. Therefore, I will concentrate the discussion on students' awareness. More specifically, I will focus on a challenge that emerges in the first phase of the knowledge co-generation process: that of helping students develop an awareness of their role as territorial development actors.

As teachers dialogue with students, the classroom becomes a space of awareness. This space is important for linking dialogue, reflection, action and change. The change in attitude cannot start until the researchers' and practitioners' perceptions are unveiled and understood; they must see the need to change themselves in order to change the world (Karlsen & Larrea, 2014). This means that in playing their territorial actor roles, students need first to gain an awareness of their potential to transform the territory through their own transformation processes. Freire (1996), a Brazilian pedagogue, inspired the concept of awareness. The Portuguese word for 'awareness' is '*conscientização*'. To Freire, awareness is about more than becoming conscious. It is about becoming aware of the individual and the role the individual plays in society. Freire's concept of awareness is a reaction to the banking approach and the linearity of education in which teachers are actors with knowledge and the authority to deposit that knowledge in students. In such a situation, the role of students is to memorise the deposited knowledge. Furthermore, this linearity is not restricted to the classroom; rather, it is a general phenomenon in society. Researchers, politicians, and policymakers deposit knowledge in society in the belief that actors will change their attitudes upon receiving the message. One example of such a message is the well-known activity of planning.

Strategic planning, however, has not turned out to be such an efficient producer of success as the handbooks and consultants indicated... And, after all, when the time to make decisions comes, the strategy papers have been forgotten, the world has changed, 'and now is not the time to make strategies, now is the time to balance next year's budget.' (Sotarauta, 2004, p. 8)

The practice of depositing knowledge does not make knowledge actionable. Actionable knowledge is knowledge that is lived and linked to acts and experiences, rather than a transformation of theoretical knowledge into knowledge that is smart, effective and practicable (Gustavsen, 2004). In the shared, dialogical understanding of the other framework, a process of change can begin. However, this is not only a process of discovery about others; it is also a process of self-discovery. We are often unaware of what we ourselves are taking for granted. In order to make knowledge actionable, actors must be aware of the situation and the need to change it.

Inspired by Freire (1996), coding and decoding processes can be useful to help students gain awareness. Acting as a facilitator of the awareness process, the teacher codifies certain situations after observing students and initiating a dialogue with them. In the codification process, the teacher must not be too explicit about his or her perceptions (ideology and theoretical paradigm) but let students talk about issues in their own words. When confronted with a teacher's codification, students decode it by talking about it and generating data that will lead to an interpretation of how they perceive their roles as territorial actors. In the coding and decoding process, students and teacher move between abstract and concrete discussions.

In abstract discussions, they discuss territorial development, the role of universities, transformation, and co-generation. In concrete discussions, they situate themselves within their need to transform into territorial actors. Seeing the situation only in the abstract does not lead to an awareness of change. Only through this dialectical process can awareness be unveiled.

Contextualising the case

Observed from the outside, universities appear as monolithic organisations: large, indivisible, and powerful organisations that are slow to change. Such an image applies to the University of Agder. The number of students and employees has increased from year to year. In 2019, there were 13,000 students and 1,300 employees. The University of Agder's approach to regional engagement, measured through its strategic plans, has changed from its position as an ivory tower in the 1990s to that of an institution more active in its interaction with regional actors (Karlsen, 2019).

The university has two campuses, one in Grimstad, a city with about 24,000 inhabitants, and one in Kristiansand, with about 80,000 inhabitants. The Grimstad campus has approximately 3,500 students, mainly in engineering and nursing, and it is known for its interactions with regional actors. There is also a small cohort of students from the School of Business and Law, which is connected to the Department of Working Life and Innovation and located on the campus, and they will be the subject of the case explored in this chapter.

Before I return to the case, I would first like to examine the School's strategic plan and its implementation process. The vision of the 2016–2020 strategic plan is one of co-creating knowledge, which has connections to and similarities with the concept of co-generating knowledge (University of Agder, 2016). The strategic plan opened the possibility of experimenting with territorial development initiatives, such as an action research project based on the ARTD model. Because of the strategic plan, a co-creation lab was established with a project leader who sought out co-creation projects between the university and regional actors. The School of Business and Law also adapted to the vision of co-creation and stimulated the development of co-creation projects.

Three years ago, I took over an innovation course in the Innovation and Knowledge Development master's programme, and together with a colleague, I decided to experiment with ARTD. The course started in 2017 and takes place in the fall. It deals with innovation in the public sector, and the idea is that students co-generate knowledge with regional actors, such as municipalities and businesses. In the first two years, students co-generated knowledge with the Grimstad municipality and its various industries. The foci were on the development of an industrial development plan and the idea of Grimstad as a host for the University of Agder. Now in its third year, the course sees students working together with the municipality of Arendal on health-sector innovations.

Around 15 master's students participate in the course each year, and it is divided into four parts. The first part is about innovation in the public sector; the second is about process knowledge and entails an introduction to awareness, action research, and the co-generation of knowledge; the third is about co-generating knowledge with regional actors; and the fourth entails a group oral exam and an individual home-based exam. The course involves two teachers from the School of Business and Law (a professor with innovation expertise and I) and an action researcher from Orkestra, who gained considerable experience under the auspices of Gipuzkoa Sarean, the Basque Country project mentioned earlier. The course has been

considered successful by the university's management, the School of Business and Law, and territorial development actors in Grimstad municipality, who we collaborated with for the first two years. In his assessment of the course, Grimstad Economic Development Director Bodil Slettebø said, '[The Students'] work was of utmost importance for the municipality, as it comprised the basis for both the Strategic business plan and for the complementary action plan.'

The course was also used as an example of engagement with regional actors when the AACSB (The Association to Advance Collegiate Schools of Business) committee evaluated the School of Business and Law. Moreover, in its final evaluation report, the committee wrote of the course in a positive light. However, before I present the case, I will underline why it is important to work with an approach to awareness.

The case: The process of developing awareness

The reason why the course focuses on the development of awareness of the territorial development role is that this role is new to students. They are trained to be neutral observers and not active participants in knowledge co-generation processes. In this role, they are novices, as per the definition of Dreyfus and Dreyfus (1986), and they therefore need to reflect on their new role before they begin working with territorial development actors.

The teaching of both action research and the co-generation of knowledge is organised into sessions that focus on banking (teaching in the banking/linear form) and dialogue for generating awareness, with a distribution of 75 % of the former and 25 % of the latter. The reason for this distribution is that students are accustomed to the banking approach and feel safe with this teaching form. Introducing only 25 % dialogue created insecurity among them. In the dialogue sessions, we sat in a circle of chairs without desks in front of us. The idea behind this arrangement was that it removes physical barriers, such as the teacher's and students' desks, thereby creating a dynamic of equality; this method was inspired by one of Gustavsen (1992) 13 dialogical principles for creating change. During the dialogue sessions, we (the teachers) sensed that the students felt uneasy and uncertain, and we therefore asked them if they felt uncertain and why. They confirmed their uncertainty. Most of the students were silent, as they were afraid of engaging in dialogue and expressing their thoughts. The co-generation of knowledge with the aim of bringing about change was certainly not a role they were familiar with, even if they were students in a programme called Innovation and Knowledge Management. They had learned to understand innovation, knowledge management, and regional development as abstract concepts, not as concrete processes that would affect them as students. They had also learned to observe processes from the outside rather than participate in concrete processes themselves. The students were trying to make sense of what it meant to be a territorial development actor. One of them even said that we spent too much time on the dialogue and too little time teaching. We realised that we had made explicit the conflict between the banking approach and the problem-posing method (Freire, 1996) through the dialogue about students as territorial actors. As Freire (1996) expressed it, 'The banking approach is resisting dialogue, while the problem-posing method assumes it.' Clearly, the banking approach was deeply embedded in these students.

There is no quick fix in solving this conflict; however, by making it explicit in the classroom, we were able to identify two types of sub-conflicts. The first was between the banking and the problem-posing methods, which arose when we reorganised the teaching from the banking approach to the problem-posing method. The second was the classical conflict in social

sciences between participant and observer (Skjervheim, 1959, 1996), or as one student expressed it, 'Should we learn to be consultants?'

Although the tone of this question was not negative, it also showed a taken-for-granted assumption that actors from universities do not work or participate in processes such as those related to knowledge co-generation. This notion is passed on by an epistemology of positivism that interprets decision-making not as 'expressions of incompatible values' but as technical problems that can be 'resolved objectively through the rational assessment of evidence' (Carr & Kemmis, 1986, p. 67).

However, during the dialogue, students' attitudes developed towards awareness. And while theory is important, working with practitioners motivates students, as the below quotations from students demonstrate.

'I feel positive about applying theory to practice. It gives greater insight and makes the process more motivating.'

'The challenge for us is the balance between theory and practice, how to address the case in a way that is not preachy and not only theory-driven but to use dialogue and reflection to construct knowledge.'

Through the dialogue, we tried to help students gain awareness of their roles as territorial development actors and prepare themselves for meetings with other actors. The result of the dialogue sessions is summarised in *Students' Twelve Principles for Acting as Territorial Development Actors*,² which are set out below:

1. Approach the health sector in Arendal and its many actors.
2. Participate in stakeholders' workdays.
3. Observe stakeholders and identify problems.
4. Facilitate dialogue and stakeholders' learning processes.
5. Mirror reflections and thoughts from stakeholders.
6. Combine theory and practice.
7. Co-create knowledge.
8. Avoid banking.
9. Do not come up with solutions for actors; help them reach their own solutions.
10. Develop awareness of conflicts of interest.
11. Seek awareness and not a perfect solution.
12. Make knowledge actionable.

The first principle contextualised the case. In 2019, the case involved the health sector of Arendal, a town with about 44,000 inhabitants in Norway. The following principles were

² Co-generated with students from the ORG503 Innovation in the Public Sector course on 29th September 2019.

divided into three parts. The first part related to participation with health-sector actors and the development of a method for data generation through participation in their workday, which means students shadowed nurses and health workers for one whole workday. During that day, they observed and spoke with the actors about what they were observing; this was a manifestation of Schön's (1983) practice of putting reflections into action. Afterwards, students facilitated a dialogue with actors in which they mirrored their thoughts about working in specific health institutions (specifically, a retirement home and an institution that provided home-based care). The second part related to co-generating knowledge with the actors (Principles 6–9). The last part (Principles 10–12) was about awareness and its connection to the two other spaces for dialogue (co-ordination and policy-design, and dialogue in and on intervention). Power issues and conflicts of interest were not necessarily observable but are always present in knowledge co-generation processes. Such issues can influence a process and the best solution in practice (which is not necessarily the best solution in theory). However, solving conflicts of interest can make knowledge actionable.

For students, the principles were concrete guidelines for their actions with stakeholders. The first principle applied to the context of the territory of Arendal, while the other principles were universal. However, the students did not try to find a theoretically perfect solution; instead, they focused on developing their awareness of their own role in knowledge co-generation processes and the coming knowledge co-generation process with stakeholders.

Humility is important when meeting people with different knowledge, interpretations, and values, as the students' expressions demonstrated. For the students, the principles made sense, which means that they have internal credibility. The principles prepared them for meeting with stakeholders, even if they could not be prepared for everything. Going forward, they will also need to learn to improve when necessary; nevertheless, they have started their journey to becoming territorial actors without waiting to enter working life.

Conclusion

The case shows that it is possible to prepare students to become territorial development actors within an existing organisational and institutional framework in a university business school. It also shows that it is possible to work with another mode of knowledge construction even within a university's dominant mode of knowledge construction. Students were able to glimpse another means of constructing knowledge, which was that of the co-generative mode and the problem-posing method. This mode is different from the University of Agder's dominant mode of knowledge construction, as is likely the case in many other universities. It is clear that one course cannot transform students into reflective practitioners and action researchers, and they will still be novice territorial development actors. When they start working, they can continue along the practitioner's path (Schön, 1983). I hope they will use awareness as a capability in their daily work as future practitioners, as awareness is important to the development of context-sensitive territorial policy.

There seems to be an agreement in the literature that one-size-fits-all strategies do not work for regional development (Tödting & Trippel, 2005). In practice, this implies that solutions have to be created each time and in each region *with* actors and not *for* them (Karlsen and Larrea, 2014). Despite the uniqueness of a single case, theoretical lessons can also be learned from case studies (Yin, 2013). The main theoretical lesson from this one is that students can be

territorial actors working together with other territorial actors. This can be done under conditions that I will now specify.

The first condition is institutional acceptance, which means that the university needs to accept approaches to knowledge construction beyond the predominant banking approach. The vision of co-creation in the University of Agder's 2016–2020 strategy is an example of regulative institutional acceptance, by which I mean formal and codified standards, agreements and guidelines that regulate actors' behaviours (Scott, 2008). This regulative institutional acceptance creates the institutional foundation for experimenting with ARTD and is the "formal rule of the game" (North, 1990). There are also informal normative institutions that specify how things should be done (Scott, 2008). At the Department of Working Life and Innovation in Grimstad, where the case was situated, there has been a norm for collaboration with regional actors since its establishment in the early 1990s. Not all departments at the University of Agder have such a norm. However, such a norm makes the benefits of the course easier to realise, since it is within the norm of behaviour, even if the content of the course is new.

The second is that there need to be actors with knowledge and capabilities to experiment with action research within the institutional framework. In this case, the actors were professional action researchers with not only theoretical knowledge of the co-generation of knowledge but also experience from co-generation processes in Norway and the Basque Country. Additionally, there were also capable actors that were interested in collaborating and co-generating knowledge with the University of Agder and its students.

The third is that actors must be motivated to engage in co-generative processes. The teaching of ARTD demands more resources than an ordinary course, which can be taught in the classroom using books and articles. Co-generation with actors in the territory implies engagement, participation, planning, and the organisation of activities with regional actors outside the classroom. It is time-consuming, and time is money in today's universities. Up to now, the course Innovation in the Public Sector has been given the necessary support from the School of Business and Law's management, since it is within the University of Agder's regulative institutional framework.

My final reflection addresses an action research challenge. In action research methodology, there exists a serious limitation regarding theoretical generalisation, i.e., how does one reach beyond the case, as theory cannot speak alone (Gustavsen, Hansson, & Qvale, 2008)? In this case, how could these methodologies be expanded to other courses or universities? There is a need for the construction of networks among a broad range of actors that can share ideas and practices. The challenge of scope can be addressed as a challenge inside the university as an organisation and as a challenge to all universities. There is a need to educate new generations of action researchers that can work with territorial development issues. This is a collective challenge for ARTD that was addressed in this chapter. We can only solve this together by making our knowledge actionable. My hope is that this book results in a programme for territorial development through which the next generation of action researchers can be trained. This has been done in Norway before, with the Enterprise Development and Working Life programme led by Morten Levin at Norwegian University of Science and Technology (Greenwood & Levin, 2007, 2016), where I myself was a student.

Acknowledgements

Thanks to Benito L. Teehankee and Miren Larrea for their useful comments on an earlier version of the chapter.

References

- Benneworth, P., Zeeman, N., Pinheiro, R., & Karlsen, J. T. (2017). National higher education policies challenging universities' regional engagement activities. *Ekonomiaz: Revista Vasca de Economía*, 92(2), 113-139.
- Bradbury, H. (2015). Introduction: How to Situate and Define Action Research. In H. Bradbury (Ed.), *The Sage Handbook of Action Research-Third Edition* (pp. 1-9). Los Angeles, London, New Dehli, Singapore, Washington DC, Boston: Sage
- Carr, W., & Kemmis, S. (1986). *Becoming Critical: Education, Knowledge and Action Research*. London and New York: Routledge.
- Dreyfus, H., & Dreyfus, S. (1986). *Mind over Machine: The Power of Human Intuition and Expertise in the Era of the Computer*. New York: Free Press.
- Dunning, J. H. (2002). *Regions, globalization, and the knowledge-based economy*: Oxford University Press.
- Elden, M., & Levin, M. (1991). Cogenerative learning. In W. F. Whyte (Ed.), *Participative Action Research* (pp. 127-142). Newbury Park, CA: Sage.
- Foray, D., Goddard, J., Goenaga Beldarrain, X., Landabaso, M., Mccann, P., Morgan, K., . . . Ortega-Argilés, R. (2012). Guide to Research and Innovation Strategies for Smart Specialisation Strategies. Available online at http://ec.europa.eu/regional_policy/sources/docgener/presenta/smart_specialisation/smart_ris3_2012.pdf.
- Freire, P. (1996). *Pedagogy of the Oppressed*: Penguin Books.
- Greenwood, D. J., & Levin, M. (2007). *Introduction to Action Research - 2nd edition* (Vol. Second Edition). Thousand Oaks: Sage Publications.
- Greenwood, D. J., & Levin, M. (2016). *Creating a New Public University and Reviving Democracy: Action Research in Higher Education*. New York: Berghahn.
- Gustavsen, B. (1992). *Dialogue and Development. Theory of Communication, Action Research and the Restructuring of Working Life*: Assen: Van Gorcum.
- Gustavsen, B. (2004). Making Knowledge Actionable: From Theoretical Centralism to Distributive Constructivism. *Concepts and Transformation*, 9, 147-180.
- Gustavsen, B., Hansson, A., & Qvale, T. U. (2008). Action Research and the Challenge of Scope. In P. Reason & H. Bradbury (Eds.), *The SAGE Handbook of Action Research* (2nd ed., pp. 64-76). London, Thousand Oaks: SAGE Publications Ltd. Retrieved from <https://methods.sagepub.com/book/the-sage-handbook-of-action-research>. doi:10.4135/9781848607934
- Karlsen, J., & Larrea, M. (2014). *Territorial Development and Action Research: Innovation through Dialogue*. Farnham Routledge.
- Laredo, P. (2007). Revisiting the third mission of universities: toward a renewed categorization of university activities? *Higher Education Policy*, 20(4), 441-456.
- Lucas, W., Cooper, S., Ward, T., & Cave, F. (2009). Industry placement, authentic experience and the development of venturing and technology self-efficacy. *Technovation*, 29, 738-752.
- Molas-Gallart, J., & Castro-Martínez, E. (2007). Ambiguity and conflict in the development of 'Third Mission' indicators. *Research Evaluation*, 16(4), 321-330. doi:10.3152/095820207X263592
- North, D. C. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.

- OECD. (2004). *Science and innovation policy: Key Challenges and Opportunities*. Retrieved from Available online at <http://www.oecd.org/science/inno/23706075.pdf>:
<http://www.oecd.org/science/inno/>
- OECD. (2009). *OECD Regions at a Glance*. Paris: the Organisation for Economic Co-operation and Development Retrieved from http://www.oecd.org/document/9/0,3746,en_2649_37429_42396233_1_1_1_37429_00.html.
- Romano, S. F. (2017). *El rol de la universidad en los procesos de desarrollo territorial. Experiencias comparadas y aportes para la UNTDF*. University of Deusto: San Sebastian.
- Schön, D. A. (1983). *The reflective practitioner - How professionals think in action*. New York: Basic Books.
- Scott, W. R. (2008). *Third edition Institutions and Organizations: Ideas and Interests*. Thousand Oaks: CA: Sage Publications.
- Skjervheim, H. (1959). *Objectivism and the study of man*. Oslo: Universitetsforlaget.
- Skjervheim, H. (1996). *Deltakar og tilskodar og andre essays* ([Ny utg.] ed.). Oslo: Aschehoug.
- Sotarauta, M. (2004). Strategy Development in Learning Cities: From Classical Rhetoric towards Dynamic Capabilities. Literature review for the Critical -project. *Sente working papers* 8.
- Stenhouse, L. (1975). *An introduction to Curriculum Research and Development*. London: Heineman.
- Tödtling, F., & Trippel, M. (2005). One size fits all? Towards a differentiated regional innovation policy approach. *Research Policy*, 34(8), 1203–1219.
- University of Agder. (2016). *Strategy 2016-2020*. Kristiansand: Univeristy of Agder.
- Yin, R. K. (2013). *Case study research: Design and methods*. Thousand Oaks: Sage Publications.